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PORTLAND – ASTORIA (US 30) CORRIDOR PLAN

OTC Adopted

VOLUME 1 CORRIDOR PLAN

An Element of the Oregon Transportation Plan

Oregon Department Of Transportation
Regions 1 and 2

November 9, 1999

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PORTLAND – ASTORIA
(US 30)
CORRIDOR PLAN

VOLUME 1

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An Element of the Oregon Transportation Plan

Adopted by the Oregon Transportation Commission
on November 9, 1999

Implementation of the Corridor Plan is dependent upon the availability of funding. Adoption of the plan by the Oregon Transportation Commission does not guarantee adequate financial resources to carry out the projects nor can the Commission commit the financial resources of other agencies or public bodies.

Oregon Department Of Transportation
Regions 1 and 2

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ACRONYMS

The following acronyms and terms are used throughout this document:

AADT	Annual Average Daily Traffic
ADT	Average Daily Traffic
CIP	Capital Improvement Program
COG	Council of Governments
Corridor	Portland-Astoria (US 30) Corridor
CSC	Corridor Steering Committee
HPMS	Highway Performance Monitoring System
LOS	Level of Service
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
OTC	Oregon Transportation Commission
OTP	Oregon Transportation Plan
RTP	Regional Transportation Plan
RTPO	Regional Transportation Planning Organization
SOV	Single Occupant Vehicle
SPIS	Safety Priority Index System
STIP	Statewide Transportation Improvement Program
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TPR	Transportation Planning Rule
TSM	Transportation System Management
TSP	Transportation System Plan
UGB	Urban Growth Boundary
WDOT	Washington Department of Transportation

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PORTLAND – ASTORIA
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CORRIDOR PLAN

Executive Summary

An Element of the Oregon Transportation Plan

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A. INTRODUCTION

Corridor Plan Purpose and Scope

The Portland–Astoria (US 30) Corridor Plan is the product of a cooperative effort between the Oregon Department of Transportation (ODOT), local and regional governments, interest groups, statewide agency and stakeholder committees, and the general public to develop a long-term program for management of and improvements to the Portland–Astoria Corridor.

This Corridor Plan is one of over 30 similar plans being prepared by ODOT statewide for key transportation corridors identified in the Oregon Transportation Plan (OTP) and for urban area arterials and interchange areas where development pressures have threatened operation. In ODOT Region 1, there are five priority corridors, including the Portland–Astoria (US 30) Corridor. Corridor planning is a new approach to transportation planning in which ODOT and the communities bordering major transportation corridors work together to create plans for managing and improving transportation modes along entire corridors.

The purpose of the Corridor Plan is to establish both short and long-term management direction for all modes of transportation in the corridor and to make major transportation tradeoff decisions. Management objectives address the corridor as a whole, as well as specific sites and transportation improvements. The Corridor Plan also identifies priorities and timing for the various actions and responsible public agencies and other service providers.

A primary goal of this multi-modal Corridor Plan is to manage growth in travel in the corridor, while making wise use of scarce resources to fund needed improvements. The Plan emphasizes managing the highway facilities that currently exist without substantial increases in capacity or construction of new facilities. This is achieved by strengthening the role of alternative modes of transportation, improving facility operations, and managing demand through appropriate land use.

Prioritized improvements to corridor facilities, systems and management identified in the Corridor Plan provide the basis for updating the Statewide Transportation Improvement Program (STIP), which, in turn, is the basis for distributing the State's limited transportation resources. Corridor planning helps ODOT, with the cooperation of local governments and input from the citizens of Oregon, make difficult funding decisions necessary to build and maintain a statewide transportation system that meets the growing demand for transportation for the next 20 years. Inclusion of any improvements in the Corridor Plan does not represent a funding commitment by ODOT or any local government, however, until programmed in the STIP, Metro's Transportation Improvement Program (TIP), and/or a local capital improvement program (CIP).

Key elements of the Corridor Plan include:

- Description of existing and future conditions for all modes in the Corridor;
- Forecasts of future available funding for transportation projects in the Corridor;
- Summary of existing state, regional and local policy direction and analysis of its compliance or consistency with the Corridor Plan;
- Future vision for management of each element of the Corridor's transportation system;
- Corridor Plan Objectives that define the policy direction for all modes in the Corridor, as well as for functional issues such as connectivity, congestion and environmental and energy impacts;
- Solutions or implementation programs comprised of proposed projects, strategies and other actions to be taken to implement the Corridor Plan Objectives;
- Prioritization of improvement projects based upon scenarios of anticipated available funding; and
- Detailed information and mapping for all proposed projects.

The Portland–Astoria Corridor Plan builds on the strategies and policies found in the Oregon Transportation Plan (OTP), the Oregon Highway Plan (OHP) and other modal plans. It has also been closely coordinated with the development of local transportation system plans (TSPs) and Regional Transportation Plans (RTPs) for the Portland and Longview/Kelso/Rainier metropolitan planning areas (MPOs). Through this local and regional transportation system planning, future refinement planning, periodic review, and local plan amendments, ODOT and the local and regional governments in the Corridor are cooperatively working together to ensure that city and county comprehensive plans and zoning ordinances achieve Corridor Plan management objectives. The Oregon Transportation Commission (OTC) will adopt the Corridor Plan as an element of the OTP.

B. CORRIDOR PLANNING PROCESS

Corridor Planning Concept

A corridor plan is a long-range (20-year) program for managing transportation systems that move people, goods and services within a specific transportation corridor. While many modes of transportation and transportation facilities are not owned or operated by the state (e.g., transit systems and port facilities), the state has a special interest in their performance given their interaction with ODOT facilities and collective significance to the statewide transportation system.

The benefits of corridor planning for the Portland–Astoria Corridor include:

Resolution of Major Planning Issues Prior to the Initiation of Project Development. Consensus among local, regional, and state governments regarding project purpose and needs is essential to successful project development. Corridor planning provides a framework within which individual projects located in corridor communities can be reviewed and prioritized.

Protection of Transportation Investments. To prevent premature obsolescence of highways and other facilities, corridor planning examines alternate means to accommodate transportation needs with and without capital-intensive improvements. Alternatives such as access management, utilization of parallel local streets, reconfigured land use patterns and demand management programs (i.e., rideshare, public transportation, flex-time, etc.) are considered in lieu of or in addition to major capital improvements.

Partnerships with Diverse Public and Private Agencies and Organizations. Corridor planning provides a forum for resolution of policy issues and negotiation of strategic partnerships between organizations striving to fulfill complementary missions with limited resources. Examples include local, state and federal agencies, Native American tribes, and transportation associations.

There are several federal and state mandates impacting how corridor planning is to be undertaken. The three most important of these are: the Transportation Equity Act for the 21st Century (TEA-21); the Oregon Transportation Plan (OTP); and the Oregon Transportation Planning Rule (TPR). While very different policy initiatives, all three share several common requirements: 1) transportation plans should provide a balanced transportation system providing transportation options; 2) transportation plans should reduce reliance upon the single occupant vehicle and increase the opportunity for modal choice; and 3) transportation plans should be coordinated with land use plans and address the environmental, social, economic, and energy consequences of proposed actions.

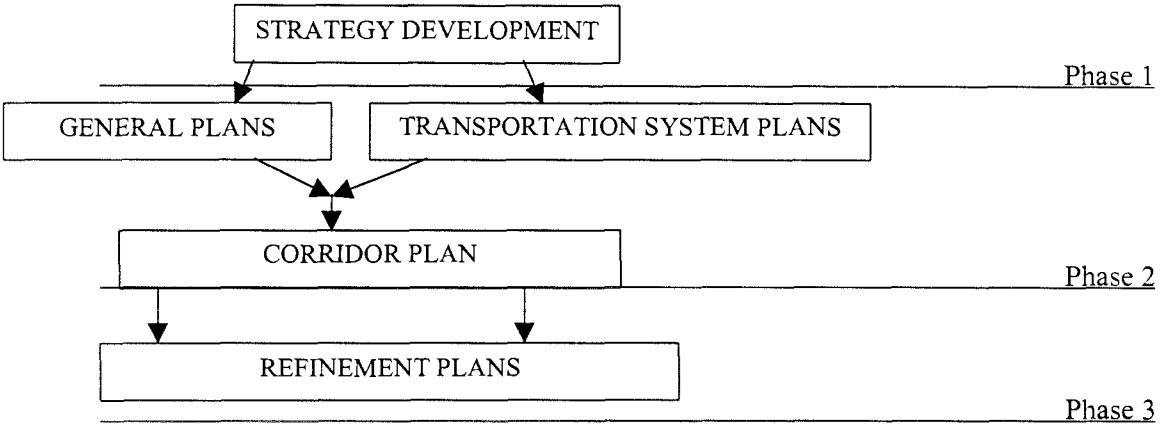
Corridor Planning Process

The corridor planning process recognizes that different segments of the Portland–Astoria Corridor require differing levels of study to develop a corridor-wide long-range plan. Thus, corridor planning moves from the general to the specific in a three-phased process (illustrated below). It is important to note that this planning may not occur in a

linear fashion, i.e., that activities described in Phase 1 may occur after some Phase 2 or Phase 3 planning activities. The corridor planning process consists of:

- Identification, in a Corridor Strategy, of significant corridor-wide issues and strategies to address those issues;
- Preparation of two types of Transportation System Plans—General Plans for counties and Systems Plans for cities; and
- Resolution of any outstanding environmental, land use or other issues through Refinement Plans.

Figure 1. Corridor Planning Process



This Corridor Plan has been developed with the active involvement of local and regional governments in the Corridor, interest groups, statewide agency and stakeholder committees, and the general public. Public comment has been received throughout the planning process through newsletter survey responses, open houses, letters and phone calls and has been incorporated into development of the Corridor Plan. A Corridor Steering Committee (CSC) is the primary author of the Corridor Plan. The CSC will remain active for future revisions to the Corridor Plan as necessary.

Key steps in development of the Corridor Plan included:

- Identification of community and stakeholder issues, concerns and ideas about transportation modes in the Corridor. A random survey of Corridor users was conducted in spring 1993, prior to initiation of the planning process. Issues and needs to be addressed in the Corridor Plan were identified by residents and other interested parties through a newsletter survey mailed in September 1994. A newsletter was distributed in January 1995 and open houses were also conducted in January-February 1995 to provide information on the planning process and to solicit input on issues, needed improvements to the transportation system, and priorities to be addressed in the Corridor Plan.
- Research and analysis of existing conditions and future opportunities and constraints.
- Development of an Interim Corridor Strategy that established overall objectives for how all modes would be managed in the Corridor. An August 1995 newsletter and questionnaire solicited public input on key objectives from the recommended Interim Corridor Strategy.
- Endorsement of the Interim Corridor Strategy by local governments in the Corridor and by the Oregon Transportation Commission in January 1996.
- Analyses, or refinement studies, in a number of areas identified by the CSC as needing further study before implementation strategies could be identified and prioritized. ODOT undertook analysis of the potential for rural transit services and the need for bicycle and pedestrian system improvements, passing and climbing lanes, and intersection safety and capacity improvements within the Corridor.

- Development by local governments of Transportation System Plans (TSPs) and by Metro of the Regional Transportation Plan. Each city and county within the Corridor has developed or is developing a plan for the transportation system within its boundaries.
- Identification of specific strategies and improvement projects to implement the Interim Corridor Strategy Objectives and prioritization of improvement projects based upon scenarios of anticipated available funding.
- Newsletters distributed regionwide in June, 1998 to over 2,000 individuals, agencies and organizations summarizing key management strategies, and in September, 1998, announcing September and October open houses conducted in conjunction with the draft Oregon Highway Plan.
- Incorporation of these various elements into a draft Corridor Plan.
- Following public and agency review, endorsement of the Corridor Plan by local governments and adoption by the Oregon Transportation Commission.

Refinement planning will follow Plan adoption to address special issues, as needed. These refinement plans will then be folded into the Corridor Plan. An example of a refinement plan would be determining the best of several possible improvement alternatives for the intersection of Old Rainier Road and Apiary Road, or researching locations for an intermodal transportation center in Astoria.

Applicability Of This Plan

The objectives embodied in this Corridor Plan direct the manner that the Oregon Department of Transportation plans, manages, and improves the Portland-Astoria (US 30) Corridor. The Portland-Astoria (US 30) Corridor Plan was adopted prior to January 1, 2000. This Corridor Plan is consistent with the policies and standards of the 1991 Oregon Highway Plan. The 1991 Highway Plan policies, except for the Operating Level of Service Standards (Appendix A-3) shall remain effective for purposes of the Transportation Planning Rule (OAR 660-12-015) consistency requirements.

The exception, Policy 1F, Highway Mobility Standards of the 1999 Oregon Highway Plan, will be effective immediately.

> The standards provided in 1F shall identify the state highway mobility performance expectations to be used in the development of transportation system plans and highway corridor plans that are adopted after March 18, 1999. Alternative performance standards that need or exceed these highway mobility performance standards may be substituted.
>
> The standards provided in Policy 1F shall guide state highway operation decisions initiated after March 18, 1999.
>
> Application for amendments to functional plans, acknowledged comprehensive plans and land use regulations subject to the Transportation Planning Rule (OAR 660-12-060), initiated after March 18, 1999 shall be consistent with the standards in Policy 1F.

The Portland-Astoria (US 30) Corridor Plan shall be amended to be consistent with the 1999 Oregon Highway Plan at its next update.

Revision and Amendment Process

Implementation of the Portland–Astoria (US 30) Corridor Plan will occur over many years. During that time, it will be necessary to update and revise the Plan to reflect changing conditions and policy direction or to better achieve Plan objectives. Corridor Plan Objectives call for maintaining a corridor-wide advisory group to assist ODOT in periodically prioritizing management solutions, reviewing local government transportation system plans for conformance with the Corridor Plan, and assisting in updating the Corridor Plan as needed. Refinement

planning will also occur to address outstanding environmental land use or other issues. Agency and public input will be solicited during refinement planning and Corridor Plan updates.

C. CORRIDOR OVERVIEW

Role/Functions

The Portland-Astoria Corridor (Figure 2) is a major route connecting the Portland metropolitan area with the northern Oregon and southern Washington coasts and providing access to communities along the lower Columbia River (Figures 3, 4, and 5). It is an important recreational, commuter and commercial traffic corridor and one of the most multi-modal corridors in the state, with active truck freight, rail, air, and water transport services. Often referred to as the Lower Columbia River Corridor, it extends approximately 99 miles from the intersection with I-405 in Portland to the intersection with US 101 in Astoria.

In the eastern portion (Portland to Rainier) of the Corridor, use of all transportation modes is increasing and expected to continue to increase over the life (15-20 years) of the Corridor Plan. In this portion, the Corridor has the following primary functions:

- Both an inter-city and intra-city commuter route;
- Access to major employment centers including the Portland, Rainier/Longview (Washington) metropolitan areas;
- Major regional freight movement; and
- Connections to I-5 (via Longview, Washington).

Within its western portion (Rainier to Astoria), the Corridor is noted for the following:

- Linkage to the north Oregon coast;
- Tourism and access to recreation opportunities;
- Rural scenic qualities;
- Natural resource amenities, particularly forest lands, and scenic viewpoints, and wildlife sanctuaries and habitats associated with the Columbia River; and
- Freight movement for forest products and other goods.

Although the Portland-Astoria Corridor has multiple transportation modes, it is dominated by automobile and truck use on US 30. The function of US 30 varies in different sections, somewhat similar to the Corridor as a whole, but its proximity to other highways is also important, as seen in the following descriptions:

- Near Portland, a high amount of commuter and commercial traffic uses US 30 to access downtown Portland, the interstate highway system, and the industrial area in northwest Portland. Between St. Helens and downtown Portland, US 30 is an important commuter route.
- West of St. Helens, US 30 assumes more of a rural roadway function, serving trips from outlying areas to the towns and cities in this section, as well as recreational and commercial through-traffic. This section also serves substantial truck traffic due to several lumber mills along the route.
- Between Rainier and Portland, US 30 competes with I-5 in Washington as a travel corridor, with the connection between these highways through Longview, Washington via the Lewis and Clark Bridge over the Columbia River at Rainier. While US 30 is an attractive route between Portland and the coast, I-5 provides a faster alternative route between Portland and Rainier.
- West of Rainier, US 30 is a quicker route than State Route 4 in Washington (which parallels U.S. 30 on the north side of the Columbia River) for destination-oriented travelers to the northern Oregon Coast and Washington's Long Beach peninsula because of better alignment. However, SR 4 may offer a more scenic route.

Figure 2: General Corridor Area Existing Conditions

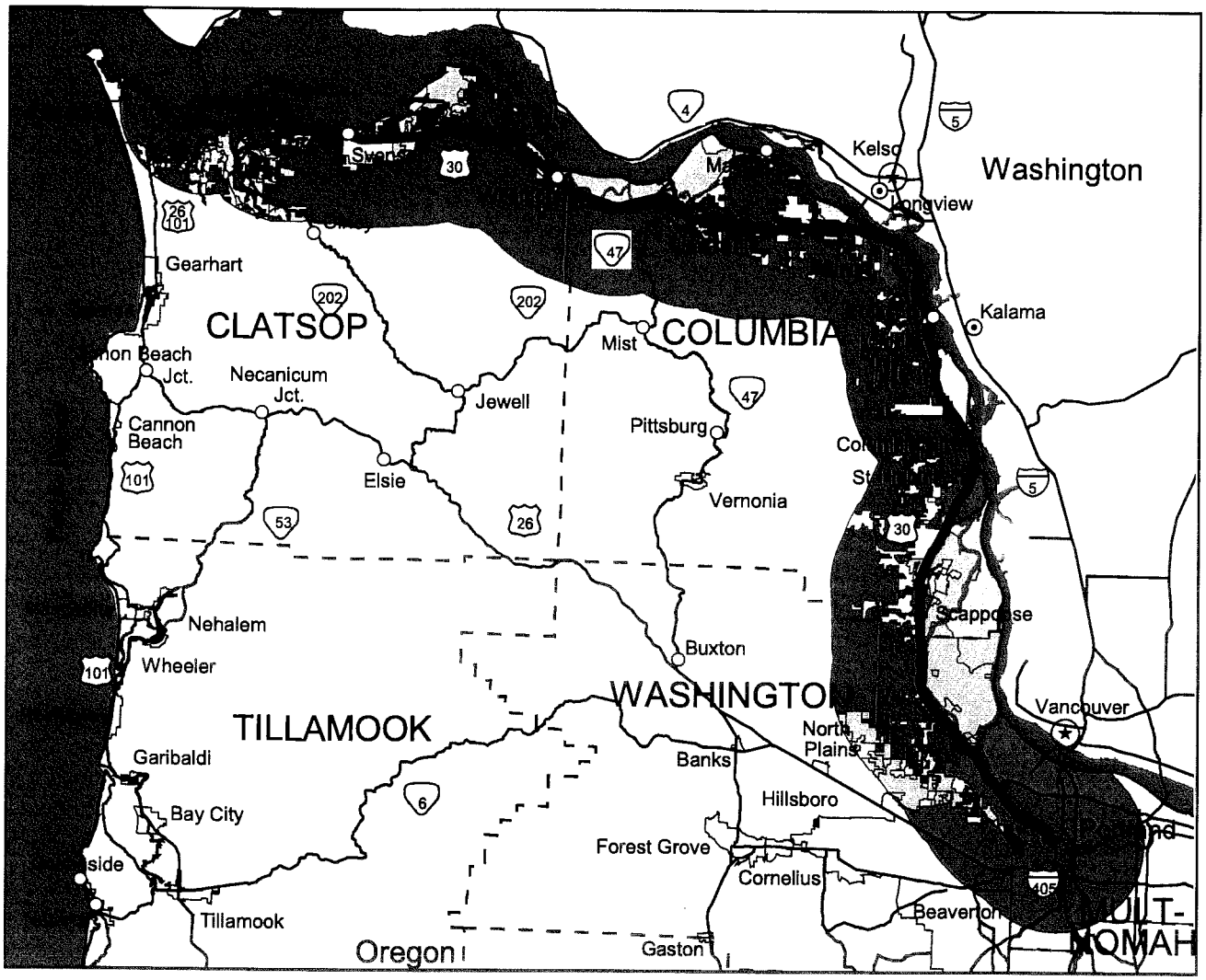
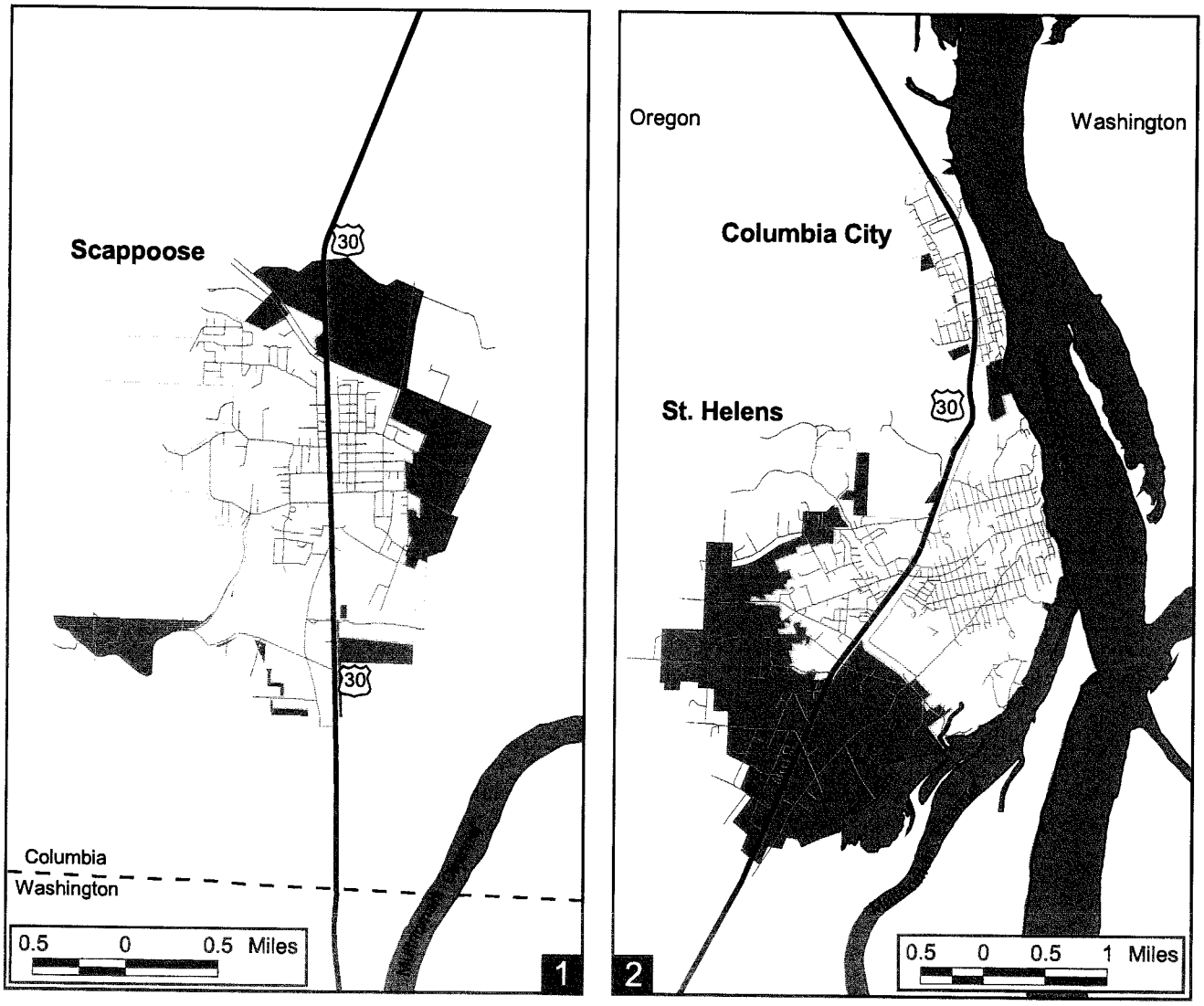
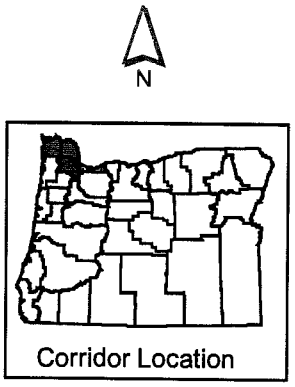


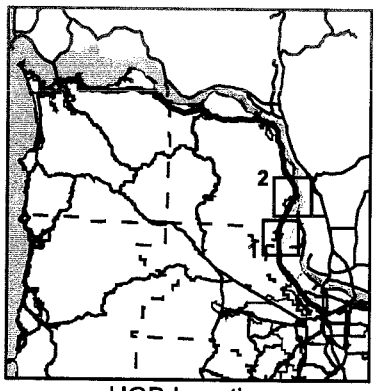
Figure 3: Scappoose, St. Helens, and Columbia City Urban Growth Areas Existing Conditions



Legend:

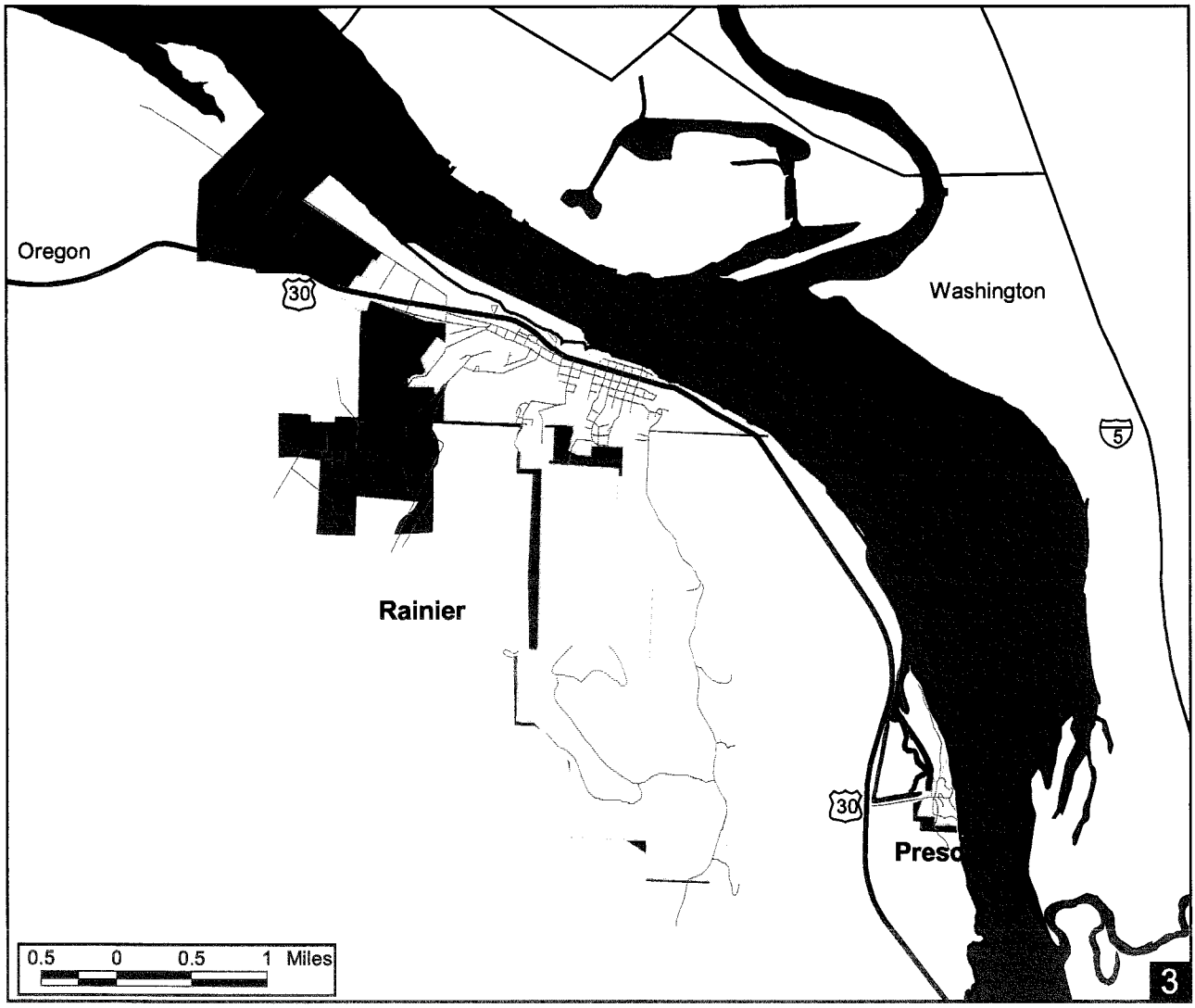
- Statewide Highway
- Local Roads
- County Boundaries
- City Limits
- Urban Growth Boundary





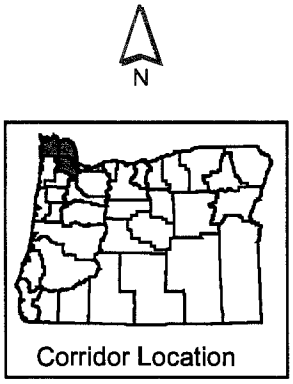
UGB Locations

Figure 4: Prescott and Rainier Urban Growth Areas Existing Conditions



Legend:

- Statewide Highway
- Local Roads
- City Limits
- Urban Growth Boundary



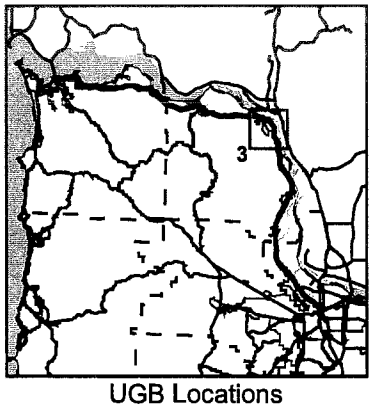
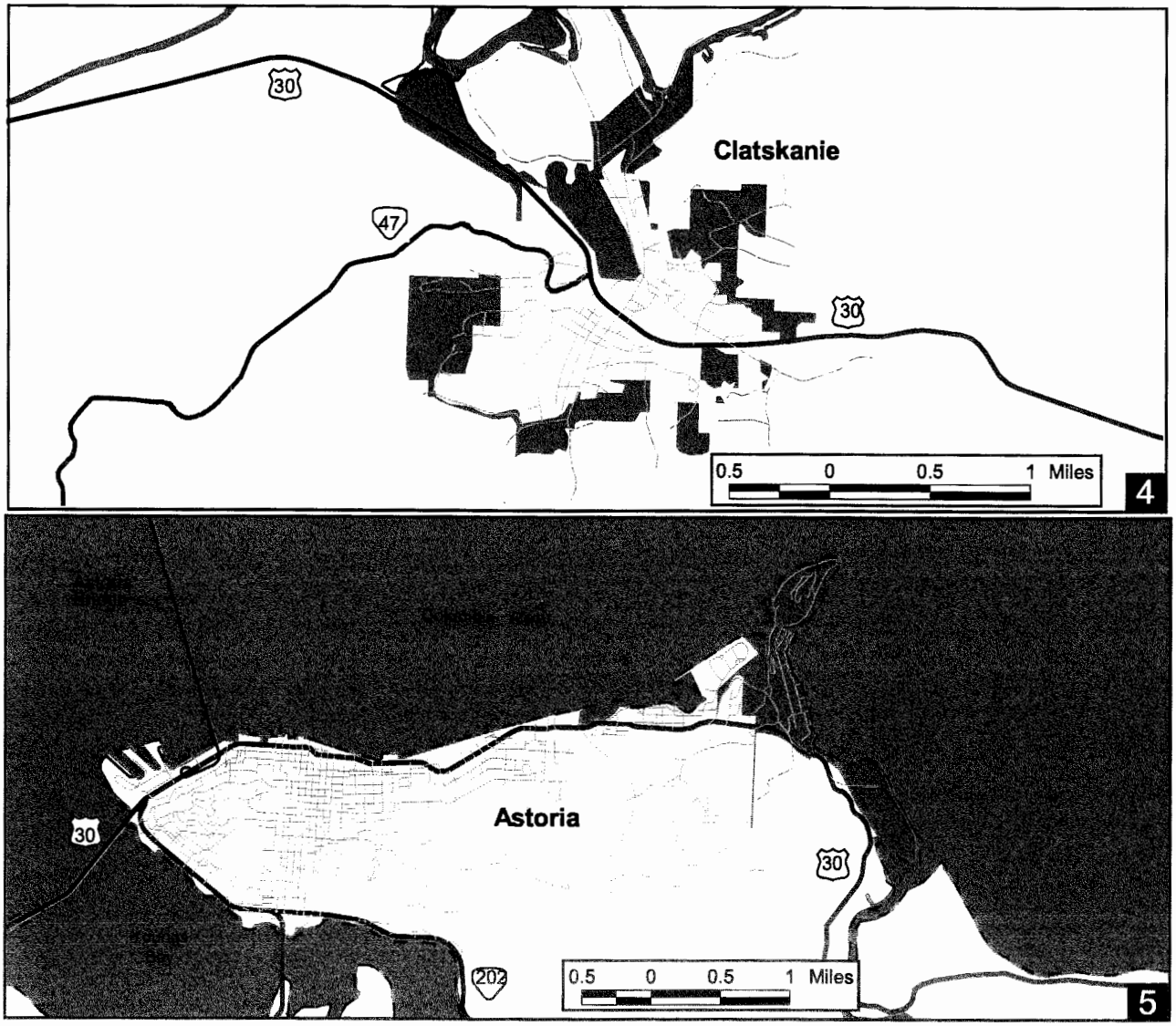


Figure 5: Clatskanie and Astoria Urban Growth Areas Existing Conditions



Legend:

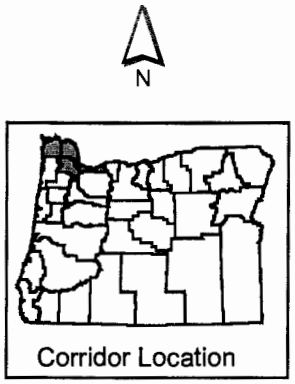
District Highway

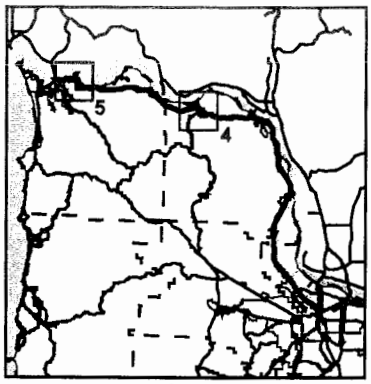
Statewide Highway

Local Roads

City Limits

Urban Growth Boundary





Transportation Facilities and Services

Key transportation facilities and services in the Corridor include:

Highways

This Corridor follows the route of US 30 from its junction with I-405 in northwest Portland to its junction with US 101 in Astoria. US 30 is part of the National Highway System (NHS) and a primary east-west route to the northern Oregon coast. It is designated as a Statewide Highway in the OHP, meaning that it provides connections to urban areas, ports, and major recreation areas not served by interstate highways. US 30 serves as the main arterial for six incorporated communities and a number of unincorporated communities. The highway connects to the Washington State highway system at Rainier (via the Lewis and Clark Bridge), Westport (via ferry to Cathlamet), and Astoria (via Astoria-Megler Bridge). It also provides highway connections to the ports of Portland, St. Helens and Astoria on the Oregon side of the Columbia River and to the ports of Vancouver, Kalama and Longview on the Washington side.

Air Service

Four airports are located in the Corridor or contribute to regional air service: Astoria Regional Airport, Scappoose Industrial Airpark, Vernonia Airfield, and Portland International Airport. Astoria Regional Airport in Warrenton provides general and military aviation services. Although no commercial services are currently provided, commercial service has been sporadically provided in the past and could be restored in the future. The Scappoose Industrial Airpark provides general aviation services for business and personal uses and is the seventh busiest general aviation airport in the state. The Vernonia Airfield is a public airport and has a grass landing strip. The Portland International Airport (PDX) is located approximately 15 miles east of the eastern corridor terminus. Although PDX is outside the Corridor, it is noted here because of its influence over air travel throughout the state.

Bicycle System

Bicycle facilities consist primarily of roadways and shoulders shared with automobiles. Recreational, long-distance cyclists use US 30, while others may use it and parallel routes within the communities along the Corridor for local trips. In general, the first 36 miles of US 30 west from Portland have adequate shoulders for cyclists, while the remaining lengths have deficiencies, often over bridges or in areas of steep slopes.

Pedestrian System

Pedestrian travel along the Portland-Astoria Corridor is concentrated within urban areas. Pedestrian uses in the cities of Rainier, Columbia City, and Clatskanie are affected by steep grades, a limited pedestrian network of sidewalks and paths, and the highway. The sidewalks are discontinuous and conditions vary depending on location in these cities. The City of Astoria has a fairly well integrated pedestrian system, especially along the urban portions of US Highways 30 and 101, the downtown core and on many of the local streets. Pedestrian systems are also relatively well-connected in Scappoose and St. Helens. Pedestrian crossing opportunities along US 30 can be limited in some locations by traffic volumes and speeds, e.g. Linnton area in Portland.

Transit Services

Transit services within the Corridor vary by location, with separate providers providing different levels of service in Multnomah, Columbia, and Clatsop counties. In Multnomah County, Tri-Met provides bus service along US 30 as far as Linnton and Sauvie Island. Countywide Dial-A-Ride service for the general public is available in Columbia County. Astoria's public transportation system is currently contracted through a private company providing wheelchair accessible minibuses and a demand response shuttle or dial-a-ride throughout Clatsop

County. Hourly fixed-route and fixed-schedule service is provided between Astoria and Warrenton/Hammond, Cannon Beach and Seaside. Intercity bus service consists of one trip daily from Portland to Astoria (via I-5 to Kelso) in the morning and one trip daily from Astoria to Portland (via Kelso and I-5) in the mid-afternoon, provided by Pierce Pacific Stage Lines.

Rail Service

Rail service in the Corridor functions primarily as a conveyor of bulk goods to and from other transportation modes, such as ships or trucks. For comparison with truck freight, approximately six miles of train cars (600 total) are required to accommodate one full load of product from a typical class A cargo ship. Products hauled include chemicals, paper, pulp, lumber, wood chips, corn syrup, propane, fertilizer, and petroleum products. These products represent the most diverse rail-shipping base in Oregon. Freight rail service is provided on the Portland & Western (P&W) line, which runs along the Columbia River from Portland to Astoria. The track from northwest Portland to east of downtown Astoria is owned by P&W, with the right-of-way owned by ODOT. The remaining five miles of line is owned by the City of Astoria. Based on information obtained from P&W, the line currently handles 570 cars per month. P&W expects a seasonal increase of 200 to 300 cars per month in five years from aggregate materials shipped out of St. Helens. The shipping of aggregate is expected to begin in two to three years.

There is no passenger rail or commuter train service in the Portland-Astoria Corridor. A study of the potential for such rail services indicated that the lack of concentrations of population in the Corridor would probably make passenger services financially infeasible for the next 20 years.

Truck Freight

US 30 through the Corridor is designated as a Freight Route in the 1999 OHP. The trucking industry's main role is moving containers, steel, forest products, and petroleum for local distribution. For comparison with rail volumes, to accommodate one fully-loaded, class "A" cargo ship requires 2,400 semi-trucks, or 95 miles of trucks on the highway (assuming 150 feet between trucks). Truck traffic levels in the Corridor exceed the statewide average, most notably in Portland's northwest industrial district. Approximately 93 percent of the length of the highway carries over 500 trucks daily, while only 48 percent of state highways carry the same volumes.

The truck freight transportation system in the Portland-Astoria Corridor has not changed significantly over the past 20 years despite major changes in the region's economy. Recently, the decline in the forest products industry, which has historically been among the region's primary users of the freight transportation system, has affected the trucking industry. The agricultural industry is another prime user of truck freight.

Water Transport

Waterborne freight provides a key function in moving goods through the Corridor. The Ports of Portland, St. Helens and Astoria are deep draft ports with rail and highway connections on the Oregon side of the Columbia River. Navigation channels, dams and locks provide vessel passage from the mouth of the Columbia River to its confluence with the Snake River. A shallow channel along the northern side of the river provides barge access, and a 600-foot-wide main navigation channel is approved for a 40-foot depth, but varies along the river. Several million cubic feet per year are dredged from the Columbia to maintain the 40-foot depth. The Army Corps of Engineers is currently pursuing funding from Congress to increase the depth to 43 feet to accommodate larger ships. The Port of Portland considers the dredging project to be critical to its future operations. Other ports along the river are also supportive of the project.

The volume of goods shipped is highest at port facilities in Portland (based on dollar value as well as gross tonnage), with grain from up-river ports accounting for the largest dollar amount. All of the ports in the Corridor receive more goods (also called "receipts") than they ship out ("shipments"). Petroleum products dominate

upriver shipments from Portland and local movements consist mostly of sand and gravel and petroleum. Goods received by the Port of Astoria include petroleum products, sand and gravel, and pulp and paper products, while most shipments are rafted logs. Oregon Slough barge movements mainly consist of receiving sand and gravel, with shipments of molasses and empty containers going up-river.

The Westport Toll Ferry links US 30 with Puget Island, which is connected to Washington State by Highway 409 and State Route 4, providing access to Cathlamet, Long Beach and Longview/Kelso.

Pipelines

A natural gas distribution line parallels US 30 from Portland to Astoria and there is a storage facility near Mist. The pipeline is operated by Northwest Natural.

Telecommunications

The existing telecommunications system in the Corridor consists of conventional local and long distance telephone services, owned primarily by GTE and US West, a wireless system providing digital and analog cellular phone service, and personal communications system (PCS). The companies providing wireless services are Airtouch Cellular, Sprint PCS, AT&T Wireless, Skytel, and Voicestream Wireless. Each provides slightly different coverage of the Portland-Astoria Corridor, as reception is impaired by the roadway alignment (curves) and by mountainous terrain.

Key Opportunities

The Portland-Astoria Corridor is perhaps the most multi-modal transportation corridor in the state. The presence of rail lines and the planned dredging of the Columbia River for larger ships provide the best alternatives for conveying freight that might otherwise travel by truck. Connection to I-5 at Rainier, the success and growth of smaller airports, and the potential for commuter vanpools and carpools from Scappoose and St. Helens provide viable alternatives to travel on US 30 by single-occupant vehicles. Opportunities to develop a balance of modes in the Corridor include:

- Deepening of the Columbia River to accept deep-draft vessels will provide additional opportunities for freight movement and enhanced facilities at the ports of St. Helens and Portland. More frequent use of rail and water barge transportation to move freight (ranging from forest products and aggregate to agricultural goods) could reduce truck traffic on US 30 and thereby reduce demand and help maintain capacity.
- With Tri-Met bus service to Linnton and carpool and vanpool opportunities in Scappoose and St. Helens, there are opportunities to travel by modes other than the single occupant vehicle (SOV).
- With the telecommunications infrastructure largely in place throughout the Corridor, the potential exists for significant numbers of work trips to be avoided through telecommuting.
- The connection to I-5 at Rainier, coupled with improvements to the Lewis and Clark Bridge or construction of a new bridge, presents an opportunity to reduce traffic on US 30 between Rainier and Portland and improve travel times.
- Future opportunities for regular and sustained passenger air travel between Astoria and Portland will depend on market needs, such as a growing concentration of population in the Corridor. In the meantime, the need for shuttle service from communities in the northern portion of the Corridor to the airport in Warrenton is likely to increase. In Scappoose, the Airpark is proposing to extend and narrow its runway, allowing larger business jets to use the facilities.
- Now that slide repairs have opened that section of the existing rail line from Wauna to Astoria, a limited number of excursion train operations could occur. Excursion trains are a private business venture where the frequency of service will be driven by market demand and profit potential. Special passenger trains provide an opportunity to develop off peak tourist traffic and to supplement highway capacity during special events.

- Transportation demand management (TDM) strategies in this Corridor Plan address the need to improve local street networks in communities where US 30 serves as a main arterial through the community. Attracting local traffic from US 30 onto parallel systems can be accomplished through coordination with local TSPs to create better connections to and better crossings of US 30 and improving connectivity in the local street networks.

Assumptions

This Corridor Plan makes a number of assumptions regarding other planning efforts, capital improvements, and other aspects of the transportation system. These assumptions, which are not repeated as issues or Objectives, include:

Other Planning Processes

- Issues related to US 101 have previously been addressed in the Coastal Highway (US 101) Corridor Plan and are further refined in the Highway 101 Scenic Byway study.
- Corridor plans for other state highways intersecting with US 30, e.g. Highway 47, will be prepared at a future time, although the functioning of these intersections are addressed in this Corridor Plan.

Land Uses and Growth

- Regional (as opposed to corridor-specific) transportation system issues and needs are being addressed in the Regional Transportation Plans (RTPs) for the Portland and Longview/Kelso/Rainier metropolitan planning areas.
- Assumptions regarding use of the portion of the Corridor within the Metro urban growth boundary are based upon Metro's Region 2040 Growth Concept and include:
  - Limited urban growth boundary (UGB) expansion;
  - A Green Corridor along US 30 from the Metro UGB to the Multnomah County boundary; and,
  - Significant growth in local intra-city trips.
- The rural portions of the Corridor are assumed to continue in resource uses, e.g. agriculture and forestry, with growth generally confined to urban reserves within the Portland metro area, acknowledged exception areas and existing rural community centers.
- Population and employment growth will occur primarily in incorporated communities along US 30, particularly those closest to the Metro area;

Highway Use

All uses of US 30 will increase during the 20-year planning period.

Funding Constraints

Current funding constraints are not assumed for purposes of identifying strategies and long-term improvement projects. The purpose of the Corridor Plan is to establish objectives and priorities for long-term management of and improvements to transportation facilities within the Corridor, irrespective of current funding limitations. The ability to implement these objectives and priorities will be dependent upon future available funding.

D. KEY MANAGEMENT THEMES

A wide variety of objectives have been developed to address various aspects of the corridor's transportation system. A primary goal of this multi-modal Corridor Plan is to manage growth in travel in the Corridor, while making wise use of scarce resources to fund needed improvements. The Plan emphasizes managing the highway facilities that currently exist without substantial increases in capacity or construction of new facilities. This is achieved by strengthening the role of alternative modes of transportation, improving facility operations, and managing demand through appropriate land uses.

Following are the key themes in the Corridor Plan:

- Provide a variety of transportation choices to serve the needs of residents, visitors, and commerce, reducing reliance on any single mode as the sole solution to these needs.
- Maintain existing facilities to ensure that they remain safe and functional as the highest priority for the allocation of state and federal resources.
- Provide no additional highway capacity from Columbia City to Portland. Accommodate anticipated growth in traffic through the promotion of I-5 as an alternative route for travel to the western portion of the Corridor, increased transit, transportation demand management (TDM) measures, and limited improvements such as turning lanes.
- Other than the Astoria Truck Route, provide no major expansion in highway capacity from Columbia City to Astoria, except for passing lanes, turning lanes and through lanes in congested urban areas. Proposed passing lane locations on US 30 include between Deer Island and Prescott and between Clatskanie and the Clatsop County line.
- If environmental and land use approvals are obtained, construct the Astoria Truck Route to address localized congestion and safety problems in Astoria, with the route determination made through the project EIS or other appropriate process and in concurrence with Clatsop County and the City of Astoria.
- Promote alternative modes of transportation, particularly transit, and the use of parallel routes to reduce reliance upon US 30 for local trips.
- Rely upon local access management and circulation plans to relieve congestion problems in Scappoose and St. Helens. Implement improvements identified in the Linnton Neighborhood Transportation Plan for the Linnton area in Portland.
- Focus on improvements to the Astoria Regional Airport to maintain commercial air service between Portland and Astoria and to the Scappoose Industrial Airpark to accommodate increased demand for general aviation services.
- Utilize access management programs to consolidate access points and improve safety in rural community centers.
- In conjunction with highway maintenance and improvement projects, develop a continuous bicycle route from Portland to Astoria, utilizing both the US 30 and the Old Highway 30 alignment.
- Improve pedestrian access and safety within urban areas through sidewalks, signals and other strategies to ensure safe and convenient crossings of US 30.
- Minimize additional long-haul truck use of US 30 by promoting bulk freight movement by rail and water, particularly bulk commodities such as aggregate and forest products.
- Facilitate truck freight movement through passing/climbing lanes, improved access to industrial sites, and improvements to the Lewis and Clark Bridge.
- Improve overall Corridor safety through a combination of increased enforcement, access management, and targeted highway improvements.
- Factor environmental and energy conservation considerations into both management and maintenance practices and improvement projects, with an immediate focus on enhancing salmon and steelhead habitat through upgrading culverts.
- Promote transportation-efficient land use patterns that reduce vehicle trips and miles traveled and promote a live-work balance, particularly in the Corridor's urban areas. In the Corridor's rural portions, concentrate services within established rural service centers to reduce the need for auto trips.

E. DECISIONS AND SOLUTIONS

Key Management Direction

The Corridor Plan includes a series of objectives, strategies and projects to enhance the Corridor's ability to serve commuter, recreational, and freight travel between Portland and Astoria. Consistent with OTP objectives to promote a balanced multi-modal transportation system, the Corridor Plan promotes transportation demand management (TDM) and system management (TSM) strategies as the first course in addressing future needs, especially within the urban portions of the Corridor. These TDM and TSM strategies include the development of support facilities for transit and other non-motorized modes, as well as promoting increased railroad use and shipping as effective means of transporting goods.

Another overall theme is cost-efficiency. With limited capital improvement and maintenance dollars available, ODOT must stretch its revenues as far as possible. This is accomplished in the Corridor by combining projects for a single mode into multi-modal projects where possible. For example, combining bicycle shoulder improvement projects with highway widening and passing lane projects benefits bicycles, pedestrians, and the movement of truck freight, as well as autos. This allows the implementation of bicycle projects that would not be cost-effective as stand-alone projects. To the greatest extent possible, projects identified that improve transportation balance in the Corridor are pursued through maintenance, operations, management, and service projects that minimize capital expense.

Other key management direction includes:

- **Relieve congestion**. This is addressed by improvements in urban areas pursuant to their TSPs, intersection improvements in both urban and rural areas, and by construction of limited improvements, e.g. climbing and passing lanes, in the rural areas. These approaches are appropriate given existing and proposed traffic volumes and environmental sensitivity.

- **Support use of alternative modes of transportation.** Transit, bicycle and pedestrian modes play a major role in the urban areas, while in the rural areas these modes have a limited role. Transit can make a significant difference in the demand for highways in the urban areas. The Corridor Plan supports opportunities to increase transit service outside urban areas as market demand warrants.

- **Access management**. Managing the locations of driveways and distances between intersecting streets is the key to preserving the capacity of the statewide highway and local arterials. In the urban areas, access management can provide for opportunities to enter, exit, or cross the highway for vehicles, pedestrians and bicycles, consistent with local comprehensive plans and TSPs. In rural areas, access management consists of managing at-grade intersections with the state highway.

- **Economic development.** A principal objective of the Corridor Plan is to ensure the efficient shipment of local products to processing centers within and outside the region. This is accomplished by maintaining capacity and managing demand on the highway system, encouraging the use of rail and waterborne modes, and promoting intermodal transfer facilities. US 30 provides access to recreational and tourist destinations that fuel the local economy. In the rural areas, passing and climbing lanes maintain travel times to assure that access is preserved.

- **Develop transportation facilities appropriate to the surrounding environment.** Modernization and capacity-related improvements in the urban areas can be acceptable when they support the character of the area and address local and regional travel needs. Modernization improvements in the rural portions of the Corridor may also be appropriate, but the high costs and potential for major environmental impacts should be carefully weighed against potential benefits to motorists. *Reconstruct to Standard* projects were generated by ODOT

through a needs analysis that looked at upgrading substandard portions of US 30 to the minimum state highway standards. This analysis does not take into account the presence of natural and cultural resources nor land ownerships. Consequently, the Corridor Plan does not recommend these projects in recognition of their enormous expense and environmental impacts.

- **Land use coordination**. In all areas of the Corridor, the Plan supports and strengthens the connection between land use and transportation facilities and programs. At the Portland urban area fringe, Metro's *Green Corridor* policy establishes policies for development adjacent to the urban growth boundary, including the area between the UGB and the Multnomah County boundary. The Corridor Plan is careful in all instances to support applicable land use laws and policy in the Corridor. Pursuant to the 1999 OHP, ODOT is currently reviewing with several Corridor jurisdictions the appropriateness of designating portions of US 30 as either Special Transportation Areas (STAs) or Urban Business Areas (UBAs).

Management Direction by Corridor Segment

Given the broad range of topics covered by the Corridor Plan and the variation in needs among the various transportation modes, there are no "one size fits all" solutions to transportation needs in the Corridor. Consequently, the discussion of overall management direction is broken into four sections that define the character of the Corridor: Urban Areas, Urban Fringe, Rural Areas, and Rural Community Centers.

Urban Areas

Urban areas of the Corridor include the portion within the Metro UGB from the junction of US 30 with I-405 to the west city limits of Portland and the city limits of Scappoose, St. Helens, Columbia City, Prescott, Rainier, Clatskanie and Astoria. Inside the Portland and Longview/Kelso/Rainier metro boundaries, several local governments have jurisdiction over transportation and land use issues, but management direction is set primarily by the RTPs. RTP policies reinforce the balance of auto travel with transit, ridesharing, demand management, and other alternatives. While adapted to local conditions, the TSPs of the other cities in the Corridor have similar approaches to the transportation network and seek similar types of solutions, where appropriate. Key management solutions for the urban portions of the Corridor include:

- **Transportation modal balance is maintained and improved.** Corridor Plan objectives seek to strengthen the role of transit, pedestrian and bicycle modes, as well as transportation demand management, carpooling and vanpooling. The Portland Metro portion of the Corridor has a more balanced transportation network compared to the other cities, with regular transit service, and rail, water, and truck freight systems in place. Within other urban areas, the areas to be served are much smaller, and fixed-route transit is often not appropriate. However, other multi-modal solutions are explored, such as improving the local street, pedestrian, and bicycle networks. The *US 30 Transit Feasibility Study* concluded that vanpool service between St. Helens and Portland could be more cost efficient than a fixed-route commuter bus service, as demand is high but diffused in terms of destination and time of travel, and would not be sufficient to support fixed-route service. The study recommended a regional vanpool program to serve the US 30 Corridor.

- **Transit, TDM, and TSM measures are the highest priorities to provide greater capacity.** Capacity expansion is the lowest priority to address transportation demand. In accordance with regional policy, if transit, TSM or TDM measures do not meet capacity needs on existing facilities, then and only then will capacity expansion be considered. The Corridor Plan recommends system improvements that will accommodate the level of growth expected in the Portland-Astoria Corridor, as well as improvements to local street networks to reduce local trips on US 30.

- **An interconnected grid of local streets is planned to ensure direct, convenient circulation within the urban area, to minimize out of direction travel, and to provide alternatives to the state highway system for travel.** The existing grid systems within the urban areas will be enhanced over time to improve local circulation and access, and to provide alternatives to using US 30 for local trips.

- **Transportation infrastructure supports land use plans in the urban areas.** Implementation actions called for by the Plan are in compliance with local and regional comprehensive plans, which in turn implement local and regional transportation policy.

- **Transportation investments support efficient rail and truck freight movements.** Planned facility improvements and services support growth and economic development in the urban areas. High priority is given to projects that promote efficient freight access to industrial and commercial sites.

Urban Fringe

The urban fringe is defined as that area immediately outside the Portland metropolitan UGB. This area has a unique set of issues. The area is rural in character but close enough to the urban area to access services and employment. Rural zoning is in place, yet there is pressure from increasing residential use of these lands. Long distance exurban commuting increases vehicle miles traveled and runs counter to the provisions of the *Statewide Transportation Planning Rule*. In this area, TDM measures and alternative modes can reduce demand for highway use. Key elements of the management approach at the urban fringe are detailed below.

- **Telecommuting and other TDM measures have potential to reduce highway demand and VMT.** Given the existing amount of commuter traffic to the Portland area from St. Helens and Scappoose, steady growth in commuting is likely as the region continues to expand and as potential new employers locate on developable industrial land within reach of those cities. Telecommuting has the potential to reduce commuter trips to some extent in the Portland-Astoria Corridor. Telecommunications infrastructure is in place to support the ability to telecommute. The Corridor Plan does not advocate extension of urban transit to serve these outlying areas. However, some privately sponsored vanpools and carpools may be appropriate.

- **Support for *Green Corridor* policies.** Metro has adopted a *Green Corridor* policy that establishes open space or greenbelts around the Portland urban area to prevent sprawl and to maintain an aesthetic difference between rural and urban areas.

Rural Areas

The rural areas of the Corridor are defined as those areas outside of urban areas and established rural community centers. Key management strategies for rural areas are summarized below.

- **Congestion relief is achieved through small-scale capital improvements, such as climbing and passing lanes.** As opposed to the urban area where TDM programs and TSM improvements can make a significant impact on highway demand, the Plan includes small-scale capital improvements to reduce congestion and preserve travel times through the corridor. This approach of eliminating "choke points" makes the best use of scarce resources and minimizes environmental impacts.

- **Access management plays an important role in the rural areas.** With numerous at-grade intersections through the rural portions of the Corridor, the opportunity exists for conflicts between highway users and cross-traffic and turning traffic. A major strategy will be to restrict new access points and work with users to consolidate existing multiple points where possible.

- **Transportation improvements must minimize impact on significant environmental and cultural resources.** The potential to impact wildlife, natural resources and archaeological sites is greatest in the rural

portions of the Corridor. For this reason, the Plan emphasizes small-scale, strategic safety and congestion-relief improvements.

Rural Community Centers

Rural community centers, such as Warren, Deer Island, Alston Corner, and Knappa Junction, are small commercial and residential nodes that have developed along US 30. These centers provide economic opportunity for rural residents and are dependent upon US 30 to bring recreational and truck freight traffic to their businesses. Balancing community needs and the transportation function of the highway is a key theme in these areas. Other key management direction includes:

- **Access management is critical to maintain safety and rural community ambiance.** To preserve the unique character of these areas, pedestrians and bicyclists must be able to move about safely, and transportation improvements cannot overwhelm the surrounding land uses. Access management consolidates access points to the highway and provides safer, more predictable points of interaction between cars, pedestrians and bicyclists.

- **Intersection improvements can improve access to the community centers and improve safety.** In these areas, the ability to safely exit and enter the highway is critical. Intersections and turn lanes are provided to relieve queuing and the safety hazards created by slow moving vehicles entering and leaving the highway.

- **Transportation improvements support the economic health of rural community centers.** If access to these rural community centers were compromised, economic hardship would result for the small businesses located along the highway. Climbing and passing lane improvements elsewhere in the Corridor ensure that travel times are maintained and congestion levels are controlled. These improvements preserve the ability of traffic to flow through the Corridor, which in turn supports the businesses in rural community centers.

Approach to Key Issues

Demand for Increased Capacity on US 30

The management of congestion requires different approaches in different parts of the Corridor. In the urban areas, capacity added to highways and arterials would not generally be cost effective. With the exception of truck freight movement through downtown Astoria, other methods, such as TDM and TSM, are expected to be adequate to meet demand and provide an acceptable level of mobility. For example, transit and telecommuting and other TDM measures can play a significant role in managing demand for roads in the urban parts of the Corridor, while that strategy would not be as effective to address rural congestion problems. In the rural areas, most Corridor Plan solutions (projects) fall into the management, operations and maintenance category, because they are generally modest improvements that improve the function of the facility.

Urban Areas

Congestion and travel times in the urban areas are expected to increase even if high levels of improvements are applied, so the costs of highway improvements are excessive compared to the travel time saved. The Corridor Plan calls for improving local street networks to reduce local trips on US 30, and enhanced pedestrian, transit, and bicycle facilities to encourage use of alternative modes where practical. The Corridor Plan emphasizes solutions that include:

- No additional expansion in highway capacity, except for transportation system management (TSM) improvements (turning lanes and signal improvements) between Portland and Columbia City, and truck climbing/passing lanes and turn lanes in congested urban areas from Columbia City to Astoria.

- Improvements to existing intersections with US 30 and local street networks within city limits to improve traffic flow.
- Support for TSM and TDM measures, improvements to pedestrian facilities, and increased reliance on transit.
- Development of local access management and circulation plans to relieve localized congestion problems and to meet local transportation system needs.
- Develop an Astoria Truck Route to remove trucks and through-traffic from the Astoria downtown core.

Rural Areas

The Corridor Plan includes no major expansions in highway capacity in rural areas. Rather, passing and climbing lanes provide congestion relief at key "choke points". General purpose widening of US 30 outside the urban areas would be expensive and have significant adverse environmental impacts, as the Corridor passes through or next to wildlife habitat and natural resource sites. Strategically sited climbing and passing lanes can reduce congestion with a much smaller capital investment. In rural community centers, access management and additional turning lanes are the primary tools to relieve congestion. Four areas are targeted for climbing/passing lanes to reduce bottlenecks: John Day Road/Fern Hill, Clatskanie to the Clatsop County line, between Deer Island and Prescott in Columbia County and from Swedetown to Lost Creek. Intersection realignments or additional turn lanes will also aid traffic flows in congested spots or in areas with heavy truck traffic. Examples include the US 30/Nicolai Cut-Off Road, the Cornelius Pass Road/US 30 intersection, US 30 and Tide Creek Road, and Smith Point in Clatsop County.

Alternative Modes

Air Service

The Corridor Plan recognizes that air service is dependent on the marketplace for its financial viability. Management solutions focus on improvements to existing airports and restoring/maintaining service between Portland and Astoria. Protecting facilities from incompatible land uses is also a key objective.

Bicycle System

Four overall themes are applicable to bicycle improvements in the Corridor:

- Maintenance and cleaning of highway shoulders to improve conditions for cyclists.
- Inclusion of bicycle improvement projects as part of routine pavement overlays and other maintenance projects. In many cases, an extra foot of shoulder width is easy to provide at minimal cost during an asphalt overlay.
- Stand-alone bicycle projects are not generally recommended, unless they can be combined with other highway projects to share costs.
- In urban areas, a primary concern is for safe crossings of US 30 and connections to local bicycle routes.

Pedestrian System

Since the Portland-Astoria Corridor contains a large percentage of rural lands that will not typically be used for pedestrian travel, the main objective is to ensure adequate facilities are provided within urban areas where they will be most effective. In many cases, the objectives and projects that will improve bicycle facilities will also improve pedestrian access and safety, for example, through widening shoulders or developing pathways separated from automobile traffic.

Transit Service

The primary approach to transit in the Portland-Astoria Corridor is to coordinate with local providers and jurisdictions to ensure that adequate services are provided where they are most effective and needed. Commuters from Scappoose and St. Helens would benefit from a vanpool program, and park and ride services combined with increased Tri-Met service at Sauvie Island.

Rail Service

The Corridor Plan supports the maintenance of existing rail services and improvements to the infrastructure, e.g., intermodal facilities, to enhance the investment climate for rail users. Increased use of rail to convey bulk commodities can limit the growth of truck freight on US 30. Managing the rail line to preserve future opportunities for passenger service is also promoted.

Truck Freight

A limited increase in truck freight is anticipated due to increased reliance upon rail and water for the transport of bulk commodities. Within the Corridor's rural portions, passing/climbing lanes and turn lanes improve truck safety and general highway travel time. Truck travel times is expected to improve with better truck access (e.g., turn lanes at critical points) and with the use of alternative routes, such as I-5 between Longview and Portland and the Astoria Truck Route (if constructed).

Roadway Conditions and Safety

Problems of deficient geometry and poor pavement conditions can affect the safety of motor vehicle drivers, cyclists, and pedestrians. In allocating state resources, the maintenance of safe and functional facilities is established as the highest priority. Improvements to surface conditions and to high accident locations are priorities throughout the Corridor. Other solutions include intersection safety improvements, shoulder widenings, sunken grade repairs, bridge retrofits and pavement overlays.

The Corridor Plan addresses safety in the Corridor through a combination of facility management and improvements at potentially unsafe locations. Objectives identify a wide variety of facility management techniques including intersection improvements, improved lighting and delineation, additional signage, and installation of safety barriers and weather monitoring devices.

Maintenance

As a first priority, ODOT will focus its resources on the maintenance of existing facilities in order to minimize long-term costs. Maintenance, operations, and management actions comprise the vast majority of implementation actions for improvements to roadway safety and conditions in the Corridor. Improving public safety is a key criterion for the evaluation of maintenance projects. Specific solutions include:

- Increase the "Targeted Opportunity Funds" account to allow ODOT to respond to localized minor needs on the highway system.
- Increase the maintenance limitation budget to allow Districts to make minor repairs. Many of the repairs have been backlogged because of limited maintenance budgets.

Bridges

The ODOT Bridge Engineering Section has evaluated the structures in the Corridor and determined that 10 structures are in need of seismic retrofits. Retrofitting consists of two main types: either connecting bridge superstructure elements such as beams and decks to their supporting members (Phase 1), or strengthening substructure elements, such as crossbeams, footings or pilings (Phase 2). Two structures, Goble Creek Bridge and Wauna Interchange, need Phase 1 upgrading only. Five bridges need Phase 2 upgrading only: Longview Interchange, Beaver Creek, Lost Creek, crossing of Swedetown County Road, one unnamed (#01740 at MP 13.19). Three bridges need both types of upgrading: Tide Creek, Sauvie Island Partial Viaduct, and John Day River. ODOT and WDOT are currently evaluating replacement or retrofitting of the existing Lewis and Clark Bridge connecting Rainier with Longview, Washington (and I-5) with a $200 million, four-lane toll bridge.

Environmental Impacts

All projects undertaken in the implementation of this Plan must consider impacts to wetlands, other water bodies, farmlands, forestlands, threatened or endangered species and other protected resources, including cultural and archaeological resources. The overall approach is to seek to protect the environment from vehicle emissions, pollutant runoff and interruption of migration routes. The Oregon Plan (Oregon Coastal Salmon Restoration Initiative Conservation Plan) provides the primary means of addressing impacted anadromous fish runs in the rivers and streams in the Corridor. Priorities for culvert repairs were assigned by the Department of Fish and Wildlife based upon the severity of potential biological impact if the culverts were left unrepaired.

Other solutions include:

- ODOT, where feasible and appropriate, will work with local governments to integrate mitigation efforts in transportation improvement projects and to avoid or minimize impact on sensitive natural areas when constructing improvements.
- All new transportation projects will include appropriate measures to protect air and water quality.

Access Management

New access management policies have been developed as part of the 1999 OHP. However, the six general categories established in the 1991 OHP apply to transportation plans adopted before January 2000. US 30 is classified as access management Category 2 from I-405 to NW 29th Avenue in Portland's northwest industrial district, and on the proposed Astoria Truck Route from John Day River Bridge to OR 202 (Williamsport) interchange. The remaining portions of the Corridor are Category 3 in the less developed rural/urban areas and Category 4 in the more developed urban areas. A lower number indicates greater restrictions on access, while a higher number has relatively fewer restrictions.

The Corridor Plan recommends an aggressive program of access management in rural areas to reduce the number of conflicts between through traffic and local traffic entering the highway. The Plan also recommends coordinating with the cities and counties to create access management plans and work to consolidate access points where possible.

Land Uses

Management of and improvements to the transportation system are fully integrated with regional and local government land use planning, resulting in transportation efficient land use patterns intended to reduce vehicle trips and miles traveled and promote a live-work balance, particularly within the Corridor's urban areas.

It is assumed that development within the Portland metropolitan UGB will follow the direction set by Metro's *Regional Framework Plan* and *Urban Growth Management Functional Plan*. This would include additional industrial development within the Northwest Portland industrial district and additional residential and industrial development in the Linnton neighborhood, which has approximately 10 percent vacant land, with just over two-thirds zoned industrial.

Outside the Portland UGB, land use patterns will develop according to the acknowledged land use plans for each jurisdiction. Review of these plans indicates that there is significant vacant developable land within the corridor to accommodate projected growth, particularly between Scappoose and Rainier. Transportation-efficient land use patterns are encouraged to reduce vehicle miles traveled and promote a live/work balance, such as clustered development, mixed uses, maximum parking ratios, and circulation systems that reduce out-of-direction travel With the exception of the Port of St. Helens, most commercial and industrial growth is confined to incorporated cities. Additional residential land uses along the Corridor outside UGBs are expected in designated rural community centers and on vacant rural lands zoned for residential use.

As identified in Metro's Region 2040 Growth Concept, ODOT, Metro, and Multnomah county will collaborate to identify "Green Corridor" planning and transportation strategies to preserve the natural areas between the Portland Metro UGB and the Multnomah County boundary.

The 1999 OHP includes provisions for creating Special Transportation Areas (STAs) where a highway acts as a primary city street and Urban Business Areas (UBAs) where the highway bisects other areas of commercial activity. These provisions aim to better coordinate the needs of the state's highway system with local needs. No STAs or UBAs have been designated to date through the Corridor Plan or TSPs. As part of development of a final plan, eligible jurisdictions are being consulted regarding the appropriateness and desirability of applying STA or UBA designations to portions of US 30 through their communities. Expressway designation is proposed from the Portland UGB west to the Multnomah County line and for the Astoria Truck Route. Expressways are designed for high speed movement with a limited number of road connections and driveways.

Protection of sensitive cultural (historic and archaeological) resources and effects on community livability must be considered with any proposed improvements to the transportation system. Therefore, part of the process of designing transportation facilities will be to identify and avoid adverse impacts to livability and cultural resources, or where avoidance is not possible, to identify suitable mitigation.

Economic Impacts

The economy of the Corridor is closely tied to the shipping, timber, and tourist industries. Functional and efficient access to employment centers, freight movement, and recreation travel are key to the Corridor's economic health. Improved access to existing and designated industrial and commercial sites is a key objective. Deepening of the Lower Columbia River and improvements to rail and port facilities are supported as key solutions to promote growth for all ports and incorporated communities within the Corridor.

The Northwest Oregon Economic Alliance has identified tourism as a key economic development strategy for Clatsop, Columbia and Tillamook counties, taking advantage of the corridor's abundant natural and scenic resources. The Corridor Plan includes facility management strategies within urban areas and passing/climbing lanes within the western segment to enhance access to recreation opportunities. Recreation development focuses on the Lower Columbia River, such as a canoe trail from Portland to Astoria. Other measures include objectives to develop or improve access and signage to recreation spots.

F. PROJECT PRIORITIES AND FUNDING

A key step in development of the Corridor Plan was prioritizing improvement projects and ensuring that the highest priority projects fit within reasonable funding forecasts. Corridor Plans do not need to pass the rigorous criteria required for the Metropolitan Planning Organizations (such as Metro). Rather, several ranges of funding forecasts, based on different assumptions, have been developed.

In developing funding forecasts, it was recognized that forecasted revenues would not likely fully reflect actual revenues realized over the next 20 years. Funding forecasts are currently uncertain statewide and the relative amounts to be allocated for different types of projects by corridor have not been decided. Some of these decisions will be made as the OTC responds to the Governor's suggestion that monies be concentrated on maintaining and managing the existing system. The CSC focused primarily on modernization (new construction), safety, and operational (TSM and TDM) improvements. Funding priorities for categories such as bridge projects, maintenance, pavement management and salmon recovery improvement projects reflect input provided by ODOT staff.

Funding Forecasts

Funding forecasts are based upon 1999 OHP forecasts, traditional funding distributions among ODOT Regions, within each Region, between urban/rural areas, and among rural counties. The CSC developed a general methodology for determining the target funding levels for new construction based upon a "snap-shot picture" approach with a base year of 1997 and including state revenue and federal highway funds for new construction. Assumptions included a 20-year projection of funding allocation for new construction projects, no changes in state or federal funding levels from the 1997 level and no inflation adjustment on project costs.

Historically, Regions 1 and 2 have received an average of 34.2% and 23%, respectively, of the statewide construction funds for new projects. The Region 1 allocation has historically been split 80% for the Portland metropolitan planning organization (MPO) area and 20% to the Non-MPO area. Region 2 monies are split among all the ODOT facilities within the region. In Region 1, the Corridor in the urban portion is part of the Metro regional decision-making process, which allocates funding for the Metro region. Table 1 summarizes the annual allocation of modernization project funding statewide and for Regions 1 and 2.

Table 1: Annual New Construction Funding Allocation by Region (1997 base year) ($ million)[1]

Funding Source	Statewide	Region 1			Region 2
		Region 1 Share (34.2%)	Metro (MPO) Allocation (80%)	Non MPO Allocation (20%)	Region 2 Share (23.0%)
State Gas Tax	$56.8	$19.4	$15.5	$3.9	$13.1
Federal Funds	$99.0	$33.9	$27.1	$6.8	$22.8
TOTAL	$155.8	$53.3	$42.6	$10.7	$35.9

(1) Based upon historical trends in disbursement shares.

Corridor Funding Forecast

Three potential modernization funding forecasts were developed for the Portland-Astoria Corridor Plan. One forecast uses a historical distribution of money to the regions and for the Corridor over the past 20 years, applying it to the forecast revenues over the next 20 years. This is the highest, most optimistic of the three forecasts. It is not realistic to expect this much money to be available without increased revenues at the state or federal levels, or both. Inflation and deferred maintenance and preservation needs will consume an increasing proportion of available revenues.

The second forecast uses the 1998 Draft OHP (September 1998) needs and revenue forecasts and assumes an even split of available funds to address all needs. The draft OHP projects 62.5% of the needed revenue will be available over 20 years and that 22% of the need is for Modernization projects. An even split would allocate $3.3 billion to Modernization projects over 20 years. This may also represent more funds than can reasonably be expected over the next 20 years, given policies to maintain and preserve existing facilities.

Finally, a third forecast prioritizes programs other than Modernization, funding only 20% of those needs, while meeting a greater level of need for maintenance, preservation, safety, etc. This assumption addresses several policy objectives, including the emphasis on preserving and managing the existing system. It also reflects current statutes requiring ODOT to spend about $54 million per year statewide on Modernization. This should represent the minimum amount available over the 20-year planning horizon.

Table 2 summarizes the three forecasts. In the rural areas, funding for Corridor Plan projects would be distributed among the Region's five rural counties.

Table 2: Projected Modernization Funding Forecast ($ million)
Portland-Astoria Corridor
20 Year Planning Horizon

Region	Historical STIP Programming	Even Split of Projected Revenue	Low Mod-High Maintenance & Preservation
Region 1			
MPO	$30 - $60	$22 - $45	$7 - $14
Rural	$15	$11.0[1]	$7[1]
Region 2	$14	$7.0[2]	$2[2]
TOTAL	$59 - $89	$40 - $63	$16 - $23

[1] Based on a distribution of rural funds to counties in Region 1
[2] Based on current distribution of Region 2 funds

Project Funding Priorities

As noted earlier, limited revenues necessitate managing and improving the existing transportation services and facilities within the Corridor to accommodate the anticipated growth in travel. Accordingly, the Corridor Plan allocates state resources to highway projects according to the following priorities:

(1) Maintenance of the existing facility to ensure that it remains safe and functional, e.g. fixing potholes.
(2) Preservation of the roadway by investing in roadbed and pavement reconstruction as needed to minimize maintenance costs;
(3) Transportation system management to optimize existing highway capacity;
(4) Safety and capacity improvements; and
(5) Projects that support economic development, particularly recreation and tourism.

The highest priority projects are placed in the ***Committed*** and ***Constrained*** funding category, meaning they would all be expected to be implemented over the 20-year planning period. Committed projects are already funded in the current STIP and total $20 million. Constrained projects, totaling $37 million, would be implemented in later years of the current STIP and are still subject to funding authorization. In the Portland Metro area, committed and constrained projects have been identified through the RTP process.

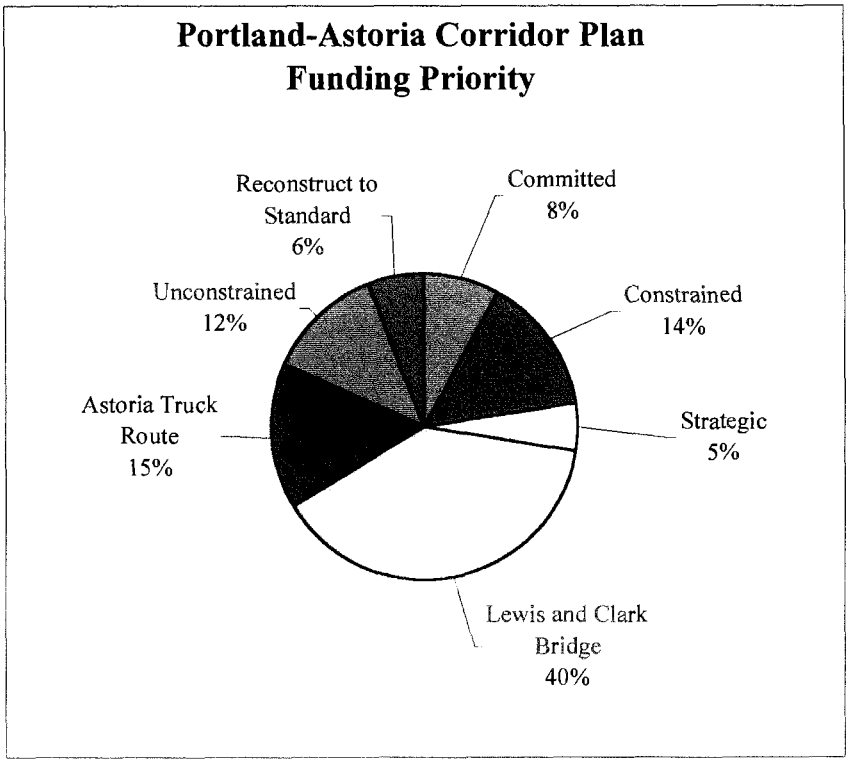
Next in priority are ***Strategic*** funding projects that will require new sources of funding. Strategic projects total $153 million, with the bulk of these costs attributable to construction of the Astoria Truck Route and replacement of the Lewis and Clark Bridge. Practically speaking, if additional funding is identified, projects identified from the Strategic funding list would move to the Constrained funding list and total funds available for Constrained projects would increase. Per current ODOT policy, project development activities are not undertaken for projects not on the Constrained Funding list (that is, project development is not undertaken for projects that are not funded for implementation).

All remaining projects are considered ***Unconstrained*** or ***Reconstruct to Standard***. Based upon current revenue forecasts (including all reasonable additional sources of revenue), these projects are *not* likely to be funded within the 20-year planning horizon. The term "Unconstrained" means that if ODOT had all the funding to meet all Corridor needs, then all projects could be funded. However, Unconstrained projects could be funded by alternative funding sources, such as development exactions, local improvement districts, urban renewal districts, etc. Unconstrained projects total $39 million. Unconstrained projects proposed in the Corridor Plan are those that originated through the CSC and have a demonstrated need. Reconstruct to Standard projects, totaling $15 million, were generated through ODOT's HPMS system which identifies projects to bring substandard segments of

highway up to highway standards. These projects may not be practical given that attaining maximum grade or curvature standards could require extraordinarily expensive and impractical solutions for a highway such as US 30 that crosses mountains and operates in a highly constrained environment. Consequently, these ***Reconstruct to Standard*** projects are not recommended for implementation as part of the Corridor Plan.

The projected total cost for implementation projects included in the Corridor Plan is $249 million. If ***Reconstruct to Standard*** projects are added, the total increases to $264 million. Costs are preliminary estimates based upon information provided by local governments or generated by ODOT. Local contributions to projects could result in adjustments to prioritization of projects. That is, given ODOT's limited resources, the greater the "local match," the higher the likelihood of implementing the project. Figure 6 illustrates the relative amounts of funding by category.

Figure 6: Relationship of Funding Categories



I. INTRODUCTION

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B. CORRIDOR PLANNING CONCEPT 2
C. OVERVIEW OF CORRIDOR PLANNING PROCESS 3
D. APPLICABILITY OF THIS PLAN 4
E. REVISION AND AMENDMENT PROCESS 5

Figure 1: Corridor Planning Process 3

A. PURPOSE AND SCOPE

The Portland-Astoria (US 30) Corridor Plan is the product of a cooperative effort between the Oregon Department of Transportation (ODOT), local and regional governments, interest groups, statewide agency and stakeholder committees, and the general public to develop a long-term program for management of and improvements to the Portland-Astoria Corridor. This Corridor Plan is one of over 30 similar plans being prepared by ODOT statewide for key transportation corridors identified in the Oregon Transportation Plan (OTP) and for urban area arterials and interchange areas where development pressures have threatened operation. In ODOT Region 1, there are five priority corridors, including the Portland-Astoria (US 30) Corridor. Corridor planning is a new approach to transportation planning in which ODOT and the communities bordering major transportation corridors work together to create plans for managing and improving transportation modes along entire corridors.

The purpose of the Corridor Plan is to establish both short and long-term management direction for all modes of transportation in the corridor and to make major transportation tradeoff decisions. Management objectives address the Corridor as a whole, as well as specific sites and transportation improvements. The Corridor Plan also identifies priorities and timing for the various actions and responsible public agencies and other service providers.

A primary goal of this multi-modal Corridor Plan is to manage growth in travel in the Corridor, while making wise use of scarce resources to fund needed improvements. The Plan emphasizes managing the highway facilities that currently exist without substantial increases in capacity or construction of new facilities. This is achieved by strengthening the role of alternative modes of transportation, improving facility operations, and managing demand through appropriate land use.

Prioritized improvements to corridor facilities, systems and management identified in the Corridor Plan provide the basis for updating the Statewide Transportation Improvement Program (STIP), which, in turn, is the basis for distributing the State's limited transportation resources. Corridor planning helps ODOT, with the cooperation of local governments and input from the citizens of Oregon, make difficult funding decisions necessary to build and maintain a statewide transportation system that meets the growing demand for transportation for the next 20 years. Inclusion of any improvements in the Corridor Plan does not represent a funding commitment by ODOT or any local government, however, until programmed in the STIP, Metro's Transportation Improvement Program (TIP), and/or a local capital improvement program (CIP).

Key elements of the Corridor Plan include:

- Description of existing and future conditions for all modes in the Corridor;
- Forecasts of future available funding for transportation projects in the Corridor;
- Summary of existing state, regional and local policy direction and analysis of its compliance or consistency with the Corridor Plan;
- Future vision for management of each element of the Corridor's transportation system;
- Corridor Plan Objectives that define the policy direction for all modes in the Corridor, as well as for functional issues such as connectivity, congestion and environmental and energy impacts;
- Solutions or implementation programs comprised of proposed projects, strategies and other actions to be taken to implement the Corridor Plan Objectives;
- Prioritization of improvement projects based upon scenarios of anticipated available funding; and
- Detailed information and mapping for all proposed projects.

The Portland-Astoria Corridor Plan builds on the strategies and policies found in the Oregon Transportation Plan (OTP), the Oregon Highway Plan (OHP) and other modal plans. It has also been closely coordinated with the development of local transportation system plans (TSPs) and Regional Transportation Plans (RTPs) for the Portland and Longview/Kelso/Rainier metropolitan planning areas (MPOs). Through this local and regional transportation system planning, future refinement planning, periodic review, and local plan amendments, ODOT

and the local and regional governments in the corridor are cooperatively working together to ensure that city and county comprehensive plans and zoning ordinances achieve Corridor Plan management objectives. The Oregon Transportation Commission (OTC) will adopt the Corridor Plan as an element of the OTP.

B. CORRIDOR PLANNING CONCEPT

A corridor plan is a long-range (20-year) program for managing transportation systems that move people, goods and services within a specific transportation corridor. Transportation *corridors* are defined as broad geographic areas served by various transportation systems that provide important connections between regions of the state for passengers, goods, and services. Transportation *facilities* are defined as individual modal or multimodal conveyances and terminals; within a corridor, facilities may be of local, regional, or statewide importance. Examples of facilities are highways, rail transit lines, transit stations, and bicycle paths. Transportation *systems* are defined as networks of transportation links, services, and facilities that collectively are of statewide importance even though the individual components in the system may be of only local or regional significance. Examples include highway, rail, public transportation, and bicycle systems.

With the adoption of the 1992 Oregon Transportation Plan (OTP), the OTC defined policies and broad improvement strategies for the statewide transportation network. The OTP is not intended to identify specific actions that should be taken on any particular transportation corridor. Rather, implementation and refinement of the OTP are to occur through the development of Modal and Corridor Plans. Modal Plans such as the Oregon Highway Plan (OHP) and other plans relating to bicycles, pedestrians and rail look at statewide needs and policies for all of the different transportation modes. Corridor Plans provide a framework for long-term planning and development of all modes within specific transportation corridors.

The benefits of corridor planning for the Portland - Astoria Corridor include:

- **Resolution of Major Planning Issues Prior to the Initiation of Project Development**

Consensus among local, regional, and state governments regarding project purpose and needs is essential to successful project development. Corridor planning provides a framework within which individual projects located in corridor communities can be reviewed and prioritized.

- **Protection of Transportation Investments**

To prevent premature obsolescence of highways and other facilities, corridor planning examines alternate means to accommodate transportation needs with and without capital-intensive improvements. Alternatives such as access management, utilization of parallel local streets, reconfigured land use patterns and demand management programs (i.e., rideshare, public transportation, flex-time, etc.) are considered in lieu of or in addition to major capital improvements.

- **Partnerships With Diverse Public and Private Agencies and Organizations**

Corridor planning provides a forum for resolution of policy issues and negotiation of strategic partnerships between organizations striving to fulfill complementary missions with limited resources. Examples include local, state and federal agencies, Native American tribes, and transportation associations.

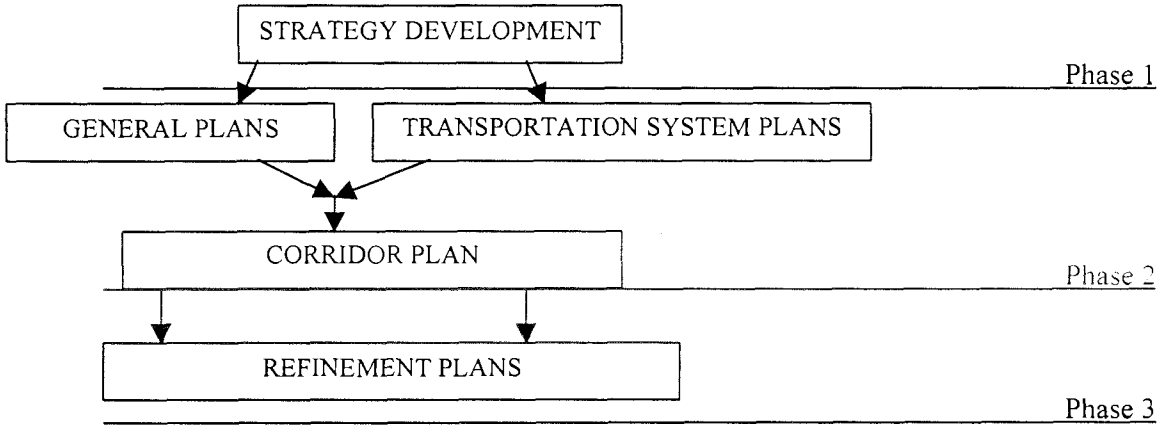
There are several federal and state mandates impacting how corridor planning is to be undertaken. The three most important of these are: the Transportation Efficiency Act of the 21st Centruy (TEA-21); the Oregon Transportation Plan (OTP); and the Oregon Transportation Planning Rule (TPR). While very different policy initiatives, all three share several common requirements: 1) transportation plans should provide a balanced transportation system providing transportation options; 2) transportation plans should reduce reliance upon the single occupant vehicle and increase the opportunity for modal choice; and 3) transportation plans should be coordinated with land use plans and address the environmental, social, economic, and energy consequences of proposed actions.

C. OVERVIEW OF CORRIDOR PLANNING PROCESS

The corridor planning process recognizes that different segments of the Portland-Astoria Corridor require differing levels of study to develop a corridor-wide long-range plan. Thus, corridor planning moves from the general to the specific in a three-phased process (illustrated below). It is important to note that this planning may not occur in a linear fashion, i.e., that activities described in Phase 1 may occur after some Phase 2 or Phase 3 planning activities.

- Identification, in a Corridor Strategy, of significant corridor-wide issues and strategies to address those issues;
- Preparation of two types of Transportation System Plans--General Plans for counties and Systems Plans for cities; and
- Resolution of any outstanding environmental, land use or other issues through Refinement Plans.

Figure 1: Corridor Planning Process



This Corridor Plan has been developed with the active involvement of local and regional governments in the Corridor, interest groups, statewide agency and stakeholder committees and the general public. Public comment has been received throughout the planning process through newsletter survey responses, open houses, letters and phone calls and has been incorporated into issues and objectives. A Corridor Steering Committee (CSC) is the primary author of the Corridor Plan. The CSC will remain active for future revisions to the Corridor Plan as necessary.

Key steps in development of the Corridor Plan include:

- Identification of community and stakeholder issues, concerns and ideas about transportation modes in the Corridor. A random survey of Corridor users was conducted in spring 1993, prior to initiation of the planning process. Issues and needs in the Corridor Plan were identified by residents and other interested parties through a newsletter survey mailed in September 1994. A newsletter was distributed in January 1995 and open houses were conducted in January-February 1995 to provide information on the planning process and to solicit input on issues, needed improvements to the transportation system, and priorities to be addressed in the Corridor Plan.
- Research and analysis of existing conditions and future opportunities and constraints.
- Development of an Interim Corridor Strategy that established overall objectives for how all modes would be managed in the Corridor. An August 1995 newsletter and questionnaire solicited public input on key objectives from the recommended Interim Corridor Strategy.
- Endorsement of the Interim Corridor Strategy by local governments in the Corridor and by the Oregon Transportation Commission in January 1996.

- Analyses, or refinement studies, in a number of areas identified by the CSC as needing further study before implementation strategies could be identified and prioritized. ODOT undertook analysis of the potential for passing and climbing lanes, and intersection safety and capacity improvements within the Corridor.
- Development by local governments of TSPs and by Metro of the Regional Transportation Plan. Each city and county within the Corridor has developed or is developing a plan for the transportation system within its boundaries.
- Identification of specific strategies and improvement projects to implement the Interim Corridor Strategy Objectives and prioritization of improvement projects based upon scenarios of anticipated available funding.
- Newsletters distributed regionwide in June, 1998 to over 2,000 individuals, agencies and organizations summarizing key management strategies, and in September, 1998, announcing September and October open houses conducted in conjunction with the draft Oregon Highway Plan.
- Incorporation of these various elements into a draft Corridor Plan.
- Following public and agency review, endorsement of the Corridor Plan by local governments and adoption by the Oregon Transportation Commission.
- Refinement plans to address special issues, as needed. Refinement plans will then be folded into the Corridor Plan. An example of a refinement plan would be determining the best of several possible improvement alternatives for the intersection of Old Rainier Road and Apiary Road, or researching alternative locations for an intermodal transportation center in Astoria.

D. APPLICABILITY OF THIS PLAN

The objectives embodied in this Corridor Plan direct the manner that the Oregon Department of Transportation plans, manages, and improves the Portland-Astoria (US 30) Corridor. The Portland-Astoria (US 30) Corridor Plan was adopted prior to January 1, 2000. This Corridor Plan is consistent with the policies and standards of the 1991 Oregon Highway Plan. The 1991 Highway Plan policies, except for the Operating Level of Service Standards (Appendix A-3) shall remain effective for purposes of the Transportation Planning Rule (OAR 660-12-015) consistency requirements.

The exception, Policy 1F, Highway Mobility Standards of the 1999 Oregon Highway Plan, will be effective immediately.

> The standards provided in 1F shall identify the state highway mobility performance expectations to be used in the development of transportation system plans and highway corridor plans that are adopted after March 18, 1999. Alternative performance standards that need or exceed these highway mobility performance standards may be substituted.
>
> The standards provided in Policy 1F shall guide state highway operation decisions initiated after March 18, 1999.
>
> Application for amendments to functional plans, acknowledged comprehensive plans and land use regulations subject to the Transportation Planning Rule (OAR 660-12-060), initiated after March 18, 1999 shall be consistent with the standards in Policy 1F.

The Portland-Astoria (US 30) Corridor Plan shall be amended to be consistent with the 1999 Oregon Highway Plan at its next update.

E. REVISION AND AMENDMENT PROCESS

Implementation of the Portland-Astoria (US 30) Corridor Plan will occur over many years. During that time, it will be necessary to update and revise the Plan to reflect changing conditions and policy direction or to better achieve Plan objectives. Corridor Plan Objectives call for maintaining a corridor-wide advisory group to assist ODOT in periodically prioritizing management solutions, reviewing local government transportation system plans for conformance with the Corridor Plan, and assisting in updating the Corridor Plan as needed. Refinement planning will also occur to address outstanding environmental land use or other issues. Agency and public input will be solicited during refinement planning and Corridor Plan updates.

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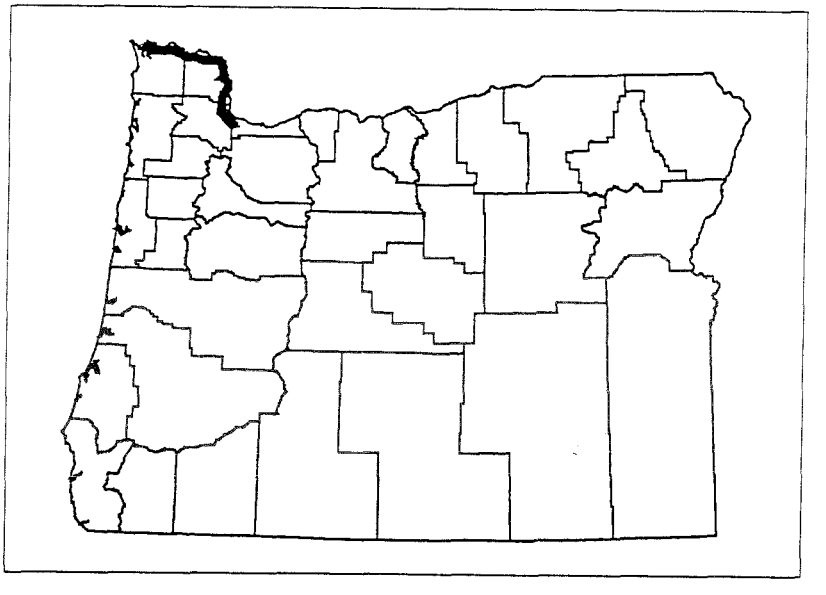
A. CORRIDOR DESCRIPTION

The Portland-Astoria Corridor (Figure 2) is a major route connecting the Portland metropolitan area with the northern Oregon and southern Washington coasts and providing access to communities along the lower Columbia River. It is an important recreational, commuter and commercial traffic corridor and one of the most multi-modal corridors in the state, with active truck freight, rail, air and water transport services. Often referred to as the Lower Columbia River Corridor, it extends from the intersection of US 30 with I-405 in Portland to the intersection of US 30 with US Highway 101 in Astoria. In order to consider the effects of connecting non-highway transportation modes, such as rail and water ports, the boundaries of the Corridor are flexible.

US Highway 30, formerly the Lincoln Highway, is the oldest, most historic and most populated route between Portland and the coast. The highway serves as the main arterial for a number of cities along the lower Columbia River--Scappoose, St. Helens, Columbia City, Rainier, Clatskanie, and Astoria. It also provides highway and rail access to the ports of Portland, Astoria and St. Helens on the Oregon side of the Columbia River and to the Ports of Longview, Kalama and Vancouver on the Washington side.

The Corridor extends a total of 99.34 miles and passes through a diverse landscape and variety of land uses. It follows US 30 and the Columbia River northward, passing through the towns of Scappoose, St. Helens, and Columbia City. At the town of Rainier, the topography rises steeply, west and south of the Columbia River, and then descends westward to the town of Clatskanie. The Corridor continues westward through an area dominated by forestland to Astoria. Numerous scenic points and areas of wildlife habitat can be found throughout the corridor.

Figure 2: Location of Corridor in Oregon



US 30 accommodates substantial bicycle traffic, particularly during summer months. It is also part of the statewide National Highway System (NHS).

B. CORRIDOR ROLE

The Portland-Astoria Corridor functions in a variety of roles along its length, including as a regional connector for northwest and north coastal Oregon; as a major route for air, rail, water, and roadway transportation systems conveying goods and services; and as a main street for six incorporated communities and a number of unincorporated communities from Linnton (Portland) to Astoria.

In the eastern portion (Portland-Rainier) of the Corridor, use of all transportation modes is increasing and expected to continue to increase over the life (15-20 years) of the Corridor Plan. In this portion, the Corridor has the following primary functions:

- Both an inter-city and intra-city commuter route;
- Access to major employment centers including the Portland, Rainier/Longview (Washington) metropolitan areas;
- Major regional freight movement; and
- Connections to I-5 (via Longview, Washington).

Within its western portion (Rainier to Astoria), the Corridor is noted for the following:

- Linkage to the north Oregon coast;
- Tourism and access to recreation opportunities;
- Rural scenic qualities;
- Natural resource amenities, particularly forest lands, and scenic viewpoints, and wildlife sanctuaries and habitats associated with the Columbia River; and
- Freight movement for forest products and other goods.

Although the Portland-Astoria Corridor has multiple transportation modes, it is dominated by automobile and truck use on US 30. The function of US 30 varies in different sections, somewhat similar to the Corridor as a whole, but its proximity to other highways is also important, as seen in the following descriptions:

- Near Portland, a high amount of commuter and commercial traffic uses US 30 to access downtown Portland, the interstate highway system, and the industrial area in northwest Portland. Between St. Helens and downtown Portland, US 30 is an important commuter route.
- West of St. Helens, US 30 assumes more of a rural roadway function, serving trips from outlying areas to the towns and cities in this section, as well as recreational and commercial through-traffic. This section also serves substantial truck traffic due to several lumber mills along the route.
- Between Rainier and Portland, US 30 competes with I-5 in Washington as a travel corridor, with the connection between these highways through Longview, Washington via the Columbia River bridge at Rainier. While US 30 is an attractive route between Portland and the coast, I-5 provides a faster alternative route between Portland and Rainier.
- West of Rainier, US 30 is a quicker route than State Route 4 in Washington (which parallels US 30 on the north side of the Columbia River) for destination-oriented travelers to the northern Oregon Coast and Long Beach peninsula because of better alignment. However, SR 4 may offer a more scenic route.

US 30 acts as a common lifeline connecting the various communities along its length. Actions taken by one community may affect others. In addition, decisions made about the future role of US 30 may affect other

transportation facilities, and vice versa. Its role as a main street in several communities has created some contradictions with the classification of US 30 as a highway of statewide importance. While a typical highway has, for example, limited access, ODOT recognizes that some typical functions need to be modified in urban areas where the function changes from a highway to a main street.

Figure 3 shows the existing conditions in the general area of the Corridor. Figures 4 through 6 show the location of US 30 within the Urban Growth Areas of seven cities in the Corridor: Scappoose, St. Helens, Columbia City, Prescott, Rainier, Clatskanie, and Astoria.

C. EXISTING CONDITIONS

1.0 Introduction

This section describes the existing conditions in the Corridor, beginning with a brief review of Corridor demographics and economy. Then the major subject areas of the Corridor Plan are summarized. For a detailed discussion of these existing conditions, future conditions, and development of solutions, refer to Volume 2, Chapter I of this Corridor Plan.

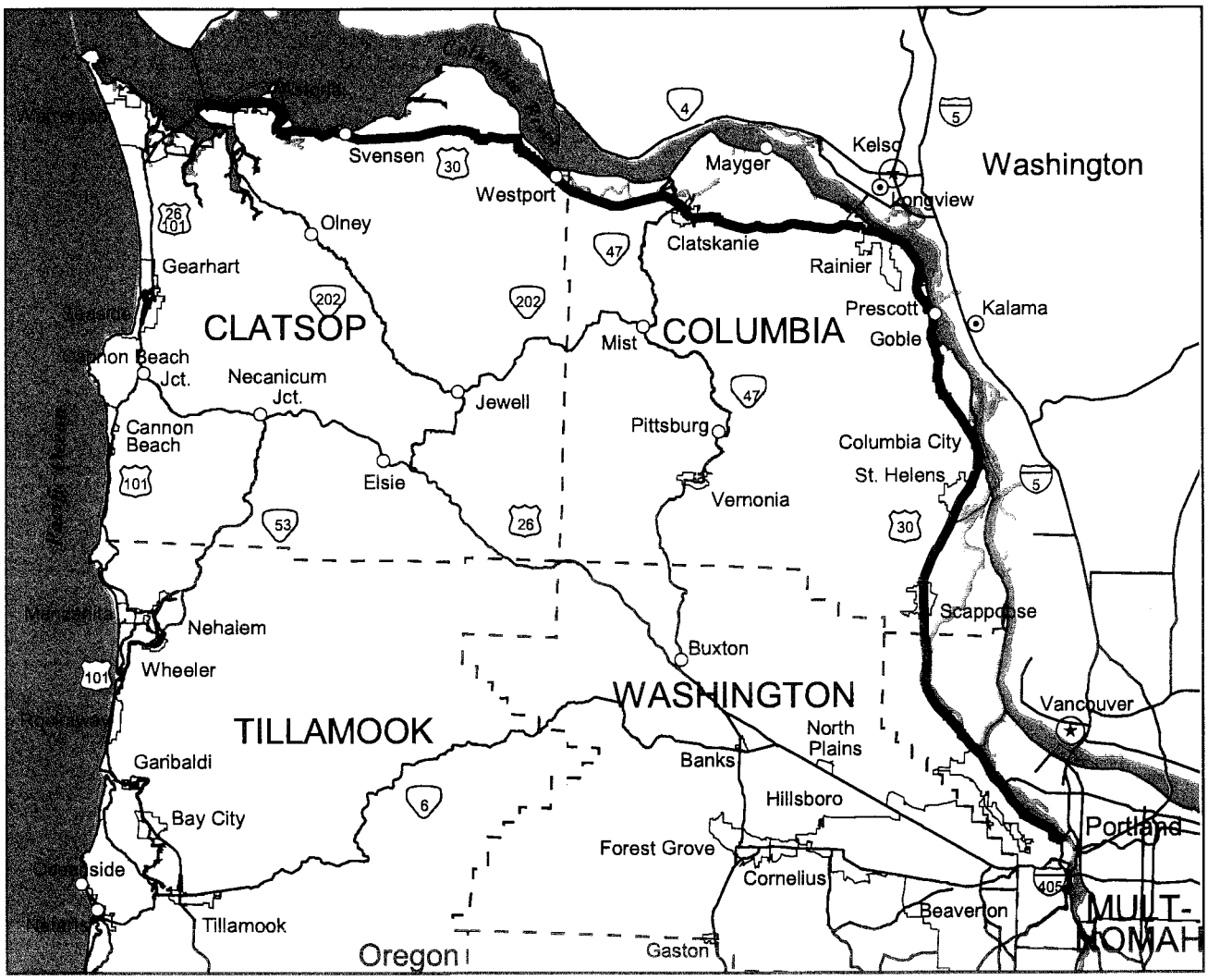
2.0 Economy and Demographics

Transportation systems can have a significant economic impact on their surroundings. Transportation services and system improvements can act as a catalyst for new businesses, job creation, and the promotion of tourism. In general, the economy of the Portland-Astoria Corridor is closely tied to the timber and tourism industries. In the various communities in the Corridor, economic development is connected to both local industrial enterprises and the larger regional economic focus on shipping and tourism.

US 30 is a major route between Portland and the northern Oregon coast and southwest Washington coast, this metropolitan area growth affects the entire Corridor. Figures 3 through 6 depict the Corridor and the communities in the Corridor. Figure 7 shows the historic and projected population trends in the three counties in the Corridor. Estimates for 1998 and 2010 were developed by the Center for Population Research and Census at Portland in 1993. The population of the Corridor has risen steadily since 1960 and is expected to continue to grow. Multnomah County's growth is associated with regional growth in the Portland metropolitan area, which spills over into Scappoose and even St. Helens and Columbia City. The population of Columbia County is also expected to rise, with much of the growth expected to occur in communities closest to the Portland Metropolitan area. The economy of the Rainier and Clatskanie urban areas is linked to the Longview/Kelso urban area of Washington. Clatsop County has experienced slow population growth (under two percent per year), in part due to the small land area designated for residential development. (It is important to note that the forecast for Clatsop County shown in Figure 7 was developed during a temporary economic downturn, which has since reversed, and that forecasts created in 1999 would likely project a population increase, not decline.)

Figure 8 shows the historic and projected employment trends in Clatsop and Columbia Counties and in the Portland Metropolitan Statistical Area. (The Portland PMSA is Clackamas, Columbia, Multnomah, Washington, and Yamhill counties in Oregon, and Clark County in Washington. The number of counties comprising the PMSA has changed over the years, but the data has been compiled so that the definition is consistent. No separate data for Multnomah County employment was available.) The employment figures indicated are for nonagricultural wage and salary employment. The data exclude the self-employed, volunteers, unpaid family workers, domestic service in which the quarterly payroll does not exceed $1000, and persons involved in labor disputes. The data are by place of work. Persons working multiple jobs are counted more than once.

Figure 3: General Corridor Area Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

N

4 0 4 8 Miles

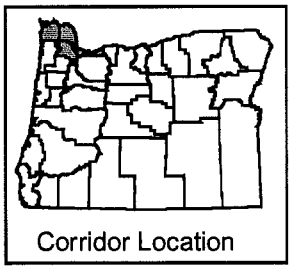
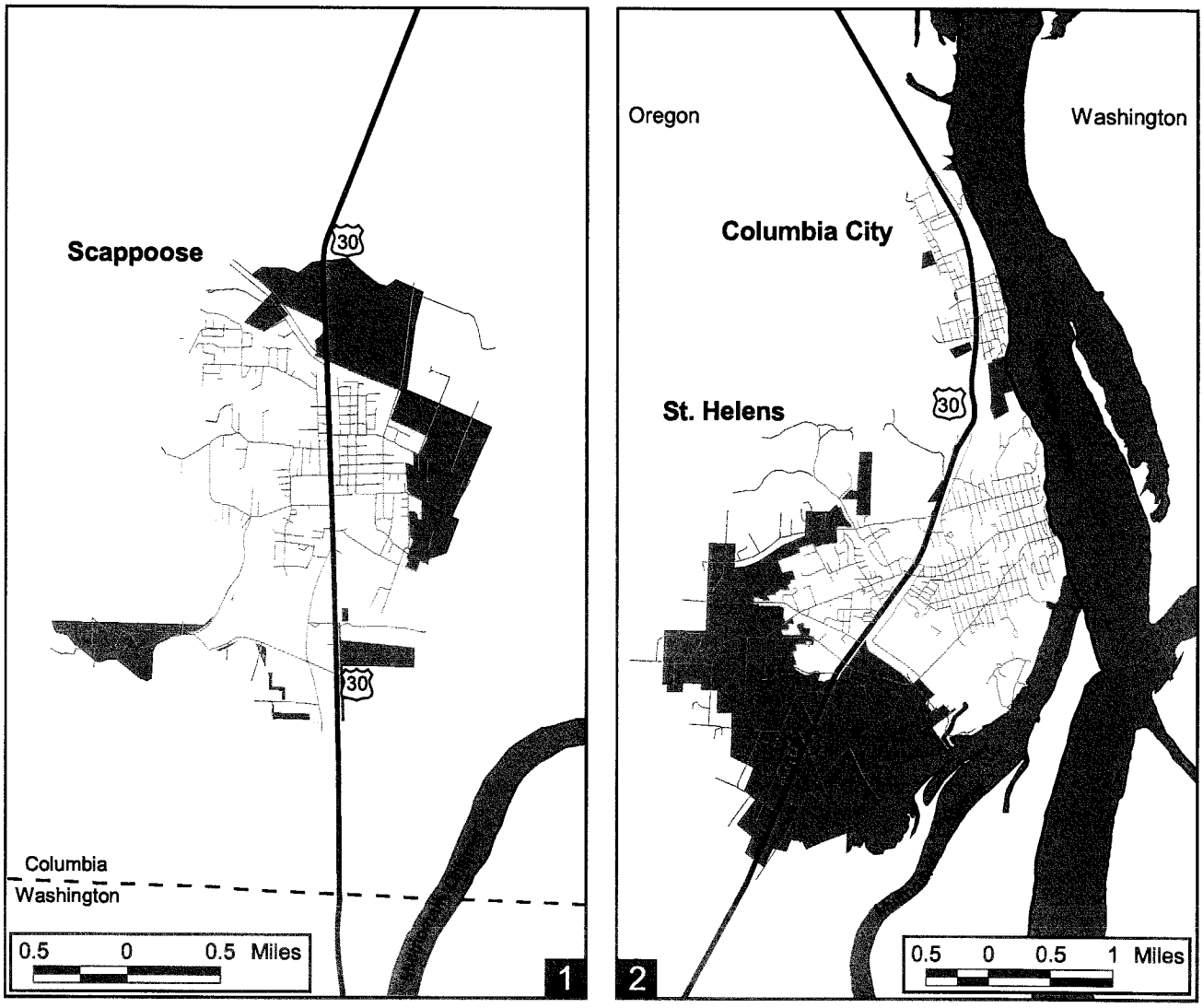
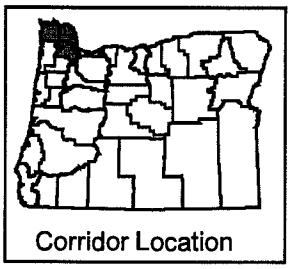


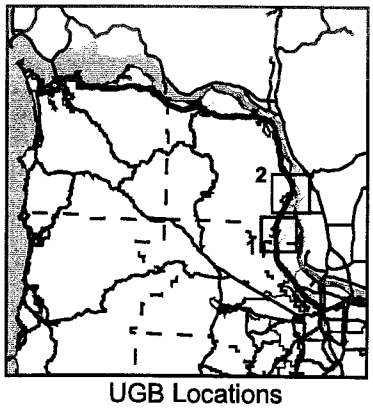
Figure 4: Scappoose, St. Helens, and Columbia City Urban Growth Areas Existing Conditions



Legend:

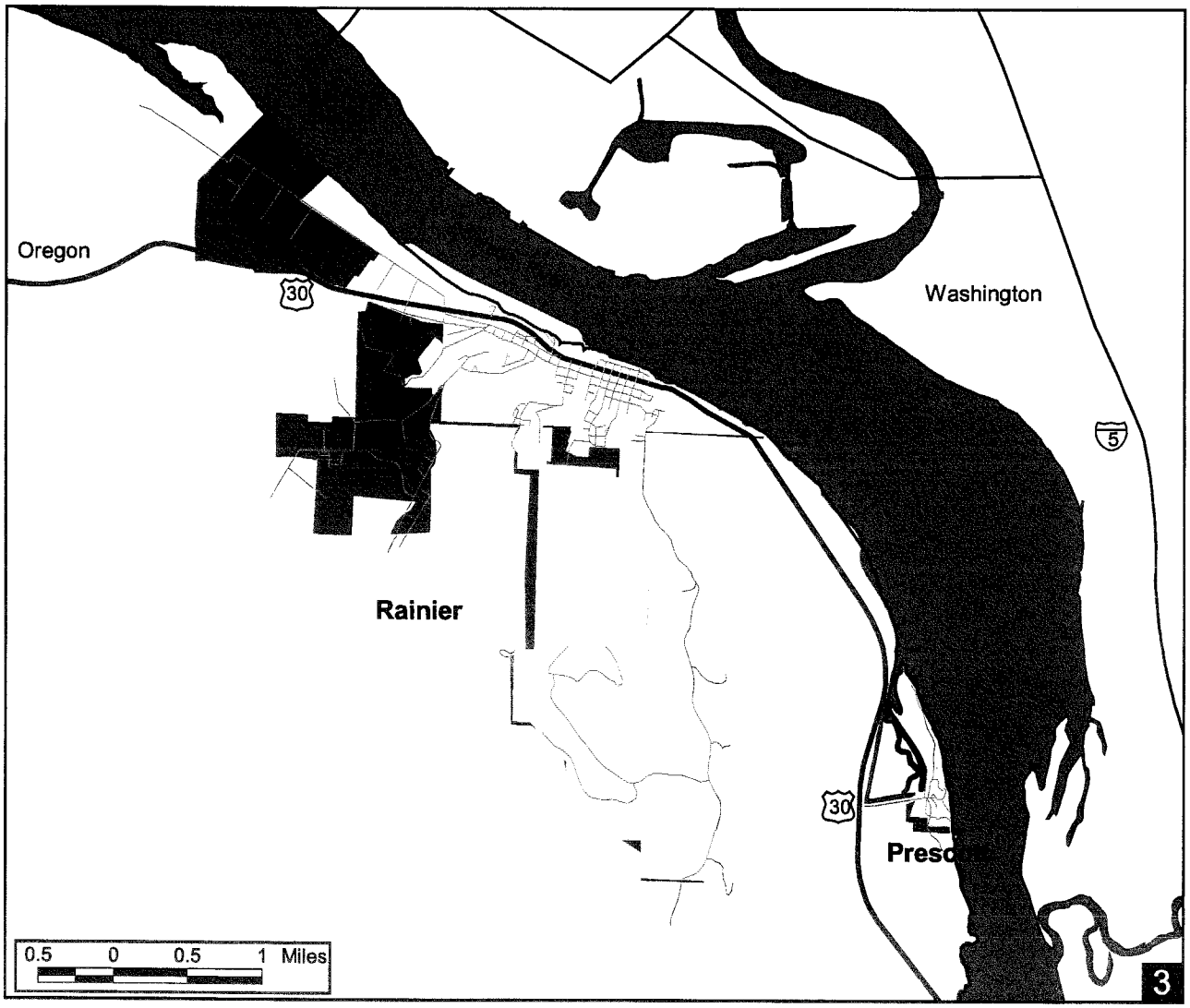
- Statewide Highway
- Local Roads
- County Boundaries
- City Limits
- Urban Growth Boundary





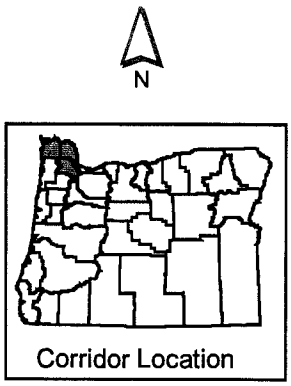
UGB Locations

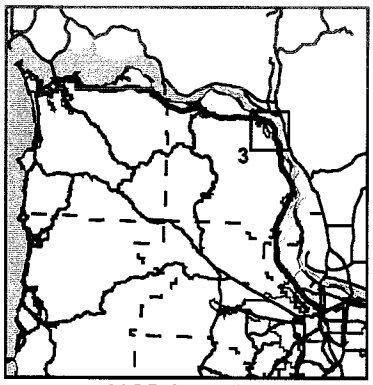
Figure 5: Prescott and Rainier Urban Growth Areas
Existing Conditions



Legend:

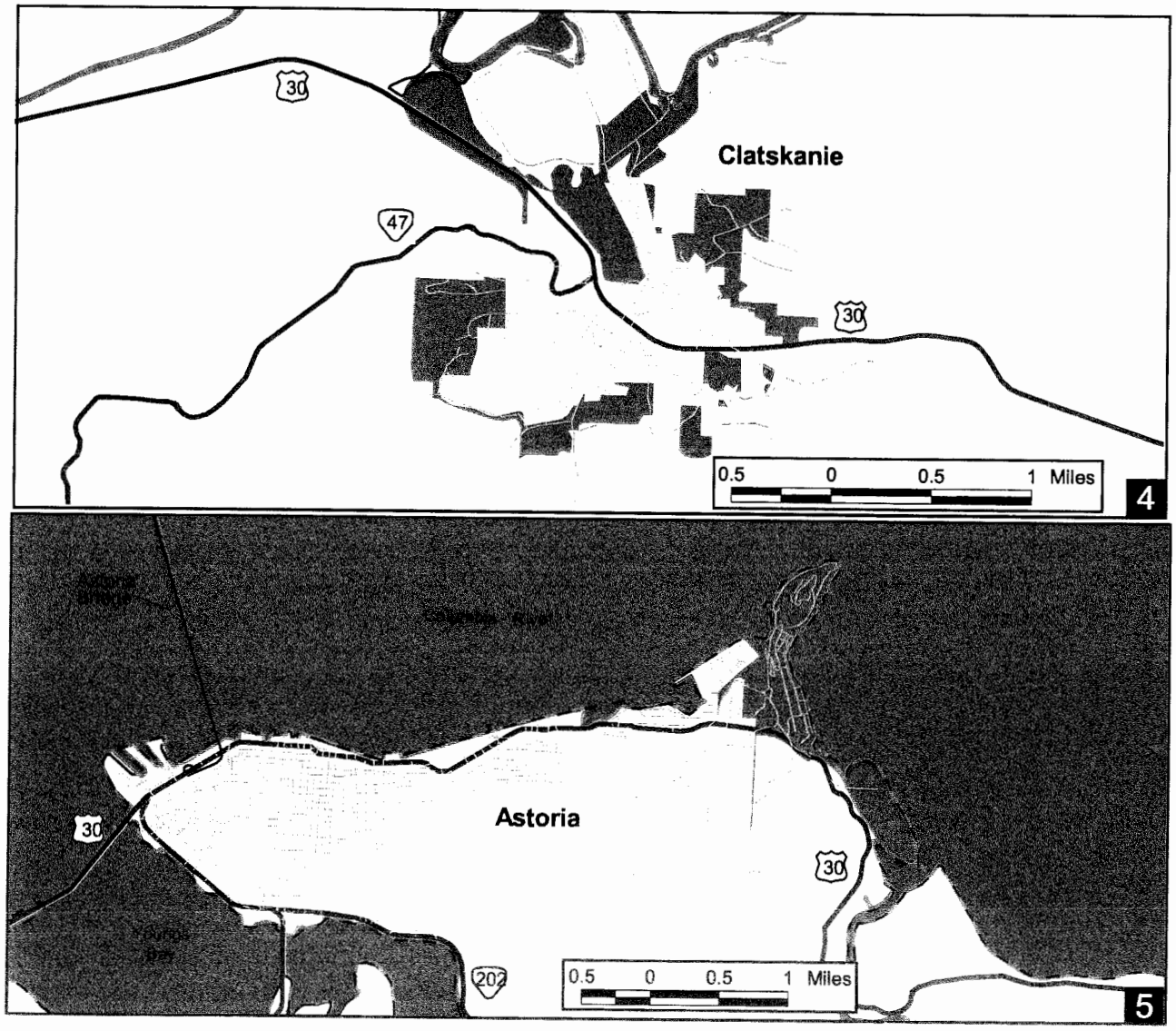
- Statewide Highway
- Local Roads
- City Limits
- Urban Growth Boundary





UGB Locations

Figure 6: Clatskanie and Astoria Urban Growth Areas Existing Conditions



Legend:

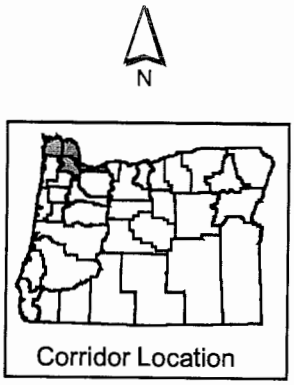
District Highway

Statewide Highway

Local Roads

City Limits

Urban Growth Boundary



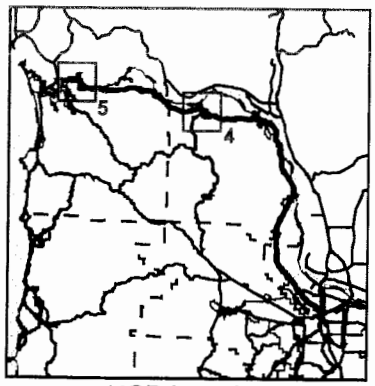
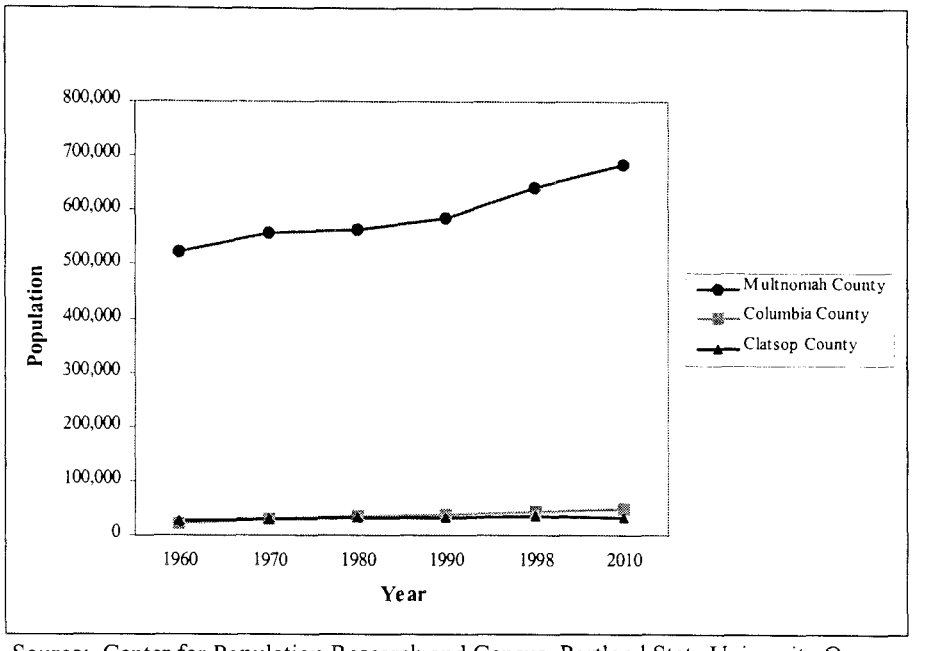
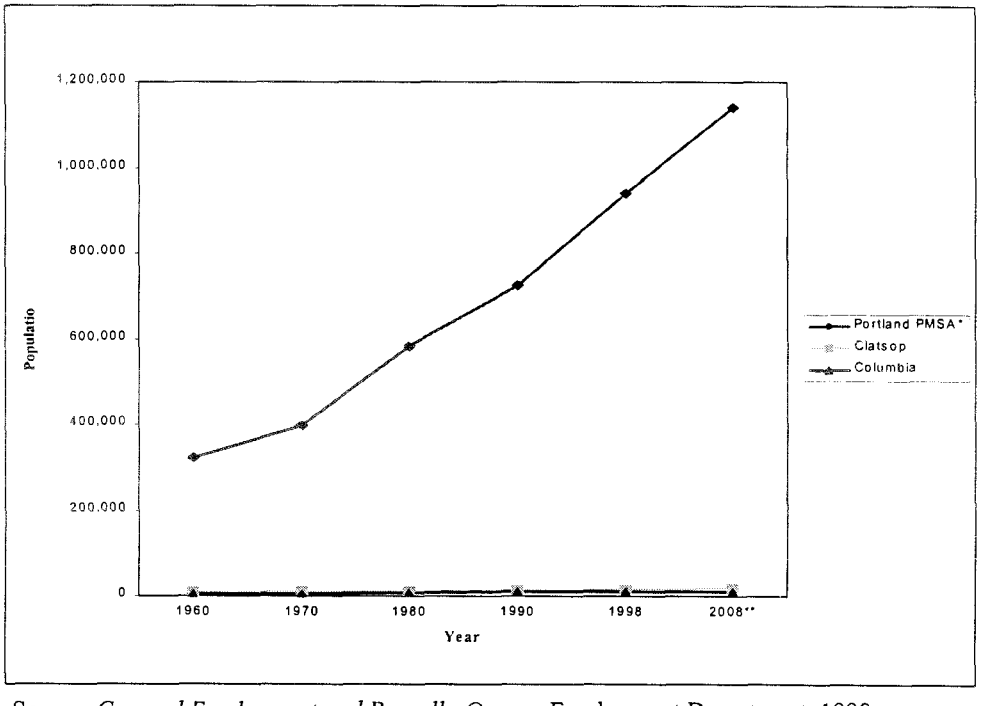


Figure 7: Historic and Projected Population



Source: Center for Population Research and Census, Portland State University Oregon

Figure 8: Historic Employment Trends



Source: *Covered Employment and Payrolls*, Oregon Employment Department, 1998.
* Preliminary estimate.
** Nonagricultural wage and salary employment. The data exclude the self-employed, volunteers, unpaid family workers, domestics, and persons involved in labor disputes. The figures only reflect employees covered by the Unemployment Insurance Program. Uncovered Workers make up 15 to 20 percent of the workforce.

Future growth will be governed in part by the success that basic industries, especially lumber and wood products and fishing, have in achieving some level of stability. Clatsop County will likely continue to benefit from people moving to the coast to retire. Ongoing growth in trade and services should foster job opportunities in these sectors of the coastal economy. Columbia County has experienced only a marginal benefit from tourism. Trade and service growth has been tied more to the increase in its population base. Because of its location near Portland, the County, particularly its southwestern portion, has been able to provide residents with alternative job prospects in adjoining labor markets when local employment opportunities have been limited.

In the rural portions of the Corridor, ODOT forecasts potential residential and employment growth based on areas that could possibly be developed within the next 20 years. The intent of Potential Development Impact Analysis (PDIA) is to compare and contrast actual (current) residential densities and the potential residential densities within rural areas expected at maximum (full) build-out, as allowed in county comprehensive plans and zoning ordinances (Figure 9). This analysis indicates the amount of traffic that might be generated, assesses how that traffic would impact US 30, and assists ODOT in making strategic decisions in response to that development (e.g., identify highway improvements, access management measures, etc.). Based on the PDIA analysis, projected growth should have minimal impacts on the highway. The analysis likely overstates the amount of traffic that will be on the highways due to assumptions in the methodology (e.g. it does not take into account natural features that make "vacant" land unbuildable). However, it does provide a worst-case scenario for congestion in the Corridor.

3.0 Transportation Facilities and Services

3.1 Highways

This Corridor follows the route of US 30 from its junction with I-405 in northwest Portland to its junction with US 101 in Astoria. US 30 is part of the National Highway System (NHS) and is a primary east-west route to the northern Oregon coast. It is designated as a Statewide Highway in the OHP, meaning that it provides connections to urban areas, ports, and major recreation areas not served by interstate highways. US 30 serves as a main arterial for six incorporated communities and a number of unincorporated communities. The highway connects to the Washington State highway system at Rainier (via the Lewis and Clark Bridge), Westport (via ferry to Cathlamet), and Astoria (via the Astoria-Megler Bridge). It also provides highway connections to the ports of Portland, St. Helens and Astoria on the Oregon side of the Columbia River and to the parts of Vancouver, Kalama and Longview on the Washington side.

For analysis purposes, the Corridor is split into seven segments, as follows:

- Segment 1 (MP 0.00 - 9.66) begins in downtown Portland at the junction of I-405 and ends at the northwestern corner of the Metropolitan Urban Growth Boundary/Portland City limits at milepost 9.66. This segment is nearly 10 miles long and is broken into two subsegments:
  - Subsegment A (MP 0.00 - 4.32) begins in downtown Portland at the junction of I-405. It ends at Kittredge Avenue, where the six-lane roadway changes to four lanes. This subsegment is approximately 4 miles long.
  - Subsegment B (MP 4.32 - 9.66) begins at Kittredge Avenue and ends at the Metropolitan Urban Growth Boundary/Portland City Limits; runs for approximately 5 miles.
- Segment 2 (MP 9.66 - 31.99) begins at the Metropolitan Urban Growth Boundary/Portland City Limits and ends at the northern Urban Growth Boundary (city limits) of Columbia City; approximately 22 miles long.
- Segment 3 (MP 31.99 - 48.67) begins at the northern Urban Growth Boundary (city limits) of Columbia City, passes through the City of Rainier, ending at the interchange to the Longview Bridge just west of the city. This segment is approximately 17 miles in length.

Figure 9: Potential Development Impact Areas (PDIA)
Existing Conditions

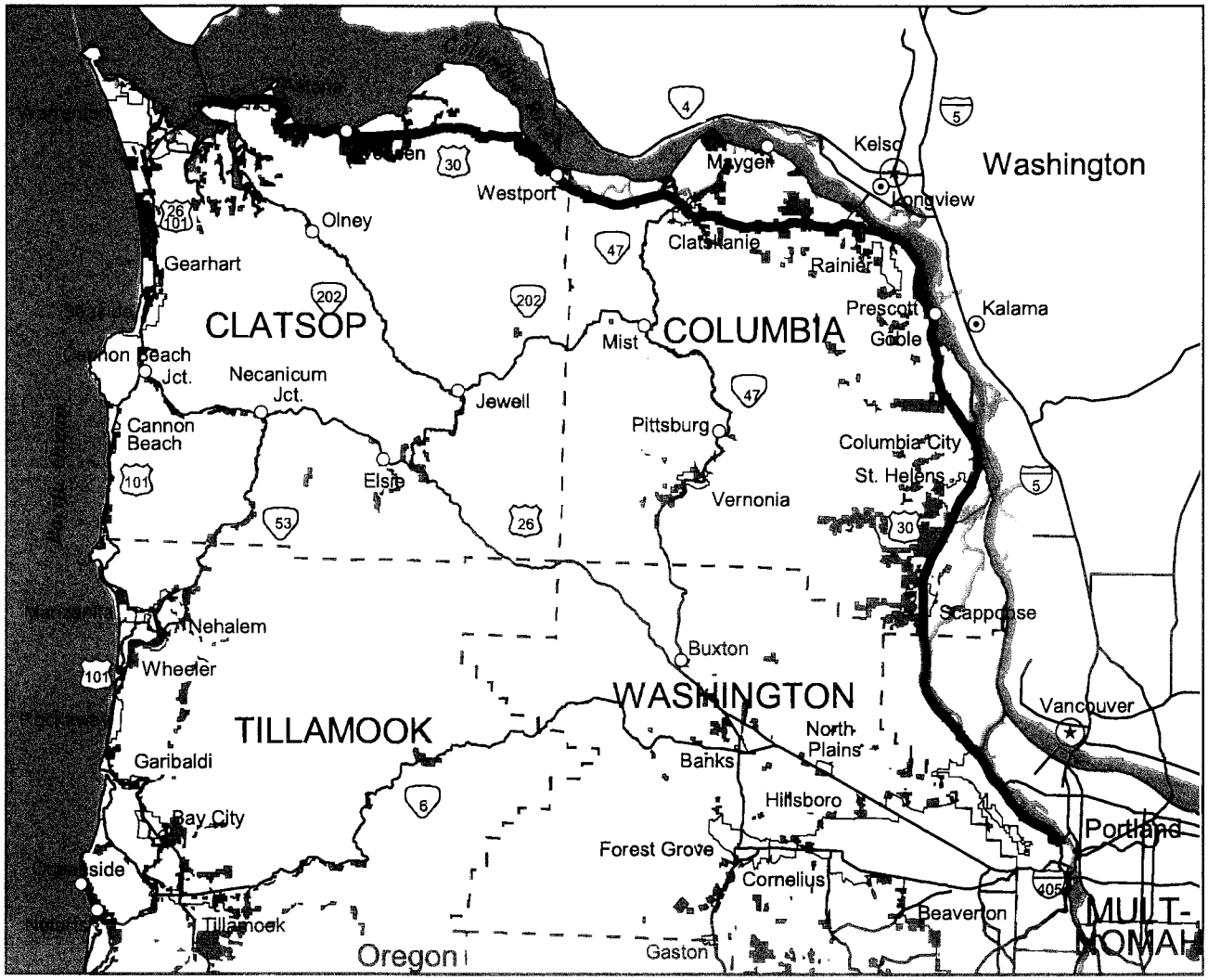
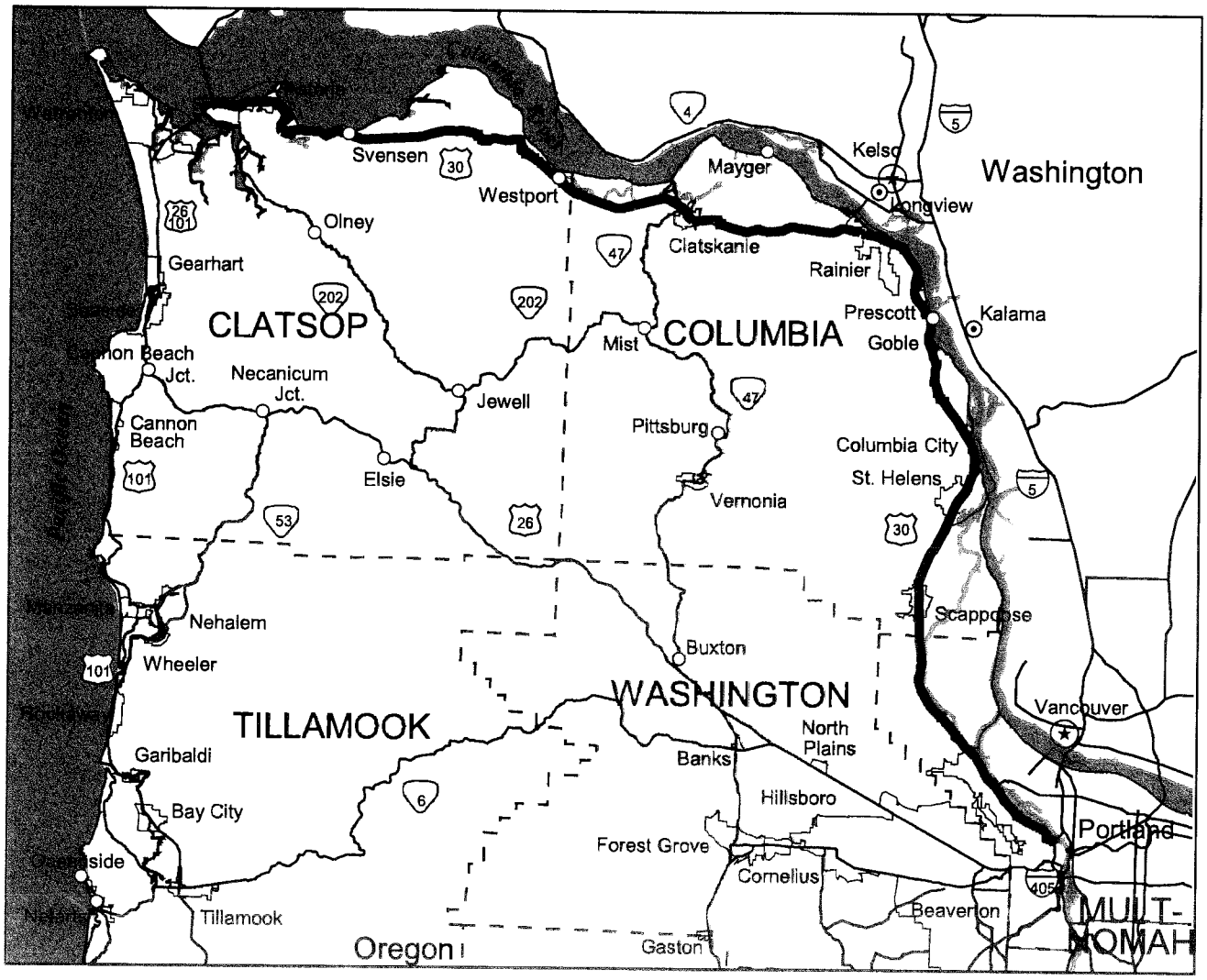


Figure 10: Highway Network Existing Conditions



Legend:

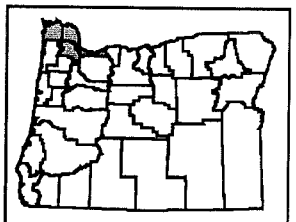
- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

N

4 0 4 8 Miles



Corridor Location

- Segment 4 (MP 48.67 - 63.00) begins at the interchange to the Longview Bridge and ends at the western Urban Growth Boundary of the City of Clatskanie. This segment is approximately 14.33 miles in length. The highway orientation changes from north-south to east-west at Rainier.
- Segment 5 (MP 63.00 - 82.01) begins at the western Urban Growth Boundary of Clatskanie and ends at Knappa Junction; approximately 19 miles long.
- Segment 6 (MP 82.01 - 92.54) begins at the Knappa Junction and ends at the John Day Bridge; approximately 10.53 miles long.
- Segment 7 (MP 92.54 - 99.34) begins at the John Day Bridge and ends at the junction of US 30, US 26 and US 101. It passes through the City of Astoria. This segment is approximately seven miles long.

3.2 Air Service

Four airports are located in the Corridor or contribute to regional air service: Astoria Regional Airport, Scappoose Industrial Airpark, Vernonia Airfield, and Portland International Airport. Astoria Regional Airport in Warrenton provides general and military aviation services. Although no commercial services are currently provided, commercial service has been sporadically provided in the past and could be restored in the future. The Scappoose Industrial Airpark provides general aviation services for business and personal uses and is the seventh busiest general aviation airport in the state. The Vernonia Airfield is a public airport and has a grass landing strip. The Portland International Airport (PDX) is located approximately 15 miles east of the eastern corridor terminus. Although PDX is outside the Corridor, it is noted here because of its influence over air travel throughout the state..

3.3 Bicycle System

Bicycle facilities consist primarily of roadways and shoulders shared with automobiles. Recreational, long-distance cyclists use US 30, while others may use it and parallel routes within the communities along the Corridor for local trips. In general, the first 36 miles of US 30 west from Portland have adequate shoulders for cyclists, while the remaining lengths have deficiencies, often over bridges or in areas of steep slopes.

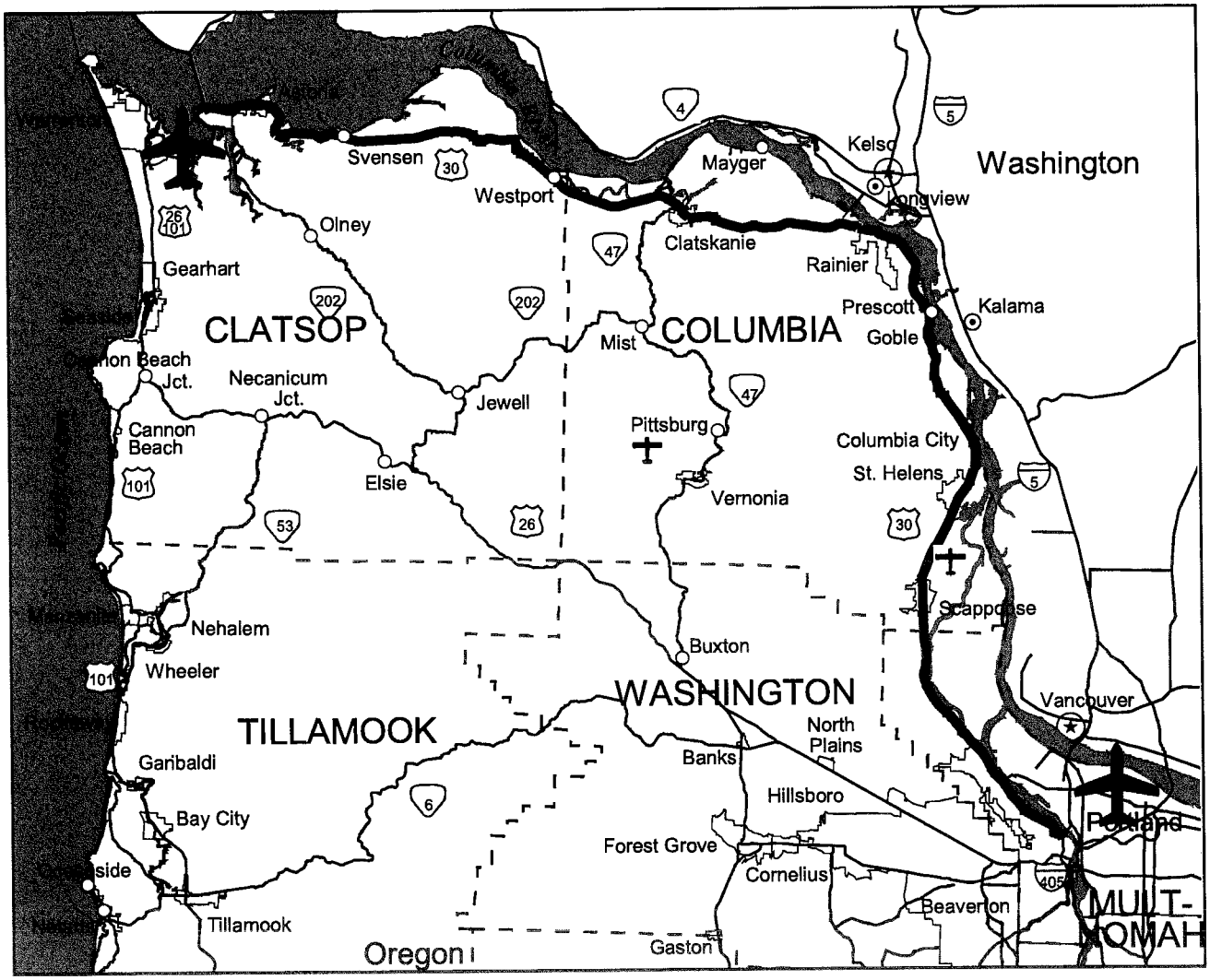
3.4 Pedestrian System

Pedestrian travel along the Portland-Astoria Corridor is concentrated within urban areas. Pedestrian uses in the cities of Rainier, Columbia City, and Clatskanie are affected by steep grades, a limited pedestrian network of sidewalks and paths, and the highway. The sidewalks are discontinuous and conditions vary depending on location in these cities. The City of Astoria has a fairly well integrated pedestrian system, especially along the urban portions of US Highways 30 and 101, the downtown core and on many of the local streets. Pedestrian systems are also relatively well-connected in Scappoose and St. Helens. Pedestrian crossing opportunities along US 30 can be limited in some locations by traffic volumes and speeds, e.g. Linnton area in Portland.

3.5 Transit Service

Transit services within the Corridor vary by location, with separate providers providing different levels of service in Multnomah, Columbia, and Clatsop counties. In Multnomah County, Tri-Met provides bus service along US 30 as far as Linnton and Sauvie Island. Countywide Dial-A-Ride service for the general public is available in Columbia County. Astoria's public transportation system is currently contracted through a private company providing wheelchair accessible minibuses and a demand response shuttle or dial-a-ride throughout Clatsop County. Hourly fixed-route and fixed-schedule service is provided between Astoria and Warrenton/Hammond, Cannon Beach and Seaside. Intercity bus service consists of one trip daily from Portland to Astoria (via I-5 to Kelso) in the morning and one trip daily from Astoria to Portland (via Kelso and I-5) in the mid-afternoon, provided by Pierce Pacific Stage Lines.

Figure 11: Airport Public Use Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

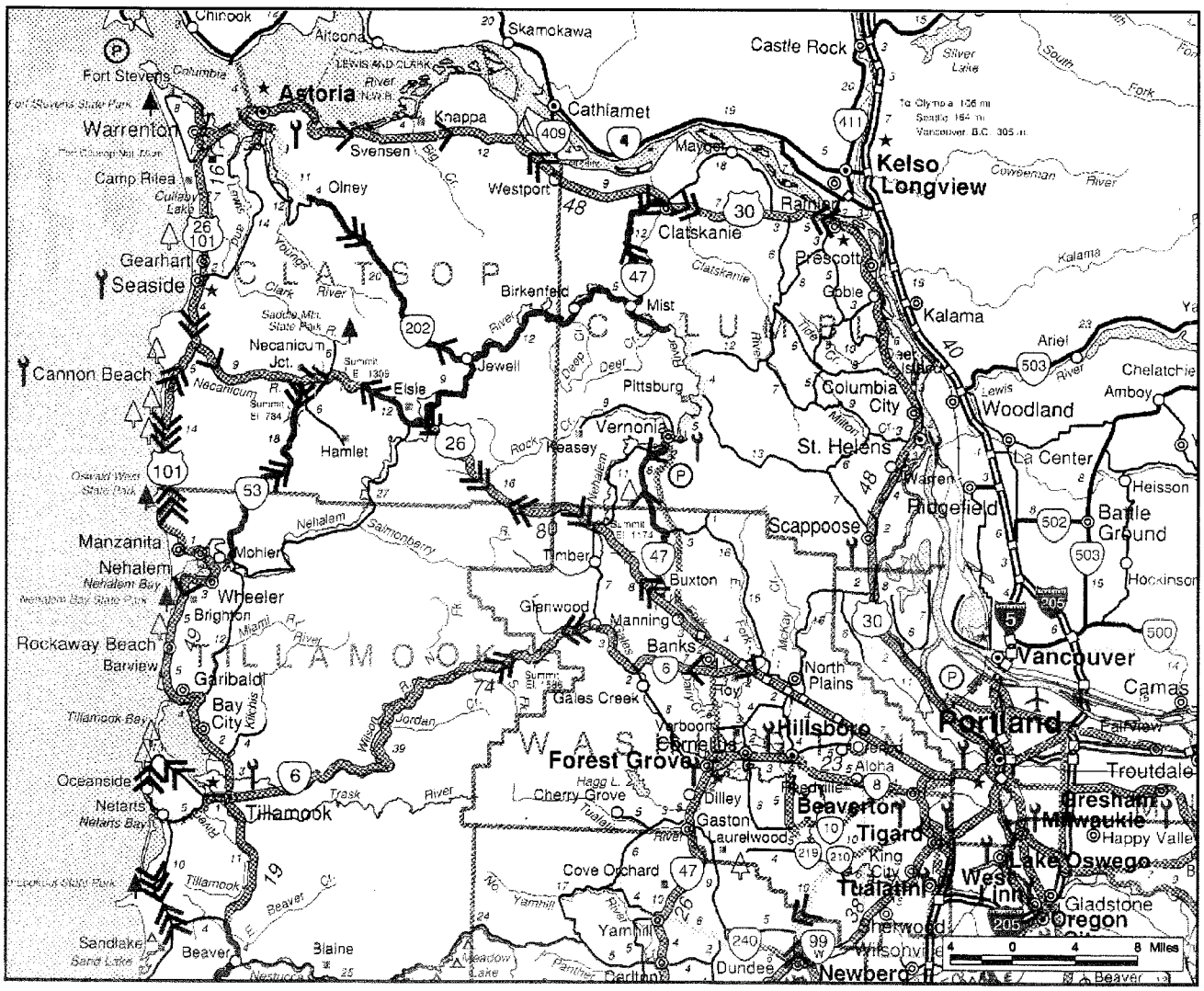
Washington State Locations

- County Seat
- Incorporated City

Airports

- Air Carrier Airport
- State Owned Airport
- Public Use Airport

Figure 12: Bicycle Existing Conditions



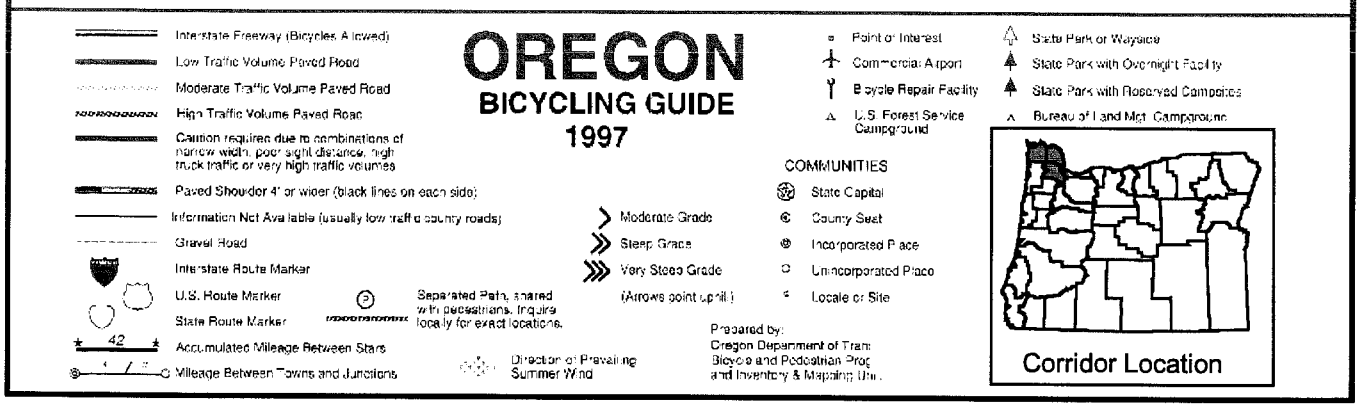
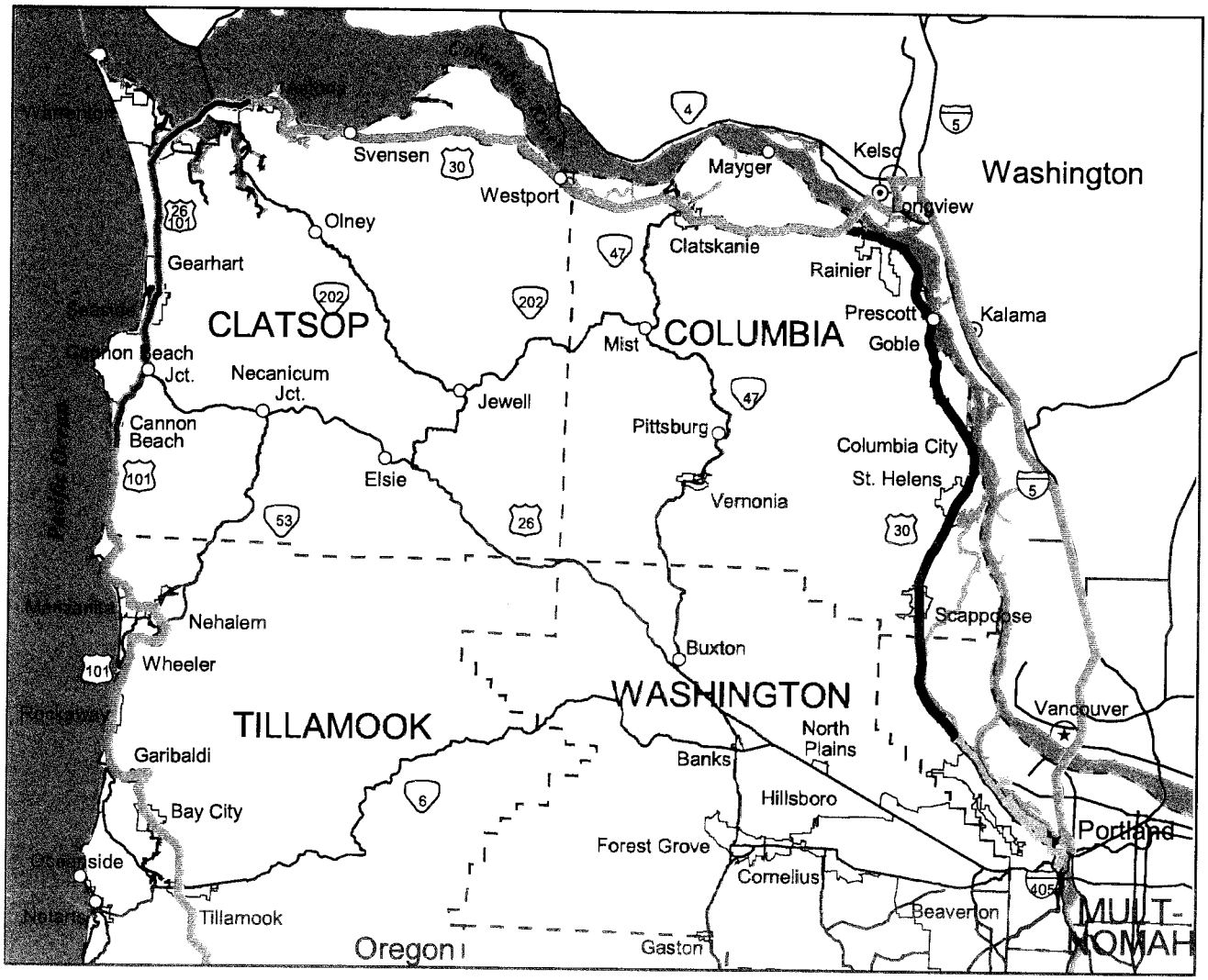


Figure 13: Transit Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

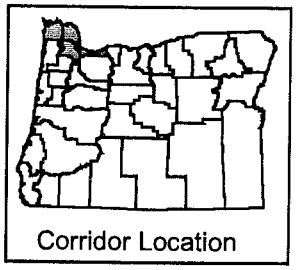
- County Seat
- Incorporated City

Bus Routes

- Sunset Empire Transportation
- Pierce Pacific Stages Inc
- Tri-Met Line #17

N

4 0 4 8 Miles



3.6 Rail Service

Rail service in the Corridor functions primarily as a conveyor of bulk goods to and from other transportation modes, such as ships or trucks. For comparison with truck freight, approximately six miles of train cars (600 total) are required to accommodate one full load of product from a typical class A cargo ship. Products hauled include chemicals, paper, pulp, lumber, wood chips, corn syrup, propane, fertilizer, and petroleum products. These products represent the most diverse rail-shipping base in Oregon. Freight rail service is provided on the Portland & Western (P&W) line, which runs along the Columbia River from Portland to Astoria. The track from northwest Portland to east of downtown Astoria is owned by P&W, with the right-of-way owned by ODOT. The remaining five miles of line is owned by the City of Astoria. Based on information obtained from P&W, the line currently handles 570 cars per month. P&W expects a seasonal increase of 200 to 300 cars per month in five years from aggregate materials shipped out of St. Helens. The shipping of aggregate is expected to begin in two to three years.

There is no passenger rail or commuter train service in the Portland-Astoria Corridor. A study of the potential for such rail services indicated that the lack of concentrations of population in the Corridor would probably make passenger services financially infeasible for the next 20 years.

3.7 Truck Freight

US 30 through the Corridor is designated as a Freight Route in the 1999 OHP. The trucking industry's main role is moving containers, steel, forest products, and petroleum for local distribution. For comparison with rail volumes, to accommodate one fully-loaded, class "A" cargo ship requires 2,400 semi-trucks, or 95 miles of trucks on the highway (assuming 150 feet between trucks). Truck traffic levels in the Corridor exceed the statewide average, most notably in Portland's northwest industrial district. Approximately 93 percent of the length of the highway carries over 500 trucks daily, while only 48 percent of state highways carry the same volumes.

The truck freight transportation system in the Portland-Astoria Corridor has not changed significantly over the past 20 years despite major changes in the region's economy. Recently, the decline in the forest products industry, which has historically been among the region's primary users of the freight transportation system, has affected the trucking industry. The agricultural industry is another prime user of truck freight.

3.8 Other Modes

"Other" transportation modes consist of waterborne travel, pipelines, and telecommunications. Figure 15 displays locations of waterborne transportation facilities and pipelines.

Water Transport

Waterborne freight provides a key function in moving goods through the Corridor. The Ports of Portland, St. Helens and Astoria are deep draft ports with rail and highway connections on the Oregon side of the Columbia River. Navigation channels, dams and locks provide vessel passage from the mouth of the Columbia River to its confluence with the Snake River. A shallow channel along the northern side of the river provides barge access, and a 600-foot-wide main navigation channel is approved for a 40-foot depth, but varies along the river. Several million cubic feet per year are dredged from the Columbia to maintain the 40-foot depth. The Army Corps of Engineers is currently pursuing funding from Congress to increase the depth to 43 feet to accommodate larger ships. The Port of Portland considers the dredging project to be critical to its future operations. Other ports along the river are also supportive of the project.

Figure 14: Rail Existing Conditions

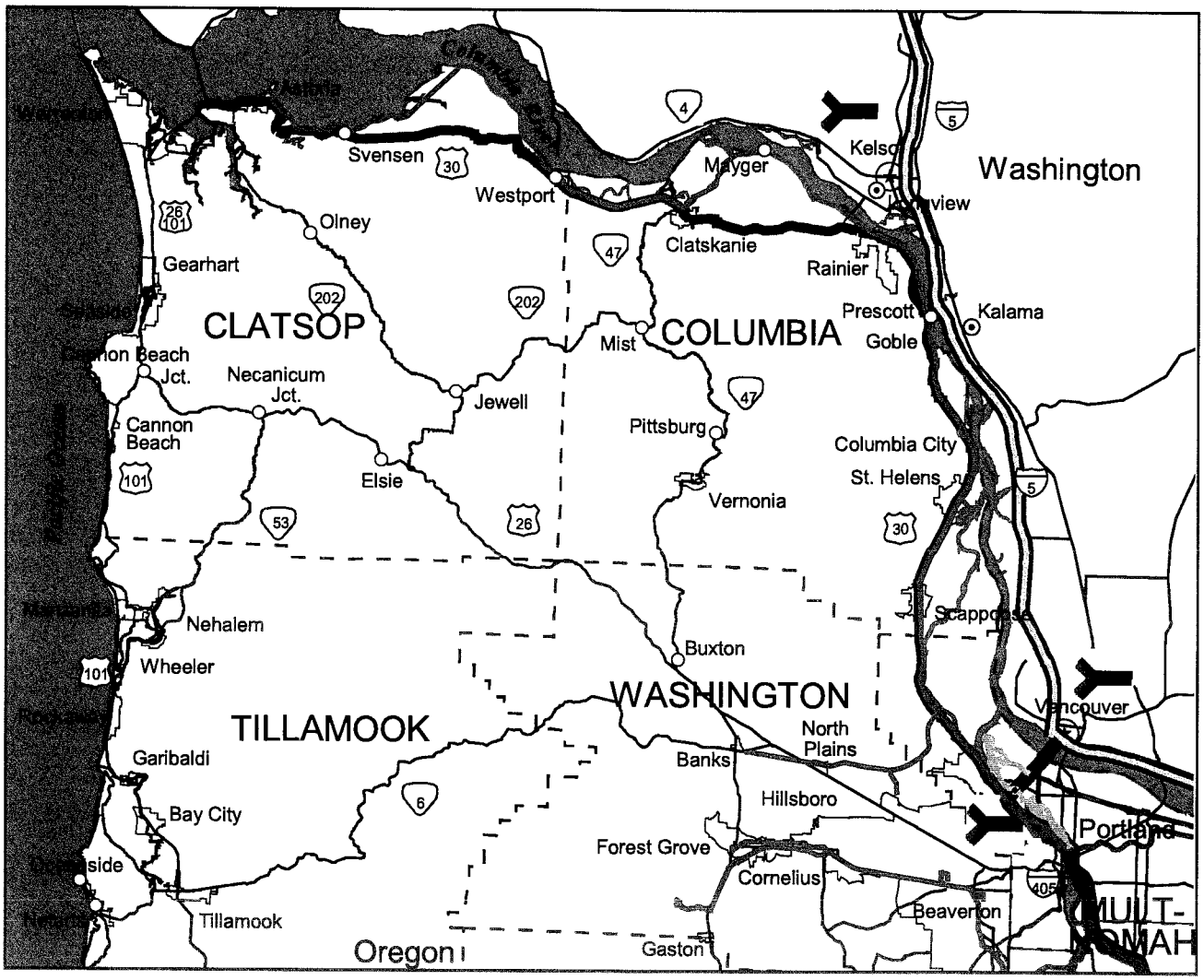
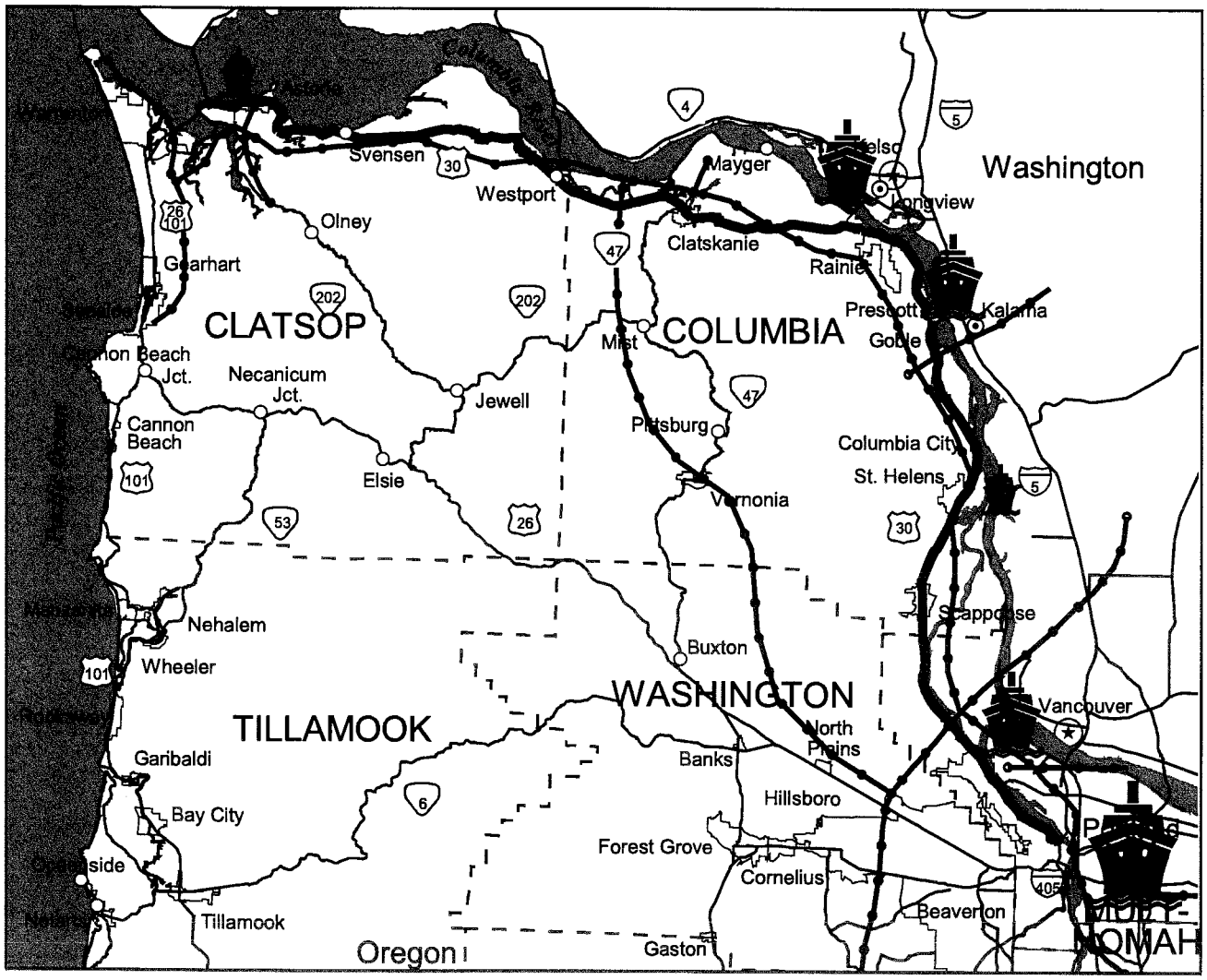


Figure 15: Pipelines and Water Transportation Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

Pipelines

- Gas Distribution

Marine Freight Facilities

- Over 10 Million Tons
- 3 - 10 Million Tons
- Under 3 Million Tons

N

4 0 4 8 Miles

Corridor Location

The volume of goods shipped is highest at port facilities in Portland (based on dollar value as well as gross tonnage), with grain from up-river ports accounting for the largest dollar amount. All of the ports in the Corridor receive more goods (also called "receipts") than they ship out ("shipments"). Petroleum products to up-river locations dominate shipments from Portland and local movements consist mostly of sand and gravel and petroleum. Goods received by the Port of Astoria include petroleum products, sand and gravel, and pulp and paper products, while most shipments are rafted logs. Oregon Slough barge movements mainly consist of receiving sand and gravel, with shipments of molasses and empty containers going up-river.

The Westport Toll Ferry links US 30 with Puget Island, which is connected to Washington State by Highway 409 and State Route 4, providing access to Cathlamet, Long Beach and Longview/Kelso.

Pipelines

A natural gas distribution line parallels US 30 from Portland to Astoria and there is a storage facility near Mist. The pipeline is operated by Northwest Natural.

Telecommunications

The existing telecommunications system in the Corridor consists of conventional local and long distance telephone services, owned primarily by GTE and US West, a wireless system providing digital and analog cellular phone service, and personal communications system (PCS). The companies providing wireless services are Airtouch Cellular, Sprint PCS, AT&T Wireless, Skytel, and Voicestream Wireless. Each provides slightly different coverage of the Portland-Astoria Corridor, as reception is impaired by the roadway alignment (curves) and by mountainous terrain.

4.0 Regional Connectivity

Regional Connectivity addresses connections between places as well as between modes. US 30 provides a key link between the north coast of Oregon and destinations to the north and east, such as Portland and Seattle (US 26/101 goes to Astoria also). Major connections are made at several points, such as at Rainier to Longview, Washington and to the I-5 Corridor; at Clatskanie to Highway 47 and central Columbia County; and at Astoria with US 101 and 202, which connect to the Washington and Oregon coasts and central Clatsop County. The Longview-Rainier (Lewis & Clark) Bridge connects US 30 with I-5, providing a major alternative route between Portland and Longview/Rainier. The Westport Toll Ferry links US 30 with Puget Island, which is connected to Washington State by Highway 409 and then State Route 4, providing access to Cathlamet, Long Beach and Longview/Kelso. In addition, the St. John's Bridge connects US 30 and the north Portland industrial area. Economic activity is heavily dependent on the Corridor for both shipping of goods and commuting by employees.

With respect to the connectivity between communities in the Corridor, some are more thoroughly integrated than others. Linnton is a relatively isolated neighborhood in Portland, separated from other residential areas by industrial lands and the river. Given the number of commuters, Scappoose and St. Helens have good ties to the Portland metro area. The proximity of Scappoose and St. Helens means they are also relatively interconnected. Prescott, with such a small population (under 100) is dependent upon Rainier for most of its services. (The same relationship exists between St. Helens and Columbia City, given that St. Helens is several times larger.) Rainier and Clatskanie probably better connect with the Kelso/Longview community, evidenced by the fact that Rainier participates in the Longview-Kelso-Rainier Metropolitan Planning Organization (MPO) which has its own Metropolitan Transportation Plan. Communities west of Clatskanie relate most closely with Astoria, the Long Beach Peninsula, and the north Oregon coast. Astoria is more connected to north coast communities, such as Warrenton and Seaside, than to other Corridor communities.

With respect to connectivity between modes, the Portland-Astoria Corridor is one of the most multi-modal corridors in the state, with roadway, rail, and water systems transporting people and goods along the length of the Corridor. Intermodal freight facilities exist at the major ports in Astoria and St. Helens. Freight can be transferred between trucks, trains, and water transportation at the ports of Rainier, Longview, Kalama, St. Helens and Portland.

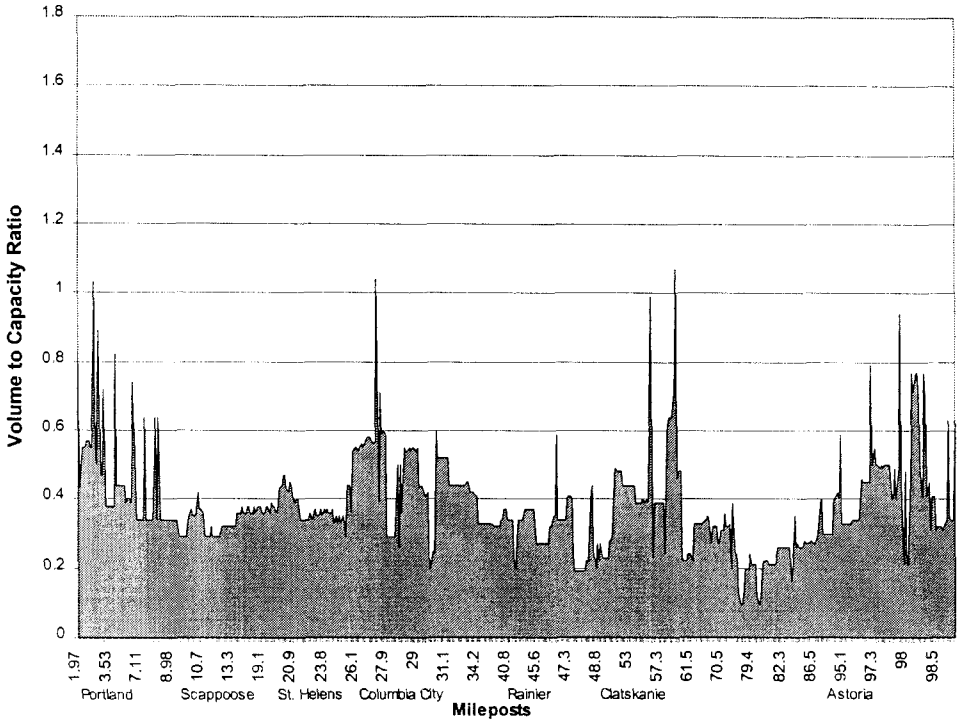
5.0 Congestion

Congestion can occur regularly in several segments of the Corridor, with much of it concentrated at specific locations. In urban areas, congestion is typically related to peak period travel, which includes commuting and trips related to commercial and recreational activities. The rural portions of the Corridor can be congested in areas in which there are turning movements as well as in areas in which the vertical geometry of the road slows truck traffic and recreational vehicle traffic.

Figure 16 shows the volume to capacity ratios for the Corridor by milepost. Volume to capacity ratios indicate how many vehicles are using the road, compared to the maximum number of vehicles the road is designed to handle. The v/c ratio is expressed as a fraction in the following way: if a road is designed to carry 100 cars per hour, and 60 cars per hour use the road, then the v/c ratio is 0.60, indicating excess capacity. If 110 cars use the road, then the road is over-capacity at 1.10. Therefore, the larger the fraction, the busier the road. As a policy issue, the OHP establishes maximum v/c ratios for different roadway classifications. An efficient road network is one that operates below the maximum. Congestion occurs when the v/c ratio exceeds the established standard for the classification and location of the roadway. In the case of US 30, the new standards range from a v/c ratio of .70 outside Urban Growth Boundaries to 0.95 within the Portland metropolitan area. As the chart in Figure 16 shows, there are three areas of congestion in the Corridor--the Portland urban area (approximately MP 2), St. Helens (MP 26), and Clatskanie (approximately MP 60)--where the v/c ratio exceeds 1.0. There are other areas of somewhat high congestion (over 0.80 v/c) in the Portland, Clatskanie and Astoria urban areas. Since higher v/c ratios do not continue for great distances in the Corridor, i.e., are represented by spikes more than bars, the graph indicates that problems are due to difficulties at specific "choke" points, rather than overall volumes on US 30.

Travel time for the length of the Corridor was 145 minutes for cars in 1995 and 191 minutes for trucks. Travel time per mile is high at the east end in Portland, ranging from 2.4 minutes per mile through the industrial area northwest of I-405, to 1.8 minutes per mile in the rural portions near St. Helens (segments 5 and 6). Travel time is highest at the west and east ends of the Corridor. In Astoria, the average is 3.1 minutes per mile, and in the industrial area northwest of I-405, it is 2.4 minutes per mile (ODOT, 1995).

Figure 16: Corridor Congestion, 1996 Volume to Capacity Ratios (Annual Average Daily Traffic)



Source: ODOT HPMSAP data, 1996.

6.0 Roadway Conditions and Safety

US 30 is classified as a Statewide Highway in the 1999 OHP. The OHP identifies minimum tolerable conditions (MTCs) for lane width and shoulder width for statewide highways such as US 30 According to the OHP, the minimum lane width should be 11 feet in urban sections and 12 feet in rural sections, with a minimum of 6-foot shoulders.

According to ODOT's Pavement Management Section, approximately 28 percent of US 30 did not meet the minimum standards for travel lane widths and paved shoulders in 1996. There are also several segments of highway with substandard vertical and horizontal alignments, resulting in delays due to slow moving vehicles and reduced safety in those segments.

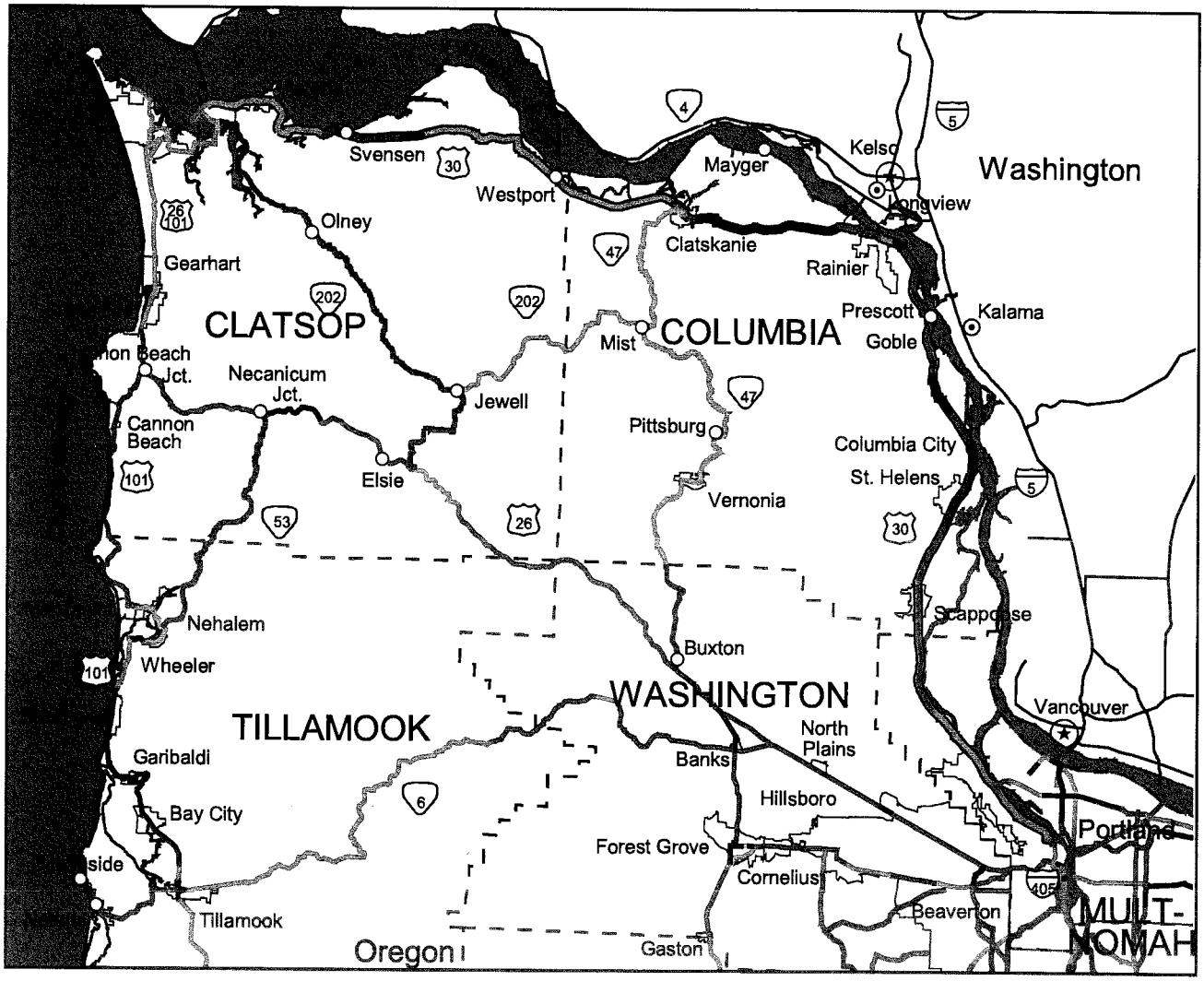
The OHP calls for improving and maintaining pavement surface to fair or better condition. General roadway conditions are summarized in Table 1 below. In addition, Figure 17 shows the pavement conditions for US 30, rated by the Pavement Management Section of ODOT in 1996. Only 48 percent of the highway met the standard for pavement conditions at that time. This figure illustrates a snapshot in time and does no show the exact conditions today. This is because roadway conditions are in a continual state of flux, with ODOT performing maintenance and the pavement deteriorating over time. ODOT has identified sections on US 30 that will need payment overlays in the next 20 years, and these are identified as projects (solutions) in Section III. In addition, six sunken grade areas have been identified where the roadway surface needs to be repaired.

Table 1: General Roadway Conditions and Safety by Corridor Segment

Segment Number	Roadway Condition (% of Segment)*	Accident Rate per MVMT**	Number of Lanes (% of Segment)
Segment 1 MP 0.00-9.66	Good: 5 Fair: 85	1.55 (Segment 1A) 0.72 (Segment 1B)	4 lanes (99.2) 5 lanes (.8)
Segment 2 MP 9.66-31.99	Good: 56 Fair: 16 Poor: 28	0.47 (Segment 2A) 1.41 (Segment 2B)	4 lanes (100)
Segment 3 MP 31.99-48.67	Very Good: 26 Good: 68 Fair: 6	0.66 (Segment 3A) 1.74 (Segment 3B)	2 lanes (86) 3 lanes (7) 4 lanes (7)
Segment 4 MP 48.67-63.00	Very Good: 74 Good: 26	0.62	2 lanes (77) 3 lanes (21) 4 lanes(2)
Segment 5 MP 63.00-82.01	Very Good: 1 Fair: 99	0.42	2 lanes (74) 3 lanes (21) 4 lanes (4)
Segment 6 MP 82.01-92.54	Very Good: 13 Good: 55 Fair: 15	0.49	2 lanes (86) 3 lanes (14)
Segment 7 MP 92.54-99.34	Fair: 100	0.72 (Segment 7A) 2.45 (Segment 7B)	1 lanes (4) 2 lanes (14) 4 lanes (82)

*Totals in Segment 1 and Segment 6 do not total 100% because two sections (equal to 10% and 17% of the segments' lengths, respectively) had no data.
**MVMT=Million Vehicle Miles Traveled, data is from *Overview of Statewide Corridors*, 1996.

Figure 17: Pavement Conditions (1996)
Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

Pavement Condition

- Very Good
- Good
- Fair
- Poor
- Very Poor

N

4 0 4 8 Miles

Corridor Location

Figure 18 displays shoulder conditions for US 30 based on a 1998 survey. The figure provides a graphic depiction of areas that would be easier or more difficult to bring up to standards.

Another concern in the Corridor is seismic retrofitting of bridges. The ODOT Bridge Engineering Section has evaluated the structures in the Corridor and determined that 10 structures are in need of seismic retrofits. Retrofitting consists of two main types: either connecting bridge superstructure elements such as beams and decks to their supporting members (Phase 1), or strengthening substructure elements, such as crossbeams, footings or pilings (Phase 2). Bridges in the Corridor were determined to be eligible for either Phase 1 or Phase 2 or both types of seismic upgrading. Two structures, Goble Creek Bridge and Wauna Interchange, are eligible for Phase 1 upgrading only. Five bridges are eligible for Phase 2 upgrading only: Longview Interchange, Beaver Creek, Lost Creek, overcrossing of Swedetown County Road, one unnamed (#01740 at MP 13.19). Three bridges are eligible for both types of upgrading: Tide Creek, Sauvie Island Partial Viaduct, and John Day River. ODOT and WDOT are currently evaluating replacement or retrofitting of the existing Lewis and Clark Bridge connecting Rainier with Longview with a $200 million, four-lane toll bridge.

The overall safety along the Portland-Astoria corridor is adequate, with the exception of a few areas which have either accident or fatality rates that exceed statewide averages. Segment 3B, from Deer Island to the Longview Bridge, has a rural accident rate of 1.74 accidents per million vehicle miles of highway traveled, which is twice the statewide average of 0.87. All other sections of the Corridor have accident rates less than the statewide average.

Several sections of US 30 have highway fatality rates exceeding the statewide average. These sections include Segment 1A from the I-405 interchange in Portland to Kittredge Avenue, Segment 4 from the Longview Bridge to the urban growth boundary in northern Clatskanie, and Segment 7B from the John Day Bridge to Smith Point in Astoria.

The ODOT Traffic Management Section collects and analyzes accident data through its Safety Priority Index System (SPIS). The SPIS system makes it possible to compare accident sites statewide to accident rates and levels of severity. For purposes of the SPIS system, intersections or sections of roadway which have a SPIS which falls within the top 10 percent are identified as problem locations which warrant further study to look for ways to reduce the number or severity of accidents. Figure 19 shows SPIS sites in the top 15 percent for accidents and the number of crashes experienced during a three-year period for segments of US 30. The greatest number of accidents occurs in urban areas, as opposed to rural areas of the Corridor, primarily Portland, St. Helens, and Astoria.

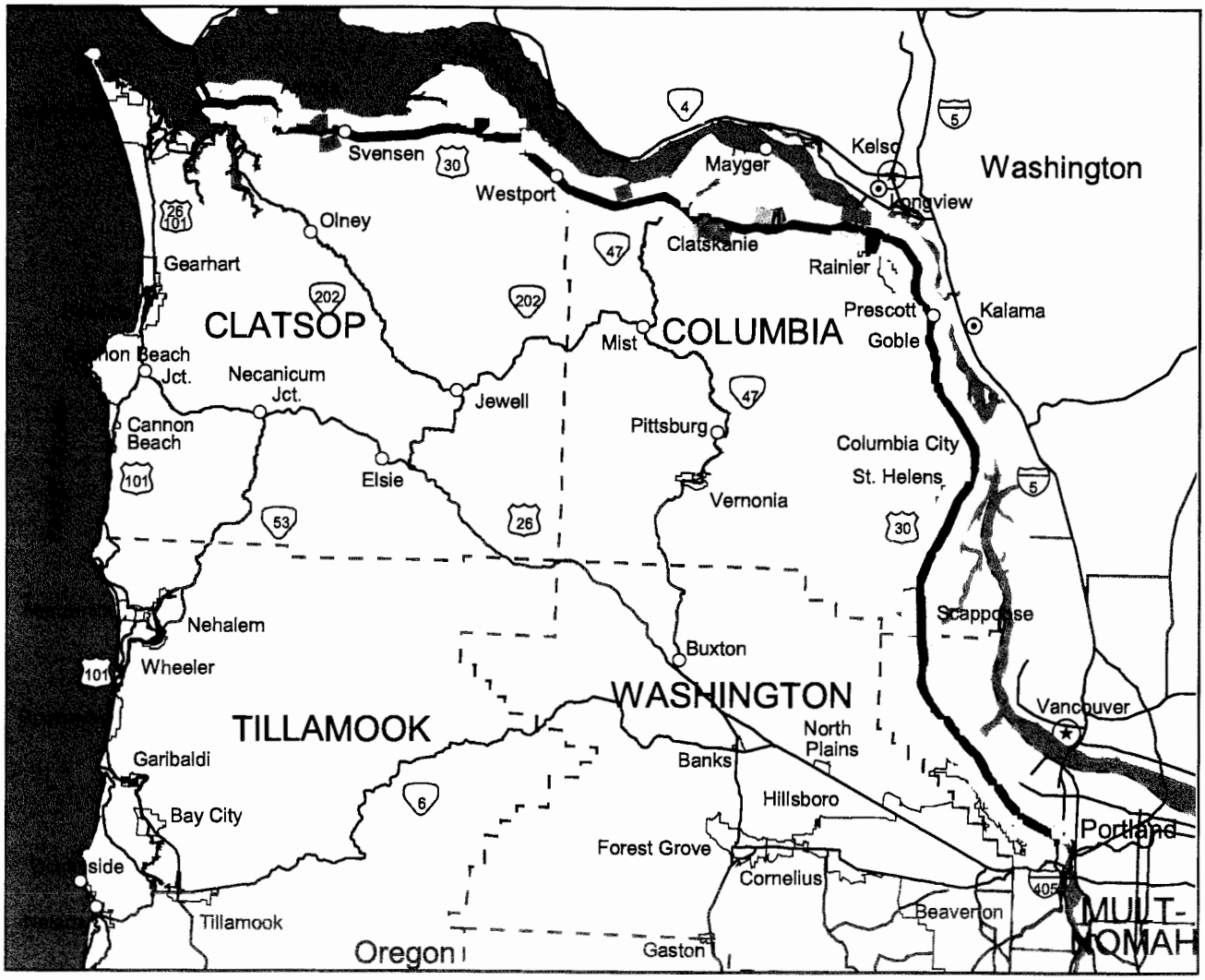
7.0 Environmental and Energy Impacts

Corridor Plan policy direction and implementation solutions must take into consideration potential impacts on the environment and energy. Full consideration of potential environmental impacts are beyond the scope of this Corridor Plan.

The rural portions of the Corridor are lightly developed and environmental issues are most closely linked to land management practices such as logging and adequacy of culverts for fish access. In the urban areas, environmental issues are associated with urban development, including the transportation system.

Environmental and scenic resources in the Corridor include: several parks, such as Forest Park; numerous wetlands supporting waterfowl, other wildlife and some rare plant communities; many fish-bearing creeks and streams; bald eagle nests and Columbia white-tailed deer habitat; extensive freshwater tidal marshes and old-growth Sitka spruce swamps in Segment 6 ; a viewpoint overlooking the Columbia River near the Longview Bridge; and expansive views of the Columbia River throughout Segment 4. US 30 provides access to numerous wildlife refuges, boat launches and scenic areas long the lower Columbia River.

Figure 18: Shoulder Quality Existing Conditions



Shoulder improvement Categories

Only cleaning of the pavement is required (remove gravel, debris).

Some additional pavement required.

Some fill and pavement required.

Substantial fill and/or retaining wall required to widen shoulder to 5 ft.

Substantial fill and/or retaining wall and additional pavement and roadside drainage work required.

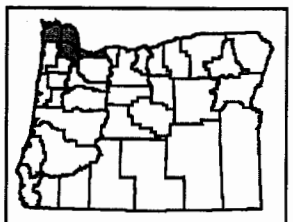
The shoulder is up against a cliff that would require excavation of the cliff and retaining wall.

The shoulder is up against a guardrail and a steep drop-off requiring an enormous amount of fill and/or a retaining wall and moving the guardrail.

The location is on a bridge or in a tunnel with narrow sidewalks. Mitigation is unrealistic.

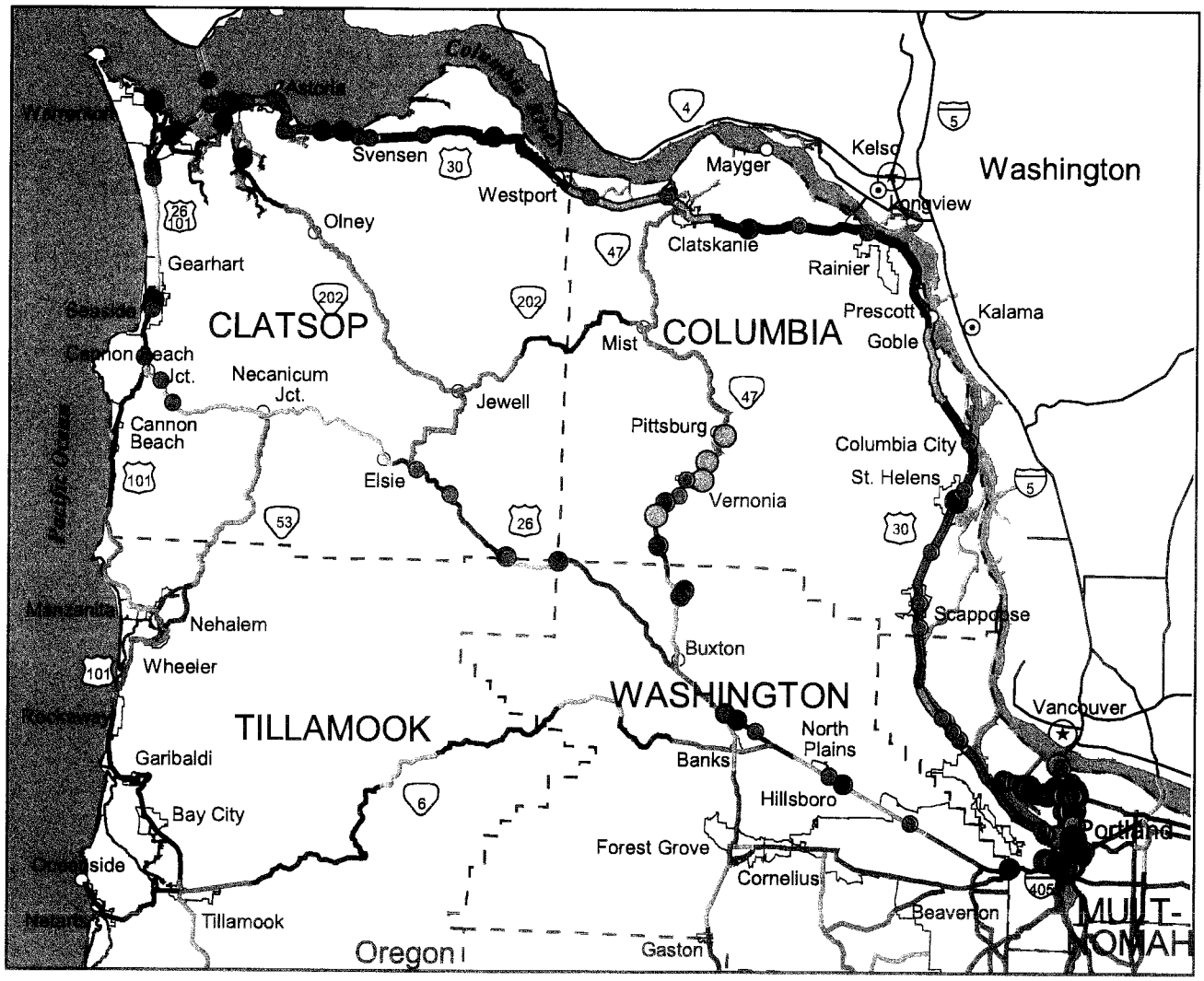
N

4 0 4 8 Miles



Corridor Location

Figure 19: Safety Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

SPIS (1992-1995)

- 57.34 - 77.93
- 46.87 - 57.34
- 39.99 - 46.87
- 34.09 - 39.99

Crashes per Segment

- 0
- 1 - 2
- 3 - 5
- 6 - 9
- 10+

N

4 0 4 8 Miles

Corridor Location

Highway facilities affect water quality principally through pollutant loading in surface runoff from paved surfaces. There is also the potential for contamination of surface and groundwater from accidental spills of motor vehicle fuels or hazardous or toxic cargoes. In urban areas, the deterioration of water quality and impacts on volumes of runoff are associated with both urban development and transportation. Water quality and quantity are key components of the proposed State salmon enhancement programs. As noted previously, US 30 crosses several streams and runs parallel to Columbia River for most of the Corridor.

The *Natural Resource Environmental Assessment for Highway 30, Portland to Astoria* (Oregon Department of Fish and Wildlife, 1996) identifies several areas with moderate to severe water quality conditions or issues. Near MP 6, water quality and contaminated soils are major issues. Part of this area near Doane Lake is a Superfund cleanup site. Water quality conditions in the lower Willamette River and Multnomah Channel are considered severe. In Segment 2, Scappoose Creek and Milton Creek are identified as having severe water quality conditions. In Segments 3, 4, and 6 the following resources have moderate water quality problems: Tide, Merrill, Beaver, Big, and Little creeks and the Clatskanie River.

The MPO portions of the Corridor are subject to a number of air quality standards. The Portland metropolitan area has historically been a non-attainment area for air quality under the Clean Air Act. The previous designation as a Maintenance Area under the state's air quality implementation program (SIP) was changed in 1997 to an Attainment Area for ozone and carbon dioxide. The Oregon Department of Environmental Quality (DEQ) is overseeing the maintenance plan for the Portland area.

With respect to impacts on energy use, it is noteworthy that the last transportation fuel shortage was 20 years ago. Since that time, two trends have affected the demand for transportation related energy. First, the average consumption of energy by vehicles has declined due to better fuel economy. However, this trend has been offset by the increase in average annual vehicle miles traveled and in the total number of vehicles. In the rural portions of the Corridor, there are currently few alternative modes to the auto available. In the urban portions of the Corridor, on the other hand, more varieties of alternative modes are available for use, providing opportunities for more energy-efficient modes of travel. Given trends, it is assumed that total transportation-related energy consumption in the Portland-Astoria Corridor is increasing.

8.0 Social and Land Use Impacts

Land uses in the Corridor generally consist of undeveloped rural areas between incorporated towns or unincorporated rural centers. There are several incorporated and unincorporated residential areas along US 30, interspersed with forested hills and low-lying areas. An archaeological predictive model (1997) addresses known archaeological resources, as well as the potential of each segment to yield archaeological materials. The segment descriptions below include the probability rating that resulted from the archeological investigation.

Land uses are summarized below by segment:

- Segment 1 in the Portland metropolitan area and Multnomah County is the most urbanized portion of US 30, including residential, commercial and heavy industrial uses. Within the first half of this segment, uses are split approximately half residential, one-quarter industrial, and the remaining commercial. The segment begins in the heavy industrial area of northwest Portland, and passes through the small neighborhood of Linnton at approximately milepost 8. Residential development in Linnton has tended to cluster on the southwest side while commercial development is located on the northeast side. A separate transportation study for Linnton looked at existing conditions for pedestrian, transit and bicycle circulation and how it was affected by the use of US 30 for through-highway and industrial traffic. The study concluded that improved

amenities for these modes were needed, in addition to improvements for industrial traffic. The predictive model indicated a medium probability rating for this segment.

- In Segment 2, the highway passes through the unincorporated communities of United Junction, Burlington, and Warren. Scappoose, St. Helens, and Columbia City are incorporated cities in this segment. Land uses outside of these cities are primarily forest and farm land, with some isolated rural residential areas. One exception is just outside of Scappoose where there are several industrial and commercial areas. The cities of Scappoose and St. Helens are the activity centers for this segment, having the largest populations. The Port of St. Helens provides access to shipping on the Columbia River. Segment 2 contains seven prehistoric archaeological sites, several historic sites and trails, and several cemeteries, and received a high probability rating.

- Apart from the cities of Prescott and Rainier, and the unincorporated rural communities of Goble, Deer Island, and Lindberg, Segment 3 contains mostly forest and farmlands. The Lewis and Clark Bridge provides access to Washington State just west of Rainier. The Trojan Nuclear Plant, at milepost 42, has been decommissioned. Forty-one percent of this segment received a high probability rating for finding cultural or historical sites, one-half received a low probability rating and two received a medium rating.

- Segment 4 of the Corridor consists mostly of farm, pasture, and forest land, apart from a few isolated rural centers (Alston Corner and Delena) and the city of Clatskanie. Forty-three percent of the segment received a high probability rating for cultural or historical sites. The historical "Flippin Castle" in Clatskanie is now a home for seniors. This segment contains the steepest slopes in the Corridor, and has corresponding expansive views of the Columbia River from US 30. This segment had a high probability rating for 29 percent of the segment, medium probability for 64 percent, and low for 17 percent.

- Segment 5 contains a combination of rural uses, including farm, forest and pasture lands as well as unincorporated rural residential areas, such as Westport and Knappa Junction (where the segment ends). There are two major industrial sites outside urban areas, a pulp and paper mill at Wauna, west of Clatskanie and the Portland General Electric Beaver turbine generating plant at Port Westward. The Columbia River Toll Ferry at Westport provides access to the river and to Cathlamet, in Washington State. The Julia Butler Hanson National Wildlife Refuge encompasses 4,757 acres on islands in the Columbia River. Segment 5 received a high probability rating for 68 percent of the corridor segment, and a low probability rating for the rest. Two cemeteries are found in this segment.

- The Knappa Junction area at the beginning of Segment 6 has commercial development on both sides of the roadway. Other unincorporated areas with residences include Svenson and Fern Hill. However, the main land use is forest land, with the Lewis and Clark Wildlife Refuge on the north side of US 30 and the Clatsop State Forest on the south. Segment 6 received a high probability rating for 33 percent of the segment, and low rating for the remainder.

- Segment 7 is primarily an urban area containing Astoria's city center and urban residential, commercial and industrial areas. Astoria is the center of economic activity for the northern Oregon Pacific coast. The Astoria-Megler Toll Bridge links Astoria with the Washington State southern coastal areas. Cultural attractions in Astoria include the Columbia River Maritime Museum, the Heritage Museum, Flavel House, the Uppertown Fire Fighters Museum, and the Astoria Column. Segment 7 received a high probability rating for 68 percent of its length, a medium rating for 13 percent, and a low rating for 19 percent.

Land development within the Portland Metro UGB is controlled by the Regional Framework Plan, the Urban Growth Management Functional Plan, the Regional Transportation Plan, and the comprehensive plans of Multnomah County and the City of Portland. The City of Rainier is a member of the Longview/Kelso/Rainier

Metropolitan Planning Organizaton and transportation planning is controlled by the Metropolitan Transportation Plan, updated in 1997.

Land uses in the rural areas are predominantly farm-related or forestry and controlled by the comprehensive plans of Multnomah, Columbia, and Clatsop counties. Land uses in the cities along the Corridor are controlled by their respective comprehensive plans. There are some areas of rural residential development in unincorporated areas that also have limited commercial services. Land uses within the rural areas tend to have direct highway access and there are no local road systems of any significance that could be used as alternative parallel routes.

9.0 Economic Impacts

Primary economic uses of the Portland-Astoria Corridor include access to employment centers, freight movement, and recreational travel. Shipping is the major economic force in the Corridor. The Ports of Astoria, St. Helens, and Portland are major contributors to the economy of the Corridor, receiving imports of both consumer and primary products, and providing a conduit for goods moving from up-river to international ports. Recreation is also an important contributor to local economies in the Corridor, and one which local jurisdictions are seeking to expand.

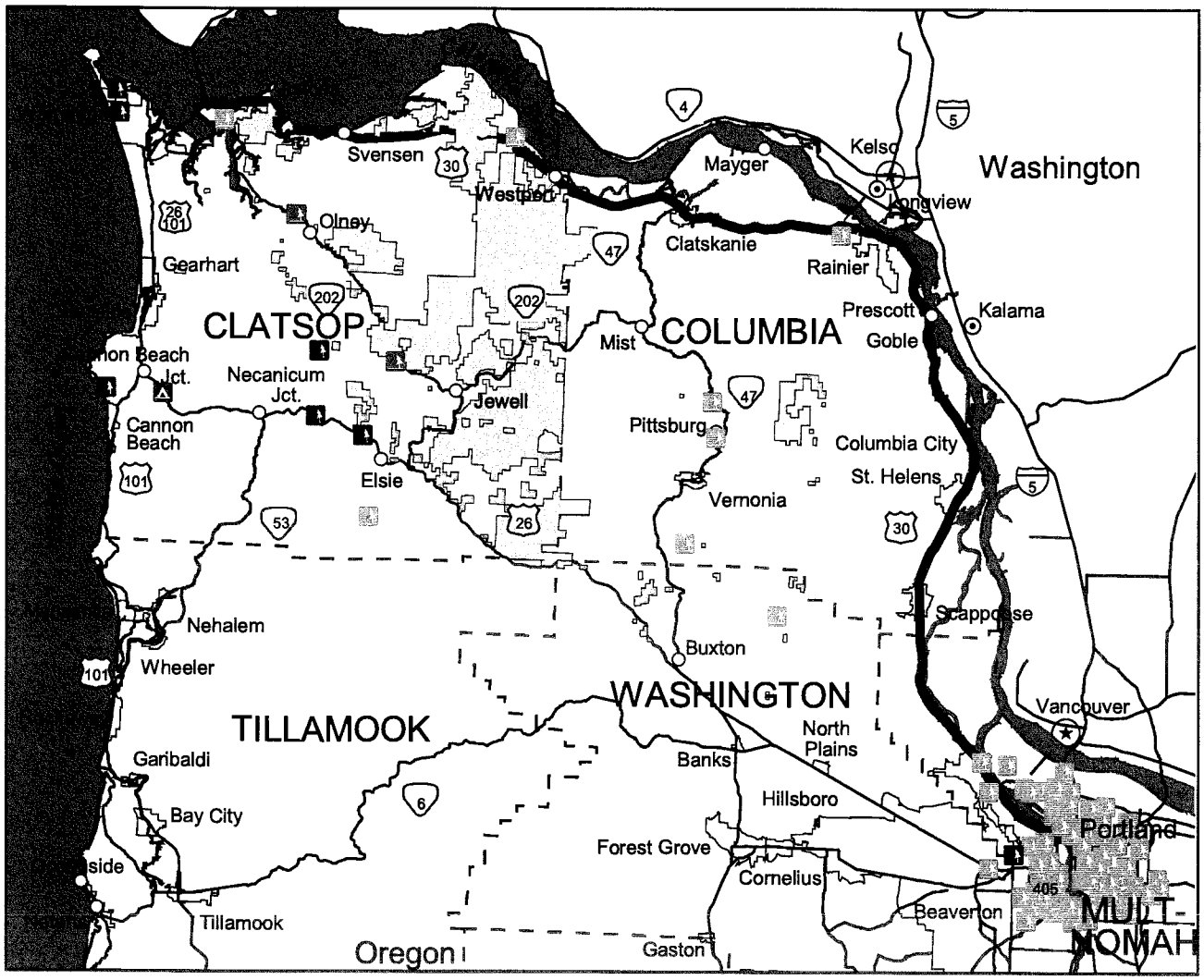
Impacts of the transportation system on local economies (other than tourism) are discussed to some extent in the sections on air, rail, truck freight, water transportation and connectivity. In general, an efficient transportation system benefits the economy because it serves existing industries and businesses and encourages the location and development of new industries and businesses. As noted under *Road Conditions and Safety* above, this highway carries higher than average truck traffic, which indicates the roadway's importance to commercial shipping. A 1991 report, *US 30 Multimodal Study, Lower Columbia River Corridor*, concluded that the barge, rail and highway transportation facilities within the Corridor were generally supportive of economic growth. However, "underdeveloped" rail, highway, port, and air facilities were listed as potential constraints to growth.

A more recent study, the *Economic Development Analysis of Highway Corridors* (1995), concluded that the Portland-Astoria Corridor was a highway corridor with relatively high economic development potential, behind eight other corridors. The conclusions were based on an evaluation of the economic conditions, trends, and economic development resources balanced against an analysis of the corridor's improvement costs versus user benefits. The Portland-Astoria Corridor was found to have moderately high user benefits from investments in transportation improvements, but ranked lower in economic conditions and trends. Economic conditions and trends included variables such as: the sensitivity of economic development to transportation costs, projected growth rates, and whether tourism was an important component of the corridor's economy. The economic situation in the Portland-Astoria Corridor has not changed significantly since that report was written.

The importance of tourism to economic development in the Corridor is illustrated by the designation of tourism as a focus area for the Regional Strategies for Clatsop, Columbia, and Tillamook counties and by the number of scenic, recreation, and natural resources noted in the previous section (Figure 20). The Corridor is expected to support recreational and tourism travel in order to support the preferred economic strategy. A significant number of recreational sites are located along the Portland-Astoria Corridor, including:

- Several parks, such as Forest Park, located to the west of US 30 in Segment 1. Forest Park is the largest wilderness park within city limits in the United States, containing wooded trails used for hiking, running, mountain biking, and horseback riding. Bradley Wayside Park is an 18-acre, state day use and picnic area, on the top of Clatsop Summit west of Wauna;

Figure 20: Recreational Areas Existing Conditions



Legend:

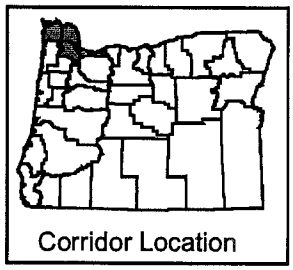
- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City
- Camp Ground
- State Park
- County Park
- City Park
- National Forest

N

4 0 4 8 Miles



- Several wildlife refuges located, such as the Lewis and Clark Wildlife Refuge (35,000 acres), on tidelands and islands in the Columbia River;
- Historical museums, particularly in Astoria;
- Numerous campgrounds; and
- Many boat launches accessing the Columbia river and other water bodies.

D. KEY MANAGEMENT ASSUMPTIONS AND THEMES

1.0 Introduction

This section summarizes the underlying assumptions used in developing the Corridor Plan and key themes for management of the Corridor.

2.0 Assumptions

This Corridor Plan makes a number of assumptions regarding other planning efforts, capital improvements, and other aspects of the transportation system. These assumptions, which are not repeated as issues or Objectives, include:

Other Planning Processes

- Issues related to US 101 have previously been addressed in the Coastal Highway (US 101) Corridor Plan and are further refined in the Highway 101 Scenic Byway study.
- Corridor plans for other state highways intersecting with US 30, e.g. Highway 47, will be prepared at a future time, although the functioning of these intersections are addressed in this Corridor Plan.

Land Uses and Growth

- Regional (as opposed to corridor-specific) transportation system issues and needs are being addressed in the Regional Transportation Plans (RTPs) for the Portland and Longview/Kelso/Rainier metropolitan planning areas.
- Assumptions regarding use of the portion of the Corridor within the Metro urban growth boundary are based upon Metro's Region 2040 Growth Concept and include:
  - Limited urban growth boundary (UGB) expansion;
  - A Green Corridor along US 30 from the Metro UGB to the Multnomah County boundary; and
  - Significant growth in local intra-city trips.
- The rural portions of the Corridor are assumed to continue in resource uses, e.g. agriculture and forestry, with growth generally confined to urban reserves within the Portland metro area, acknowledged exception areas and existing rural community centers.
- Population and employment growth will occur primarily in incorporated communities along US 30, particularly those closest to the Metro area;

Highway Use

- All uses of US 30 will increase during the 20-year planning period.

Funding Constraints

- Current funding constraints are not assumed for purposes of identifying strategies and long-term improvement projects. The purpose of the Corridor Plan is to establish objectives and priorities for long-term management of

and improvements to transportation facilities within the Corridor, irrespective of current funding limitations. The ability to implement these objectives and priorities will be dependent upon future available funding.

3.0 Key Management Themes

A wide variety of objectives have been developed to address the various elements of the Corridor's transportation system. A primary goal of this multi-modal Corridor Plan is to manage growth in travel in the Corridor, while making wise use of scarce resources to fund needed improvements. The Plan emphasizes managing the highway facilities that currently exist without substantial increases in capacity or construction of new facilities. This is achieved by strengthening the role of alternative modes of transportation, improving facility operations, and managing demand through appropriate land use.

Following are the key themes in the Corridor Plan:

- Other than the Astoria Truck Route, provide a variety of transportation choices to serve the needs of residents, visitors, and commerce, reducing reliance on any single mode as the sole solution to these needs.
- Maintain existing facilities to ensure that they remain safe and functional as the highest priority for the allocation of state and federal resources.
- Provide no additional highway capacity from Columbia City to Portland. Accommodate anticipated growth in traffic through the promotion of I-5 as an alternative route for travel to the western portion of the Corridor, increased transit, transportation demand management (TDM) measures, and limited improvements such as turning lanes.
- Provide no major expansion in highway capacity from Columbia city to Astoria, except for passing lanes, turning lanes and through lanes in congested urban areas. Proposed passing lane locations on US 30 include between Deer Island and Prescott and between Clatskanie and the Clatsop County line.
- If environmental and land use approvals are obtained, construct the Astoria Truck Route to address localized congestion and safety problems in Astoria, with the route determination made through the project EIS or other appropriate process and in concurrence with Clatsop County and the City of Astoria.
- Promote alternative modes of transportation, particularly transit, and the use of parallel routes to reduce reliance upon US 30 for local trips.
- Rely upon local access management and circulation plans to relieve congestion problems in Scappoose and St. Helens. Implement improvements identified in the Linnton Neighborhood Transportation Plan for the Linnton area in Portland.
- Focus on improvements to the Astoria Regional Airport to maintain commercial air service between Portland and Astoria and to the Scappoose Industrial Airpark to accommodate increased demand for general aviation services.
- Utilize access management programs to consolidate access points and improve safety in rural community centers.
- In conjunction with highway maintenance and improvement projects, develop a continuous bicycle route from Portland to Astoria, utilizing both the US 30 and the Old Highway 30 alignment.
- Improve pedestrian access and safety within urban areas through sidewalks, signals and other strategies to ensure safe and convenient crossings of US 30.
- Minimize additional long-haul truck use of US 30 by promoting bulk freight movement by rail and water, particularly bulk commodities such as aggregate and forest products.
- Facilitate truck freight movement through passing/climbing lanes, improved access to industrial sites, and improvements to the Lewis and Clark Bridge.
- Improve overall Corridor safety through a combination of increased enforcement, access management, and targeted highway improvements.

- Factor environmental and energy conservation considerations into both management and maintenance practices and improvement projects, with an immediate focus on enhancing salmon and steelhead habitat through upgrading culverts.
- Promote transportation-efficient land use patterns that reduce vehicle trips and miles traveled and promote a live-work balance, particularly in the Corridor's urban areas. In the Corridor's rural portions, concentrate services within established rural service centers to reduce the need for auto trips.

4.0 Approach to Key Issues

Demand for Increased Capacity on US 30

The management of congestion requires different approaches in different parts of the Corridor. In the urban areas, capacity added to highways and arterials would not generally be cost effective. With the exception of truck freight movement through downtown Astoria, other methods, such as TDM and TSM, are expected to be adequate to meet demand and provide an acceptable level of mobility. For example, transit and telecommuting and other TDM measures can play a significant role in managing demand for roads in the urban parts of the Corridor, while that strategy would not be as effective to address rural congestion problems. In the rural areas, most Corridor Plan solutions (projects) fall into the management, operations and maintenance category, because they are generally modest improvements that improve the function of the facility.

Urban Areas

Congestion and travel times in the urban areas are expected to increase even if high levels of improvements are applied, so the costs of highway improvements are excessive compared to the travel time saved. The Corridor Plan calls for improving local street networks to reduce local trips on US 30 and enhanced pedestrian, transit, and bicycle facilities to encourage use of alternative modes where practical. The Corridor Plan emphasizes solutions that include:

- No additional expansion in highway capacity, except for transportation system management (TSM) improvements (turning lanes and signal improvements) between Portland and Columbia City, and truck climbing/passing lanes and turn lanes in congested urban areas from Columbia City to Astoria.
- Improvements to existing intersections with US 30 and local street networks within city limits to improve traffic flow.
- Support for TSM and TDM measures, improvements to pedestrian facilities, and increased reliance on transit.
- Development of local access management and circulation plans to relieve localized congestion problems and to meet local transportation system needs.
- Develop an Astoria Truck Route to remove trucks and through-traffic from the Astoria downtown core.

Rural Areas

The Corridor Plan includes no major expansions in highway capacity in rural areas. Rather, passing and climbing lanes provide congestion relief at key "choke points". General purpose widening of US 30 outside the urban area would be expensive and have significant adverse environmental impacts, as the Corridor passes through or next to wildlife habitat and natural resource sites. Strategically sited climbing and passing lanes can reduce congestion with a much smaller capital investment. In rural community centers, access management and additional turning lanes are the primary tools to relieve congestion. Four areas are targeted for climbing/passing lanes to reduce bottle-necks: John Day Road/Fern Hill, Clatskanie to the Clatsop County line, and between Deer Island and Prescott in Columbia County. Intersection realignments or additional of turn lanes will also aid traffic flows in congested spots or in areas with heavy truck traffic. Examples include the US 30/Nicolai Cut-Off Road, the Cornelius Pass Road/US 30 intersection, US 30 and Tide Creek Road, and Smith Point in Clatsop County.

Alternative Modes

Air Service

The Corridor Plan recognizes that air service is dependent on the marketplace for its financial viability. Management solutions focus on improvements to existing airports and restoring/maintaining service between Portland and Astoria. Protecting facilities from incompatible land uses is also a key objective.

Bicycle System

Four overall themes are applicable to bicycle improvements in the Corridor:

- Maintenance and cleaning of highway shoulders to improve conditions for cyclists.
- Inclusion of bicycle improvement projects as part of routine pavement overlays and other maintenance projects. In many cases, an extra foot of shoulder width is easy to provide at minimal cost during an asphalt overlay.
- Stand-alone bicycle projects are not generally recommended, unless they can be combined with other highway projects to share costs.
- In urban areas, a primary concern is for safe crossings of US 30 and connections to local bicycle routes.

Pedestrian System

Since the Portland-Astoria Corridor contains a large percentage of rural lands that will not typically be used for pedestrian travel, the main objective is to ensure adequate facilities are provided within urban areas where they will be most effective. In many cases, the objectives and projects that will improve bicycle facilities will also improve pedestrian access and safety, for example, through widening shoulders or developing pathways separated from automobile traffic.

Transit Service

The primary approach to transit in the Portland-Astoria Corridor is to coordinate with local providers and jurisdictions to ensure that adequate services are provided where they are most effective and needed. Commuters from Scappoose and St. Helens would benefit from a vanpool program, and park and ride services combined with increased Tri-Met service at Sauvie Island.

Rail Service

The Corridor Plan supports the maintenance of existing rail services and improvements to the infrastructure e.g., intermodal facilities, to enhance the investment climate for rail users. Increased use of rail to convey bulk commodities can limit the growth of truck freight on US 30. Managing the rail line to preserve future opportunities for passenger service is also promoted.

Truck Freight

A limited increase in truck freight is anticipated due to increased reliance upon rail and water for the transport of bulk commodities. Within the Corridor's rural portions, passing/climbing lanes and turn lanes improve truck safety and general highway travel time. Truck travel times is expected to improve with better truck access (e.g., turn lanes at critical points) and with the use of alternative routes, such as I-5 between Longview and Portland and the Astoria Truck Route (if constructed).

Roadway Conditions and Safety

Problems of deficient geometry and poor pavement conditions can affect the safety of motor vehicle drivers, cyclists, and pedestrians. In allocating state resources, the maintenance of safe and functional facilities is established as the highest priority. Improvements to surface conditions and to high accident locations are

priorities throughout the Corridor. Other solutions include intersection safety improvements, shoulder widenings, sunken grade repairs, bridge retrofits and pavement overlays.

The Corridor Plan addresses safety in the Corridor through a combination of facility management and improvements at potentially unsafe locations. Objectives identify a wide variety of facility management techniques including intersection improvements, improved lighting and delineation, additional signage, and installation of safety barriers and weather monitoring devices.

Maintenance

As a first priority, ODOT will focus its resources on the maintenance of existing facilities in order to minimize long-term costs. Maintenance, operations, and management actions comprise the vast majority of implementation actions for improvements to roadway safety and conditions in the Corridor. Improving public safety is a key criterion for the evaluation of maintenance projects. Specific solutions include:

- Increase the "Targeted Opportunity Funds" account to allow ODOT to respond to localized minor needs on the highway system.
- Increase the maintenance limitation budget to allow Districts to minor repairs. Many of the repairs have been backlogged because of limited maintenance budgets.

Bridges

The ODOT Bridge Engineering Section has evaluated the structures in the Corridor and determined that 10 structures are in need of seismic retrofits. Retrofitting consists of two main types: either connecting bridge superstructure elements such as beams and decks to their supporting members (Phase 1), or strengthening substructure elements, such as crossbeams, footings or pilings (Phase 2). Two structures, Goble Creek Bridge and Wauna Interchange, need Phase 1 upgrading only. Five bridges need Phase 2 upgrading only: Longview Interchange, Beaver Creek, Lost Creek, crossing of Swedetown County Road, one unnamed (#01740 at MP 13.19). Three bridges need both types of upgrading: Tide Creek, Sauvie Island Partial Viaduct, and John Day River. ODOT and WDOT are currently evaluating replacement or retrofitting of the existing Lewis and Clark Bridge connecting Rainier with Longview, Washington (and I-5) with a $200 million, four-lane toll bridge.

Environmental Impacts

All projects undertaken in the implementation of this Plan must consider impacts to wetlands, other water bodies, farmlands, forestlands, threatened or endangered species and other protected resources, including cultural and archaeological resources. The overall approach is to seek to protect the environment from vehicle emissions, pollutant runoff and interruption of migration routes. The Oregon Plan (Oregon Coastal Salmon Restoration Initiative Conservation Plan) provides the primary means of addressing impacted anadromous fish runs in the rivers and streams in the Corridor. Priorities for culvert repairs were assigned by the Department of Fish and Wildlife based upon the severity of potential biological impact if the culverts were left unrepaired. Other solutions include:

- ODOT, where feasible and appropriate, will work with local governments to integrate mitigation efforts in transportation improvement projects and to avoid or minimize impact on sensitive natural areas when constructing improvements.
- All new transportation projects will include appropriate measures to protect water quality.

Access Management

New access management policies have been developed as part of the 1999 OHP. However, the six general categories established in the 1991 OHP apply to transportation plans adopted before January 2000. US 30 is classified as access management Category 2 within Portland's northwest industrial district, and as either Category 3 or 4 in the remaining portions of the Corridor. A lower number indicates greater restrictions on access, while a higher number has relatively fewer restrictions.

The Corridor Plan recommends an aggressive program of access management in rural areas to reduce the number of conflicts between through traffic and local traffic entering the highway. The Plan also recommends coordinating with the cities and counties to create access management plans and work to consolidate access points where possible.

Land Uses

Management of and improvements to the transportation system are fully integrated with regional and local government land use planning, resulting in transportation efficient land use patterns intended to reduce vehicle trips and miles traveled and promote a live-work balance, particularly within the Corridor's urban areas.

It is assumed that development within the Portland metropolitan UGB will follow the direction set by Metro's *Regional Framework Plan* and *Urban Growth Management Functional Plan*. This would include additional industrial development within the Northwest Portland industrial district and additional residential and industrial development in the Linnton neighborhood, which has approximately 10 percent vacant land, with just over two-thirds zoned industrial.

Outside the Portland UGB, land use patterns will develop according to the acknowledged land use plans for each jurisdiction. Review of these plans indicates that there is significant vacant developable land within the corridor to accommodate projected growth, particularly between Scappoose and Rainier. Transportation-efficient land use patterns are encouraged to reduce vehicle miles traveled and promote a live/work balance, such as clustered development, mixed uses, maximum parking ratios, and circulation systems that reduce out-of-direction travel With the exception of the Port of St. Helens, most commercial and industrial growth is confined to incorporated cities. Additional residential land uses along the Corridor outside UGBs are expected in designated rural community centers and on vacant rural lands zoned for residential use.

As identified in Metro's Region 2040 Growth Concept, ODOT, Metro, Multnomah and Columbia counties, and the City of Scappoose will collaborate to identify "Green Corridor" planning and transportation strategies to preserve the natural areas between the Portland Metro UGB and the Multnomah County boundary.

The 1999 OHP includes provisions for creating Special Transportation Areas (STAs) where a highway acts as a primary city street and Urban Business Areas (UBAs) where the highway bisects other areas of commercial activity. These provisions aim to better coordinate the needs of the state's highway system with local needs. No STAs or UBAs have been designated to date through the Corridor Plan or TSPs. As part of development of a final plan, eligible jurisdictions are being consulted regarding the appropriateness and desirability of applying STA or UBA designations to portions of US 30 through their communities. Expressway designation is proposed for the Portland UGB to the Multnomah County line and for the Astoria Truck Route. Expressways are designed for high speed movement with a limited number of road connections and driveways.

Protection of sensitive cultural (historic and archaeological) resources and effects on community livability must be considered with any proposed improvements to the transportation system. Therefore, part of the process of designing

transportation facilities will be to identify and avoid adverse impacts to livability and cultural resources, or where avoidance is not possible, to identify suitable mitigation.

Economic Impacts

The economy of the Corridor is closely tied to the shipping, timber, and tourist industries. Functional and efficient access to employment centers, freight movement, and recreation travel are key to the Corridor's economic health. Improved access to existing and designated industrial and commercial sites is a key objective. Deepening of the Lower Columbia River and improvements to rail and port facilities promote growth for all ports and incorporated communities within the Corridor.

The Northwest Oregon Economic Alliance has identified tourism as a key economic development strategy for Clatsop, Columbia and Tillamook counties, taking advantage of the corridor's abundant natural and scenic resources. The Corridor Plan includes facility management strategies within urban areas and passing/climbing lanes within the western segment to enhance access to recreation opportunities. Recreation development focuses on the Lower Columbia River, such as a canoe trail from Portland to Astoria. Other measures include objectives to develop or improve access and signage to recreation spots.

E. FINANCIAL CONSTRAINTS

1.0 Introduction

A key step in development of the Corridor Plan was prioritizing improvement projects and ensuring that the highest priority projects fit within reasonable funding forecasts. Corridor Plans do not need to pass the rigorous criteria required for the Metropolitan Planning Organizations (such as Metro). Rather, several ranges of funding forecasts, based on different assumptions, have been developed.

In developing funding forecasts, it was recognized that forecasted revenues would not likely fully reflect actual revenues realized over the next 20 years. Funding forecasts are currently uncertain statewide and the relative amounts to be allocated for different types of projects by Corridor have not been decided. Some of these decisions will be made as the OTC responds to the Governor's suggestion that monies be concentrated on maintaining and managing the existing system. The CSC focused primarily on modernization (new construction), safety, and operational (TSM and TDM) improvements. Funding priorities for categories such as bridge projects, maintenance, pavement management and salmon recovery improvement projects reflect input provided by ODOT staff.

2.0 Funding Forecasts

Funding forecasts are based upon 1999 OHP forecasts, traditional funding distributions among ODOT Regions, within each Region, between urban/rural areas, and among rural counties. The CSC developed a general methodology for determining the target funding levels for new construction based upon a "snap-shot picture" approach with a base year of 1997 and including state revenue and federal highway funds for new construction. Assumptions included a 20-year projection of funding allocation for new construction projects, no changes in state or federal funding levels from the 1997 level and no inflation adjustment on project costs.

Historically, Regions 1 and 2 have received an average of 34.2% and 23%, respectively, of the statewide construction funds for new projects. The Region 1 allocation has historically been split 80% for the Portland metropolitan planning organization (MPO) area and 20% to the Non-MPO area. Region 2 monies are split among all the ODOT facilities within the region. In Region 1, the Corridor in the urban portion is part of the Metro

regional decision-making process, which allocates funding for the Metro region. Table 2 summarizes the annual allocation of modernization project funding statewide and for Regions 1 and 2.

Table 2: Annual New Construction Funding Allocation by Region (1997 base year) ($million) [1]

Funding Source	Statewide	Region 1			Region 2
		Region 1 Share (34.2%)	Metro (MPO) Allocation (80%)	Non-MPO Allocation (20%)	Region 2 Share (23.0%)
State Gas Tax	$56.8	$19.4	$15.5	$3.9	$13.1
Federal Funds	$99.0	$33.9	$27.1	$6.8	$22.8
TOTAL	$155.8	$53.3	$42.6	$10.7	$35.9

(1) Based upon historical trends in disbursement shares.

Corridor Funding Forecast

The funding forecasts were developed for the planning horizon and represented 20-year totals. An attempt was made to include other categories such as safety, maintenance, etc. This was difficult because the description of these categories changed over time. The projected funding forecasts were developed to provide the CAC with a range of funding scenarios to focus and made them aware of funding shortfalls. During the solution process the CAC acknowledged far more solution needs than revenues.

Funding for the forecasts are based upon forecast of the 1999 OHP update with traditional funding distributions between ODOT Regions, within each Region, between urban/rural and among rural counties, and finally to various facilities. Three potential ranges of funding forecasts were developed. Each forecast is based on different assumptions that will produce different levels of funding for improvements. It is important to understand that no one funding forecast is correct, but rather they serve as a range of funding levels to reinforce the existing revenues are inadequate and the CAC must work to develop new sources of revenue.

The first forecast uses a historical distribution of money to the Region and funding percentage for the Corridor over the past 20 years and applies it to the forecast revenues over the next 20 years. It is not realistic to expect this funding to be available without increased revenues at the state or federal level, or both. Inflation and deferred maintenance and preservation needs will consume an increasing proportion of available revenues.

The second forecast uses the 1998 Draft OHP (September 1998) needs and revenue forecasts and assumes an even split of available funds to address all needs. The OHP projects that 62.5% for the needed revenue will be available over 20 years. An even split would allocate 62.5% of needed funds to each program area. This may also represent more funds than can reasonably be expected for modernization over the next 20 years, given policies to maintain and preserve existing facilities.

Finally, a third forecast prioritizes programs other than Modernization, funding only 20% of those needs, while meeting a greater level of need for maintenance, preservation, safety, etc. This assumption addresses several policy objectives, including the emphasis on preserving and managing the existing system. It also reflects current statutes requiring ODOT to spend about $54 million per year statewide on Modernization. This should represent the minimum amount available over the 20-year planning horizon.

Table 3 summarizes the three forecasts: In the rural area, funding for Corridor Plan projects would be distributed among the five rural counties.

Table 3: Projected Modernization Funding Forecast ($ million)
20 Year Planning Horizon

Region	Historical STIP Programming	Even Split of Projected Revenue	Low Mod-High Maintenance & Preservation
Region 1			
MPO	$30 - $60	$22 - $45	$7 - $14
Rural	$15	$11.0[1]	$7[1]
Region 2	$14	$7.0[2]	$2[2]
TOTAL	$59 - $89	$40 - $63	$16 - $23

[1] Based on a distribution of rural funds to counties in Region 1

[2] Based on current distribution of Region 2 funds

3.0 Project Funding Priorities

As noted earlier, limited revenues necessitate managing and improving the existing transportation services and facilities within the Corridor to accommodate the anticipated growth in travel. Accordingly, the Corridor Plan allocates state resources to highway projects according to the following priorities:

(1) Maintenance of the existing facility to ensure that it remains safe and functional, e.g. fixing potholes.
(2) Preservation of the roadway by investing in roadbed and pavement reconstruction as needed to minimize maintenance costs;
(3) Transportation system management to optimize existing highway capacity;
(4) Safety and capacity improvements; and
(5) Projects that support economic development, particularly recreation and tourism.

The highest priority projects are placed in the ***Committed*** and ***Constrained*** funding category, meaning they would all be expected to be implemented over the 20-year planning period. Committed projects are already funded in the current STIP and total $21 million. Constrained projects, totaling $37 million, would be implemented in later years of the current STIP and are still subject to funding authorization. In the Portland Metro area, committed and constrained projects have been identified through the RTP process.

Next in priority are ***Strategic*** funding projects that will require new sources of funding in order to be implemented in the intermediate-to-long term. Strategic projects total $153 million, with the bulk of these costs attributable to construction of the Astoria Truck Route and replacement of the Lewis and Clark Bridge. Practically speaking, if additional funding is identified, projects identified from the Strategic funding list would move to the Constrained funding list and total funds available for Constrained projects would increase. Per current ODOT policy, project development activities are not undertaken for projects not on the Constrained Funding list (that is, project development is not undertaken for projects that are not funded for implementation).

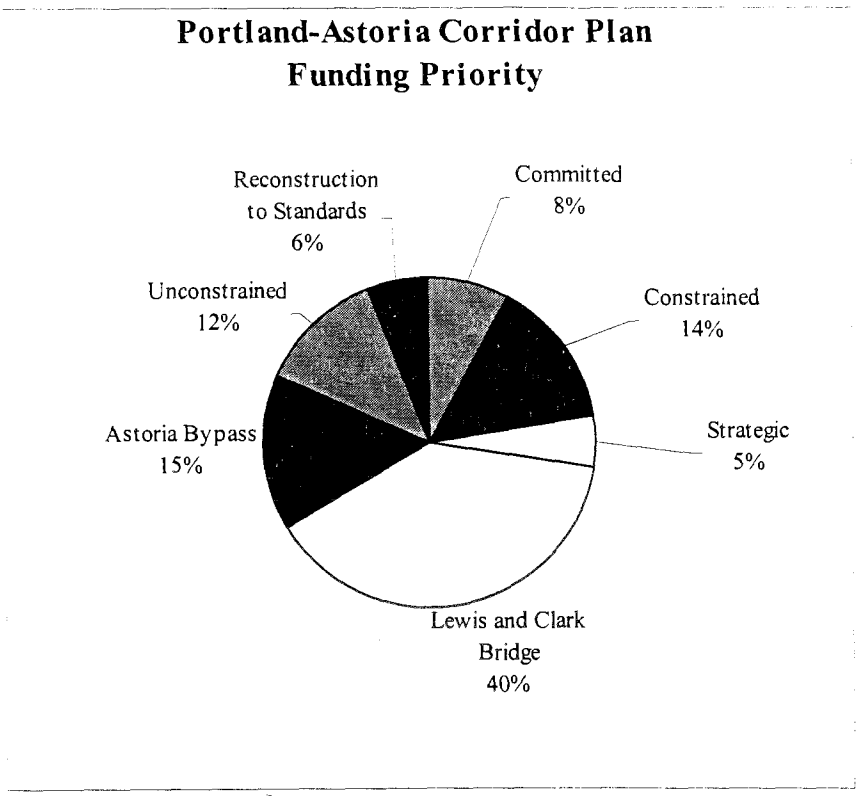
All remaining projects are considered ***Unconstrained*** or ***Reconstruct to Standard***. Based upon current revenue forecasts (including all reasonable additional sources of revenue), these projects are *not* likely to be funded within the 20-year planning horizon. The term "Unconstrained" means that if ODOT had all the funding to meet all Corridor needs, then all projects could be funded. However, Unconstrained projects could be funded by alternative funding sources, such as development exactions, local improvement districts, urban renewal districts, etc. Unconstrained projects total $32 million. Unconstrained projects proposed in the Corridor Plan are those that originated through the CSC and have a demonstrated need. Reconstruct to Standard projects, totaling $15 million, were generated through ODOT's HPMS system which identifies projects to bring substandard segments of

highway up to highway standards. These projects may not be practical given that attaining maximum grade or curvature standards could require extraordinarily expensive and impractical solutions for a highway like US 30 that crosses mountains and operates in a highly constrained environment.

The projected total cost for implementation projects included in the Corridor Plan is $243 million. If Reconstruct to Standard projects are added, the total increases to $258 million. Costs are preliminary estimates based upon information provided by local governments or generated by ODOT. Local contributions to projects could result in adjustments to prioritization of projects. That is, given ODOT's limited resources, the greater the "local match," the higher the likelihood of implementing the project. Figure 21 illustrates the relative amounts of funding by category.

Projects are listed by funding category in Section IV. C, Project List by Funding Priority. Costs are preliminary estimates based upon information provided by local governments or developed by ODOT. Local contributions to project costs could result in adjustments to the prioritization of projects. That is, given ODOT's limited resources, the greater the "local match", the higher the likelihood of implementing the project.

Figure 21: Funding Relationships by Category



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A. OVERALL MANAGEMENT DIRECTION

1.0 Introduction

This section on overall management direction summarizes the more detailed discussions of Corridor management that are included in Volume 2 of this Plan. In particular, common themes are identified that have been incorporated throughout the Plan and the planning process.

2.0 Overall Corridor Management Direction

The Portland-Astoria Corridor (Figure 22) is a major route connecting the Portland metropolitan area with the northern Oregon and southern Washington coasts. It is an important recreational, commuter and commercial traffic corridor and one of the most multi-modal corridors in the state, with active truck freight, rail, air, and water transport services. As the oldest, most historic and most populated route between Portland and the coast, US 30 serves as a main arterial for a number of the cities along the lower Columbia River (Figures 23 through 25). Unincorporated rural communities also dot the Corridor, and to some extent depend on tourist, logging, and truck freight traffic for their livelihood. In addition, the Corridor passes through difficult topography and environmentally and recreationally sensitive areas, the needs of which must be balanced with the need to maintain access and travel times.

Clearly, each community in the Corridor has a unique of transportation needs, community development patterns and activity levels. Management direction for the Corridor balances all of these competing needs. The sections that follow will address management direction by Corridor section. However, there are several key management principles that apply to the entire corridor planning area, albeit in different ways. Major management themes are discussed below.

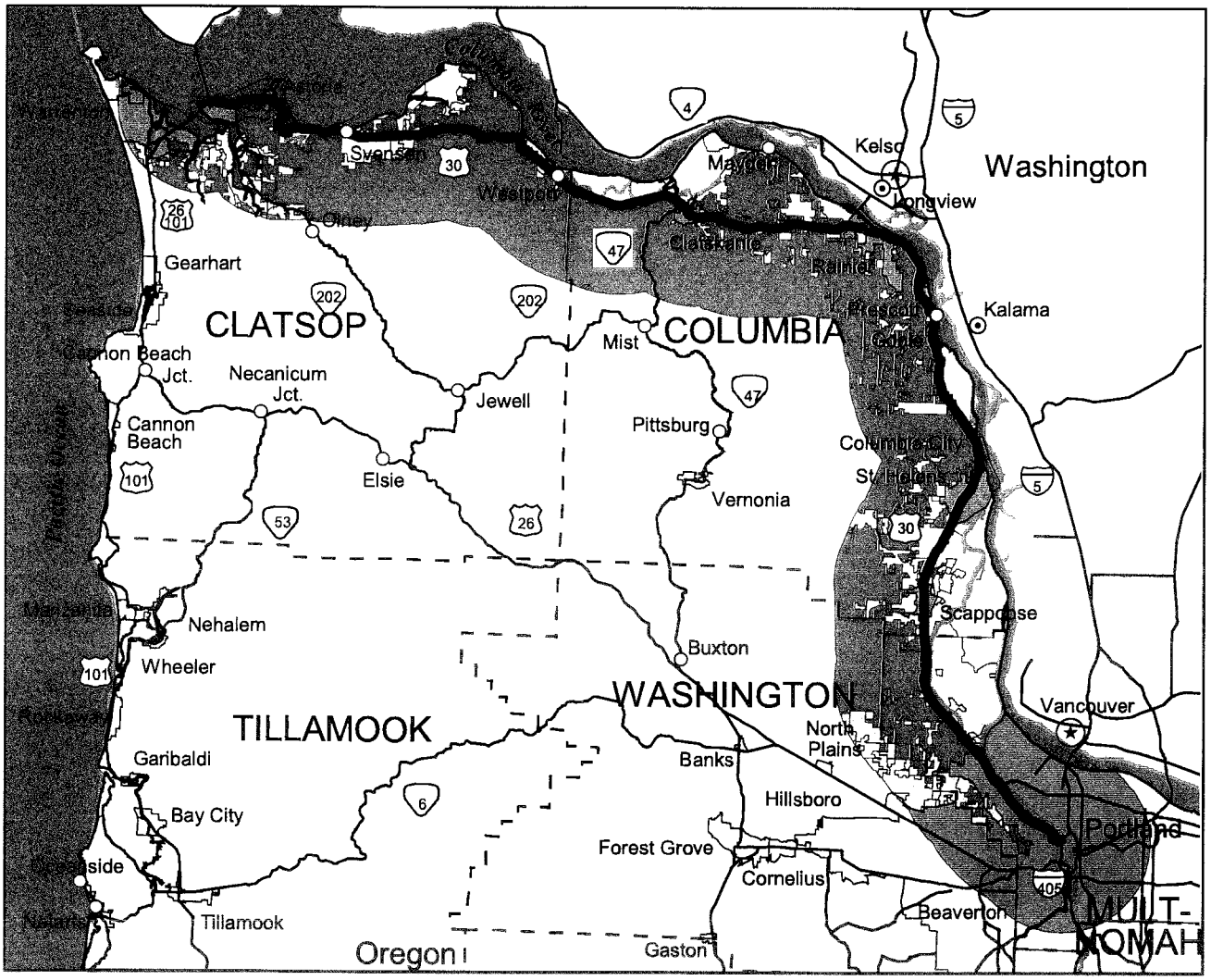
The Corridor Plan includes a series of objectives, strategies and projects to enhance the Portland-Astoria Corridor's ability to serve commuter, recreational, freight, and other business travel. Consistent with OTP objectives to promote a balanced multi-modal transportation system, the Corridor Plan promotes transportation demand management (TDM) and system management (TSM) strategies as the first course in addressing future needs, especially within the urban portions of the Corridor. These TDM and TSM strategies include the development of support facilities for transit and other non-motorized modes, as well as retaining railroad, air, and marine cargo services as effective means of transport.

Another overall theme is cost-efficiency. With limited capital improvement and maintenance dollars available, ODOT must stretch its revenues as far as possible. This is accomplished in the Corridor by combining projects for a single mode into multimodal projects where possible. For example, combining bicycle shoulder improvement projects with highway modernization and passing lane projects benefits bicycles, pedestrians, and the movement of truck freight, as well as autos. This allows the implementation of bicycle projects that would not be cost-effective as stand-alone projects. To the greatest extent possible, projects identified that improve transportation balance in the Corridor are pursued through maintenance, operations, management, and service projects that minimize capital expense.

Other key management direction includes:

- **Relieve congestion.** This is addressed by capacity expansion in the urban areas pursuant to their TSPs, intersection improvements in both urban and rural areas, and by construction of limited improvements, e.g. climbing and passing lanes, in the rural areas. These approaches are appropriate given existing and proposed traffic volumes and environmental sensitivity.

Figure 22: Corridor Vicinity Map
Existing Conditions



Legend:

- Interstate Highway
- US Highway
- State Highway
- Portland - Astoria (US 30) Corridor
- Urban Growth Boundaries
- Locales
- County Boundaries

Washington State Locations

- County Seat
- Incorporated City

Zoning & Land Use

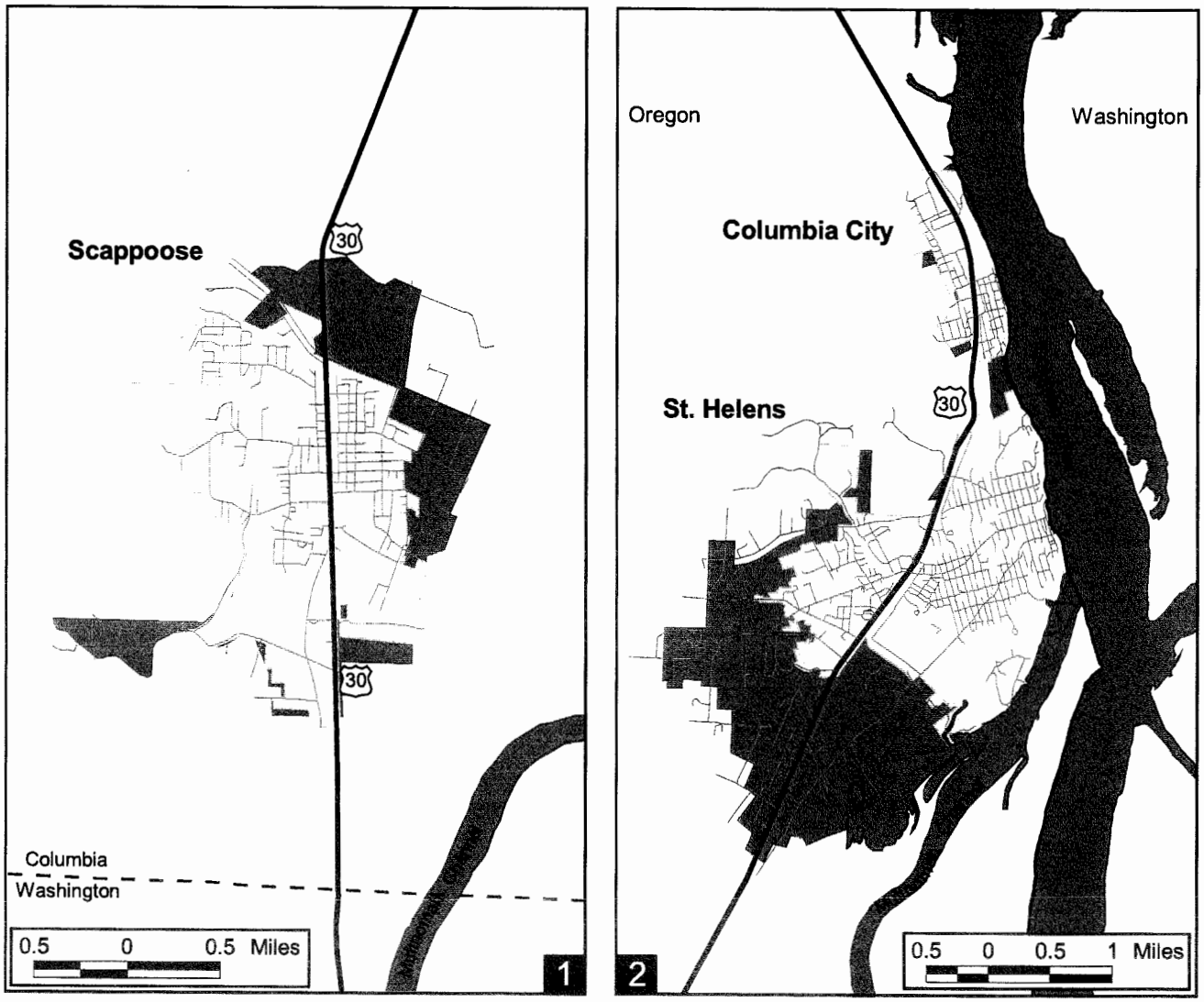
- Urban
- Rural Community Centers
- Forestry
- Natural Resource
- Agriculture
- Park and Recreation / Public Facility

N

4 0 4 8 Miles

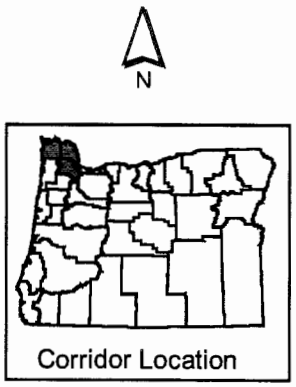
Corridor Location

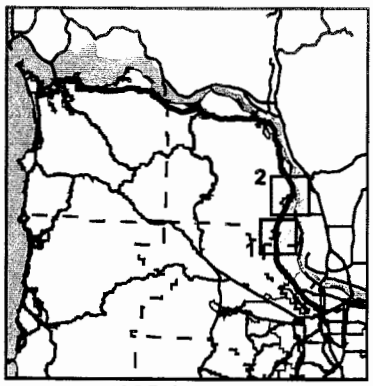
Figure 23: Scappoose, St. Helens, and Columbia City Urban Growth Areas Existing Conditions



Legend:

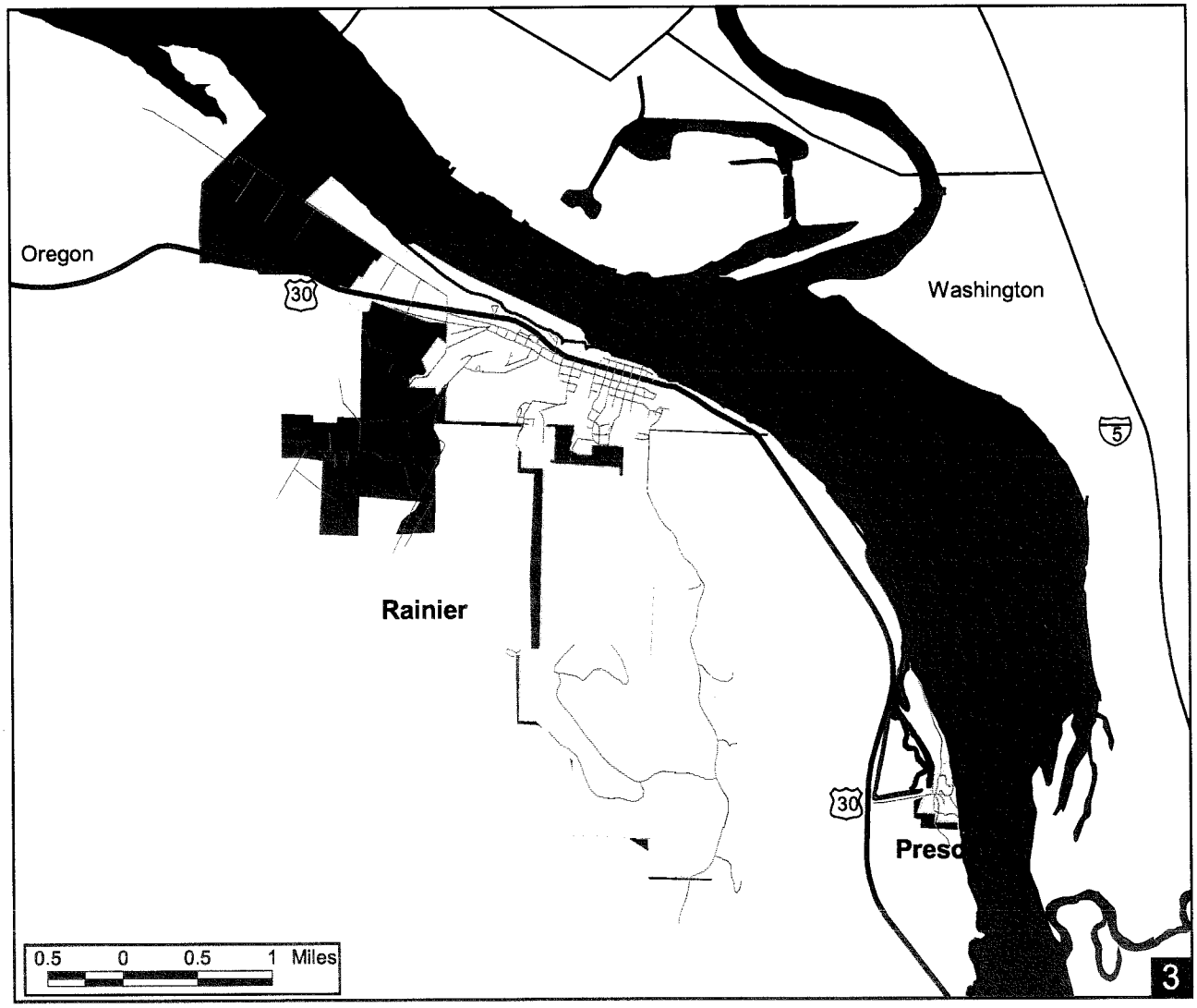
- Statewide Highway
- Local Roads
- County Boundaries
- City Limits
- Urban Growth Boundary





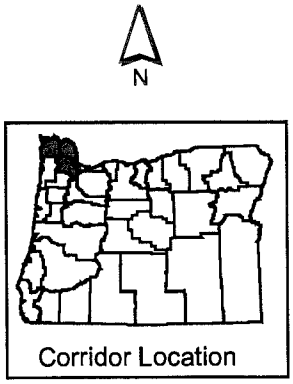
UGB Locations

Figure 24: Prescott and Rainier Urban Growth Areas Existing Conditions



Legend:

- Statewide Highway
- Local Roads
- City Limits
- Urban Growth Boundary



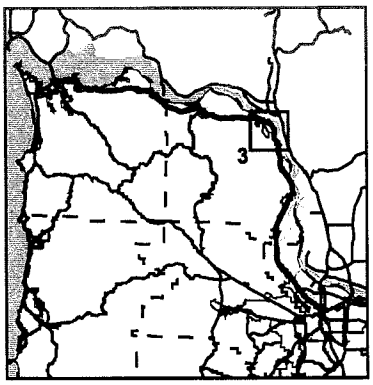
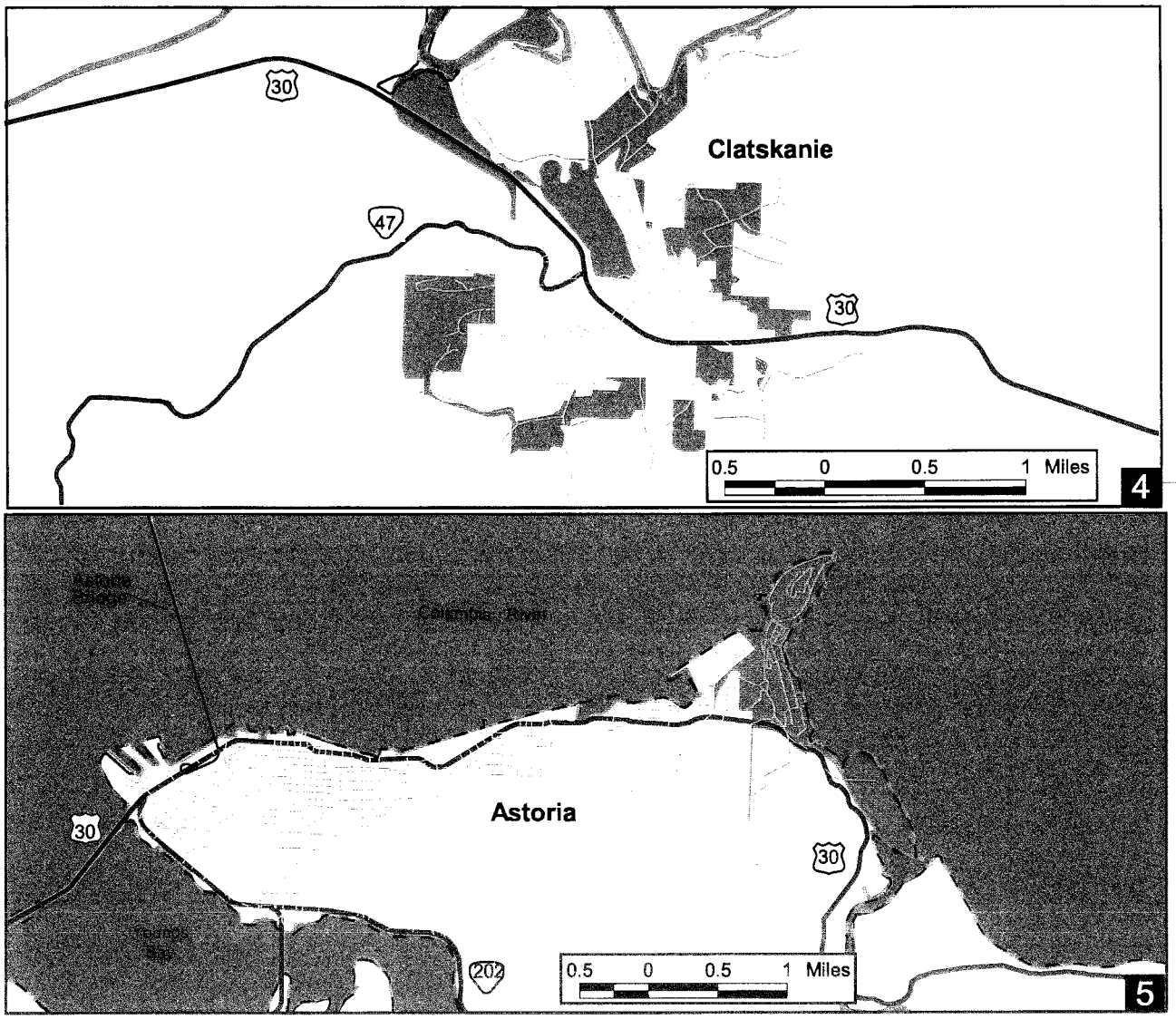


Figure 25: Clatskanie and Astoria Urban Growth Areas Existing Conditions



Legend:

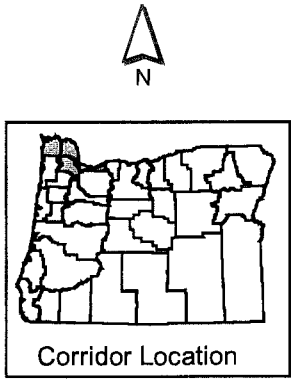
District Highway

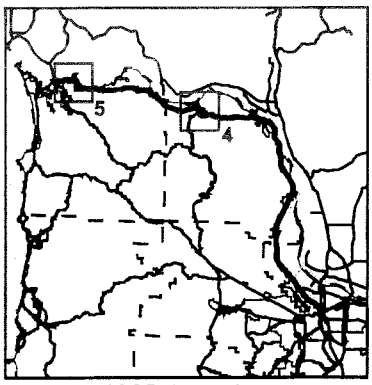
Statewide Highway

Local Roads

City Limits

Urban Growth Boundary





UGB Locations

- **Support use of alternative modes of transportation.** Transit, bicycle and pedestrian modes play a major role in the urban areas, while in the rural areas these modes have a limited role. Transit can make a significant difference in the demand for highways in the urban areas. The Corridor Plan supports opportunities to increase transit service outside urban areas as market demand warrants.

- **Access management**. Managing the locations of driveways and distances between intersecting streets is the key to preserving the capacity of the statewide highway and local arterials. In the urban areas, access management can provide for opportunities to enter, exit, or cross the highways for vehicles, pedestrians, and bicycles, consistent with local comprehensive plans. In rural areas, access management consists of managing at-grade intersections with the state highway. Access management can preserve the rural residential character of community centers by providing a safer pedestrian and bicycling environment, as well as managing the flow of auto traffic through the area.

- **Economic development.** A principal objective of the Corridor Plan is to ensure the efficient shipment of local products to processing centers within and outside the region. This is accomplished by maintaining capacity and managing demand on the highway system, encouraging the use of rail and waterborne modes, and promoting intermodal transfer facilities. US 30 provides access to recreational and tourist destinations that also fuel local economies. In the rural areas, passing and climbing lanes maintain travel times between economic centers.

- **Develop transportation facilities appropriate to the surrounding environment.** Modernization and capacity-related improvements in the urban areas can be acceptable when they support the character of the area and address local and regional travel needs. Modernization improvements in the rural portions of the Corridor may also be appropriate, but the high costs and potential for major environmental impacts should be carefully weighed against potential benefits to motorists. *Reconstruct to Standard* projects were generated by ODOT through a needs analysis that looked at upgrading substandard portions of US 30 to the minimum state highway standards. This analysis does not take into account the presence of natural and cultural resources nor land ownerships. Consequently, the Corridor Plan does not recommend these projects in recognition of their enormous expense and environmental impacts.

- **Land use coordination**. In all areas of the Corridor, the Plan supports and strengthens the connection between land use and transportation facilities and programs. At the Portland urban area fringe, Metro's *Green Corridor* policy establishes policies for development adjacent to the urban growth boundary, including the area between the UGB and the Multnomah County boundary. The Corridor Plan is careful in all instances to support applicable land use laws and policy in the Corridor. Pursuant to the 1999 OHP, ODOT is currently reviewing with several Corridor jurisdictions the appropriateness of designating portions of US 30 as either Special Transportation Areas (STAs) or Urban Business Areas (UBAs).

3.0 Management Direction by Corridor Segment

Given the broad range of topics covered by the Corridor Plan and the variation in needs among the various transportation modes, there are no "one size fits all" solutions to transportation needs in the Corridor. Consequently, the discussion of overall management direction is broken into four sections that define the character of the Corridor: Urban Areas, Urban Fringe, Rural Areas, and Rural Community Centers.

3.1 Urban Areas

Urban areas of the Corridor include the portion within the Metro UGB from the junction of US 30 with I-405 to the west city limits of Portland and the city limits of Scappoose, St. Helens, Columbia City, Prescott, Rainier,

Clatskanie and Astoria. Inside the Portland and Longview/Kelso/Rainier metro boundaries, several local governments have jurisdiction over transportation and land use issues, but management direction is set primarily by the RTPs. RTP policies reinforce the balance of auto travel with transit, ridesharing, demand management, and other alternatives. While adapted to local conditions, the TSPs of the other cities in the Corridor have similar approaches to the transportation network and seek similar types of solutions, where appropriate. Key management solutions for the urban portions of the Corridor include:

- **Transportation modal balance is maintained and improved.** The Portland Metro portion of the Corridor has a more balanced transportation network compared to the other cities, with regular transit service, and rail, water, and truck freight systems in place. Within other urban areas, the areas to be served are much smaller, and fixed-route transit is often not appropriate. However, other multi-modal solutions are explored, such as improving the local street, pedestrian, and bicycle networks. The *US 30 Transit Feasibility Study* concluded that vanpool service between St. Helens and Portland could be more cost efficient than a fixed-route commuter bus service, as demand is high but diffused in terms of destination and time of travel, and would not be sufficient to support fixed-route service. The study recommended a regional vanpool program to serve the US 30 corridor. Corridor Plan objectives seek to strengthen the role of transit, pedestrian and bicycle modes, as well as transportation demand management, carpooling and vanpooling.

- **Transit, TDM, and TSM measures are the highest priorities to provide greater capacity.** Capacity expansion is the lowest priority to address transportation demand. In accordance with regional policy, if transit, TSM or TDM measures do not meet capacity needs on existing facilities, then and only then will capacity expansion be considered. The Corridor Plan recommends system improvements that will accommodate the level of growth expected in the Portland-Astoria Corridor.

- **An interconnected grid of local streets is planned to ensure direct, convenient circulation within the urban area, to minimize out of direction travel, and to provide alternatives to the state highway system for travel.** The existing grid systems within the urban areas will be enhanced over time to improve local circulation and access, and to provide alternatives to using US 30 for local trips.

- **Transportation infrastructure supports land use plans in the urban areas.** Implementation actions called for by the Plan are in compliance with local and regional comprehensive plans, which in turn implement regional transportation policy.

- **Transportation investments support efficient rail and truck freight movements.** Planned facility improvements and services support growth and economic development in the urban areas. High priority is given to projects that promote efficient freight access to industrial and commercial sites.

3.2 Urban Fringe

The Corridor urban fringe is defined as that area immediately outside the Portland metropolitan UGB. This area has a unique set of issues. The area is rural in character but close enough to the urban area to access services and employment. Rural zoning is in place, yet there is pressure from increasing residential use of these lands. Long distance exurban commuting increases vehicle miles traveled and runs counter to the provisions of the *Statewide Transportation Planning Rule*. In this area, TDM measures and alternative modes can reduce demand for highway use. Key elements of the management approach at the urban fringe are detailed below.

- **Telecommuting and other TDM measures have potential to reduce highway demand and VMT.** Given the existing amount of commuter traffic to the Portland area from St. Helens and Scappoose, steady growth in commuting is likely as the region continues to expand and as potential new employers locate on developable

industrial land within reach of those cities. Telecommuting has the potential to reduce commuter trips to some extent in the Portland-Astoria Corridor. Telecommunications infrastructure is in place to support the ability to telecommute. The Corridor Plan does not advocate extension of urban transit to serve these outlying areas. However, some privately sponsored vanpools and carpools may be appropriate.

- **Support for *Green Corridor* policies.** Metro has adopted a *Green Corridor* policy that establishes open space or greenbelts around the Portland urban area to prevent sprawl and to maintain an aesthetic difference between rural and urban areas.

3.3 Rural Areas

The rural areas of the Corridor are defined as those areas outside of urban areas and established rural community centers. Key management strategies for rural areas are summarized below.

- **Congestion relief is achieved through small-scale capital improvements, such as climbing and passing lanes.** As opposed to the urban area where TDM programs and TSM improvements can make a significant impact on highway demand, the Plan includes small-scale capital improvements to reduce congestion and preserve travel times through the corridor. This approach of eliminating "choke points" makes the best use of scarce resources and minimizes environmental impacts.

- **Access management plays an important role in the rural areas.** With numerous at-grade intersections through the rural portions of the Corridor, the opportunity exists for conflicts between highway users and cross-traffic and turning traffic. A major strategy will be to restrict new access points and work with users to consolidate existing multiple points where possible.

- **Transportation improvements must minimize impact on significant environmental and cultural resources.** The potential to impact wildlife, natural resources, and archaeological sites is greatest in the rural portions of the Corridor. For this reason, the Plan emphasizes small-scale, strategic, safety and congestion relief improvements.

3.4 Rural Community Centers

Rural community centers, such as Warren, Deer Island, Alston Corner, and Knappa Junction, are small commercial and residential nodes that have developed along US 30. These centers provide economic opportunity for rural residents and are dependent upon US 30 to bring recreational and truck freight traffic to their businesses. Balancing community needs and the transportation function of the highway is a key theme in these areas. Other key management direction includes:

- **Access management is critical to maintain safety and rural community ambience.** To preserve the unique character of these areas, pedestrians and bicyclists must be able to move about safely, and transportation improvements cannot overwhelm the surrounding land uses. Access management consolidates access points to the highway and provides safer, more predictable points of interaction between cars, pedestrians and bicyclists.

- **Intersection improvements can improve access to the community centers and improve safety.** In these areas, the ability to safely exit and enter the highway is critical. Intersections and turn lanes are provided to relieve queuing and the safety hazards created by slow moving vehicles entering and leaving the highway.

- **Transportation improvements support the economic health of rural community centers.** If access to the these rural community centers were compromised, economic hardship would result for the small businesses located along the highway. Climbing and passing lane improvements elsewhere in the Corridor ensure that

travel times are maintained and congestion levels are controlled. These improvements preserve the ability of traffic to flow through the Corridor, which in turn supports the businesses in rural community centers.

B. CORRIDOR PLAN OBJECTIVES

Corridor Plan objectives are intended to establish realistic performance objectives for transportation in the Corridor and to help ODOT and the CSC make major transportation tradeoff decisions. Objectives have been developed for all modes of transportation in the Corridor based upon issues identified by local and regional governments, interest groups and the public. Objectives address the Corridor as a whole, as well as major segments of the Corridor, but do not address specific sites or transportation improvements. Rather, these objectives were used as guidelines in identifying specific projects for inclusion in the Corridor Plan.

1.0 Transportation Balance

1.1 Overall Transportation Balance in the Corridor

A key theme of the Oregon Transportation Plan is the promotion of transportation balance among modes of transportation to ensure an efficient and convenient transportation system. Although dominated by automobile travel, the Portland-Astoria (US 30) Corridor is perhaps the most multi-modal of all state transportation corridors, with all modes represented to some extent. These different modes play a major role US 30 Corridor in connecting the social, economic and natural resources that lie along the lower Columbia River. Maintaining or improving the balance of transportation modes is the goal of objectives in this section.

1.1.1 Future Vision

The Corridor Steering Committee (CSC) developed the following vision for transportation balance in the Corridor:

A variety of transportation choices exist throughout all portions of the Corridor, serving the needs of residents, visitors, and commerce. The balance of modes reduces reliance on any single mode as the sole solution to the diverse transportation needs of the Corridor.

1.1.2 Overall Direction

This Corridor has a varying degree of balance in the transportation network. Opportunities for the use of alternative modes to the single-occupant automobile are concentrated in the urban portions of the Corridor. All the cities within the Corridor have some pedestrian facilities (sidewalks), transit services, and densities conducive to use of the alternative modes. Rail connections for freight also exist. However, no passenger rail exists in the Corridor and non-recreational (i.e., commuter) air travel is limited at this time. Outside of urban areas, the automobile predominates.

Over both the short and long term, there are several opportunities to improve the balance of modes, given that facilities for most modes already exist. Many of these opportunities are discussed in the sections that follow. In general, the Plan calls for providing new or enhancing existing facilities and services for alternative modes of travel, working to maintain efficient travel speeds for truck freight and automobiles throughout the Corridor, managing access onto the highway, and concentrating land development within urban areas and rural community centers. The topographic constraints, natural and economic resources, existing transportation network, and land use patterns of the Portland-Astoria Corridor determine the best opportunities for improving this balance:

- Through RTPs, TSPs and coordination with ODOT, local street networks in incorporated communities on US 30 have the potential to take some traffic off the state facility and relieve congestion in these areas. Improvements proposed in this Corridor Plan address the need to provide good connections to parallel facilities to help manage and reduce the traffic on US 30.
- Reduction in SOV trips through improvements to alternative modes, such as telecommuting.
- Promotion of waterborne shipping and maintenance of rail service to reduce truck freight traffic on US 30 and thereby reduce demand and maintain capacity into the future.

While each of the major transportation modes in the Corridor is addressed in a separate section of *Transportation Balance*, this does not mean that the modes are dealt with in isolation. Addressing each mode individually allows for a clearer discussion of its relationship to other modes, providing a detailed picture of the interdependency of transportation modes in the Corridor.

1.1.3 Objectives

The Corridor Plan Objectives that relate to transportation balance are contained in the modal sections that follow.

1.2 Automobiles

1.2.1 Introduction

In this section, emphasis is placed on the automobile as a mode of transportation, rather than on the performance or management of the road and highway system, which are addressed in the Roadway Conditions and Congestion sections in this chapter.

The transportation system in the Corridor is dominated by roadway facilities for cars and trucks and the automobile is the primary mode of transportation. At the same time, the use of cars and trucks must be balanced against costs, livability factors, the ability to accommodate other modes of transportation, and negative impacts on adjacent land uses and the environment. The Corridor Plan recognizes that the existing roadway system will most likely continue to be the basis of the transportation system for the foreseeable future. Therefore, accommodating automobile mobility is a high priority in the Plan.

1.2.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for automobiles in the Corridor:

Due to population and employment growth, there is an increase in the number of automobile trips, particularly within the corridor's eastern portion (St. Helens to Portland). Transportation System Management (TSM) and Transportation Demand Management (TDM) programs, especially transit, limit the increase in single-occupant vehicle trips. Improvements to parallel routes and local arterial crossings reduce reliance upon US 30 for short trips by automobile.

1.2.3 Overall Direction

The role of the auto differs throughout the Corridor. In the urban areas, it is one of several travel modes. In the rural areas, in many cases the automobile is the only transportation mode available, making the rural portions of the Corridor more reliant on automobile travel. The management direction for the role of the automobile in the Corridor therefore differs by rural and urban segments.

In the rural areas, it is recognized that the automobile will, out of necessity, continue to be the overwhelmingly dominant mode in the Corridor. Travel distances between residences and services are generally too long for bicycling and walking. Limited transit service reduces travel options for those without ready access to an auto in rural areas. Generally, the management approach for rural areas is to:

- Focus on management, maintenance, operations and service improvements in the Corridor, rather than modernization and large capital improvements.
- Maintain Corridor travel times through the strategic use of passing and climbing lanes to eliminate congestion choke points.
- Through enhanced signing, promote the use of I-5 as an alternative route between Rainier/Longview and Portland.
- Develop access management plans in rural community centers to improve safety for all modes – trucks, bicycles, pedestrians and autos.
- Encourage the concentration of services within rural community centers to reduce the need for auto trips.

In urban areas, management direction is set in coordination with local and regional jurisdictions through the RTPs or TSPs. Through the Metro Regional Transportation Plan (RTP), the Portland region has pursued a balanced transportation system for the last 25 years. The current policies reinforce the balance of auto travel with transit, ridesharing, demand management and other alternatives. The management direction in other urban areas of the Corridor pursue the same themes but are adapted to local conditions. For example, providing fixed public transportation as an alternative to autos in small towns may not be economically feasible. In general, the management direction for automobiles in the urban areas consists of the following main points:

- Pursue improvements to facility management and operational improvements in lieu of capacity expansion to meet anticipated demand. Improve traffic flow by providing better signalization and turning protection.
- Through local access management and circulation plans, enhance local street networks in communities along US 30 to reduce the use of the highway for local trips and to reduce localized congestion problems.
- Reduce reliance on the single occupant vehicle through the provision of alternative transportation modes such as transit and carpooling and through reduction in demand through telecommuting and other methods.
- Reduce reliance on the auto through efficient land use, including locating land uses in such a way as to reduce vehicle miles traveled and promote alternative modes and by concentrating growth in urban centers.

1.2.4 Corridor Plan Objectives

The Corridor Plan Objectives for the Portland-Astoria Corridor for automobiles are:

A.1 Provide no additional expansion in highway capacity from Columbia City to Portland, except for transportation system management (TSM) improvements such as turning lanes.

A.2 Other than the Astoria Truck Route, provide no major expansions in highway capacity from Columbia City to Astoria, except for passing lanes, turning lanes and through lanes in congested urban areas.

A.3 In lieu of capacity expansions, emphasize transportation demand management (TDM) techniques, especially the promotion of alternative modes; pricing mechanisms; and land use patterns which encourage alternatives to single occupant vehicles.

A.4 Design any highway improvements within the Portland Metro UGB to accommodate planned land uses per the Region 2040 Growth Concept.

A.5 Promote the use of parallel routes to decrease reliance on US 30 for intra-city trips.

A.6 Encourage the concentration of services within incorporated areas and established rural centers to reduce the need for auto trips.

1.3 Air Service

1.3.1 Introduction

As a transportation mode in the Corridor, air service is used in several ways—supporting business, agriculture, emergency services, personal travel, and recreation flying. Three airports provide primarily local private aviation services, while a fourth, Portland International Airport (PDX), is the air passenger travel hub for the state. It is a full service airport, handling both passengers and cargo.

For the past several years, air service between Astoria and Portland has been sporadic. Most recently, in summer 1998, Harbor Airlines provided four passenger flights a day to Portland and three to Seattle, along with freight services. This was a new service that followed several years of intermittent service between Astoria and Portland or Seattle. In January 1999, Harbor Airlines discontinued air service to Astoria. Current market demand does not appear to be able to support the cost of passenger air service between Astoria and Portland (or Seattle).

1.3.2 Future Vision

As part of the corridor planning process, the Citizen Steering Committee developed the following future vision for air service in the Portland-Astoria Corridor:

Portland International Airport serves as the primary aviation center in the Corridor, with commercial air service to the northern Oregon and southern Washington coasts provided by Astoria Regional Airport. Scappoose Industrial Airpark provides freight transport and commuter services for an expanding industrial base in the Columbia County area and serves as a reliever general airport for the Portland/Vancouver region.

1.3.3 Overall Direction

The management direction and implementing projects for air services support continued services at the existing airports in the Corridor. The Corridor Plan recognizes that air service is dependent on the marketplace for its financial viability and focuses on improvements to existing airports and maintaining service between Portland and Astoria. In lieu of recommending new public use airports, ODOT's Aeronautics Section supports existing general aviation facilities, with grants for facility improvements consistent with the policy in the *State Aeronautics Plan*.

Coordination between ODOT and local airport authorities has resulted in specific facility improvements being identified in the airport master plans. Maintaining compatible land uses around the airports is also critical to the long-term success of the local airports. The objectives, listed below, support or encourage air service whenever the situation warrants.

1.3.4 Corridor Plan Objectives

A.7.a Promote and encourage air carrier service from Astoria Regional Airport to Portland International Airport to serve Northwest Oregon and Southwest Washington.

A.7.b Undertake improvements, including private airport shuttle service, to the Astoria Regional Airport to improve airport access and usage.

A.8 Promote use of the Scappoose Industrial Airpark to accommodate increased regional demands.

A.9 Implement land use regulations to protect against land use encroachments adjacent to general aviation airports.

1.4 Bicycles

1.4.1 Introduction

Bicycles are a low-cost, quiet, and energy-efficient means of transportation. They also provide a form of recreation. Bicycling benefits the community by reducing the number of motorized vehicles on the road, and thereby, reducing congestion and air and noise pollution.

The rural and urban portions of the Portland-Astoria Corridor have different needs for bicycle facilities. The length of the Corridor is used by many touring cyclists as a route from Portland to the northern Oregon coast. In rural areas, the serious recreational bicycle rider is the most common user of the highway shoulder, not bicycle commuters or short distance "errand-running" riders. In the cities along US 30, bicycles may be used for shorter errands between residences and commercial businesses. The Portland Metro portion of the Corridor connects to a well-developed network of parallel and intersecting bicycle facilities that provide day-to-day work and recreational bicycling opportunities for Portland residents, and cycling has the potential to reduce vehicle-miles-traveled for work and other trips. This is not necessarily the case in the rural portions of the Corridor, where origins and destinations are many miles apart. Because the bicycle lane system on US 30 consists of the roadway shoulder, it is physically a part of the roadway shared with autos and trucks. The highway shoulder serves many user groups that include cyclists, pedestrians and motorists. A comprehensive inventory of shoulder improvement needs conducted for the Plan is addressed in the *Roadway Conditions and Safety* section.

As a matter of policy, improvements to the roadway will include, when feasible, improvements to shoulders to accommodate bicycles, as well as to improve safety for trucks and motorists. There are no stand-alone bicycle projects identified for US 30. All ODOT modernization projects will bring bike and pedestrian facilities up to standard as part of the new or expanded facility when feasible.

1.4.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for bicycles in the Corridor:

An improved and continuous bicycle route from Portland to the coast, utilizing both the existing US 30 alignment and sections of the Old Highway 30 alignment (Old Portland Road in St. Helens and Scappoose and Old Rainier Road between Rainier and Alston), is developed over time in conjunction with highway maintenance and improvement projects. With improved connections to local and regional bicycle systems, recreational and commuter bicycling increases within the Corridor.

1.4.3 Overall Direction

The overall management direction is to promote increased bicycle use for both recreational and commuting purposes by providing safe and adequate facilities. While the approach to bicycle improvements is different for the rural and urban areas of the Corridor, there are some commonalties. First, stand-alone bicycle projects are not generally recommended, unless they can be combined with other highway projects to share costs. This policy stems from a recognition that shoulders serve not only cyclists but also pedestrians and motorists, that making improvements for bicycles alone is not in keeping with the multiple functions of a highway shoulder and that they would generally not prove cost-effective. Second, many projects should be completed as part of routine pavement overlays. In many cases, an extra foot of shoulder width is easy to provide during an asphalt overlay at minimal cost. Third, maintenance and cleaning of the shoulder is often sufficient to significantly improve conditions for cyclists.

In incorporated communities, a primary concern is for connections to parallel and intersecting bicycle paths that provide access to surrounding development while minimizing interaction with traffic that leaves the highway to access various businesses and re-enters at various points. Access management plans in these areas will address the need of maintaining a continuous bicycle lane through these community centers. Coordination with local jurisdictions through their TSPs will ensure connectivity of bicycle routes in the urban areas.

In rural areas, the emphasis is on bringing the shoulder up to standard to provide a safe place for bicycles. The need to improve and widened shoulders has been balanced with the difficulty and cost of doing so. For example, widening of shoulders would be cost-prohibitive as a new bridge or extensive fill or cut work would be needed. In these areas, the Plan recognizes the need to make bicycle travel as safe as possible without physically widening the highway shoulder. Solutions in these areas include illumination and warning signs for motorists. In the future, if these facilities need to be replaced for structural or seismic reasons, an appropriate bicycle facility can be included.

1.4.4 Corridor Plan Objectives

The Corridor Plan Objectives for bicycles follow. (Note: Objective A17 was deleted by the CSC to reduce redundancy with other Objectives.)

A.10 Provide bicycle lanes in urban areas and, at a minimum, provide five-foot shoulders to accommodate bicycle use along the entire Corridor length.
A.11 Maintain US 30 as a bicycle route, with connections to local bicycle and hiking systems where feasible.
A.12 Provide bicycle crossings across Highway 30 where appropriate and feasible.
A.13 Improve bicycle access to the St. John's and Lewis and Clark bridges.
A.14 Incorporate adequate bikeways into the Astoria Truck Route and Fern Hill-John Day River Bridge projects and enhance bicycle access into Astoria along the existing Highway 30 corridor.
A.15 Develop abandoned railroad corridors into bike/pedestrian corridors and investigate opportunities for co-use of active corridors.
A.16 Where feasible, develop remaining sections of the Old Highway 30 alignment into bicycle routes.
A.18 Emphasize shoulder maintenance (surfacing, cleaning, vegetation removal), particularly in the peak summer cycling months.
A.19 Accommodate bicycles on rural transit lines (when developed).

1.5 Pedestrians

1.5.1 Introduction

Pedestrian travel is important to the overall transportation system of the Corridor. Walking not only reduces the number of vehicles on a roadway (reducing congestion and promoting better air quality), it provides an alternate mode of travel to those unable or unwilling to drive. In addition, a good pedestrian environment facilitates transit use. However, where pedestrian facilities do exist (usually in urban areas), they often have inadequate width or protection from traffic in this Corridor. Many are part of an unconnected system with barriers to connectivity that tend to discourage frequent use. Corridor Plan management direction focuses on addressing pedestrian safety at intersections, improving the ability to cross US 30 and connect to local pedestrian systems, and the management of auto and pedestrian conflicts.

1.5.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for pedestrians in the US 30 Corridor:

Pedestrian access and safety are improved within urban areas through sidewalks, signals and other strategies to ensure safe and convenient crossings of US 30.

1.5.3 Overall Direction

The overall management direction for pedestrian activity within the Corridor varies by location. Even so, a common theme throughout the Corridor is that pedestrian facilities (including shoulders) should be added or enhanced when roadway improvements are implemented. (The need for shoulder improvements is addressed under *Roadway Conditions and Safety* section, as shoulders are important for autos, trucks, and bicycles, as well as pedestrians.)

In urban areas, the focus of pedestrian improvements is to provide an interconnected network of sidewalks built to ADA standards. Implementation actions for the urban part of the Corridor also address minimum standards for the design of sidewalks, landscaping and pedestrian facilities. In some of the cities along US 30, the sidewalk networks are not fully connected. Pedestrian connections are a key part of reducing per capita vehicle miles traveled as called for by the State's *Transportation Planning Rule*. Without connections in place, walking can be difficult and hazardous.

Another important aspect is to improve connections between existing pedestrian facilities and across US 30. Because US 30 forms the main street through several cities, at-grade pedestrian crossings occur at intersections but there can also be conflicts with automobiles entering and existing the roadway from numerous points. Connectivity across US 30 is important to minimize the barrier effect within neighborhoods and to provide connections from homes to services.

In the rural community centers, the plan's emphasis is on safe pedestrian crossings, adequate shoulders, and access management. Although not as desirable as grade-separated pedestrian facilities, shoulder improvements will help improve pedestrian connections. Multiple auto access points in rural community centers will be consolidated through access management, creating a more predictable and safe environment for pedestrians.

In the rural areas, the emphasis for implementation is on safety. Shoulder improvements will help improve pedestrian connections and safety in rural areas. Opportunities for the development of new pedestrian links between communities will be explored if existing rail lines become inactive or abandoned, as they will be evaluated by ODOT for development as "rails to trails" projects.

1.5.4 Corridor Plan Objectives

Corridor Plan Objectives for pedestrians are as follows:

A.20 In urban areas, at a minimum, provide six-foot sidewalks on both sides of the highway and convenient and safe pedestrian crossings.
A.21 Where feasible, provide separation between pedestrians and autos through access management and landscaping.
A.22 Provide adequate pedestrian warning signs in rural centers.

1.6 Transit

1.6.1 Introduction

Transit is an important part of a multi-modal transportation system, and is an essential service for those without access to automobile travel. The Transportation Planning Rule calls for the creation of a multimodal transportation network that will reduce reliance on the automobile and "*support a pattern of travel and land use in urban areas which will avoid the air pollution, traffic and livability problems faced buy other areas of the country.*"

Transit has different roles in the urban and rural sections of the Corridor. In the Portland metro area, ODOT's role is one of coordination between Tri-Met and local governments to ensure that the transit needs of Corridor residents continue to be met. In the smaller cities, transit is often provided on an as-needed basis primarily for those who cannot, or choose not, to drive. Limited inter-city transit service connects Portland and Astoria. Connections between transit services and to surrounding land uses are also important.

1.6.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for transit in the US 30 Corridor:

Within the section between Portland and St. Helens, transit accommodates a growing percentage of both intracity and intercity trips. In this section of the Corridor, vanpools and suburban transit services connect residential areas to employment and commercial centers. New intercity transit services access employment centers in the Longview/Kelso/Rainier area. Full-service, intercity transit service is provided between the regional transit system and the coast.

1.6.3 Overall Direction

The Plan's management direction focuses on enhancing service and facilities to encourage increased transit use, and thus help to reduce reliance on the single occupant automobile. For example, the Plan recognizes that there is a high volume of commuters traveling from Scappoose and St. Helens to Portland. The *US 30 Transit Feasibility Study* (David Evans and Associates, Inc., 1996) concluded that vanpool service between St. Helens and Portland could be more cost efficient than a fixed-route commuter bus service, as demand is high but diffused in terms of destination and time of travel, and would not be sufficient to support fixed-route service. The study recommended a regional vanpool program to serve the US 30 corridor. Corridor Plan objectives seek to strengthen the role of transit, pedestrian and bicycle modes, as well as transportation demand management, carpooling and vanpooling. Provision of quality transit options for these commuters is essential to reduce congestion in this part of the corridor. New transit facilities (Park and Ride and Park and Pool lots, bus shelters, and possibly a multimodal transportation center) are seen as important for enhancing the transit system and improving intermodal connections.

1.6.4 Corridor Plan Objectives

Corridor Plan Objectives for transit services are as follows:

<u>Service Improvements</u>

A.23 Work with public and/or private contractors to provide transit services to serve increasing numbers of commuters and other riders between St. Helens and Portland.

A.24 Investigate expansion of Kelso/Longview transit service into Rainier/St. Helens.

A.25 Ensure ongoing intercity bus service between Astoria and Portland.

A.26 Encourage transit services, carpooling and/or vanpooling to transit centers and large employment centers.

Facility Improvements

A.27 Develop "Park and Ride" and "Park and Pool" lots.
A.28 Provide enhanced security and comfort, i.e., covered waiting areas, at transit stops and park and ride locations.
A.29 Ensure adequate services for the transportation disadvantaged in the Corridor.
A.30 Improve pedestrian access to transit stops with sidewalks, street crossings and safer intersection design.

1.7 Rail Service

1.7.1 Introduction

This section addresses rail passenger and freight movement as a mode within the Corridor. Truck freight is addressed in the *Truck Freight* section that follows.

The role of rail in the balance of transportation modes in the Corridor is dependent upon market conditions that determine whether rail or truck freight is appropriate for shipping a specific commodity. For example, although it may be desirable to ship logs from the Corridor by rail, from the standpoint of maintaining roadway capacity and minimizing congestion on the highways, trucking could prove to be more economical, which would ultimately drive the decision on how to ship logs to market.

Rail service for freight in the Corridor is provided on the Portland & Western (P&W) line, which runs along the Columbia River from Portland to Astoria. The track from northwest Portland (Willbridge) to east of downtown Astoria is owned by P&W, and the right-of-way is owned by ODOT. The remaining five miles of line is owned by the City of Astoria and operated by P&W. There is currently no passenger rail service in the Corridor.

1.7.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for rail services in the Corridor:

Rail service is maintained from Portland to Astoria, with expanded freight movement by rail, particularly bulk commodities such as aggregate and forest products. There is also limited use of the rail system for excursions between Portland and the coast.

1.7.3 Overall Direction

Following upon statewide policy direction, Corridor Plan Objectives support improvements to the existing service and infrastructure and an increase in the use of rail as an alternative to truck freight. While the role of rail in the balance of transportation modes in the Corridor depends upon market conditions, intermodal connectivity is an important part of supporting rail as an alternative to other modes. Connections with Port facilities enable transfers between rail cars and ships. Intermodal facilities that connect railroads to the truck freight distribution network are also important for the entire Corridor. Maintenance of infrastructure is another key theme in this Corridor Plan. Upgrades of trackage and at-grade crossings will help to provide a safer environment, both for trains and for autos crossing the tracks.

Regular passenger rail service for commuters is not considered feasible within the next 20 years; however, recreation or tourism related excursion service is encouraged.

1.7.4 Corridor Plan Objectives

Corridor Plan Objectives for rail service follow. (Note: Objective A31 was deleted by the CSC to reduce redundancy among Objectives.)

A.32 Make infrastructure improvements (railroad, streets, utilities, etc.) to enhance the investment climate for rail users.
A.33 Restart and maintain active rail service to Tongue Point.
A.34 Evaluate the potential for rail/truck/marine intermodal, including reload, facilities at Tongue Point, Rainier, Columbia City, Port Westward, and other developed sites.
A.35 Develop a consortium of railroad shippers and target industrial recruitment on rail shippers. Encourage coordinated marketing between Portland & Western Railroad and the ports.
A.36 Promote excursion/ tourism/ commuter uses.
A.37 Actively participate in any rail abandonment proceedings to maintain a continuous rail right-of-way through the corridor and to ensure railbanking of any abandoned sections.
A.38 Continue programs to upgrade railroad crossings in conjunction with other roadway improvements, with a priority to address safety improvements.
A.39 Implement land use regulations that promote the use of existing rail lines for industrial uses and for future excursion and commuter uses.
A.40 Manage the rail line to preserve future opportunities for rail service, particularly self-propelled passenger and commuter rail. Through Transportation System Plans and the Corridor Plan, identify the conditions that would warrant future investigation of the feasibility of passenger rail services and intermodal connections.

1.8 Truck Freight Service

1.8.1 Introduction

The Corridor serves vital economic functions. In particular, the ability for US 30 and other roadways to carry truck freight is essential to the overall economy of the local communities, the county, and the entire region. The more easily and efficiently that trucks can move through the system, the more benefits there are for local industries and their competitiveness.

US 30 through the Corridor is designated as a Freight Route in the 1999 OHP. The trucking industry's main role is moving containers, steel, forest products, and petroleum for local distribution. For comparison with rail volumes, one fully-loaded, class "A" cargo ship requires 2,400 semi-trucks to completely unload, or 95 miles of trucks on the highway (assuming 150 feet between trucks).

The truck freight transportation system in the Portland-Astoria Corridor has not changed significantly over the past 20 years despite major changes in the region's economy. Recently, the decline in the forest products industry, which has historically been among the region's primary users of the freight transportation system, has affected the trucking industry. The agricultural industry is another prime user of truck freight.

Truck traffic levels in the Corridor exceed the statewide average. Approximately 93 percent of the length of the highway carries over 500 trucks daily, while only 48 percent of state highways carry the same volumes.

Trucks are generally used for shipping higher value commodities and are used nearly exclusively for freight shipped by the retail and service sectors, including many perishable goods. Advantages that trucks have over rail

include quicker travel times, more predictable delivery schedules, door-to-door delivery service, and ability to serve businesses and suppliers at a large number of locations.

1.8.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for truck freight in the Corridor:

Overall, there is a limited increase in truck freight movement due to increased reliance upon rail and water for the transport of bulk commodities. Within the Portland section of the Corridor, improvements identified in the Linnton Transportation Plan facilitate truck access to industrial sites. I-5 and, in the long term, the Astoria Truck Route, serve as primary truck routes, reducing truck traffic through urban centers. In the Corridor's western portion, truck freight movement is facilitated through passing/climbing lanes and improvements to the Lewis and Clark Bridge.

1.8.3 Overall Direction

The overall philosophy for improving truck freight movement in the rural portions of the Corridor is to improve the reliability of operations and travel time. Rather than wholesale widenings or capacity additions, the Plan addresses strategic capital improvements at "pinch points" where a climbing or passing lane of one-half to two miles in length would alleviate an area of congestion. These small widening projects are more cost-effective and have less environmental impact than major lane additions throughout the Corridor.

Within the urban areas, freight movement is subject to congestion. To improve truck travel times, the Corridor Plan Objectives promote improved facilities and truck access, as well as the use of alternative routes, such as I-5 between Longview and Portland, and the Astoria Truck Route (if constructed). The focus is on providing adequate access to commercial and industrial sites. Improvements to problem intersections will enhance safety as well as improve travel times. In addition, the RTPs addresses freight movement and individual TSPs implement street classifications to channel trucks to appropriate facilities.

1.8.4 Corridor Plan Objectives

The Corridor Plan Objectives for truck freight are as follows:

A.41 Minimize additional long-haul truck use of Highway 30 by promoting increased bulk freight movement by rail and water.
A.42 Promote use of I-5 and the Astoria Truck Route (if constructed) as truck routes.
A.43 Construct truck climbing/passing lanes in the Corridor's western portion.
A.44 Improve truck access to industrial sites, including turn and acceleration/deceleration lanes where appropriate.
A.45 Design local street systems to separate local truck traffic from through traffic.
A.46 In coordination with the Oregon Department of Forestry and large private timberland owners in the Corridor, provide safe truck access to US 30 for forest operations.
A.47 Identify needed improvements to Cornelius Pass Road from US 30 to US 26 including those needed to better accommodate hazardous materials transport.

1.9 Other Transportation Modes

1.9.1 Introduction

Other modes of transportation meet a variety of transportation and communication needs in the Corridor. Each mode has a unique set of characteristics which fill a specialized niche in the Corridor's overall transportation

balance. Pipelines and water transport play a part in the decrease in reliance of the highway as a way to move goods. Improvements in telecommunications infrastructure allow for improved telecommuting, thereby removing some peak-hour work trips from the highway system.

1.9.2 Future Vision

The Future Vision for waterborne transportation in the Corridor is:

Increased movement of bulk commodities by water minimizes the growth in truck traffic within the Corridor. While all Lower Columbia River Ports benefit from improved access with deepening of the Lower Columbia River, the Port of Portland continues to function as the Corridor's primary port for international, national, and regional goods.

The Future Vision for telecommunications in the Corridor is:

Improvements to telecommunication technologies directly affect the Corridor. Increased telecommuting helps reduce automobile congestion, particularly peak hour single-occupant vehicle trips, in the eastern portion of the Corridor.

1.9.3 Overall Direction

The roles of "other" modes in the Corridor are as varied as the modes themselves. ODOT's primary responsibility in this area is to provide opportunities for other modes to be developed in the Corridor. There are no specific projects to implement objectives related to these modes, which is consistent with ODOT's cooperative role in the development of modes that are provided primarily by the private sector.

Implementation actions for water transport focus on maintaining access to Ports and improving intermodal connections. A major focus of water transport at this time is the proposed deepening of the Columbia River to admit larger ships. By keeping access open to ports by road and rail and encouraging the development of improved intermodal transfers, ODOT plays a key role in providing the land-side infrastructure required to support water transportation.

Pipelines have the lowest potential to result in any significant changes to traffic in the Corridor, since the potential to replace truck or rail freight is limited.

Telecommunications infrastructure is vital to telecommuting, which is a key transportation demand management strategy in the Corridor Plan. Management direction for telecommunications focuses on the provision of adequate infrastructure to support increased telecommuting, and the responsible installation and siting of the necessary infrastructure. The main strategy to encourage the improvement of telecommunications infrastructure is allowing private companies access to ODOT right-of-way to install cables. ODOT and local jurisdictions will work with private companies, utilities, and others to ensure that minimum disruption occurs to traffic operations in the Corridor as a result of construction of microwave towers, fiber-optic cables, and other telecommunications infrastructure.

1.9.4 Corridor Plan Objectives

<u>Waterborne Transportation</u>

A.48 Support the proposed deepening of the Lower Columbia River navigation channel from 40 to 43 feet to accommodate deep draft ships, as currently being studied by the U.S. Army Corps of Engineers.

A.49 Support ongoing side channel dredging and maintenance to provide access to marine facilities.

A.50 Improve access to port properties to take advantage of significant expansion opportunities.
A.51 Maintain ferry service between Cathlamet/Westport.
A.52 Encourage private sector initiatives to develop commercial ferry service between Astoria/Longview and St. Helens/Portland.

Pipelines

A.53 Encourage the use of pipelines for the transport of bulk commodities as appropriate.
A.54 To the extent feasible, utilize pipeline rights-of-way as bicycle and pedestrian pathways and wildlife corridors.

Telecommunications

A.55 Promote telecommunication technologies and programs that reduce vehicle miles traveled.
A.56 Coordinate the installation of fiber optics with highway improvements.
A.57 In lieu of constructing new facilities, consolidate new telecommunication facilities at existing microwave/cell site facilities.
A.58 Investigate the use of US 30 as right-of-way for fiber optic and other telecommunication equipment.

2.0 Regional Connectivity

2.1 Introduction

One of the primary goals of Corridor planning is to ensure that connectivity within the Corridor is maintained and enhanced. In its simplest form, connectivity can be viewed as how quickly (in terms of travel times) one can get from one place to another. Connectivity also encompasses the concept of intermodal freight and passenger facilities, which allow freight to be transferred from truck to rail or rail to ship and passengers to switch travel modes. These transfer points are vital links in both the freight and the public passenger transportation systems. The final aspect of connectivity is that of the cooperative approach to transportation system operations in the Corridor. This cooperative approach to transportation is best accomplished through the joint efforts of local and state governments and private transportation interests.

The Corridor Plan must balance the need for regional connectivity with local transportation system needs. The Corridor Plan proposes to maintain connectivity within the Corridor through high levels of facility management (acceleration/deceleration lanes, turn refuges, coordinated signals and access management). These measures are expected to maintain travel times, which will have a positive effect on connectivity. The Plan also proposes to develop intermodal center(s) to improve regional and local connectivity.

2.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for regional connectivity in the Portland-Astoria Corridor:

Intermodal connections improve and increase for most modes within the Corridor. Growth in the use of I-5 by both automobiles and trucks as an alternate route between Portland and Rainier, particularly as congestion increases in the Columbia City to Portland segment, results in rebuilding or replacement of the Lewis and Clark Bridge. Significant growth in the use of Cornelius Pass Road as a connection between US 30 and US 26 results in substantial improvements to that roadway. Improved rail connections between Columbia and Washington counties limit the increase in truck freight movement of bulk commodities. While US 30 continues to operate as the main street through most Corridor communities, local street systems become increasingly important for intracity trips.

2.3 Overall Direction

The Corridor Plan proposes to maintain connectivity by improving both connections between modes and between places through improved travel times and close coordination with communities in the Corridor to address transportation needs. The general approaches to improve connectivity overlap with other areas of the Corridor Plan. For example, improving travel times for better connectivity also reduces congestion and enhances truck freight movement. The nature of this Corridor Plan is for projects or other implementation actions to address multiple needs and objectives.

In the urban areas of the Corridor, improved connectivity is addressed through improvements to intersections to US 30, enhancements to parallel arterials, and the provision of a balanced transportation system that encourages all modes of travel. Transit, rail, air, truck freight, and waterborne freight connections are important intermodal connections that occur in the urban area. The Plan calls for providing facilities that improve intermodal connections, improving problematic intersections, and encouraging travelers to use parallel routes to the state system for local trips.

The Corridor Plan Objectives for regional connectivity recognize the predominance of automobiles in the rural portions of the Corridor, but encourage a better transportation balance through improvements in intermodal connectivity for all transportation modes, including air, rail, water, and transit. In lieu of significant capacity improvements for the roadway, the CSC recommends aggressive facility management strategies, support for freight movement by rail and barge, intersection improvements, provision of intercity transit where appropriate, turning lanes, passing/climbing lanes, and other improvements designed to minimize increases in travel times. Two other themes are supported: the use of I-5 as an alternative to US 30 between Longview/Rainier and Portland; and, through local TSPs, improving local streets to provide a better local network and thereby reduce the use of US 30 for local trips.

2.4 Corridor Plan Objectives

The Corridor Plan Objectives for connectivity are as follows:

B.1 Encourage use of I-5 as an alternate route to avoid congestion in the segment from Columbia City to Portland.

B.2 Construct the Astoria Truck Route, with the route determination made through the project EIS or other appropriate process and in concurrence with Clatsop County and the City of Astoria.

B.3 Analyze the effects of construction of the Astoria Truck Route on the use of Business US 101 and identify needed improvements, access management, and other traffic mitigation measures.

B.4a Reconstruct or construct a new Longview/Rainier river crossing. Examine alternative locations for a Longview/Rainier river crossing, including the existing alignment; crossings in other locations such as Goble/Kalama and Columbia City/Woodland; and alternatives to bridges, e.g. tunnels.

B.4b With reconstruction or construction of a new Longview/Rainier river crossing, investigate the feasibility of connecting P-W branch lines in Longview and Rainier.

B.5 Continue to work with the State of Washington to improve access management on SR 432 and SR 433.

B.6 Continue to work with the State of Washington to improve signage connecting US 30 and I-5.

B.7 Assess future travel demand and uses for Cornelius Pass Road and identify needed improvements and alternative connections between US 30 and US 26.

B.8 Improve signalization to facilitate movement through urban areas.

B.9 Take advantage of multi-modal capabilities of the Corridor to promote development that is not solely auto/truck development.

B.10 In lieu of major capacity expansions, strive to maintain existing travel times for both autos and freight through high levels of facility management (acceleration/deceleration lanes, turn refuges, improved signalization, and access management).

B.11 In urban areas, establish travel times compatible with the promotion of compact, pedestrian friendly "Main Streets".

B.12 Construct additional passing and truck climbing lanes in the section from Columbia City to the proposed Astoria Truck Route intersection with US 30.

B.13 Provide an interconnected network of local streets in urban and developed rural areas to improve local circulation and to reduce reliance upon US 30 for local trips.

3.0 Congestion

3.1 Introduction

Congestion is an important concern in the Corridor Plan because it reduces the efficiency, convenience, safety of a transportation system. It also reduces air quality. The 1999 Oregon Highway Plan (OHP) addresses congestion in its policies and actions on highway mobility. The OHP provides mobility standards, such as volume to capacity ratio (v/c) during the peak traffic hour, that are geared to the specific characteristics of the facility.

Management of the transportation system to reduce congestion includes both management of highway operations and development of solutions to address areas where congestion levels would become unacceptable in the future. Congestion management applies to autos, trucks, and transit vehicles. Facility management tries to avoid the premature obsolescence of highways by accommodating growth with and without capital-intensive improvements. One of the most important facility management techniques to preserve the function of the highway is access management, which includes regulating the number, spacing, type, and location of driveways, intersections and traffic signals. Another tool is promoting the use of alternative transportation modes.

This Plan approaches the management of congestion in the Corridor in a manner that is consistent with the policy direction set by the OTC. It is the intent of this plan to minimize the number of capital road construction projects and focus on the maintenance and operation of the existing transportation system. In this Corridor, congestion is primarily an issue in the urban areas during the peak-hour or rush hours.

3.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for congestion in the Portland-Astoria Corridor:

Increases in travel times are minimized through high levels of facility management and minor capacity expansions, e.g. passing and climbing lanes, within the Corridor's western section. TSM, TDM, and other techniques are increasingly relied upon to manage growing congestion within the Portland section of the Corridor. Access management programs consolidate access points and improve safety.

3.3 Overall Direction

This Plan approaches the management of congestion in the Corridor in a manner that is consistent with the policy direction set by the OTC and within the context of what we know about the sources of congestion. The *Statewide Congestion Overview for Oregon* (ODOT, 1998) addresses statewide congestion trends that help to put the Corridor congestion discussion in perspective. The following are findings from that study that address issues discussed in this Corridor Plan.

- Congestion on Oregon's main roadways has increased considerably over the past 15 years because vehicle travel grew rapidly while roadway capacity changed little. From 1982 to 1995, vehicle miles traveled (VMT) on arterials and collectors increased by 59 percent, while the number of lane miles increased only 6 percent. Over

the same period, VMT on urban freeways and expressways increased by 114 percent while the number of lane-miles of these roads increased by only 19 percent.

- Congestion in the Portland metropolitan area has increased greatly and is much higher than elsewhere in the state. The average daily traffic volume per lane on urban interstates almost doubled and the severely congested mileage increased more than five-fold from 1982 to 1995.

- VMT will still grow substantially over the next 20 years because of population growth. Because of this, there will be no inexpensive or painless ways of avoiding significant congestion increases.

Although research has shown that in urban areas the level of congestion and travel times will continue to increase, the Corridor Steering Committee has determined that a major expansion of the capacity of US 30 would have unacceptable financial costs and adverse impacts on surrounding land uses and natural resources. Therefore, in lieu of major capacity improvements, the Corridor Plan focuses on facility management measures that will help maintain or minimize the increase of travel times and congestion on US 30. The management of congestion requires different approaches in different parts of the Corridor. In the urban area, TDM and TSM measures should be employed. The Plan supports development of local access and circulation plans to relieve localized congestion problems and improvements to key intersections to facilitate traffic movements. In the rural areas of the Corridor, the Plan proposes that congestion be controlled primarily through land use controls and access management.

Table 4: US 30 Access Management Categories and Standards

Category	Urban/ Rural	Intersection					Median Control
		Public Road		Private Drive		Signal Spacing	
		Type	Spacing	Type	Spacing		
2	Urban	at-grade/ interchange	½-2 miles	None	NA	½-2 miles	Full
	Rural	at-grade/ interchange	1-5 miles	None	NA	None	Full
3	Urban	at-grade/ interchange	½-1 mile	R Turns	800 feet	½-1 mile	Partial
	Rural	at-grade/ interchange	1-3 miles	R Turns	1,200 feet	None	Partial
4	Urban	at-grade/ interchange	¼ mile	L/R Turns	500 feet	½ mile	Partial/None
	Rural	at-grade/ interchange	1 mile	L/R Turns	1,200 feet	None	Partial/None

Source: Table 1 - Access Management Classification System, Appendix B, 1991 Oregon Highway Plan.

Throughout the Corridor, facility management techniques such as encouraging the use of alternative transportation modes, consolidation of access points along arterials and collectors, and the use of motorist information systems (like variable message signs) are proposed to minimize congestion. One important measure is to actively encourage the use of I-5 as an alternative route to and from the western portion of the Corridor.

3.4 Corridor Plan Objectives

The Objectives under this section are divided into three areas: facility management, urban congestion and rural congestion. Objectives for facility management measures, such as access management, are tailored for urban versus rural segments.

Facility Management

C.1 Adopt the highest applicable (most restrictive) access management categories for both local arterials and US 30, consistent with existing or planned adjacent land uses.

C.2 Develop consistent street classifications and speed and access management standards within and between urban areas.

C.3 Establish consistent policy on raised medians in congested areas.

C.4 Utilize mobility standards established in the OHP as goals, recognizing that they may not be achievable in all segments.

C.5 Allocate state resources to highway projects according to the following priorities:
(1) Maintenance of the existing facility to ensure that it remains safe and functional, e.g. fixing potholes, etc.;
(2) Preservation of the roadway by investing in roadbed and pavement reconstruction as needed to minimize maintenance costs;
(3) Safety and capacity improvements; and
(4) Transportation system management to optimize existing highway capacity,
(5) Projects that support economic development, particularly recreation and tourism.

C.6 Encourage state and private timber landowners to utilize existing access points to US 30 for management, fire protection, harvesting and recreation purposes.

Congestion in Urban Areas

C.7 Develop local access management and circulation plans to relieve localized congestion problems, to facilitate local trips crossing US 30 safely without unduly interfering with through traffic, and to meet other local transportation system needs.

C.9 Improve traffic signalization in urban areas to improve safety and livability.

C.8 Improve local street systems to reduce the need for US 30 improvements.

C.10 Use parallel routes to decrease reliance on US 30 for local trips based upon their limits of capacity, and functional, policy and operational roles.

C.11 Investigate the feasibility of congestion pricing, mile-based and/or emission-based registration fees within the Metro UGB.

C.12 Implement congestion reduction strategies based upon the following priorities:
(1) Demand reduction, such as TDM measures like carpooling, telecommuting,
(2) System management, such as optimization programs or improvements to local street systems to reduce the demand for US 30 improvements;
(3) Access management; and
(4) Improvements and new facilities to accommodate additional capacity.

C.13 Promote increased use of incident management and motorist information systems to minimize congestion during peak hours.

C.14 Encourage use of transit to accommodate a portion of the growth in trips.

Congestion in Rural Areas

C.15 Provide no improvements solely for highway capacity outside UGBs. Provide climbing/passing lanes, turning lanes, and other improvements to address safety-related issues.

C.18 Preserve rural sections as rural, particularly in the Portland-to-Rainier segment, through access management and land use controls.

C.17 Provide passing and truck climbing lanes in key locations from Columbia City to the Astoria Truck Route.

4.0 Roadway Conditions and Safety

4.1 Introduction

Safety is a high priority in the OTP, and the improvement of safety is a constant goal of all agencies involved in the provision of transportation services, whether the mode is by automobile, rail, air, transit, pedestrian, or bicycle. This section addresses the conditions of the roadway and how they impact safety. Identifying and correcting deficiencies in the roadway and other systems can help relieve congestion and improve safety.

The Safety Priority Index System (SPIS) is a method developed by ODOT in 1986 for identifying hazardous locations on state highways. The SPIS score is based on three years of accident data and considers accident frequency, accident rate, and accident severity. To become a SPIS site, a location must either have experienced three or more non-fatal accidents or at least one fatal accident in the three previous years. Each year, a list of the top 10% SPIS sites are generated for review by ODOT and appropriate projects developed to address problem sites that would benefit the most. In 1998, the system was modified to improve calculations and reporting, and to report data that would enable ODOT to better rank the most severe problem sites. In particular, key elements have been weighted to more accurately reflect safety concerns and better information on the circumstances surrounding accidents has been added to the database.

4.2 Future Vision

The CSC developed the following Future Vision for roadway geometry and conditions in the Portland-Astoria Corridor:

With maintenance of the existing facility as the highest priority for the allocation of state resources, management of US 30 focuses on addressing safety needs and maintaining surface conditions at or above state standards.

The CSC developed the following Future Vision for safety in the Corridor:

Overall Corridor safety is improved through a combination of increased enforcement, access management and targeted highway improvements, e.g., intersection improvements, passing and turning lanes, and improved lighting. Safety needs are routinely monitored and addressed in all maintenance and improvement projects.

4.3 Overall Direction

Problems of deficient geometry and poor pavement condition can affect the safety of motor vehicle drivers, cyclists, and pedestrians. (Roadway geometry refers to the physical configuration of the highway such as lane and shoulder widths, curvature, and alignment.) The CSC has determined that maintenance should be the highest priority in allocating state resources and maintenance, operations, and management actions make up the vast majority of solutions identified for roadway conditions and safety. ODOT is addressing safety in the Corridor through a combination of facility management and improvements at potentially unsafe locations. The Objectives and solutions include reconfiguring intersections, signal improvements, shoulder widening, better lighting and delineation, additional signs, sunken grade repairs, bridge retrofits and pavement overlays.

The implementation program is divided into three subsections—roadway geometry, roadway conditions and roadway safety—and there are differences between the approaches used in rural and urban areas. The approach used in the urban area includes facility management measures, while rural improvements tend to include other solutions such as intersection safety improvements, shoulder widenings, bridge retrofits and pavement overlays. However, improvements to the surface conditions of roadways and the need to address high accident locations are priorities throughout the Corridor.

4.4 Corridor Plan Objectives

Corridor Plan Objectives for Roadway Conditions and Safety follow. (Objective E.16 was deleted by the CSC.)

Roadway Geometry

D.1 Target improvements and widening to sections with above average accident rates, slide prone areas and to sections with high congestion rates where there is a favorable cost/benefit ratio.
D.2 Reconstruct the Maggie Johnson Road overpass over US 30 (near M.P. 81) to eliminate over-height load detours.
D.3 In the short term, target pavement of substandard shoulders to "easy fix"/low cost areas.
D.4 Bring substandard bridges up to current standards as feasible.

Roadway Conditions

D.5a Maintain existing facilities as the highest priority for the allocation of resources.
D.5b Maintain roadway surface conditions at 90 percent fair/better by the year 2010.
D.6 Address drainage problems where they affect the function and condition of the roadway.
D.7 Maintain a program of low cost, high yield maintenance.
D.8 Where feasible, use pavement overlay materials that reduce wet pavement spray.
D.9 Investigate solutions to highway pavement stress caused by weather conditions in higher elevations.
D.10 Develop shared maintenance agreements with local governments.

Safety

E.1 Target resources to reduce accident potential in high accident locations within the Corridor, using the Safety Management System to identify unsafe intersections and highway segments.
E.2 Improve lighting at key locations along the Corridor and maintain delineation (e.g. fog lines, reflector buttons) to be highly visible.
E.3 Investigate the need for additional safety rest facilities and emergency telephones.
E.4 Install guard rails where needed to meet highway safety standards.
E.5 Install rural railroad track crossing protection where needed to meet safety standards.
E.6 Provide adequate turn lanes near congested railroad crossings to prevent highway backups.
E.7 Consider realignment or other improvements of intersections with limited sight distances.
E.8 Widen the shoulders at the base of Rainier Hill to provide adequate truck chain-up area.
E.9 Target additional law enforcement to entrances/exits of urban areas and to base of Rainier Hill (eastbound).
E.10 Expand speed limit enforcement, e.g. install mobile digital speed indicators at mid-point of Rainier Hill eastbound (southbound) and between Portland and Scappoose.
E.11 Review and modify if needed, the current hazardous materials response program. Identify potentially unsafe locations (e.g. access/egress points to industrial sites) and develop necessary improvements to accommodate customary freight transport needs.
E.12 Investigate additional safety improvements to Cornelius Pass Road.
E.13 Re-open weigh stations and install weigh-in motion detectors to address trucks using Lewis and Clark Bridge and US 30 to avoid weigh stations on I-5 north of Vancouver.
E.14 Install weather condition monitoring devices at strategic locations in the Corridor.
E.15 Encourage changes in driver behavior through Corridor Safety Program measures as a preference to physical improvements.
E.17 Provide signage to advise of winter driving conditions, icy areas.
E.18 Provide additional truck climbing lanes and slow-moving vehicle turnouts at key locations, and extend the length of existing inadequate climbing lanes and slow-moving vehicle turnouts where feasible.
E.19 Encourage use of radar reader boards to control speed in problem areas. Provide adequate signage and enforcement in sunken grade/slide areas where travel speeds need to be decreased.

5.0 Environmental and Energy Impacts

5.1 Introduction

Transportation planning in the Corridor is becoming more complex as transportation projects affect diverse aspects of the environment. The most recent issue is the Endangered Species Act listing for coastal Coho salmon and for steelhead runs in the Willamette River basin. The Corridor also runs through habitat that is used seasonally or year-round by a variety of other state and/or federal threatened or endangered species, including the northern spotted owl and bald eagle.

Transportation projects must take into consideration the potential impacts on the environment and energy. In the Corridor Plan, environmental issues addressed include scenic and natural resources and air and water quality. This section discusses the environment in the Corridor and proposes objectives to help limit potentially adverse impacts on the environment.

The transportation system's energy impacts can be minimized by encouraging fuel-efficient modes of travel, improving vehicle efficiencies, and designing and operating efficient transportation facilities. This section includes a discussion of potential impacts on energy consumption.

5.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for environmental and energy impacts in the Corridor:

Environmental and energy conservation considerations are factored into both maintenance practices and improvement projects, with a focus on enhancing salmon and steelhead habitat and the Corridor's scenic values.

5.3 Overall Direction

Environmental and Energy implementation measures in the Corridor address a wide variety of topics. Although the overall approach is to protect scenic and natural resources through avoidance, mitigation, and design technologies, as with most other aspects of this Corridor Plan, the approach is different between rural and urban portions of the Corridor. The natural resource objectives seek to protect the environment from vehicle emissions, pollutant runoff and interruption of migration routes.

Scenic resource protection applies primarily to the rural portions of the Corridor. Scenic vistas are to be protected and access to new and existing scenic turnouts will be improved. Additional billboards are discouraged in the Corridor. In the urban areas, scenic resource issues are addressed more directly by local comprehensive plans.

Natural resource protection and mitigation of impacts to natural resources is a requirement for all Corridor Plan projects that affect the roadway. Wildlife crossing issues are important, particularly where US 30 crosses fish-bearing streams. Projects to improve the condition of culverted crossing locations will help reduce impacts to sensitive fish species.

Air quality impacts in the Portland area are managed primarily through measures to reduce vehicle miles traveled through TDM programs, reduced distances between home and work through land use changes, and alternative forms of transportation and work hours. Congestion management in the urban area also reduces pollution in the airshed. For all projects, ODOT will utilize construction techniques that minimize air quality impacts. In the rural areas, congestion management in rural community centers is the primary tool to reduce air quality impacts.

To manage water quality impacts, ODOT will use construction methods and drainage that minimize impacts to water quality. In the rural areas, runoff from impermeable surfaces to streams will be addressed through proper project design. Water quality is a key component of the plan to improve and restore salmon runs in the Corridor. Installation of culverts to protect water quality and enhance salmon migration are a key component of implementation actions to preserve water quality in the Corridor.

Energy efficiency is addressed in the urban areas by reducing total vehicle miles traveled, as with air quality. Reductions in congestion also make better use of fuel and reduce energy consumption. Encouragement of more fuel-efficient and alternative fuel modes of transportation also help improve efficiency in both the rural and urban parts of the Corridor. ODOT will also use energy efficient construction methods and materials for all construction projects in the Corridor.

5.4 Corridor Plan Objectives

(Note: Objective F.7 was deleted by the CSC to reduce redundancy with other Objectives.)

Scenic Resources

F.1 Improve directional signing signage for existing attractions, including for Old Highway 30 and other historic resources and for the Lewis and Clark Bicentennial.
F.2 Identify and construct additional roadside turnoffs at scenic viewpoints.
F.3 Pursue provisions to create and protect scenic vistas, e.g. scenic buffers for timber harvests, and to replace or mitigate for vegetation lost to transportation system projects.
F.4 Remove scenic intrusions such as billboards. Investigate alternatives to billboards, e.g. Oregon Tourism Alliance travel information program.
F.5 Pursue federal designation of US 30 as a Scenic Byway and establish official Lewis & Clark Trail signage along the route.
F.6 Establish an Astoria-Megler Bridge viewpoint, with appropriate signing.

Natural Resources

F.8 To the extent possible, avoid or minimize impacts to Goal 5 resources during construction and maintenance activities and mitigate unavoidable impacts.
F.9 Develop strategies to facilitate the safe movement of wildlife across highways and the maintenance of their forage base and habitats.
F.10 Include mitigation of prior adverse impacts to habitat in the design of new improvement projects.
F.11 Avoid transportation system improvement impacts to the most sensitive natural areas, e.g. large wetlands near John Day County Park, Trojan Park and Prescott Beach County Park.
F.12 Design roadway improvements and new facilities to mitigate surface runoff pollutants.
F.13 Minimize impacts from the transportation system, particularly local roads connecting to US 30, on wildlife migration routes.
F.14 To achieve federal air quality standards, institute measures to reduce vehicle trips, vehicle-miles-traveled (VMT) and congestion, particularly within the Portland airshed portion of the Corridor.
F.15 Design roadway improvements and other facilities to minimize and treat surface run-off.
F.16 Design new improvements and retrofit existing transportation improvements to encourage the conservation, restoration, and protection of coastal salmon habitat.
F.17 Use construction techniques that minimize air and water quality impacts.

Energy Impacts Conservation

F.18 Promote energy conservation through the use of fuel-efficient modes of travel, improving vehicle efficiencies, and providing alternative fueling sites.
F.19 Encourage energy conservation through design, construction, and operation of transportation facilities.

6.0 Social and Land Use Impacts

6.1 Introduction

The social and land use impacts of the corridor planning process touch on a wide range of topics that have a core theme: the integration of transportation and land use planning. The corridor planning process seeks to balance the local transportation needs of the jurisdictions in the Corridor with the needs of regional through-traffic, on US 30 (designated a Statewide Highway in the 1999 OHP) while at the same time protecting social, cultural, and environmental resources.

In rural areas, the Plan encourages the concentration of limited new development in designated rural community centers. In more urbanized areas, the approach is to integrate transportation and land use planning to create more efficient land use patterns that will reduce the need for auto trips. The 1999 OHP includes provisions for creating Special Transportation Areas (STAs) where a highway acts as a primary city street and Urban Business Areas (UBAs) where the highway bisects other areas of commercial activity. These provisions aim to better coordinate the needs of the state's highway system with local needs. No STAs or UBAs have been designated to date through the Corridor Plan or TSPs. As part of development of a final plan, eligible jurisdictions are being consulted with regarding the appropriateness and desirability of applying STA or UBA designations to portions of US 30 through their communities.

6.2 Future Vision

The CSC has developed the following future vision for social and land use impacts in the Corridor:

Management of and improvements to the transportation system are fully integrated with regional and local government land use planning, resulting in transportation efficient land use patterns intended to reduce vehicle trips and miles traveled and promote a live-work balance, particularly within the Corridor's eastern portion. A "Green Corridor" is maintained between the Portland urban growth boundary and the Multnomah County boundary.

6.3 Overall Direction

Because the *Social and Land Use Impacts* section covers a variety of subject areas, there is no single over-riding principle to guide implementation. This section sets the Corridor Plan apart from other planning efforts, in that it creates ties between transportation, land use and our cultural heritage. Since the intent of corridor planning is to address issues comprehensively, the social and land use elements play an important part in connecting transportation improvements with the broader context of the human environment within which they function.

The overall Corridor Plan direction for cultural resources is to avoid them whenever possible. Leaving an important archaeological site undisturbed is the first choice for all projects. Next is the minimization of impacts. Through facility design, the impacts on cultural resources must be minimized. If these approaches are not feasible, then mitigation for impacts must be developed. The Corridor Plan emphasizes the need to understand the significance of the cultural resources in the Corridor and then to protect them from transportation-related impacts.

This Corridor Plan is carefully tied to urban and rural land uses authorized by acknowledged comprehensive plans. In urban areas, the Plan supports the planning principles behind the *Statewide Transportation Planning Rule* and the local and regional TSPs that seek to create more efficient land use patterns and transportation networks. In addition to the strategies contained in other areas of the Plan, the land use section aims to reduce VMT through compact urban development that shortens trip lengths and preserves livability.

In the rural areas, the focus is on minimizing the impacts of development along US 30. Access management plans will help to reduce the total number of access points on the highway. In addition, the Plan seeks to limit commercial development in the rural areas to established community centers. The aim of these latter objectives is to minimize reductions in travel times and to preserve the unique rural character and livability of the Corridor.

6.4 Corridor Plan Objectives

Corridor Plan Objectives for social and land use impacts are as follows:

Effects on Community Livability

G.1 Design transportation system improvements to preserve the livability of the communities within the Corridor and to avoid, minimize or mitigate impacts to sensitive cultural resources and other community resources.
G.2 Preserve those sections of Old Highway 30 with historic values.
G.3 Consult with Tribal and local governments concerning the presence of significant cultural resources/uses.

Land Use Impacts

G.5 Encourage transportation-efficient land use patterns that reduce vehicle miles traveled and promote a live/work balance, e.g. clustered development, mixed uses, maximum parking ratios, and circulation systems that reduce out-of-direction travel. Take advantage of the multi-modal capabilities/ capacities of the corridor to promote development that is not solely auto/truck dependent.
G.6 Accommodate continued growth by constructing alternative local transportation routes.
G.7 Utilize access management to limit the impacts of new development on highway congestion.
G.8 As identified in Metro's Region 2040 Growth Concept, work with Metro, Portland and Multnomah County to identify appropriate "Green Corridor" planning and transportation strategies to preserve natural areas between the Metro Urban Growth Boundary and the Multnomah County boundary.
G.9 Ensure that city and county comprehensive plans, zoning ordinances and local and regional transportation system plans achieve Corridor Plan Objectives.
G.10 Preserve the rural character of those portions of the Corridor outside UGBs.
G.11 Limit additional commercial and residential land use designations along the Corridor outside UGBs to designated rural community centers.
G.12 Design highway improvements to limit adverse land use impacts, consistent with the TPR and local land use regulations.

7.0 Economic Impacts

7.1 Introduction

Oregon law (ORS 184.681(4)) directs ODOT to "give economic development and the provision of industrial site services priority in fund allocation decisions." This direction led ODOT to assess the economic development potential in 25 highway corridors around the state. The *Economic Development Analysis of Highway Corridors* (1995) evaluated transportation factors, employment growth, number of lodging resources for tourism, amount of turnkey industrial land available, number of economic development organizations and level of education to reach this assessment. The report concluded that the Portland-Astoria Corridor has a moderately high economic growth potential. The economic situation in the Corridor has not changed significantly since that report was written.

The Corridor contains some of Oregon's most valuable resources. The Columbia River and its confluence with the Pacific Ocean has enabled the growth of a large shipping industry, commercial fishing, recreation and tourism, and development of land and facilities for industrial and commercial uses. Transportation facilities—US 30, the rail line, and the river—are resources in themselves and influence economic development in the Lower Columbia

River Basin. The *US 30 Multimodal Study* (Northwest Economic Associates, 1991) noted that, traditionally, transportation has been viewed as tool to move goods, services and people, but more emphasis is being placed on making investments in facilities to generate benefits from economic development. For example, the ports and communities in the Corridor have been collaborating with other affected agencies in support of deepening the main channel of the Columbia River. The river is dredged every year to maintain the current allowable depth, but this depth is insufficient to accommodate newer ships. An additional three feet would allow larger cargo vessels to navigate the Columbia River, which could encourage the growth of industries affected by the use of such ships. Therefore, dredging the channel is viewed as a requirement to meet future water transportation needs in the region.

Other port activities include an emphasis by the Port of St. Helens on industrial development. Recently, the Port of St. Helens signed an agreement that will lead to construction of a multi-million dollar wallboard plant in Rainier by U.S. Gypsum. ODOT's Immediate Opportunity Fund (with local matching funds) will provide funds for improvements to US 30 and local streets to access the site. The Port of Astoria has diversified economic operations based on its deep water port facilities, commercial and recreational boat basins, and an airpark with industrial areas.

Other economic development efforts include activities by the Northwest Oregon Economic Alliance Board (Clatsop, Columbia, and Tillamook counties) to implement a six-year economic plan based on three key industries: Environmental Services, Forest Products, and Tourism. The regional strategies for Clatsop, Columbia, and Tillamook counties encourage industries that will not have a negative impact on the region's high quality of life.

7.2 Future Vision

As part of the corridor planning process, the CSC developed the following future vision for economic development in the Corridor:

Investments in maintenance of and improvements to the Corridor's transportation system promote the efficient movement of people and goods. Deepening of the Lower Columbia River and improvements to rail and port facilities promote growth for all ports and incorporated communities within the Corridor.

Facility management strategies within urban areas and passing/climbing lanes within the western segment enhance access to recreation opportunities within the Corridor and on the northern Oregon and southern Washington coasts. Recreation development focuses on the Lower Columbia River, e.g. canoe trail from Portland to Astoria.

7.3 Overall Direction

Corridor Plan solutions in support of economic development focus on maintaining and improving access to the Corridor and the industries it serves, and have been covered in other sections, such as truck freight, waterborne transportation, connectivity and congestion. For example, intersection improvements, and passing/climbing/ turning lanes maintain travel times through the Corridor, which is important to minimize the cost of trucking freight through the Corridor. The Corridor Plan supports efforts by the Army Corps of Engineers to increase the depth of the Columbia River to 43 feet to accommodate larger ships.

Access to recreational opportunities is also a key component of economic development. Tourism dollars spent at the Oregon Coast, Portland and points in between are in part due to the recreational opportunities available and the ease of access to those opportunities. Improvements to promote recreational activities in the Corridor involve improved access and signage and interpretive displays. Facility improvements in the form of passing lanes and

capacity improvements also help maintain access to recreational opportunities in the Corridor. Maintaining access to the Corridor by other modes is also a key component of promoting recreational use of the Corridor.

7.4 Corridor Plan Objectives

Economic Development

H.1 Grant high priority to projects that enhance development of existing industrial and currently designated commercial sites, e.g., Tongue Point.
H.2 Improve access to industrial and commercial users by improving the local street network.
H.3 Encourage projects which are compatible with the development of ecotourism.

Recreation Opportunities

H.2. Create a Highway 101 gateway to Oregon, including a visitor center, at the US 101/202 intersection, the ODOT District 1 office near the Astoria-Megler Bridge entrance, or the existing Astoria Chamber of Commerce visitor center.
H.3 Promote a stronger I-5/US 30 connection to encourage additional tourism, including a gateway facility at Rainier.
H.4 Improve access to recreational sites, including river access and expand the recreational services offered, e.g. additional public boat ramps and parking.
H.5 Improve recreation/tourist-oriented directional signage, including Lewis and Clark Bicentennial signage on I-5 and US 30.
H.6 With railbanking of the Astoria segment of the P-W line, develop a riverfront promenade, trolley or other tourist facilities.
H.7 With development of the Astoria Truck Route, encourage tourist access to downtown Astoria.
H.8 Promote river excursions between Portland and Astoria and Astoria as a cruise ship port-of-call.
H.9 Expand the Columbia River Heritage Canoe Trail from Portland to Astoria (currently extends from Clatskanie to the John Day Channel near Fern Hill).
H.10 Develop additional educational opportunities along the Lower Columbia River for interpretation and field studies connected to the Lewis & Clark Expedition.

8.0 Miscellaneous

8.1 Introduction

During Corridor Plan development, the CSC identified several issues that are general in nature and do not readily fit into one of the categories above. Among these are the need to pursue alternative financing mechanisms for funding needed improvements in the Corridor and the need for an ongoing advisory body to assist with updating the Corridor Plan.

8.2 Future Vision

A combination of alternative financing mechanisms and increased/restructured gas taxes fund needed transportation system maintenance and improvements.

8.3 Corridor Plan Objectives

I.1 Maintain a corridor-wide advisory group to assist ODOT in prioritizing transportation projects, reviewing Transportation System Plans for conformance with the Corridor Plan, and assisting in refinement planning and updating the Corridor Plan, as needed.

I.2 Investigate alternative financing mechanisms for transportation improvements, including, but not limited to system development charges, congestion pricing/toll roads, and public-private partnerships.

I.3 Allocate state and federal revenues for transportation improvements on a corridor-wide basis, rather than by ODOT Region.

IV. CORRIDOR MAPPING AND DECISION DETAILS

A. DESCRIPTION OF PROCESS 1
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D. DECISION MAPPING

A. DESCRIPTION OF PROCESS

Chapter III details the objectives and overall direction for management of transportation facilities and services within the Portland-Astoria (US 30) Corridor. This chapter expands on that management direction by describing how specific solutions will be implemented, fitting those solutions into financial constraints, and mapping the projects throughout the Corridor. The three sections of this chapter are described below.

A Matrix of Objectives and Solutions (Section B) summarizes the implementation actions proposed to fulfill Corridor Plan Objectives. The implementing actions may take the form of service improvements by a transportation service provider; management, operational or maintenance practices or improvements which fulfill an Objective, or capital improvement projects (modernization or other) which fulfill an objective. In a few cases, the Objective does not have a clear solution, and further (refinement) planning is needed at the appropriate time in the future to clearly identify the appropriate solution. In addition to the solutions identified, the matrix also assigns responsibility for carrying out the solution. ODOT will be the lead agency on many solutions, but other local and regional governments and private industry are expected to lead the fulfillment of some solutions.

A Solutions List by Funding Priority (Section C) summarizes those solutions that could be termed "projects"--there is something specific to build or repair, as opposed to operational practices or procedures. This table lists all of the projects sorted first by funding priority and then by project number. The project numbers are those used in the Matrix of Objectives and Solutions in Section B, as well as in Chapter III. In addition, this table identifies the specific location of the solution (highway and milepoint), the ODOT Region(s) responsible for the project, and the project type (modernization, safety, preservation, etc.). The table also lists the jurisdiction the project is within (county and city if applicable), estimated project cost, a brief project description, and comments or justification for the project.

Decision Mapping (Section D) includes maps of the entire Corridor illustrating the location of all the projects identified in Sections B and C. The maps are at a scale of 1" = 1 mile for the rural portions of the Corridor, and at an enlarged scale of 5" = 1 mile for the urban portions of the Corridor. These maps include data "ribbons" in the lower 1/3 of the page which display a line starting and stopping at the limits of each project, or a circle for projects at a point (e.g. intersections, bridges, etc.). Adjacent to each project symbol is the project number, again tied to the tables in Sections B and C. The symbols are color coded to reflect each project's funding priority. Finally, the data ribbons are categorized by the work type (modernization, bridge, safety, transit, etc.) Some projects are not located on US 30 and are identified as "off-system" (e.g. parallel county road improvements). Projects that do not specifically fit the regular categories are listed as "other."

Additional details of how these solutions were developed, including analysis of existing and future conditions, policies and management objectives, are found in Volume 2, Chapter 1 of the Corridor Plan. Additional details and specific location mapping for each project can be found in the Decision Details section of Volume 2 of the Corridor Plan.

B. MATRIX OF OBJECTIVES AND SOLUTIONS

B. MATRIX OF OBJECTIVES AND SOLUTIONS

Corridor Plan Objectives are ultimately implemented through a combination of management strategies and projects. The process by which projects were selected and prioritized is described in Volume 2, Chapter 1 of this Corridor Plan.

The matrices below summarize the implementation actions or solutions proposed to meet Corridor Plan Objectives. The broad subject areas are listed in the left-hand column along with each Corridor Plan Objective. For each of these Objectives, a list of projects (by number) and other implementation actions are included. Below is a summary of the project type categories. Safety projects are included in all project categories.

A. Service Improvements – projects implemented by a service. For example, new intercity transit service would be a service improvement.

B. Management, Operations, and Maintenance – projects implemented through: 1) management of a facility or program, such as a TDM program, 2) changes in operations, such as implementation of Intelligent Transportation System improvements in the urban portions of the Corridor or construction of rural passing lanes, signals, or intersection improvements in the rural portions and 3) maintenance of facilities, such as adding pavement width to shoulders during routine overlays to implement a bike lane project.

C. Modernization – projects that result in added system capacity, primarily through widening of facilities or major interchange construction in the urban portions of the Corridor.

D. Refinement Planning Needs – these projects need an additional step that better defines the project's scope before implementation can occur. Some projects will be refined during the course of implementation through the ODOT project development process and are not included in this category.

In addition to the implementation actions, the entity with responsibility to implement the objective is identified and additional comments are included to cross-reference projects or to explain any special conditions that may exist. The projects are also listed by funding priority. The following is a compilation of the individual implementation action tables found at the end of each implementation section in Volume 2 of the Corridor Plan. Shown are the solutions proposed to implement each Corridor Plan Objective, with project numbers for Committed projects in **underlined bold**, Constrained funding projects shown in **bold**, Strategic funding projects in *italics,* and Unconstrained projects in plain text. For a complete discussion of project funding categories, see Chapter II in this volume.

1. Automobile

Implementation Solutions for Automobile Travel

Corridor Plan Objective	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.1 Provide no additional expansion in highway capacity from Columbia City to Portland, except for transportation system management (TSM) improvements such as turning lanes.		**1, 4.1,** *4.2,* **5, 16, 17, 21,** *22,* **82, 83, 89, 201,** *220*	*29,* 31		ODOT	ODOT will work with local jurisdictions to identify and implement TDM and TSM measures.
A.2 Other than the Astoria Truck Route, provide no major expansions in highway capacity from Columbia City to Astoria, except for passing lanes, turning lanes and through lanes in congested urban areas.		**F, 16, 17, 21,** *28,34, 130, 133*	*29,* 31, *39.5, 131,* **146,** 191	**39.1**	ODOT	ODOT will work with local jurisdictions to identify and implement TDM and TSM measures.
A.3 In lieu of capacity expansions, emphasize transportation demand management (TDM) techniques, especially the promotion of alternative modes; pricing mechanisms; and land use patterns which encourage alternatives to single occupant vehicles.		**18, 44**	Implementation measures in Bicycles, Pedestrians, and Transit sections		ODOT, local jurisdictions	ODOT will work with local jurisdictions to identify and implement TDM and TSM measures.
A.4 Design any highway improvements within the Portland Metro UGB to accommodate planned land uses per the Region 2040 Growth Concept.			Specific projects identified in Section C, Congestion.		ODOT, Portland , Multnomah County, Metro	Projects within UGB conform to RTP and 2040 Growth Concept.

Bold text with underline = committed funding projects; bold text = constrained funding projects; *italicized text = strategic funding projects;* plain text = unconstrained funding projects

Corridor Plan Objective	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.5 Promote the use of parallel routes to decrease reliance on US 30 for intra-city trips.		**16, 17, 18, 21,** *23*, 35	**6,7,8, 12,** *39.5*, **68**, 86, 92, *222*	**39.1**	ODOT, local jurisdictions	ODOT's access management; ODOT to encourage consolidation of access points. ODOT coordinates through development of local TSPs. Local street network implemented through TSPs.
A.6 Encourage the concentration of services within incorporated areas and established rural centers to reduce the need for auto trips.		**51**	Local TSPs		ODOT, local jurisdictions	ODOT to encourage consolidation of access points

2. Air Service

Implementation Solutions for Air Service

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Improving Local Air Service						
A.7 Undertake improvements, including private airport shuttle service, to the Astoria Regional Airport to improve airport access and usage.					Sunset Empire Transportation or another operator	ODOT to coordinate with private sector providers
A.8 Promote use of the Scappoose Industrial Airpark to accommodate increased regional demands.			Extension of runway and parallel taxiway		ODOT, Port of St. Helens	Implemented through the Airpark Master Plan.
Protection of Airport Functions and Surrounding Land Uses						
A.9 Implement land use regulations to protect against land use encroachments adjacent to general aviation airports.					Local jurisdictions	Implemented through TSPs and/or comprehensive plans.

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects;* plain text = unconstrained funding projects

3. Bicycles

Implementation Solutions for Bicycle Travel

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Plan Projects	Implementing Jurisdiction	Comments
A.10 Provide bicycle lanes in urban areas and, at a minimum, provide five-foot shoulders to accommodate bicycle use along the entire corridor length.		**45.3, 51, 171.1-.6**	**6, 7, 8,** 36, *39.5*	**39.1**	ODOT	Maintenance of slides helps keep shoulders of adequate width.
A.11 Maintain US 30 as a bicycle route, with connections to local bicycle and hiking systems where feasible.		**45.3, 46,** 55, 56, 57, **70, 171.1-.6**	3, **12,** 86, 92		ODOT	ODOT will evaluate feasibility of improvements with intersection projects.
A.12 Provide bicycle crossings across Highway 30 where appropriate and feasible.		**51**	*39.5*, **146**	**39.1**	ODOT, Clatsop County, City of Astoria	
A.13 Improve bicycle access to the St. John's and Lewis and Clark bridges.		**46**	3, **6, 7, 8, 12,** *43,* 86, 92		ODOT	
A.14 Incorporate adequate bikeways into the proposed Astoria Truck Route and Fern Hill-John Day River Bridge projects and enhance bicycle access into Astoria along the existing Highway 30 corridor.		55, 56, 57	*39.5*	**39.1**	ODOT	
A.15 Develop abandoned railroad corridors into bike/pedestrian corridors and investigate opportunities for co-use of active corridors.					ODOT, cities, counties	ODOT will participate in future abandonment proceedings and in planning future uses.
A.16 Where feasible, develop remaining sections of the Old Highway 30 alignment into bicycle routes.		55, 56, 57			ODOT, counties, cities	
A.18 Emphasize shoulder maintenance (surfacing, cleaning, vegetation removal), particularly in the peak summer cycling months.					ODOT	Subject to available funding, additional shoulder maintenance will be programmed.

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects;* plain text = unconstrained funding projects

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Plan Projects	Implementing Jurisdiction	Comments
A.19 **Accommodate bicycles** on rural transit lines (when developed).					Public/private service providers	Transit providers encouraged to provide other services for transit and bike inter-connections.

4. Pedestrian Travel

Implementation Solutions for Pedestrian Travel

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.20 In urban areas, at a minimum, provide six-foot sidewalks on both sides of the highway and convenient and safe pedestrian crossings.		**18, 45.3, 45.11-.17, 47, 50**, *139*	12, 36, **45.2, 45.3, 70** Local TSPs		ODOT, local jurisdictions	See also A.30
A.21 Where feasible, provide separation between pedestrians and autos through access management and landscaping.			**45.3**		ODOT, local governments	ODOT & local governments to identify needs
A.22 Provide adequate pedestrian warning signs in rural centers.					ODOT	

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects;* plain text = unconstrained funding projects

5. Public Transit

Implementation Solutions for Transit

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Service Improvements						
A.23 Work with public and/or private contractors to provide transit services to serve increasing numbers of commuters and other riders between St. Helens and Portland.					ODOT, local jurisdictions, private sector providers	
A.24 Investigate expansion of Kelso/Longview transit service into Rainier/St. Helens.				Further study required	ODOT, WDOT	
A.25 Ensure ongoing intercity bus service between Astoria and Portland.				**138.1**	ODOT, private service providers	
A.26 Encourage transit services, carpooling and/or vanpooling to transit centers and large employment centers.				**138.1**	Tri-Met and private vanpool services	Requires coordination with Tri-Met and private services for vanpools.
Facility Improvements						
A.27 **Develop "Park and Ride"** and "Park and Pool" lots.		*60*			ODOT, local providers, cities	
A.28 Provide enhanced security and comfort, i.e., covered waiting areas, at transit stops and park and ride locations.		**47**, *60, 137,* **138.2**	**63**	**138.1**	ODOT, local jurisdictions	
A.29 Ensure adequate services for the transportation disadvantaged in the corridor.		**47**, *60,* **138.2**		**138.1**	ODOT, local jurisdictions	**See also A.20**
A.30 Improve pedestrian access to transit stops with sidewalks, street crossings and safer intersection design.		**1, 47**, *60, 137,* **138.2**		**138.1**	ODOT, local jurisdictions	

Bold text with underline = committed funding projects; bold text = constrained funding projects; *italicized text = strategic funding projects;* plain text = unconstrained funding projects

6. Rail Service

Implementation Solutions for Rail Service

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.32 Make infrastructure improvements (railroad, streets, utilities, etc.) to enhance the investment climate for rail users.	Wauna to Astoria line reopened.	66, *67*			Local jurisdictions and P&W Railroad	**Reopening** of Wauna to Astoria segment will continue services to Astoria.
A.33 Restart and maintain active rail service to Tongue Point.		**66**			P&W Railroad	
A.34 Evaluate the potential for rail/truck/marine intermodal, including reload, facilities at Tongue Point, Rainier, Columbia City, Port Westward, and other developed sites.			Port of Astoria wood products re-load facility.		ODOT, local governments, shippers, P&W Railroad	ODOT will work with local governments, shippers, and providers to identify other re-load facility opportunities.
A.35 Develop a consortium of railroad shippers and target industrial recruitment on rail shippers. Encourage coordinated marketing between Portland and Western Railroad and the ports.		*67*			Railroad, ports, and shippers	
A.36 Promote excursion/ tourism/ commuter uses of the railroad.					ODOT, local jurisdictions, and P&W Railroad	Excursion trip opportunities merit **further study.** ODOT to work with local jurisdictions.
A.37 Actively participate in any rail abandonment proceedings to maintain a continuous rail right-of-way through the corridor and to ensure railbanking of any abandoned sections.	ODOT will participate in future abandonment proceedings and planning for uses of the rail corridor.				ODOT, local jurisdictions	ODOT will participate in future abandonment proceedings and planning for uses of the rail corridor.

Bold text with underline = committed funding projects; bold text = constrained funding projects; *italicized text = strategic funding projects;* plain text = unconstrained funding projects

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.38 Continue programs to upgrade railroad crossings in conjunction with other roadway improvements, with a priority to address safety improvements.	ODOT will monitor safety of crossings.				ODOT, local jurisdictions	ODOT will monitor safety of crossings on US 30.
A.39 Implement land use regulations that promote the use of existing rail lines for industrial uses and for future excursion and commuter uses.	ODOT will encourage shipping of bulk freight by rail.				ODOT, local jurisdictions, and P&W Railroad	ODOT will encourage shipping of bulk freight by rail.
A.40 Manage the rail line to preserve future opportunities for rail service, particularly self-propelled passenger rail. Through Transportation System Plans and the Corridor General Plan, identify the conditions that would warrant future investigation of the feasibility of passenger rail services.		*67*			ODOT, local jurisdictions, and P&W Railroad.	ODOT to work with local jurisdictions and P&W Railroad.

7. Truck Freight

Implementation Solutions for Truck Freight

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Truck Freight						
A.41 Minimize additional long-haul truck use of Highway 30 by promoting increased bulk freight movement by rail and water.					ODOT, shippers, ports	Rail objectives and projects promote use of rail for bulk freight
A.42 Promote use of I-5 and the Astoria Truck Route (if constructed) as truck routes.	**39.1**	**44**	*39.5*		ODOT, WDOT	Requires completion of NEPA (EIS) documentation and environmental and land use permits

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects,* plain text = unconstrained funding projects

Corridor Plan Objectives		Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.43	Construct truck climbing/passing lanes in the corridor's western portion.	**39.1**		*29*, 31, **39.5, 146,** 191	**39.1**	ODOT	
A.44	Improve truck access to industrial sites, including turn and acceleration/ deceleration lanes where appropriate.		**1, 4.1,** *4.2,* **17, 21,** *22,* **26.2,** 35, **44,** *122, 123, 125, 127, 128, 132,* **201,** *220*	*39.5, 43,* 112	**26.1**	ODOT, local jurisdictions	
A.45	Design local street systems to separate local truck traffic from through traffic.			Local TSPs		Local governments	Local governments to implement through TSPs
A.46	In coordination with the Oregon Department of Forestry and large private timberland owners in the Corridor, provide safe truck access to US 30 for forest operations.					ODOT, ODOF	ODOT & Dept of Forestry to encourage use of rail alternative. New access to US 30 requires review
A.47	Identify needed improvements to Cornelius Pass Road from US 30 to US 26 including those needed to better accommodate hazardous materials transport.				Needed improvement s to be determined by further study.	ODOT, Metro, Washington County, Multnomah County	

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8. Other Modes

Implementation Solutions for Other Modes

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Waterborne Transportation						
A.48 Support the proposed deepening of the Lower Columbia River navigation channel from 40 to 43 feet to accommodate deep draft ships, as currently being studied by the U.S. Army Corps of Engineers.		Ongoing river maintenance			Corps of Engineers, Ports	EIS currently being prepared
A.49 Support ongoing side channel dredging and maintenance to provide access to marine facilities.		Ongoing river maintenance			Corps of Engineers, Ports	
A.50 Improve access to port properties to take advantage of significant expansion opportunities.					ODOT, local jurisdictions	
A.51 Maintain ferry service between Cathlamet/Westport.					Private service providers	
A.52 Encourage private sector initiatives to develop commercial ferry service between Astoria/Longview and St. Helens/Portland.					Private service providers	
Pipelines						
A.53 Encourage the use of pipelines for the transport of bulk commodities as appropriate.					ODOT, utilities	
A.54 To the extent feasible, utilize pipeline rights-of-way as bicycle and pedestrian pathways and wildlife corridors.					ODOT, local jurisdictions	ODOT to continue coordinating with utilities and others on right-of-way use.
Telecommunications						
A.55 Promote telecommunication technologies and programs that reduce vehicle miles traveled.					ODOT, local jurisdictions	TSPs include telecommunication facilities

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
A.56 Coordinate the installation of fiber optics with highway improvements.					ODOT, local jurisdictions	As above.
A.57 In lieu of constructing new facilities, consolidate new telecommunication facilities at existing microwave/cell site facilities.					ODOT, local jurisdictions	As above.
A.58 Investigate the use of US 30 as right-of-way for fiber optic and other telecommunication equipment.					ODOT, local jurisdictions	As above.

C. Regional Connectivity

Implementation Solutions for Connectivity

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Connections Between Places						
B.9 Take advantage of multi-modal capabilities of the corridor to promote development that is not solely auto/truck development.	**171.1**		**47, 138.2**	**138.1**	ODOT, City of Astoria and Port of Astoria, Port of St. Helens	Intermodal transportation center to support tourism and recreation not solely dependent on autos.
Connections Between Places						
B.1 Encourage use of I-5 as an alternate route to avoid congestion in the segment from Columbia City to Portland.		**44**	*43*		ODOT, WDOT	Signage is short-term project. ODOT to work with WDOT to make connections work more effectively
B.5 Continue to work with the State of Washington to improve access management on SR 432 and SR 433.					ODOT, WDOT	

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects;* plain text = unconstrained funding projects

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
B. 6 Continue to work with the State of Washington to improve signage connecting US 30 and I-5.		**44**			ODOT, WDOT	Signage is short-term project. ODOT to work with WDOT to make connections work more effectively
B. 2 Construct the Astoria Truck Route, with the route determination made through the project EIS or other appropriate process and in concurrence with Clatsop County and the city of Astoria.			*39.5*	**39.1**	ODOT, Clatsop County, City of Astoria	Statewide Planning Goal exceptions and County land use permits will be required.
B. 3 Analyze the effects of construction of the Astoria Truck Route on the use of Business US 101 and identify needed improvements, access management, and other traffic mitigation measures.				**39.1**	ODOT, Clatsop County, City of Astoria	Statewide Planning Goal exceptions and County land use permits will be required.
B.4a Reconstruct or construct a new Longview/Rainier river crossing. Examine alternative locations for a Longview/Rainier crossing, including the existing alignment; crossings in other locations such as Goble/Kalama and Columbia City/Woodland; and alternatives to bridges, e.g. tunnels.			*43*	Study to assess feasibility of bridge reconstruction or replacement.	ODOT, WDOT	
B.4b With reconstruction or construction of a new Longview/Rainier river crossing, investigate the feasibility of connecting P&W branch lines in Longview and Rainier.					ODOT, P&W Railroad	

Bold text with underline = committed funding projects; **bold text = constrained funding projects;** *italicized text = strategic funding projects;* plain text = unconstrained funding projects

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
B.7 Assess future travel demand and uses for Cornelius Pass Road and identify needed improvements and alternative connections between US 30 and US 26.				**4.1** Study improve-ments to Cornelius Pass Road necessary for safe trucking of hazardous material.	ODOT, METRO, Washington County, Multnomah County, Portland, Hillsboro	
B.8 Improve signalization to facilitate movement through urban areas.		**1, 4.1,** *4.2,* **5, 16, 17, 18, 21,** *23,* 35, **82, 83, 88, 89,** *91,* **93,** *123, 125, 127, 128,* **134, 201,** *221*				See also A.44, B.10
B.10 In lieu of major capacity expansions, strive to maintain existing travel times for both autos and freight through high levels of facility management (acceleration/deceleration lanes, turn refuges, coordinated signals, and access management).		**F, 1,** *4.2,* **4.1, 5, 16, 17, 18, 20, 21, 26.2,** *28,34,* 35, **82, 83, 88, 89,** *91,* **93,** *122, 123, 125, 127, 128, 130, 132, 133,* **134,** *135, 136,* **201,** *220, 221*	**12,** *131,* **141, 142**	**26.1**	ODOT	
B.11 In urban areas, establish travel times compatible with the promotion of compact, pedestrian friendly "Main Streets".		**16, 17, 18,** *23,*	**141, 142**		ODOT and local jurisdictions	1999 OHP and analysis of appropriate land use overlays and mobility standards.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
B.12 Construct additional passing and truck climbing lanes in the section from Columbia City to the proposed Astoria Truck Route intersection with US 30.			*29,* 31, **146, 191**		ODOT	
B.13 Provide an interconnected network of local streets in urban and developed rural areas to improve local circulation and to reduce reliance upon US 30 for local trips.		**20, 47,** *123, 132, 125, 127, 128, 130, 132, 133, 135, 136*	3, **6, 7, 8, 12, 26.2,** 86, 92, *131,* **141, 142**		ODOT and local jurisdictions, through TSPs	

D. Congestion

Implementation Solutions for Congestion

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Facility Management						
C.1 Adopt the highest applicable (most restrictive) access management categories for both local arterials and US 30, consistent with existing or planned adjacent land uses.					ODOT, local jurisdictions	Local TSPs also implement these and other access management measures.
C.2 Develop consistent street classifications and speed and access management standards within and between urban areas.					ODOT, local jurisdictions	ODOT to work with local jurisdictions to implement through TSPs.
C.3 Establish consistent policy on raised medians in congested areas.					ODOT	Implemented through 1999 OHP policy.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
C.4 Utilize mobility standards, established in the OHP as goals, recognizing that they may not be achievable in all segments.					ODOT	Within the urban portions of the Corridor, there is a heavy reliance on TSM and TDM techniques.
C.5 Allocate state resources to highway projects according to the following priorities: (1) Maintenance of existing facility to ensure that it remains safe and functional, e.g. fixing potholes, etc.; (2) Preservation of the roadway by investing in roadbed and pavement reconstruction as needed to minimize maintenance costs; (3) Safety and capacity improvements; (4) Transportation system management to optimize existing highway capacity, and (5) Projects that support economic development, particularly recreation and tourism.					ODOT	CSC recommended priorities for allocation of state resources. Implemented through regular STIP updates using these priorities.
C.6 Encourage state and private timber landowners to utilize existing access points to S 30 for management, fire protection, harvesting and recreation purposes.		**145**			ODOT, private timber land owners, ODF	Use existing access points wherever feasible.
Congestion in Urban Areas						
C.7 Develop local access management and circulation plans to relieve localized congestion problems, to facilitate local trips crossing US 30 safely without unduly interfering with through traffic, and to meet other local transportation system needs.		**21**			ODOT, local jurisdictions	Implemented through TSPs and localized access management plans.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
C.8 Improve local street systems to reduce the need for US 30 improvements.		*87, 221*	**6, 7, 8, 12, 68, 86,** 92, *222*		ODOT, local jurisdictions	ODOT to encourage consolidation of access points. ODOT coordinates through development of local TSPs. Local street network implemented through TSPs.
C.9 Improve traffic signalization in urban areas to improve safety and livability.		**1, 5, 16, 17, 18, 21,** *23,* **82, 83, 89, 88,** *91,* **93, 134**			ODOT, local jurisdictions	As above.
C.10 Use parallel routes to decrease reliance on US 30 for local trips based upon their limits of capacity, and functional, policy and operational roles.			**6, 7, 8, 12, 68, 86**		ODOT, local jurisdictions	See Objective A.5
C.11 Investigate the feasibility of congestion pricing, mile-based and/or emission-based registration fees within the Metro UGB.					ODOT, PDOT, Metro	Congestion pricing study underway; US 30 not a candidate at this time.
C.12 Implement congestion reduction strategies based upon the following priorities: (1) Demand reduction, such as TDM measures like carpooling, telecommuting, (2) System management, such as optimization programs or improvements to local street systems to reduce the demand for US 30 improvements; (3) Access management; and (4) Improvements and new facilities to accommodate additional capacity.			**6, 7, 8, 12**		ODOT, local jurisdictions	TSM, TDM measures recommended by CSC.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
C.13 Promote increased use of incident management and motorist information systems to minimize congestion during peak hours.					ODOT	ODOT has aggressive incident management program in place.
C.14 Encourage use of transit to accommodate a portion of the growth in trips.					ODOT, local jurisdictions, service providers	ODOT to cooperate with local governments to encourage transit use. See also Transit Objectives.
C.15 Provide no improvements solely for highway capacity outside UGBs. Provide climbing/passing lanes, turning lanes, and other improvements to address safety-related issues.		**F**, *34*	*29,* 31, **146,** 191		ODOT; Metro; Portland; Multnomah, Columbia and Clatsop counties	*"Green Corridor"* applied to area between Portland city limits and Multnomah County boundary.
C.16 Preserve rural sections as rural, particularly in the Portland-to-Rainier segment, through access management and land use controls.					ODOT	*"Green Corridor"* applied to area between Portland city limits and Multnomah County boundary.
C.17 Provide passing and truck climbing lanes in key locations from Columbia City to the Astoria Truck Route.			29, 31, *39.5,* 146, 181, 191	*39.5*	ODOT	

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E. Roadway Conditions and Safety

Implementation Solutions for Conditions and Safety

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Roadway Geometry						
D.1 Target improvements to sections with above average accident rates, slide prone areas and to sections with high congestion rates where there is a favorable cost/benefit ratio.		**4.1**, *4.2*, **71, 72, 76, 77, 78, 79, 80, 81, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 113, 114, 115, 116, 117, 119, 120, 121, 126, 129, 140, 143**, *215*			ODOT	STIP development to ensure priorities
D.2 Reconstruct the Maggie Johnson Road overpass over US 30 (near M.P. 81) to eliminate over-height load detours.		**69**			ODOT, Clatsop County	
D.3 In the short term, target pavement of substandard shoulders to "easy fix"/low cost areas.		**117, 119**	*43*		ODOT	Pavement management system priorities
D.4 Bring substandard bridges up to current standards as feasible.		**155, 202**	3, **12**, 36, *43*		ODOT, local jurisdictions	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Roadway Conditions						
D.5a Maintain existing facilities as the highest priority for the allocation of resources.		**107, 117, 120, 121, 150,** *151,* **152,** *153,* 154, **155,** *156,* **157, 158, 159, A-E**	112, **202-206,** *207-214*		ODOT	STIP development to ensure priorities. Projects listed under D.5 to D.7 also implement this objective.
D.5b Maintain roadway surface conditions at 90% fair/better by the year 2010.		**117, 119, A, B, 120, 121, 129**			ODOT	Additional pavement projects to be included.
D.6 Address drainage problems where they affect the function and condition of the roadway.		**74, 75, 119, 120**			ODOT	
D.7 Maintain a program of low cost, high yield maintenance.		**71, 72, 76, 116,**			ODOT	
D.8 Where feasible, use pavement overlay materials that reduce wet pavement spray.					ODOT	Continue to look for improved paving and maintenance materials.
D.9 Investigate solutions to highway pavement stress caused by weather conditions in higher elevations.					ODOT	As above.
D.10 Develop shared maintenance agreements with local governments.					ODOT, cities, counties	Identify opportunities for efficiencies to be gained by consolidated operations.

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Implementation Solutions for Safety

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Safety						
E.1 Target resources to reduce accident potential in high accident locations within the corridor, using the Safety Management System to identify unsafe intersections and highway segments.		*34,* 35	*29,* 31		ODOT	STIP development to ensure priorities.
E.2 Improve lighting at key locations along the Corridor and maintain delineation (e.g. fog lines, reflector buttons) to be highly visible.		**73, 82, 107**			ODOT, local jurisdictions	
E.4 Install guard rails where needed to meet highway safety standards.		**108, 144**			ODOT	
E.5 Install rural railroad track crossing protection where needed to meet safety standards.					ODOT	
E.6 Provide adequate turn lanes near congested railroad crossings to prevent highway backups.					ODOT	
E.7 Consider realignment or other improvements of intersections with limited sight distances.		**<u>5</u>, 20,** *28,* **82,** *122, 123, 125, 127, 128, 132, 133, 135, 136,* **141, 142, 201,** *221*	**26.2**	**26.1, <u>40.2</u>**	ODOT, local jurisdictions	
E.8 Widen the shoulders at the base of Rainier Hill to provide adequate truck chain-up area.			**33**	33	ODOT	Additional analysis needed.
E.9 Target additional law enforcement to entrances/exits of urban areas and to base of Rainier Hill (eastbound).					ODOT, local law enforcement	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
E.10 Expand speed limit enforcement, e.g. install mobile digital speed indicators at mid-point of Rainier Hill eastbound (southbound) and between Portland and Scappoose.					ODOT, local law enforcement	
E.11 Review and modify if needed, the current hazardous materials response program. Identify potentially unsafe locations (e.g. access/egress points to industrial sites) and develop necessary improvements to accommodate customary freight transport needs.					ODOT, local jurisdictions, emergency service providers	
E.12 Investigate additional safety improvements to Cornelius Pass Road.		**4.1,** *4.2*			ODOT, Multnomah County, Portland	
E.13 Re-open weigh stations and install weigh-in motion detectors to address trucks using Longview-Rainier Bridge and US 30 to avoid weigh stations on I-5 north of Vancouver.					ODOT, local law enforcement	
E.14 Install weather condition monitoring devices at strategic locations in the Corridor.					ODOT	
E.15 Encourage changes in driver behavior through Corridor Safety Program measures as a preference to physical improvements.					ODOT, local law enforcement	Education and enforcement have been identified as lower cost solutions to highway management needs.
E.16 Provide emergency assistance callboxes/telephones and additional safety rest stops.					ODOT	
E.17 Provide signage to advise of winter driving conditions, icy areas.					ODOT, local jurisdictions	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
E.18 Provide additional truck climbing lanes and slow-moving vehicle turnouts at key locations, and extend the length of existing inadequate climbing lanes and slow-moving vehicle turnouts where feasible.			*29*, 31, **146**		ODOT	
E.19 Encourage use of radar reader boards to control speed in problem areas. Provide adequate signage and enforcement in sunken grade/slide areas where travel speeds need to be decreased.					ODOT, local law enforcement	Education and enforcement have been identified as lower cost solutions to highway management needs.

F. Environmental and Energy Impacts

Implementation Solutions for Environment and Energy Impacts

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Scenic Resources						
F. 1 Improve directional signage for existing attractions, including for Old Highway 30 and other historic resources and for the Lewis and Clark Bicentennial.					ODOT, OTA, local jurisdictions	ODOT to work with the Bi-State Bi-Centennial Commission to identify transportation system improvements to support the bicentennial celebration.
F.2 Identify and construct additional roadside turnoffs at scenic viewpoints.					ODOT, local jurisdictions	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
F. 3 Pursue provisions to create and protect scenic vistas, e.g. scenic buffers for timber harvests, and replace or mitigate for vegetation lost to transportation system projects.					ODOT, local jurisdictions	As part of ongoing highway maintenance activities vegetation management techniques will be used to protect existing vistas and buffers and to create new vistas in approved locations.
F.4 Remove scenic intrusions such as billboards. Investigate alternatives to billboards, e.g. Oregon Tourism Alliance travel information program.					ODOT, OTA, local jurisdictions	ODOT will work with the OTA and local jurisdictions to identify techniques to provide traveler information while protecting the scenic qualities of the Corridor.
F.5 Pursue federal designation of US 30 as a Scenic Byway (e.g. US 101 & US 26). Establish official Lewis & Clark Trail signage along the route.					ODOT, local jurisdictions	
F.6 Establish an Astoria-Megler Bridge viewpoint, with appropriate signing.					ODOT, Astoria, Clatsop County	Incorporated by reference from the Highway 101 Corridor Plan.
Natural Resources						
F.8 To the extent possible, avoid or minimize impacts to Goal 5 resources during construction and maintenance activities and mitigate unavoidable impacts.		74			ODOT, local jurisdictions	ODOT will manage its facilities in conformance with adopted state and local plans. Salmon Restoration Plan to address affected anadromous rivers and streams.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
F.9 Develop strategies to facilitate the safe movement of wildlife across highways and the maintenance of their forage base and habitats.					ODOT, ODFW, local jurisdictions	As above.
F.10 Include mitigation of prior adverse impacts to habitat in the design of new improvement projects.					ODOT, local jurisdictions	Where feasible and appropriate, ODOT will work with local governments to integrate resource mitigation efforts in transportation improvement projects, and to identify and avoid or minimize impacts to sensitive natural areas..
F.11 Avoid transportation system improvement impacts to sensitive natural areas, e.g. large wetlands near John Day County Park, Trojan Park, and Prescott Beach County Park.					ODOT, local jurisdictions	As above for F. 8.
F.13 Minimize impacts from the transportation system, particularly local roads connecting to US 30, on wildlife migration routes.					ODOT, ODFW, local jurisdictions	As above for F. 8.
F.16 Design new improvements and retrofit existing transportation improvements to encourage the conservation, restoration, and protection of coastal salmon habitat.		**157, 161-170**				As above for F. 8.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Natural Resources						
F.12 Design roadway improvements and new facilities to mitigate surface runoff pollutants.					ODOT, local jurisdictions	Grass-lined swales, catchment basins, and other runoff collection and treatment techniques are incorporated into improvement projects as needed to protect water quality.
F.14 To maintain federal air quality standards, institute measures to reduce vehicle trips, vehicle-miles-traveled (VMT) and congestion, particularly within the Portland airshed portion of the corridor.			See also bike/pedestrian and transit Objectives.		ODOT, Metro, Portland, Multnomah County	RTP measures reduce congestion and the number and length of trips to reduce overall contributions to air pollution
F.15 Design roadway improvements and other facilities to minimize and treat surface run-off.					ODOT, local jurisdictions	As above.
F.17 Use construction techniques that minimize air quality impacts.					ODOT, local jurisdictions	ODOT will incorporate dust control measures as appropriate during construction projects.
Energy Conservation						
F18 **Promote energy** conservation through the use of fuel-efficient modes of travel, improving vehicle efficiencies, and providing alternative fueling sites.		**46, 47, <u>50,</u> 51**, 55, 56, 57, *60,* **63, 70, 83, 89, 138.2, 139**		**<u>138.1</u>**	ODOT	
F19 Encourage energy conservation through design, construction, and operation of transportation *facilities.*					ODOT, local jurisdictions	

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G. Social and Land Use Impacts

Implementation Solutions for Social and Land Use Impacts

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Effects on Community Livability						
G.1 Design transportation system improvements to preserve the livability of the communities within the corridor and to avoid, minimize or mitigate impacts to sensitive cultural resources and other community resources.		75			ODOT, local jurisdictions	TSPs have considered potential impacts to cultural and other community resources in the evaluation and selection of projects to be included in the plans. More detailed study will be conducted as projects move through planning and implementation.
G.2 Preserve those sections of Old Highway 30 with historic values.					ODOT, local jurisdictions	Opportunities to preserve highway sections and to use such for bicycle and pedestrian uses will be explored.
G.3 Consult with Tribal and local governments concerning the presence of significant cultural resources/uses.					ODOT, local jurisdictions, Tribal governments	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Land Use Impacts						
G.5 Encourage transportation- efficient land use patterns that reduce vehicle miles traveled and promote a live/work balance, e.g. clustered development, mixed uses, maximum parking ratios, and circulation systems that reduce out-of-direction travel. Take advantage of the multi-modal capabilities/capacities of the Corridor to promote development that is not solely auto/truck dependent.		*87* Also see Bicycle, Pedestrian and Transit Objectives			ODOT, local jurisdictions	Implemented through local comprehensive plans. The Portland-Astoria Corridor includes commercially viable rail, barge, and truck freight service for existing and potential future developments. The Port of St. Helens and others are actively recruiting industries that can efficiently use rail and barge service.
Effects on Community Livability						
G.6 Accommodate continued growth by constructing alternative local transportation routes.			**6, 7, 8, 12, 68,** 86, 92		ODOT, local jurisdictions	Implemented through TSPs.
G.7 Utilize access management to limit the impacts of new development on highway congestion.					ODOT and local TSPs	Access management standards provide for development consistent with adopted land use plans and functional requirements of the adjacent roads and highways.
G.8 As identified in Metro's Region 2040 Growth Concept, work with Metro, Portland and Multnomah County to identify appropriate "Green Corridor" planning and transportation strategies to preserve natural areas between the Metro UGB and the Multnomah County Boundary.					ODOT, Metro, Portland, Multnomah County	Metro to secure a cooperative agreement with jurisdictions and ODOT to impose Green Corridor requirements.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
G.9 Ensure that city and county comprehensive plans, zoning ordinances and local and regional transportation system plans achieve Corridor Plan Objectives.					ODOT, local jurisdictions, Metro, Cowlitz-Wahkiakum COG	Coordination with local planning efforts through the integration and concurrent development of local TSPs, RTPs, and Corridor Plan, ensuring consistency with local plans.
G.10 Preserve the rural character of that portion of the corridor outside UGBs					Local jurisdictions	As above.
G.11 Limit additional commercial and residential land use designations along the corridor outside UGBs to designated rural community centers.					Local jurisdictions	As above.
G.12 Design highway improvements to limit adverse land use impacts, consistent with the TPR and local land use regulations.					ODOT, local jurisdictions	Implemented through individual project reviews.

H. Economic Impacts

Implementation Solutions for Economic Development

Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
Economic Development						
H.1 Grant high priority to projects that enhance development of existing industrial and currently designated commercial sites, e.g., Tongue Point.		**1, 17, 18, 21, 26.2, 44, 66**	*39.5, 43*	**39.1, 138.1**	ODOT, local jurisdictions, ports	Determined through STIP development.
H.2 Improve access to industrial and commercial users by improving the local street network.		**5, 17, 18, 21, 26.2, 44, 66,** *67*	*43*	**138.1**	ODOT, local jurisdictions	

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
H.3 Encourage projects which are compatible with the development of ecotourism.					ODOT, local jurisdictions, OR Tourism Allicance	ODOT, local governments and others to promote US 30 as a main access to recreational and tourism opportunities. Supported by the Regional Strategies.
H.11 Expand the Columbia River Heritage Canoe Trail from Portland to Astoria (currently extends from Clatskanie to the John Day Channel near Fern Hill).					OPRD, private recreation providers.	
H.12 Develop additional educational opportunities along the Lower Columbia River for interpretation and field studies connected to the Lewis & Clark Expedition.					ODOT, local jurisdictions, OPRD	
Recreation Opportunities						
H.4 Create a Hwy. 101 gateway to Oregon, including a visitor center, at the US 101/202 intersection, the ODOT District 1 office near the Astoria-Megler Bridge entrance, or the existing Astoria Chamber of Commerce visitor center.		*65,* **138.2**		**40.2, 138.1**	ODOT, Clatsop County, city of Astoria	
H.5 Promote a stronger I-5/US 30 connection to encourage additional tourism, including a gateway facility at Rainier.		**44**, 61	*43*		ODOT, WDOT, CWCOG, Rainier	
H.7 Improve recreation/tourist-oriented directional signage, including Lewis and Clark Bicentennial signage on I-5 and US 30.		**44**, 61			ODOT and WDOT	ODOT & WDOT to improve efficiency of connection; signage is short-term project.

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Corridor Plan Objectives	Service Improvements	Maintenance Operations & Management	Modernization	Refinement Planning Needs	Implementing Jurisdiction	Comments
H.6 Improve access to recreational sites, including river access, and expand the recreational services offered, e.g. additional boat ramps and parking.		**44**			ODOT, OPRD and local parks departments	ODOT will work with agencies to improve signing and access to recreational sites.
H.8 With railbanking of the Astoria segment of the P-W line, develop a riverfront promenade, trolley or other tourist facilities.		*67*			ODOT, City of Astoria	
H.9 With development of the Astoria Truck Route, encourage tourist access to downtown Astoria.		**138.2**	*39.5*	**39.1, 138.1**	ODOT, City of Astoria, OR Tourism Alliance	
H.10 Promote river excursions between Portland and Astoria and Astoria as a cruise ship port-of-call.		ODOT to work with Astoria to promote.			Private operators	

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C. SOLUTION LIST BY FUNDING PRIORITY

This section identifies those solutions that could be termed "projects", i.e., there is something specific to build or repair, as opposed to operational practices or procedures. The following lists all of the projects sorted first by funding priority and then by project number. The project numbers are those used in the Matrix of Objectives and Solutions in Section B, as well as in Chapter III. In addition, this table identifies the specific location of the solution (highway and milepoint), the ODOT Region responsible for the project, and the project type (modernization, safety, preservation, etc.). The table also lists the jurisdiction the project is within (county and city if applicable), estimated project cost, a brief project descriptions and comments or justification for the project.

Costs are preliminary estimates based upon information provided by local governments or developed by ODOT. Local contributions to project costs could result in adjustments to the prioritization of projects. That is, given ODOT's limited resources, the greater the "local match," the higher the likelihood of implementing the project.

Portland to Astoria Corridor Plan - Solution List

August 1999

Solution List by Funding Priority

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
FUNDING PRIORITY: Committed										
005	21.3	21.3	92	1	Operation	Scappoose	Columbia	$1,280	Realign intersection, relocate traffic signal. Overlay US 30 from Laurel to Scappoose/Vernonia Rd.	The present intersection is confusing; the signal is sited for an unused logging road. Drivers are uncertain when to obey the signal and safety is compromised. Increasing traffic volumes through the intersection will compound the safety hazard in the future. Draft 2000-2003 STIP.
040.2	99.3	99.3	92	2	Modernization	Astoria	Clatsop	$440	Intersection improvements at convergence of Hwys I01, 202, & 30	TEA-21 High Priority Project. Improves safety, reduces traffic congestion and conflict and reduces travel time for major traffic flow on US 101 as it intersects with Highways 30 and 202. Regional need involving traffic from Highways 30, 202, 101 and Washington State. Delay and Mobility problems forecast because intersection will be above capacity by 2016 if no improvements are made. Future need for improvements to Young's Bay Bridge, which is rapidly approaching capacity and has no bike/ped facilities. Draft 2000-2003 STIP.

FUNDING PRIORITY: Committed

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
050	46.5	50.2	92	1	Preservation	Rainier	Columbia	$5.888	Install and replace sidewalks and ramps in conjunction with major overlay/inlay preservation project	Project encourages non-auto local trips which will improve through vehicle traffic. Improves connections between newly developing waterfront mixed-use area and downtown and increases demand for development within existing city limits. Sidewalk improvements are among the most critically needed in the city. Project supports City's pedestrian element and the State's bike/ped plan. Draft 2000-2003 STIP.
066	off system			2	Rail	Unincorporated	Clatsop	$875	Remove landslide and repair rail line allowing reopening of Portland-Astoria rail service.	TEA-21 High Priority Project supports development within the existing UGB by reducing truck traffic on Hwy 30 within downtown Astoria. Reduced traffic enhances quality of life and encourages residential and commercial development. Project links sea, truck and rail modes. Potential to develop some form of rail passenger or tourist excursion service. Willamette & Pacific owns tracks and ODOT owns the right-of-way. (Completed)
069	82.84	82.84	92	2	Operation	Unincorporated	Clatsop	$250	Improve vertical clearance.	Raising bridge not feasible; lowering roadway is best solution. Draft 2000-2003 STIP.
116	74.11	74.82	92	2	Maintenance	Unincorporated	Clatsop	$159	Rockfall protection (screening)	Statewide Rockfall priority list Draft 2000-2003 STIP.
126	95.2	95.7	92	2	Maintenance	Astoria	Clatsop	$159	Slide Repair - known as both the Crest and Sloan slide	Astoria TSP Draft 2000-2003 STIP.
134	97.96	98.41	92	2	Operation	Astoria	Clatsop	$1.060	New Signals	Astoria TSP Need to confirm this is in Draft 2000-2003 STIP

FUNDING PRIORITY: Committed

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
138.1	98	ff system	92	2	Planning	Astoria	Clatsop	$281	Refinement Planning - Intermodal Transportation Center	TEA-21 High Priority Project Sunset Empire Transportation District Intermodal Station. Location and scope of project to be determined through refinement planning. (See project 138.2) Draft 2000-2003 STIP.
A	6	13.12	92	1	Preservation	Portland	Multnomah	$2,476	Preservation Overlay.	Grind out and replace with 2" F-mix. Under construction 1999.
B	87.7	92.3	92	2	Preservation	Unincorporated	Clatsop	$1,829	Preservation overlay.	Draft 2000-2003 STIP.
C	3.92	6	92	1	Preservation	Portland	Multnomah	$3,193	Preservation Overlay. Includes railing and other improvements	Grind out and inlay/overlay pavement. 1998-2001 STIP for 2000 construction
D	10	10	92	1	Bridge	Unincorporated	Multnomah	$778	Replace structure	Draft 2000-2003 STIP.
E	60.82	60.82	92	1	Bridge	Clatskanie	Columbia	$42	Retrofit bridge railings	Draft 2000-2003 STIP.
F	57.4	57.4	92	1	Safety	Unincorporated	Columbia	$555	Extend left turn refuge to Carlson Road	Draft 2000-2003 STIP.
G	97.07	98.41	92	2	Preservation	Astoria	Clatsop	$680	Overlay	Draft 2000-2003 STIP

Summary for FUNDING PRIORITY = Committed (16 records) $19,945

FUNDING PRIORITY: Constrained

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
001	8.55	8.55	92	1	Operation	Portland	Multnomah	$135	Signal/intersection improvements	Large presence of trucks on Hwy 30 creates conflicts between pedestrians, trucks, autos and transit. Some intersections are unpaved, unsignalized, and have heavy truck traffic. Project would provide more efficient truck flow through industrial sites. Increasing development within this area will result in increased vehicle / pedestrian interaction. Signal improvements are needed to maintain safety. Private development activities may fund some or all of the project.
004.1	13.27	13.27	92	1	Operation	Unincorporated	Multnomah	$15	Add NB left-turn lane by restriping, signal modifications.	Interim project: Project 4.2 provides long-term solution.
006	off system			1	Modernization	St. Helens	Columbia	$470	Reconstruction of West Gable Road to city arterial standards	The project will improve a heavily travelled and poorly maintained section of County road within City limits. Gable Road is a minor arterial that connects a fast growing area of town with Highway 30 and a number of commerical establishments along the highway. Gable Road is presently a narrow two-lane road that is in poor condition. St. Helens has experieneed rapid development in the past several years. This presents an additional burden on a narrow County Road that serves several different land uses.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
007	off system			1	Modernization	St. Helens	Columbia	$670	Minor arterial improvements (pavement, storm drainage)	The project will improve a heavily travelled, poorly maintained section of County road in a rapidly developing area of the City's UGB. Bachelor Flat is currently a narrow road with no sidewalks, shoulders or bike lanes. Project will provide safer connection between neighborhoods, schools and shopping. St. Helens has experienced rapid growth in recent years.
008	off system			1	Modernization	St. Helens	Columbia	$250	Improve to city arterial standards	The project will improve a heavily travelled and poorly maintained section of County road within the City limits. Sykes Road is a designated minor arterial street that connects a fast growing area of town with more developed areas. Sykes Road is presently a narrow two-lane road that is in poor condition. The addition of sidewalks and bike lanes will connect neighborhoods to schools and shopping.
012	off system			1	Bridge	Rainier	Columbia	$1,700	Replace existing one-lane bridge with two-lane bridge/sidewalks	Project increases regional capacity of Hwy 30 by improving alternative route for local traffic. Bridge is a safety hazard. Bridge reconstruction allows for upgrade of C Street to provide a feasible alternative to Hwy 30 for local traffic, freeing capacity on the State Highway. Candidate for HBR funds.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
016	46.97	46.97	92	1	Operation	Rainier	Columbia	$30	Upgrade signal to allow for additional protected turn movements	Encourages redevelopment and intensification in downtown area by facilitating local circulation. This signal has a high accident rate (.97 ACC/MVM). Signal improvements will reduce congestion and delay to Hwy 30 through traffic by removing turning vehicles from the traffic stream.
017	48.38	48.38	92	1	Operation	Rainier	Columbia	$30	Increase protected turn movements through signal changes	Project reduces congestion for through traffic on Hwy 30. Intersection will provide access to industrial sites owned by the Port of St. Helens. Signal modifications will improve connections between C Street and the Longview Bridge.
018	47.34	47.34	92	1	Operation	Rainier	Columbia	$150	Install traffic signal and pedestrian crosswalks	Project improves safety and efficiency of through traffic movements by eliminating conflict with south and northbound turning movements. Signal will serve an area of the waterfront that is planned for intensive mixed use development. Future 2017 LOS of F without signal, LOS C with signal as determined by agency. This major intersection is currently stop-controlled with high pedestrian volumes seeking to cross the highway to access the City Park. Doesn't currently meet signal warrants- would meet within 5 years.
020	0.22	0.41	110	1	Maintenance	Clatskanie	Columbia	$10	Intersection improvements to improve sight distance	Improves safety accessing OR47 from local streets. Maintenance project / minor betterment.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
021	61	61	92	1	Operation	Clatskanie	Columbia	$180	Add EB/WB left-turn lanes with signals	This project eliminates a congested intersection area of US 30 and facilitates development of the adjacent commercial and industrial area. Van Street is the truck route in Clatskanie from US 30 to the Stimson Mill; without a traffic signal, the long log trucks make left turns difficult and dangerous. This is a two-lane section of US 30 and can be dangerous when traffic on US 30 is heavy. Would require significant local or private match. Doesn't currently meet warrants.
026.1	off system			1	Planning	Unincorporated	Columbia	$25	Study alternatives at intersection for truck access	Need safer and more efficient intersection operation. Refinement Planning needed to determine best solution.
026.2	off system			1	Modernization	Unincorporated	Columbia	$1,022	Provide truck access from Apiary Rd. to US 30	Trucks are currently unable to access Hwy 30 from Apiary Road, except via Larson Road, where left-turn movements are hazardous due to horizontal and vertical alignments that cause sight distance problems. Two proosed alternatives - 1: $678,000 would improve the intersection of Old Rainier Road and Apiary Road to allow left turns; 2: $1,022,000 would extend Apiary Road (possibly using Heath Road) to create a new intersection with US 30.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
033	48.4	48.6	92	1	Maintenance	Unincorporated	Columbia	$10	Create WB chain-up area at base of Rainier Hill	Project provides a safe location for trucks and other vehicles to apply chains in adverse weather conditions to enable them to ascend Rainier Hill. Removes trucks from travel lanes while chaining up, a practice which has resulted in a number of accidents. Potential maintenance project. Combine w/ #106?
039.1	91.3	NEW		2	Planning	Astoria	Clatsop	$2,000	DESIGN new alignment for US 30 to reroute truck traffic.	Project avoids potential future safety problems with projected traffic volumes. Will help to relieve congestion in downtown Astoria and on Young's Bay Bridge, and will enhance economic development/revitalization in the City of Astoria with redirection of truck traffic. Provides a direct and efficient link for cargo trucking to the Ports of Astoria and Warrenton and to the Astoria Regional Airport. Replaces system designed in the 1920s. Astoria is heavily impacted by regional traffic. Hwy 30 runs along local arterial streets built on pilings & chairwalls. The EIS projects 75% reduction in heavy truck traffic w/plan implementation. Heavy traffic in downtown hinders revitalization. See project 39.5.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
044	off system			1	Operation	Longview, WA	Cowlitz	$25	Improve signing between I-5 and US 30 to improve access to and from I-5 and US30.	Proposed improvements provide better access to Hwy 30 from the I-5 corridor. Provides better access and signing for the Pacific Coast Byway (US 101). Increases regional awareness and use of the AMTRAK station at Kelso, WA. To be included as a maintenance/management task. In FY 98 WSDOT work program to do inventory and proposal.
045.11	3.92	4.11	92	1	Pedestrian	Portland	Multnomah	$150	Construct sidewalks on both sides of US30	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
045.12	4.95	5.50	92	1	Pedestrian	Portland	Multnomah	$220	Construct sidewalks on west side of US 30	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.
045.13	6.23	6.41	92	1	Pedestrian	Portland	Multnomah	$70	Construct sidewalks on the west side	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
045.14	6.23	7.36	92	1	Pedestrian	Portland	Multnomah	$450	Construct sidewalks along Bridge Road; improve shoulders on US 30 versus adding sidewalks.	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.
045.15	7.36	8.15	92	1	Pedestrian	Portland	Multnomah	$310	Construct sidewalk	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
045.16	8.15	8.81	92	I	Pedestrian	Portland	Multnomah	$520	Construct sidewalks	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.
045.17	8.81	9.05	92	I	Pedestrian	Portland	Multnomah	$100	Construct sidewalks	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east sides of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to cross a busy regional highway. Intended to link Hwy 30 eastern and western communities and provide continuous bike/ped facilities.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
045.2	8.32	8.32	92	1	Pedestrian	Portland	Multnomah	$350	Construct pedestrian overcrossing	Increases pedestrian mobility, safety and connections to activity centers, and reduces the regional VMT because good pedestrian facilities provide an incentive to walk rather than drive. Provides links between the west and east side of the highway. Lack of ped/bike facilities creates a hazardous situation for residents trying to eross a busy Statewide highway.
045.3	4	9	92	1	Bike	Portland	Multnomah	$400	Visually narrow roadway. Include landscaping, pedestrian bulb outs, and median.	Intended to calm traffic, make safer pedestrian environment
046	3.92	3.92	92	1	Bike	Portland	Multnomah	$365	Improve ped/bike access to St. Johns bridge. Issues of coordination w/ ODOT bridge improvements.	Provides for improved access from North/Northeast Portland and north and east Multnomah County to points west on US 30. Existing bike route to St. Johns Bridge is hazardous; sidewalk improvements are needed. Project would link bike and ped routes east of Willamette River with routes west of the river. Previously identified by Willamette River Bridge Accessibility Project. ODOT has major bridge project ($29 million paint, redeck and other improvements) planned for 2001.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
047	2.68	10.87	92	1	Transit	Portland	Multnomah	$300	Construct ADA pads at bus stops	Lack of sidewalks, narrow/unsafe shoulders, and lack of ADA compliant concrete pads at bus stops within the project boundary impair pedestrian access and conncectivity. Improvements would encourage pedestrian trips and transit usage while decreasing SOV use.
051	61	off	92	1	Bike	Clatskanie	Columbia	$80	Bikeway link between US 30 and northwest city limits	Provides a bicycle path link to the downtown area and to Highway 30 from an area of the city that has no sidewalks or bike paths. This should encourage use of the bicycle for shopping, recreation and employment trips. Completes one portion of the city's bikeway plan. Extends bikeway into the county so that old Highway 30 to Quincy and Mayger can be destinations for extended recreational trips. Needs further evaluation of alignment options.
063	18.37	ff system	92	1	Transit	Unincorporated	Col./Mult.	$330	Create Park & Ride Lot	Encourages car and vanpooling into Portland. May also encourage routes by bus service -- Colco and Portland-based service. Could also include bikes. Establishes a centralized pick-up point for passengers into Portland. Supports modal objectives. Need to determine location and size. Current agreement with Fred Meyer Store. Refined cost estimate needed.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
068	off system			1	Modernization	Rainier	Columbia	$608	Upgrade roadway; new curb, gutters & sidewalk	Project reduces congestion for through traffic on Hwy 30 by encouraging local traffic use of C Street. Improvement would encourage redevelopment and intensification of uses in downtown area. Provides continuous sidewalks, reduces pedestrian/vehicle conflicts and increases safe and convenient walking. Related to project #12.
070	0.22	ff system	110	1	Bike	Clatskanie	Columbia	$300	Install bike/ped pathway and bridge over creek	With a new link to bike/ped facilities, local residents could access local shopping, business or employment. This project also improves safety by increasing the sight distance on intersections with inadequate sholders and guard rails. City owns some of the right of way between OR 47 / Orchard Drive and Bel Aire Drive, which could be used for a portion of the bike path.
071	6.4	6.4	92	1	Maintenance	Portland	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
072	6.6	7.3	92	1	Maintenance	Portland	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
073	6.93	6.93	92	1	Maintenance	Portland	Multnomah		Illumination Upgrade Required	Maintenance District Inventory - Need to develop scope and cost estimate.
074	6.93	6.93	92	1	Maintenance	Portland	Multnomah		Drainage system replacement	Maintenance District Inventory - Need to develop scope and cost estimate.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
075	6.93	7.93	92	1	Maintenance	Portland	Multnomah		Historic drainage features from St. Johns Bridge WB upgrade	Maintenance District Inventory - Need to develop scope and cost estimate.
076	8.6	8.6	92	1	Maintenance	Portland	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
077	9.3	9.6	92	1	Maintenance	Portland	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
078	9.7	10	92	1	Maintenance	Unincorporated	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
079	10.1	10.1	92	1	Maintenance	Unincorporated	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
080	10.4	10.4	92	1	Maintenance	Unincorporated	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
081	11.7	12.2	92	1	Maintenance	Unincorporated	Multnomah		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
082	19.35	21.27	92	1	Operation	Scappoose	Columbia	$15	Signal Head Modifications	Enhance Pedestrain safety. Potential for pedestrian actuated phase.
083	19.35	21.27	92	1	Operation	Scappoose	Columbia	$10	Signal Timing	Scappoose TSP
088	26.95	26.95	92	1	Operation	St. Helens	Columbia	$200	Install Signal	Intersection could rise in priority if adjacent developer assists.
089	26.95	29.1	92	1	Operation	St. Helens	Columbia	$20	Signal Coordination	St Helens TSP
093	29.1	29.1	92	1	Operation	St. Helens	Columbia	$200	Install Signal	St. Helens TSP

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
097	37.2	37.5	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
098	40	40	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
099	40.4	40.7		1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
100	40.8	41	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
101	42.9	43.7	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
103	45.6	45.6	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
104	45.9	45.9	92	1	Maintenance	Rainier	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
105	46	46.7	92	1	Maintenance	Rainier	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
106	48.6	48.7	92	1	Maintenance	Rainier	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate. Combine with project # 33?
107	48.67	48.67	92	1	Maintenance	Rainier	Columbia		Illumination Upgrade	Maintenance District Inventory - Need to develop scope and cost estimate.
108	48.7	49.7	92	1	Maintenance	Rainier	Columbia		Slide Repair and guardrail installation.	Maintenance District Inventory - Need to develop scope and cost estimate.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
113	61.8	61.8	92	1	Maintenance	Clatskanie	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
114	67.5	67.5	92	1	Maintenance	Unincorporated	Columbia		Slide Repair	Maintenance District Inventory - Need to develop scope and cost estimate.
115	74.4	74.4	92	2	Maintenance	Unincorporated	Clatsop		Sunken grade repair	Maintenance District Inventory - Need to develop scope and cost estimate.
117	78.5	78.5	92	2	Maintenance	Unincorporated	Clatsop		Deep base repair, shoulder widening	Maintenance District Inventory - Need to develop scope and cost estimate.
119	87.3	87.3	92	2	Maintenance	Unincorporated	Clatsop		Drainage improvement and slope stabilization	Maintenance District Inventory - Need to develop scope and cost estimate.
120	94.4	94.4	92	2	Maintenance	Unincorporated	Clatsop		Sunken grade repair	Maintenance District Inventory - Need to develop scope and cost estimate.
121	94.5	94.5	92	2	Maintenance	Unincorporated	Clatsop		Sunken grade repair	Maintenance District Inventory - Need to develop scope and cost estimate.
129	97	99	92	2	Maintenance	Astoria	Clatsop		deep base repair	Maintenance District Inventory - Need to develop scope and cost estimate.
138.2	98	ff system	92	2	Transit	Astoria	Clatsop	$2,219	CONSTRUCTION - Intermodal Transportation Center	Sunset Empire Transportation District Intermodal Station. Location and scope of project to be determined through TEA-21 High Priority Project refinement planning. (See also project 138.1.)
140	98.34	98.25	92	2	Maintenance	Astoria	Clatsop		Retaining Wall Failure	Identified in Astoria TSP, site of Intermodal Center
141	98.41	98.41	92	2	Modernization	Astoria	Clatsop	$1,000	Extension Intersection Improvements	Identified in Astoria TSP

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
142	98.41	98.41	92	2	Modernization	Astoria	Clatsop	$1,055	Existing Intersection Improvements	Identified in Astoria TSP
143	99.3	99.3	92	2	Maintenance	Astoria	Clatsop		Repair or Replace	Identified in Astoria TSP
144			92		Maintenance	various	various		Guardrail replacement locations	Maintenance District Inventory - Need to develop scope and cost estimate.
145			92		Maintenance	Unincorporated	various		Logging Contract Locations - access management	Maintenance District Inventory - Need to develop scope and cost estimate.
146	91.3	92.46	92	2	Modernization	Unincorporated	Clatsop	$9,088	Passing Lane	Improve access, safety, and operation of this heavily used roadway. Dropped from current STIPdue to landuse / environmental issues. County permitting, goal exceptions may be needed.
150	21.84		92	1	Bridge	Scappoose	Columbia	$25	Pres-Rehab	ODOT Bridge Management System
152	36.47		92	1	Bridge	Unincorporated	Columbia	$386	Pres-Rehab	ODOT Bridge Management System
155	49		92	1	Bridge	Rainier	Columbia	$7,395	Pres-Rehab	ODOT Bridge Management System - May be deferred, funds used for project #43
157	55.29		92	1	Salmon	Unincorporated	Columbia	$195	Mod-Rehab/Enhance salmon habitat.	ODOT Bridge Management System / Enhance salmon habitat.
158	61.21		92	1	Bridge	Clatskanie	Columbia	$364	Mod-Rehab	ODOT Bridge Management System
159	60.82		92	1	Bridge	Clatskanie	Columbia	$144	Pres-Rehab	ODOT Bridge Management System
161	35.8	35.8	92	1	Salmon	Unincorporated	Columbia	$150	Enhance salmon habitat.	Pipe passes under 2 roads and a RR track. This impassable pipe is marked as the end of fish use on ODOF map. (Not able to assess upstream.)

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
162	75.5	75.5	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Culvert is impassable at most if not all flows due to length and slope.
163	75.7	75.7	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Water drops 1' onto bedrock. No fish passage possible.
164	79	79	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Culvert is a velocity barrier to all fish at low flows. May be passable at higher flows in some instances.
165	79.3	79.3	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Water cascades 12" onto bedrock. There is no pool so this culvert is impassable at most flows. Length and slope create very high velocity water. There are several miles of fish bearing stream above this culvert.
166	79.7	79.7	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Upper end of culvert is full of rock debris leaving a 2' opening. That, combined with the length and slope make fish passage unlikely unless backfilled.
167	81	81	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Apparently this culvert extends below Valley Cr Rd as well. Appears to be impassable due to very high velocity water and length of over 200'. There are a couple of miles of stream listed as fish bearing above this pipe.
168	81.4	81.4	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Velocity inhibits fish passage. Creek splits right above culvert.
169	87.6	87.6	92	2	Salmon	Unincorporated	Clatsop	$150	Enhance salmon habitat.	Upper 15' of pipe is steep.
170	96	96	92	2	Salmon	Astoria	Clatsop	$150	Enhance salmon habitat.	Upstream end is grated. High water velocity. Need to check downstream end.

FUNDING PRIORITY: Constrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
171.1	3.92	4.95	92	1	Bike	Portland	Multnomah	$46	Widen shoulders for bicycles	Increase mobility and safety. Provide bike facilities on busy regional highway.
171.2	5.5	6.18	92	1	Bike	Portland	Multnomah	$31	Shoulder widening improvements for bikes	Increase mobility and safety. Provide bike facilities on busy regional highway.
171.3	6.18	6.41	92	1	Bike	Portland	Multnomah	$11	Shoulder widening improvements for bikes	Increase mobility and safety. Provide bike facilities on busy regional highway.
171.4	6.41	7.32	92	1	Bike	Portland	Multnomah	$41	Shoulder widening improvements for bikes	Increase mobility and safety. Provide bike facilities on busy regional highway.
171.5	7.32	7.81	92	1	Bike	Portland	Multnomah	$22	Shoulder widening improvements for bikes	Increase mobility and safety. Provide bike facilities on busy regional highway.
171.6	7.81	8.15	92	1	Bike	Portland	Multnomah	$15	Shoulder widening improvements for bikes	Increase mobility and safety. Provide bike facilities on busy regional highway.
201	5.20	5.23	92	1	Operation	Portland	Multnomah	$600	Intersection realignment	Two offset intersections, closely spaced; result in turning conflicts, congestion.
202	36.47	36.47	92	1	Bridge	Unincorporated	Columbia	$100	Phase 1 Seismic Retrofit	Seismic retrofit from ODOT Bridge Management System
203	40.74	40.74	92	1	Bridge	Unincorporated	Columbia	$70	Phase 1 Seismic Retrofit	Seismic retrofit from ODOT Bridge Management System
204	92.5	92.5	92	2	Bridge	Unincorporated	Clatsop	$620	Phase 1 Seismic Retrofit	Seismic retrofit from ODOT Bridge Management System
205	72.75	72.75	92	2	Bridge	Unincorporated	Clatsop	$90	Phase 1 Seismic Retrofit	Seismic retrofit from ODOT Bridge Management System
206	10.77	10.77	92	1	Bridge	Unincorporated	Multnomah	$30	Phase 1 Seismic Retrofit	Seismic retrofit from ODOT Bridge Management System

Summary for FUNDING PRIORITY = Constrained (102 records) $36,767

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
FUNDING PRIORITY: Strategic										
004.2	13.27	13.27	92	1	Operation	Unincorporated	Multnomah	$300	Add NB left-turn lane by minor widening for two lanes of vehicle storage. Project 4.1provides interim solution.	Cornelius Pass Road is part of Multnomah County's bikeway system. Adding shoulders and turn lanes along the roadway allows for safer use of the facility by motorists and bicyclists. Provides a freight link between port facilities and the Hillsboro airport. The Vista Ridge tunnel (US 26) restriction forces trucks to use this route.
022	62.1	62.1	92	1	Modernization	Clatskanie	Columbia		Add access drive from US 30 into new industrial park	Project supports development of Palm Island Industrial Park which has connections with highway, rail and water facilities. By providing adequate access to the industrial park, trucks will be able to enter and exit the highway in a safe manner. Otherwise, the only access will be a driveway across a railroad track. This is an enterprise zone area. Project added to Clatskanie TSP by City Council.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
023	61.61	61.61	92	1	Operation	Clatskanie	Columbia	$150	Add traffic signal	Improves safety of busy highway crossing. The street crossings and shopping center access drives come together at a congested area of Hwy 30. Signalizing this intersection will result in a safer crossing for both autos and pedstrians to reach the commercial, residential, and educational facilities served by Bel Air Drive. Doesn't currently meet signal warrants. Future priority project for community.
028	36.53	36.53	92	1	Operation	Unincorporated	Columbia	$1,037	Improve sight distance and left-turn safety	Left turns from Highway 30 to Tide Creek Road are extremely hazardous, as there is insufficient shoulder room for traffic from behind to go around traffic waiting to turn. Very heavy traffic and high speeds create a high potential for rear-end collisions, and higher traffic volumes are projected. A short-term project would be to clear brush and trees along Hwy 30 north of the intersection to improve sight distance.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
029	33.5	40	92	1	Modernization	Unincorporated	Columbia	$2,300	Add passing lanes on US 30	There are limited opportunities for passing between Deer Island and Rainier (a distance of about 12 miles). Lack of a passing lane does not, however, prevent drivers from passing, resulting in a dangerous situation (14 accidents in 1996, including one fatality). The creation of passing lanes would result in much safer and more efficient traffic movement. Passing lane study (Tabery 1998) found merit. Project design will need to accommodate Heritage Marker at mp 34.43 and wetlands at mp 35.00
034	40.47	40.8	92	1	Operation	Unincorporated	Columbia	$450	Provide left-turn lanes	Project provides for greater safety. Difficulty turning from Hwy 30 onto these two roads has resulted in two accidents in 1996, including one fatality. Higher traffic volumes in the future will increase the hazard.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
039.5	91.3	NEW		2	Modernization	Astoria	Clatsop	$34,397	CONSTRUCT new alignment for US 30 to reroute truck traffic.	Project avoids potential future safety problems with projected traffic volumes. Will help to relieve congestion in downtown Astoria and on Young's Bay Bridge, and will enhance economic development/revitalization in the City of Astoria with redirection of truck traffic. Provides a direct and efficient link for cargo trucking to the Ports of Astoria and Warrenton, and to the Astoria Regional Airport. Replaces system designed in 1920s. Astoria is heavily impacted by regional traffic. Hwy 30 runs along local arterial streets built on pilings & chairwalls. The EIS projects 75% reduction in heavy truck traffic w/plan implementation. Heavy traffic in downtown hinders revitalization. See alos project # 39.1.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
043	48.67	ff system	92	1	Bridge	Rainier	Columbia	$100,000	Replace Bridge	Will help meet the demands of current and future planning decisions and growth needs within the community along US 30 corridor, especially within Longview-Kelso-Rainier urbanized area. Preserves and enhances capacity of multimodal connections. Provides protected right-of-way for bikes and peds. Encourages tourism in the coastal area by enhancing bike access. Enhances commerical development opportunities; improves emergency response; improves access to business, residential and commercial facilities. The bridge may be built as a Design-Build-Maintain project. Funding levels from the two DOTs will be negotiated -- DOTs are measuring the long-term "operations and maintenance" against contributing to new modern facilities. Bids will determine design. Port of St. Helens to sponsor study with ODOT / WSDOT support. Potential use of SIB funds.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
060	4	9	92	1	Transit	Portland	Multnomah		Develop transit amenities within Linnton area	Provision of transit amenities creates incentives for people to use transit, thereby reducing VMT in the region. Transit access increases pedestrian mobility and connections to activity centers. Project will reduce dependency on SOV because there are incentives for people to use transit. Transit amenities include Park & Rides, Kiss and Rides, etc. People would feel safe and comfortable walking and waiting for the bus.
065	99.3	99.3	92	2	Other	Astoria	Clatsop	$270	Visitor Center facility improvements - including Welcome to Oregon, Lewis and Clark Bicentennial, National Scenic Byway information. Proposed by City to be located at District 1Office site.	Highway 101 Scenic Byway project.

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
067	off system			2	Rail	Astoria	Clatsop	$403	Replace/renew rail within the port ensuring easy access to docks	Project is necessary to fully utilize the rail-line from Portland to Astoria. Reduced highway truck traffic would enhance quality of life and encourage residential and commercial development. Project links sea, truck and rail modes. Potential to develop some form of rail passenger or tourist excursion service. Could move to higher priority to respond to development opportunity. Potential funding through Immediate Opportunity Fund and/or EDD. Project location needs to be better defined. Consult with City regarding conformance with Riverwalk plans.
091	28.23	28.23	92	1	Operation	St. Helens	Columbia	$200	Install Signal	Included in St Helens TSP
122	94.6	94.6	92	2	Operation	Astoria	Clatsop	$200	New Intersection	Identified in Astoria TSP
123	95.11	95.11	92	2	Operation	Astoria	Clatsop	$100	Intersection Improvements	Identified in Astoria TSP
125	95.35	95.35	92	2	Operation	Astoria	Clatsop	$500	Intersection Improvements	Identified in Astoria TSP
127	96.12	96.12	92	2	Operation	Astoria	Clatsop	$750	Intersection Improvements	Identified in Astoria TSP
128	96.7	96.7	92	2	Operation	Astoria	Clatsop	$50	Intersection Improvements	Identified in Astoria TSP
130	97.48	97.96	92	2	Operation	Astoria	Clatsop	$150	Center Turn Refuge	Identified in Astoria TSP
131	97.48	97.96	92	2	Modernization	Astoria	Clatsop	$1,000	Widen to 5 lanes & Signal	Identified in Astoria TSP

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
132	97.52	97.52	92	2	Operation	Astoria	Clatsop	$100	Intersection Improvements	Identified in Astoria TSP, TGM grant study of redeveloping Plywood Mill site recommended.
133	97.52	97.52	92	2	Operation	Astoria	Clatsop	$850	Intersection Improvements & Turn Lanes	Identified in Astoria TSP
135	97.96	97.96	92	2	Operation	Astoria	Clatsop	$300	Intersection Improvements	Identified in Astoria TSP, TGM study
136	98	98	92	2	Operation	Astoria	Clatsop	$750	Intersection Improvements	Identified in Astoria TSP
137	98	98	92	2	Transit	Astoria	Clatsop	$50	Bus Shelters	Identified in Astoria TSP
139	98	98	92	2	Pedestrian	Astoria	Clatsop	$250	Sidewalk Improvements	Identified in Astoria TSP
151	36.47		92	1	Bridge	Unincorporated	Columbia	$91	Pres-Rehab	Identified by ODOT Bridge Management System
153	40.74		92	1	Bridge	Unincorporated	Columbia	$70	Pres-Rehab	Identified by ODOT Bridge Management System
156	53.05		92	1	Bridge	Unincorporated	Columbia	$158	Pres-Rehab	Identified by ODOT Bridge Management System
207	48.37	48.37	92	1	Bridge	Rainier	Columbia	$240	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
208	53.05	53.05	92	1	Bridge	Unincorporated	Columbia	$160	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
209	55.29	55.29	92	1	Bridge	Unincorporated	Columbia	$60	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
210	60.82	60.82	92	1	Bridge	Clatskanie	Columbia	$140	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
211	13.19	13.19	92	1	Bridge	Unincorporated	Multnomah	$360	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
212	36.47	36.47	92	1	Bridge	Unincorporated	Columbia	$250	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System

FUNDING PRIORITY: Strategic

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
213	10.77	10.77	92	1	Bridge	Unincorporated	Multnomah	$80	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
214	92.5	92.5	92	2	Bridge	Unincorporated	Clatsop	$1,520	Phase 2 Seismic Retrofit	Identified by ODOT Bridge Management System
220	5.30	6.21	92	1	Operation	Portland	Multnomah	$300	Provide center turn lane up to NW Front Ave	ODOT Linnton Area Circulation Study
221	7.32	7.32	92	1	Operation	Portland	Multnomah	$60	Make both north-bound lanes through lanes stop (eliminate the uncontrolled outside lane). North end of Bridge Ave. - move crosswalk, or improve sight distance.	ODOT Linnton Area Circulation Study
222	off system			1	Other	Portland	Multnomah		Improve and widen to 60'	ODOT Linnton Area Circulation Study

Summary for FUNDING PRIORITY = Strategic (39 records) $148,046

FUNDING PRIORITY: Unconstrained

003	10.87	ff system	92	1	Bridge	Unincorporated	Multnomah	$20,000	Replace Bridge	Bridge provides farm-to-market efficiency. A new bridge would provide bike/ped facilities to encourage alternative modes of transportation. Current bridge has one narrow lane in each direction and narrow sidewalks limiting safety and appeal to bikes/peds. Engineering analysis of bridge reveals sufficiency rating of 46.6; ratings of less than 45 are considered poor and usually scheduled for replacement.

FUNDING PRIORITY: Unconstrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
031	62.24	69.95	92	1	Modernization	Unincorporated	Columbia	$2,300	Add passing lanes	Project will result in safer and more efficient traffic movement. The straight stretch of road is deceiving when trying to judge passing distance. The lack of passing lanes creates a safety hazard, which has resulted in five accidents in 1996, including two fatalities. Passing lane study(Tabery 1998) found merit in request.
035	25.79	25.79	92	1	Operation	Unincorporated	Columbia	$200	Install traffic signal. (outside UGB)	Project provides for safe access to Highway 30 and encourages drivers to use the signalized location. Signal will enhance access to Port of St. Helens property from the south (Portland). Not supported by St. Helens TSP. This signal would be outside a UGB.City of St. Helens wants signal at Millard Rd. (has better storage space and more traffic). Land use & policy issues must be resolved for project to proceed.
036	61.21	61.21	92	1	Bridge	Clatskanie	Columbia	$1,000	Widen Bridge	Project will enhance safety and traffic flow along Highway 30 in Clatskanie. The increased roadway width will accomodate bicycle and pedestrian traffic. The narrowness of the bridge is a safety hazard, which has resulted in five accidents in the vicinity in 1996. Future growth will increase the hazard. Project added to Clatskanie TSP by City Council. Lane configuration confusing. Further discussions with city. Signing/striping in interim.

FUNDING PRIORITY: Unconstrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
055	25	ff system	92	1	Bike	St. Helens	Columbia	$694	Improve shoulders to provide bike route along Old Portland Rd.	Bike lanes will continue in the industrial part of the City of St. Helens to encourage employees to ride bikes to work. Current bike/ped usage is hazardous because the ADT is relatively high, with high volumes of truck traffic. At present there are no shoulders. Current improvements to US 30 provide parallel route bike lanes.
056	20.24	ff system	92	1	Bike	Scappoose	Columbia	$85	Improve/widen Old Portland Rd. from US 30 to Scappoose to add bike lanes	Provides for safer bike/ped access; demand for which has increased due to new Fred Meyer shopping center. System will connect to City of Scappoose facilities and Colco Park and Ride. Many users come from short distances and safer travel will encourage greater usuage. Bike lanes on US 30 provide direct connection. Bike lanes on Portland Rd. are important local connection but not regional need.
057	48	ff system	92	1	Bike	Unincorporated	Columbia	$100	Create bike path along old Hwy 30-Rainier to Alston	Encourages residents to use bicycles to access Hudson Park, Rainier and scenic overlooks along old Highway 30. Encourages use of old Highway 30 instead of more hazardous US Hwy 30. Park and scenic view along route should attract tourists. Provides alternate route for regional travel and connections to park and high school.

FUNDING PRIORITY: Unconstrained

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
061	48.44		92	1	Other	Rainier	Columbia		Gateway facility improvements	Low priority given current funding constraints. To be considered as part of bridge improvement studies. Also may be considered with Lewis and Clark Bicentennial improvements.
086	26.95	ff system	92	1	Modernization	St. Helens	Columbia	$5,150	Construct new parallel road	Identified in St Helens TSP
087	26.95	ff system	92	1	Pedestrian	St. Helens	Columbia	$296	City street sidewalks	Project may no longer be needed. Sidewalks may be adequate.
092	28.56	ff system	92	1	Modernization	St. Helens	Columbia	$2,030	Construct new frontage road	Identified in St Helens TSP
112	60.82	60.82	92	1	Bridge	Clatskanie	Columbia		Change bridge height	ODOT Bridge Section will need to confirm bridge clearance and priority of need.
154	48.37		92	1	Bridge	Rainier	Columbia	$235	Pres-Rehab	Identified by ODOT Bridge Management System
191	55.29	60.82	92	1	Modernization	Unincorporated	Columbia	$7,000	Widen shoulders and extend climbing lane, add left turn lane	Safety Improvement - climbing lane stops before top of hill; inadequate shoulders

Summary for FUNDING PRIORITY = Unconstrained (14 records) $39,090

FUNDING PRIORITY: X-Reconstruct

102	46.91	47.02	92	1	Modernization	Rainier	Columbia	$472	Major Widening Improvement	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

FUNDING PRIORITY: X-Reconstruct

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
110	48.75	50.22	92	1	Modernization	Unincorporated	Columbia	$2,066	Pavement Restruction with Aligment Improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update. needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
111	58.17	62.22	92	1	Modernization	Clatskanie	Columbia	$199	Major Widening Improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update. needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
175	1.90	2.01	92	1	Modernization	Portland	Multnomah	$406	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update. needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
176	2.05	2.43	92	1	Modernization	Portland	Multnomah	$1,632	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update. needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

FUNDING PRIORITY: X-Reconstruct

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
177	2.43	2.79	92	1	Modernization	Portland	Multnomah	$1,546	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
178	3.08	3.12	92	1	Modernization	Portland	Multnomah	$171	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
179	3.12	3.38	92	1	Modernization	Portland	Multnomah	$1,116	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
180	3.81	3.92	92	1	Modernization	Portland	Multnomah	$472	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

FUNDING PRIORITY: X-Reconstruct

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
181	6.41	6.82	92	1	Modernization	Portland	Multnomah	$1,336	Reconstruction with wider lanes improvement	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
182	7.32	7.53	92	1	Modernization	Portland	Multnomah	$700	Reconstruction with wider lanes improvement	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
183	10.68	10.71	92	1	Modernization	Unincorporated	Multnomah	$95	Major widening with alignment improvement	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
184	21.05	21.27	92	1	Modernization	Scappoose	Columbia	$730	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

FUNDING PRIORITY: X-Reconstruct

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
185	25.83	25.91	92	1	Modernization	Unincorporated	Columbia	$265	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
186	26.84	26.80	92	1	Modernization	Unincorporated	Columbia	$257	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
187	26.95	27.59	92	1	Modernization	St. Helens	Columbia	$2,319	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
188	27.65	27.80	92	1	Modernization	St. Helens	Columbia	$816	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

FUNDING PRIORITY: X-Reconstruct

PROJ	BEG MP	END MP	HWY	REG	WORKTYPE	CITY	COUNTY	ESTIMATED COST ($1000)	DESCRIPTION	JUSTIFICATION
189	27.84	27.88	92	1	Modernization	St. Helens	Columbia	$172	Major widening improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.
190	92.11	92.40	92	2	Modernization	Unincorporated	Clatsop	$340	Pavement reconstruction with alignment improvements	Highway deficiency identified (through HPMSAP computer program) in 1999 OHP update, needed to meet current standards. Low priority - Corridor Plan recommends alternative improvements in lieu of this project.

Summary for FUNDING PRIORITY = X-Reconstruct (19 records) $15,110

D. DECISION MAPPING

This section includes maps of the entire Corridor illustrating the location of all the solutions identified in Sections B and C. The maps are at a scale of 1" = 1 mile for the rural portions of the Corridor, and at an enlarged scale of 5" = 1 mile for the urban portions. These maps include data "ribbons" in the lower 1/3 of the page which display a line starting and stopping at the limits of each project, or a circle for projects at a point (e.g. intersections, bridges, etc.). Adjacent to each project symbol is the project number, again tied to the tables in Sections B and C. The symbols are color coded to reflect each project's funding priority. Finally, the data ribbons are categorized by the work type (modernization, bridge, safety, transit, etc.) Some projects are not located on US 30 and are identified as "off-system" (e.g. parallel county road improvements). Projects that do not specifically fit the regular categories are listed as "other."

PREPARED BY

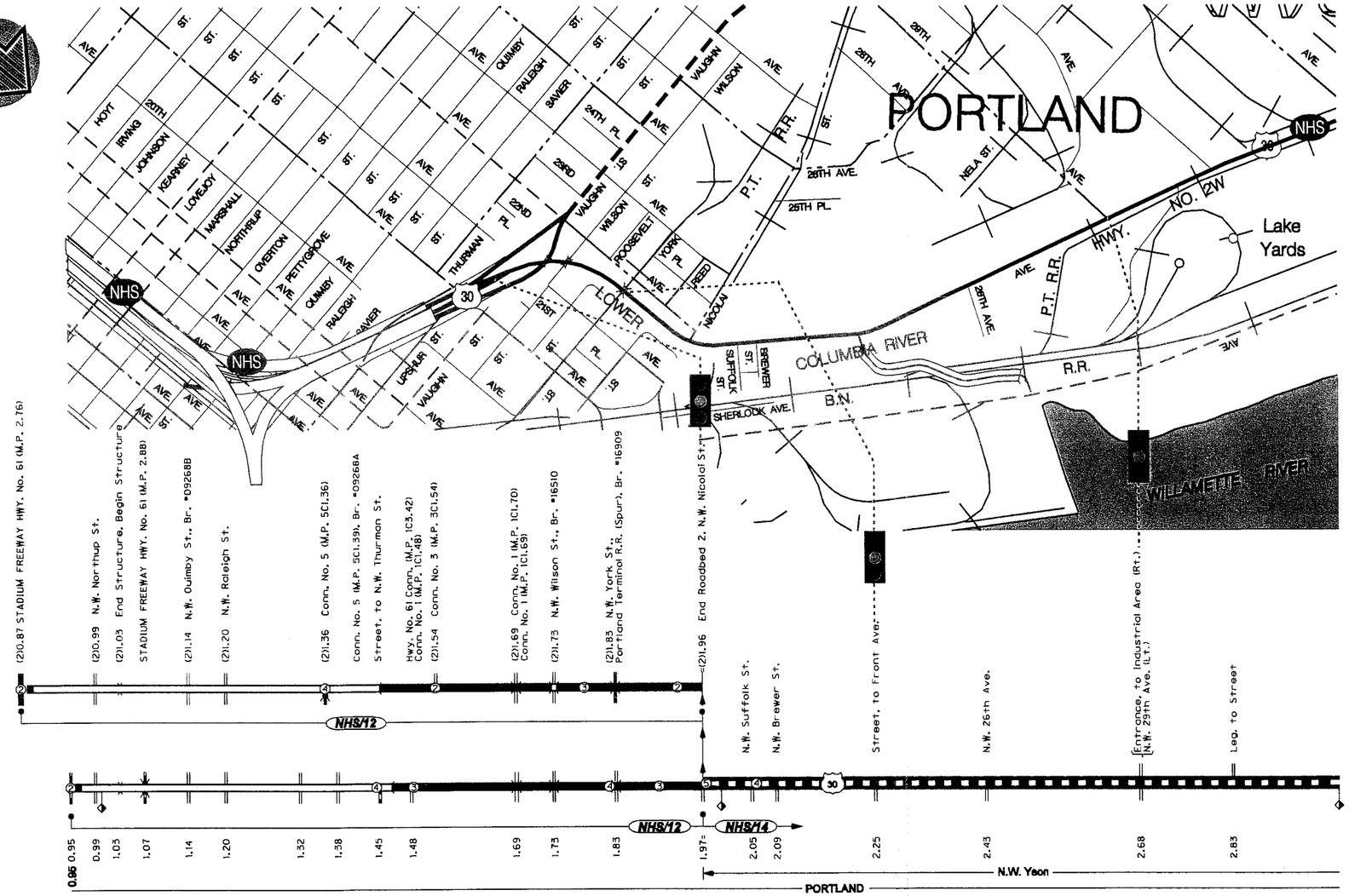
LOCATIONS OF SOLUTIONS

NORTH

SCALE
500 0 1000 FEET
150 0 300 METERS

KEY TO FUNDING

COMMITTED
CONSTRAINED
STRATEGIC
UNCONSTRAINED
RECONSTRUCT



Modernization	175 176 177
TSM Projects	
Bicycle	
Pedestrian	
Safety	
Bridge	
Preservation	
Maintenance	
Salmon Restoration	
Transit	47
Off-System	
Other	

OCTOBER 1998

PREPARED BY

TRANSPORTATION DEVELOPMENT DIVISION

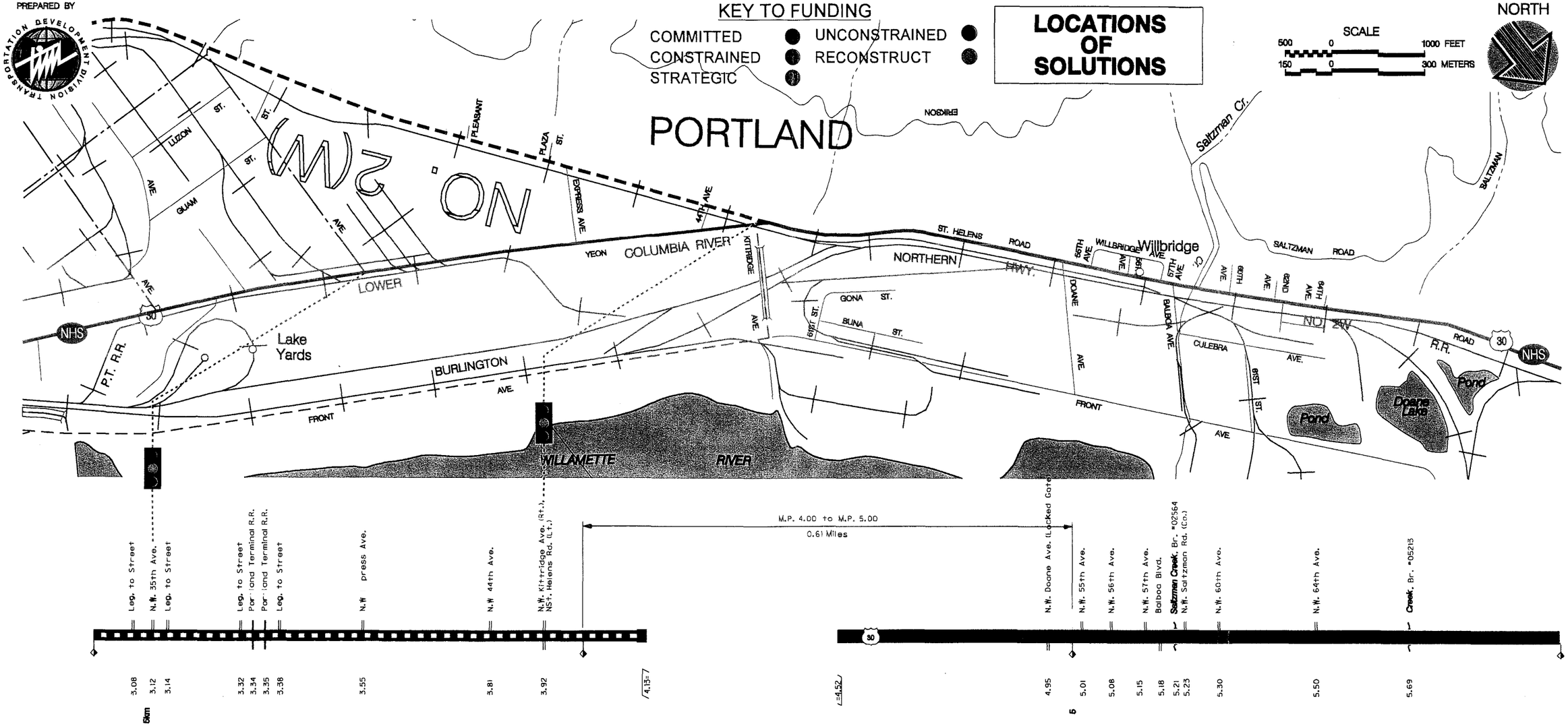
KEY TO FUNDING

COMMITTED ● UNCONSTRAINED ●
CONSTRAINED ● RECONSTRUCT ●
STRATEGIC ●

LOCATIONS OF SOLUTIONS

SCALE 500 0 1000 FEET 150 0 300 METERS

NORTH



OCTOBER 1998

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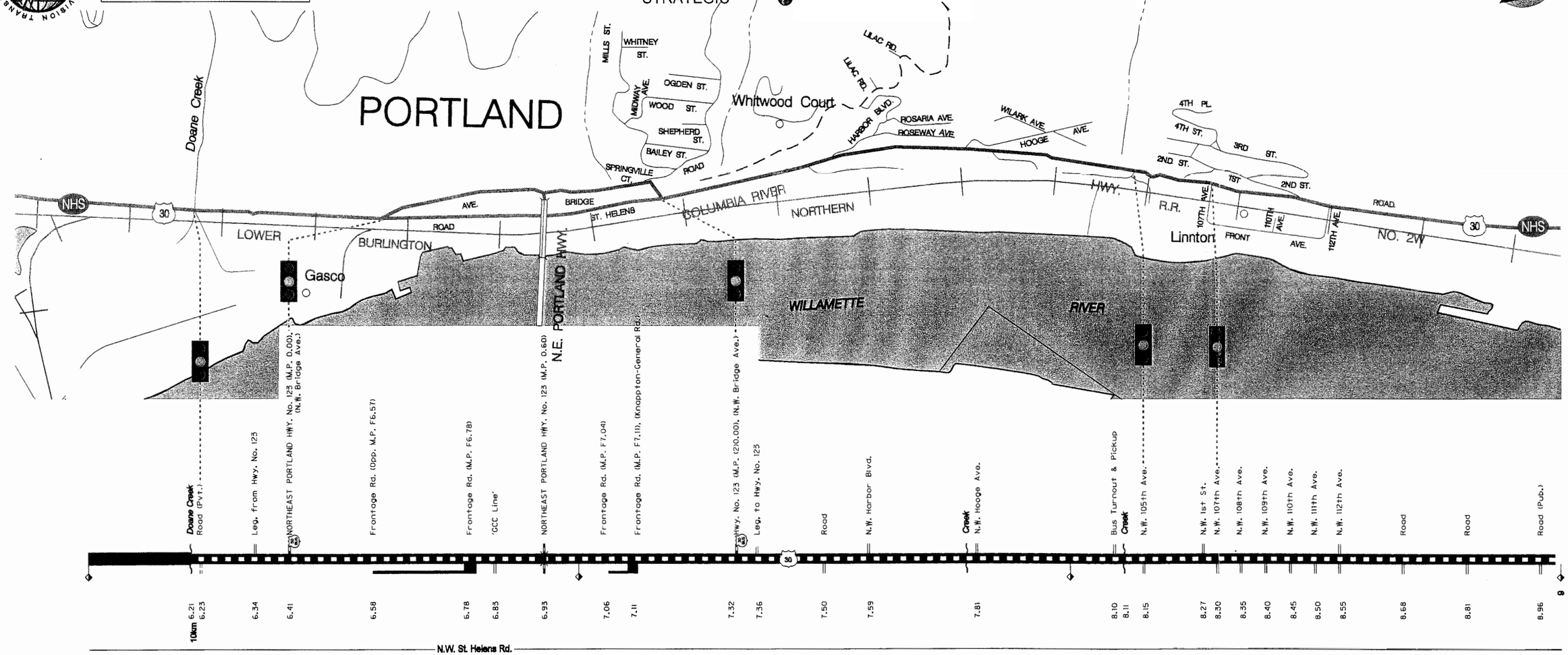
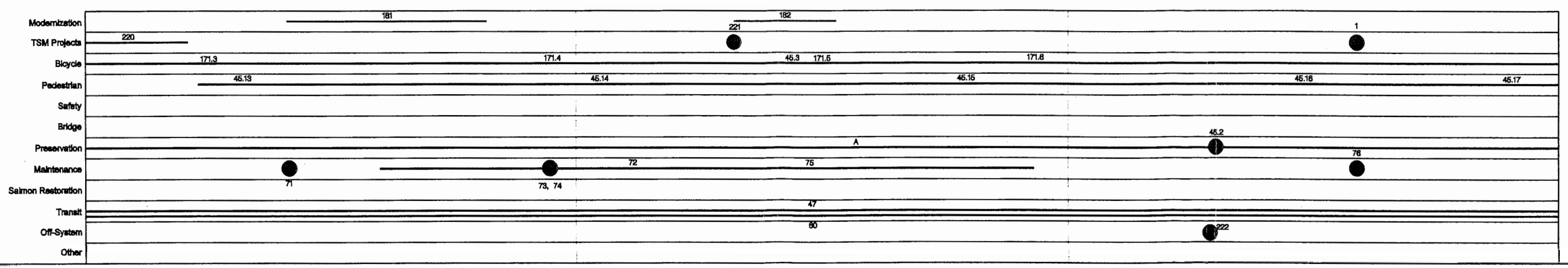
LOCATIONS OF SOLUTIONS

SCALE
500 0 1000 FEET
150 0 300 METERS

KEY TO FUNDING
COMMITTED
CONSTRAINED
STRATEGIC
UNCONSTRAINED
RECONSTRUCT

NORTH





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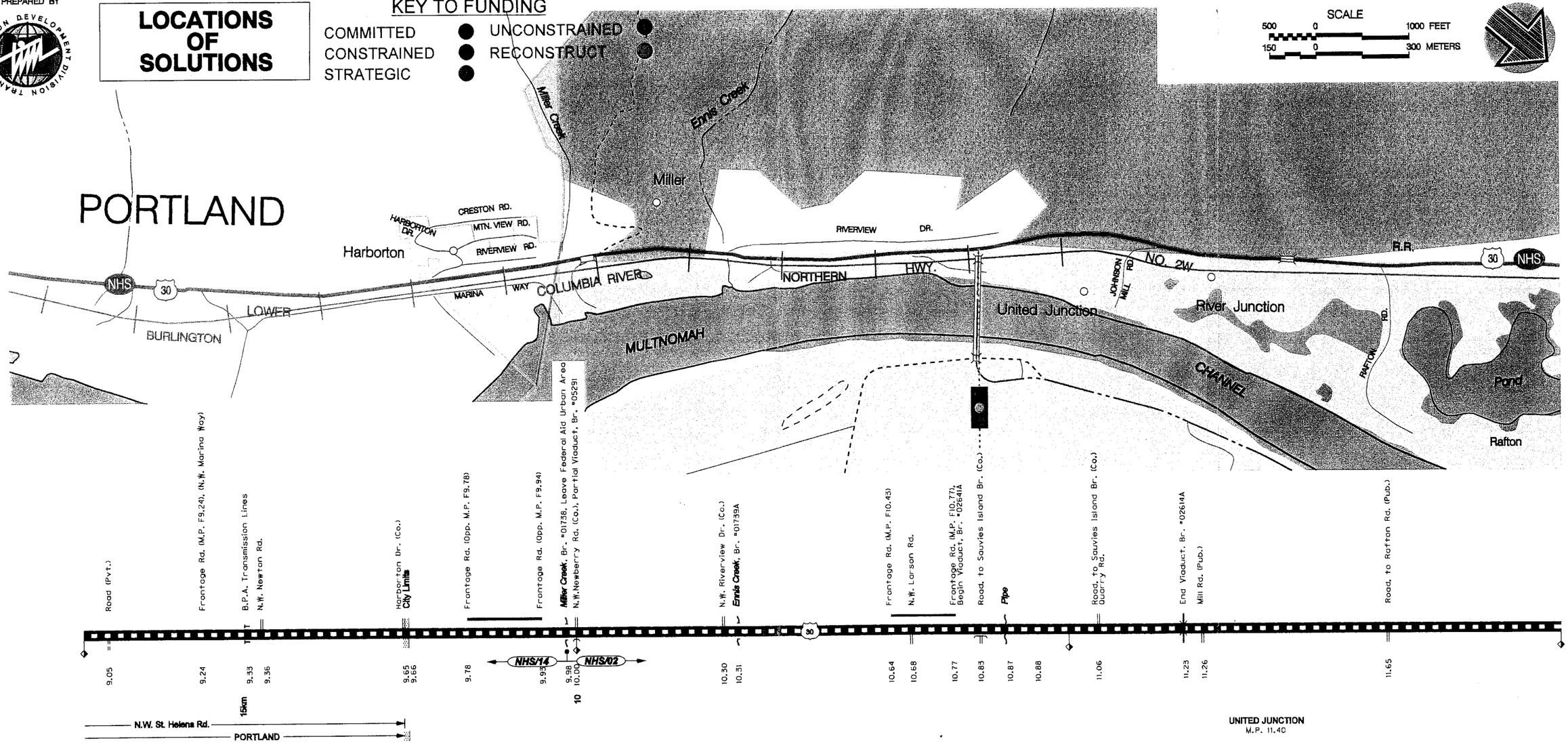
LOCATIONS OF SOLUTIONS

KEY TO FUNDING

- COMMITTED
- CONSTRAINED
- STRATEGIC
- UNCONSTRAINED
- RECONSTRUCT

NORTH

SCALE: 500 0 1000 FEET; 150 0 300 METERS



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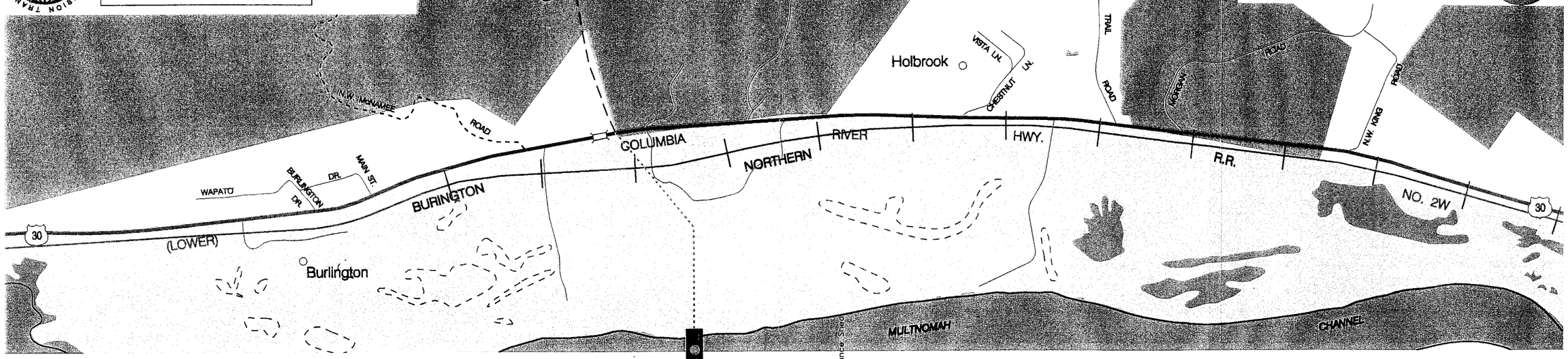
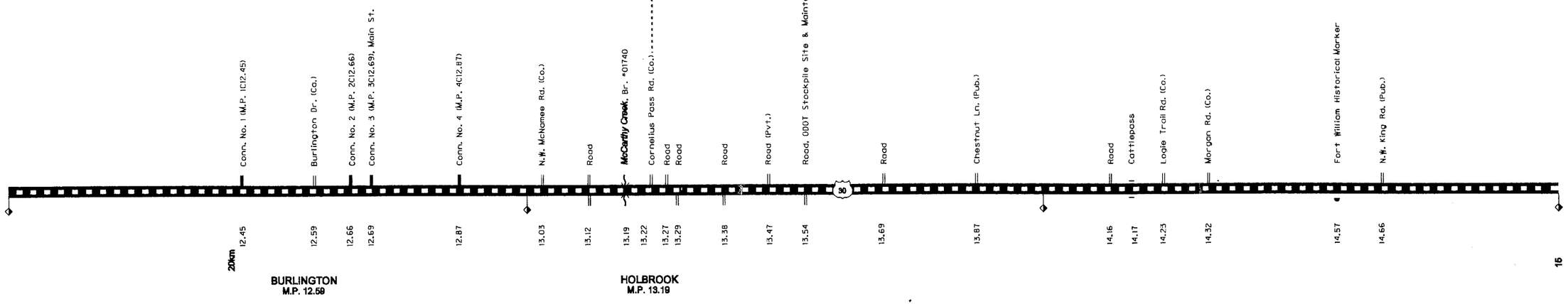
LOCATIONS OF SOLUTIONS

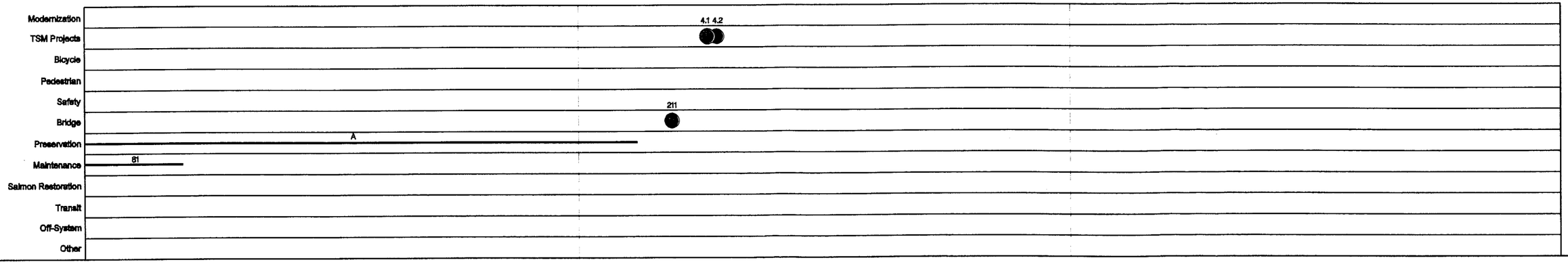
KEY TO FUNDING
COMMITTED ● UNCONSTRAINED ●
CONSTRAINED ● RECONSTRUCT ●
STRATEGIC ●

NORTH

SCALE
500 0 1000 FEET
150 0 300 METERS







OCTOBER 1998

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TRANSPORTATION DEVELOPMENT DIVISION

LOCATIONS OF SOLUTIONS

SCALE

0.5 0 1 MILE

0.5 0 0.5 1 1.5 KILOMETERS

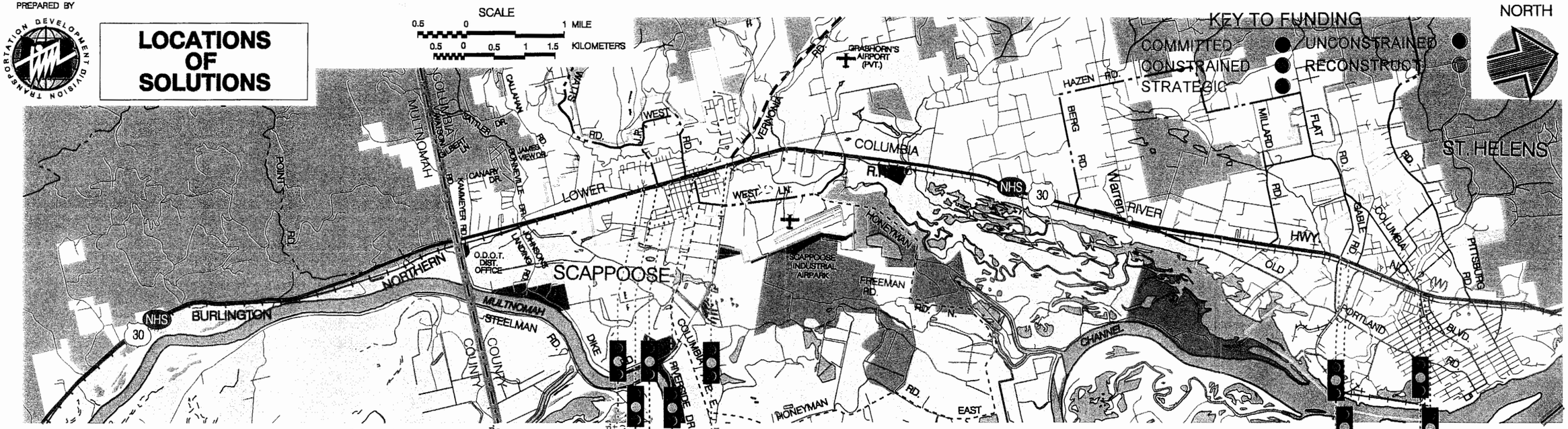
NORTH

KEY TO FUNDING

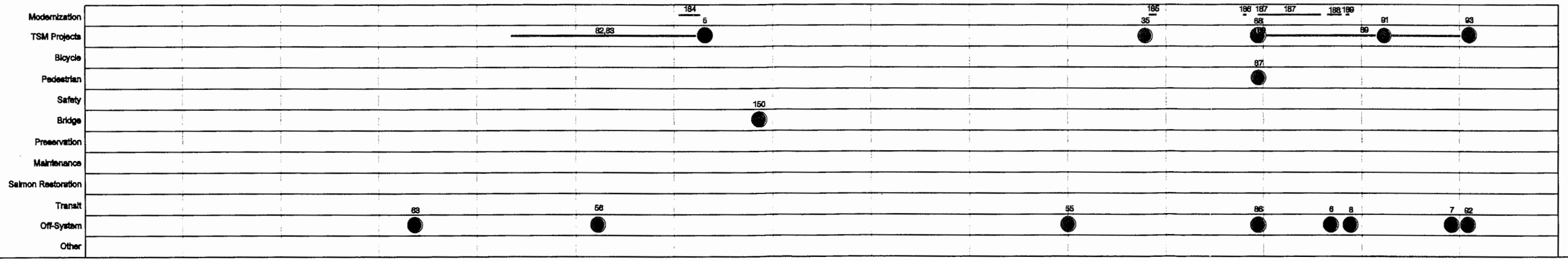
COMMITTED ● UNCONSTRAINED ●

CONSTRAINED ● RECONSTRUCT ●

STRATEGIC ●



Mile	Location
15.07	Road (Pvt.)
15.34	Callaher Rd.
15.36	Pettygrove Creek, Br. #04559
15.47	Willowood Golf Course
15.48	Road, to Willowood Golf Course (Pvt.)
15.62	Road (Pvt.)
16.27	Road
16.40	Road, to Weigh Station
16.53	Road (Pvt.)
16.59	ODOT Weigh Station
16.71	Road, from Weigh Station
16.72	Lower Rocky Point Rd. (Co.)
17.20	Lower Rocky Point Rd. (Pvt.)
17.39	Rocky Point Rd. (Co.)
17.69	Road (Pvt.)
17.81	Jones Creek
17.88	Road
17.98	CMP
18.05	CMP
18.12	Road, to Old Hwy. Alignment (Co.)
18.27	Joy Creek
18.33	Watson Rd. (Co.)
18.42	MULTNOMAH CO.
18.53	COLUMBIA CO.
18.61	Kammeyer Rd. (Co.)
18.82	Juniper Way
18.91	Mirta Way
19.05	Johnson's Landing Rd. (Rt.), Bonneville Rd. (Pub. Lt.)
19.16	Medlik Dr.
19.35	Jackson Creek, Br. #05222
19.35	City Limits
19.89	Road (Pub.)
20.24	Dutch Canyon Rd. (Pub.), (Old Portland Rd. (Rt.), Walnut St. (Lt.)
20.35	Road (Co.), High School Rd. (Rt.), Walnut St. (Lt.)
20.53	Begin Bike Trail
20.67	S.W. E.M. Watts Rd. (Co.)
20.82	McBride St.
20.90	S.W. J.P. West Rd.
20.96	S.W. Hill St.
21.00	Columbia Ave.
21.05	Columbia Ave.
21.07	N.W. Laurel St.
21.10	Watts St. (Co.)
21.12	N.W. Williams St.
21.30	N.E. Bonneville Vernonia Rd. (Co.), End Bike Trail
21.47	Road, City Limits
21.47	S. Fork Scappoose Creek, Br. #02670A
21.84	N. Fork Scappoose Creek, Br. #02668A
21.87	Gilmore Rd. (Co.)
22.45	Leg. from Wickstrom Rd.
22.48	Road (Co.), West Ln. (Rt.), Wikstrom Rd. (Lt.)
23.15	Honeyman Creek, Br. #02667
23.17	Rushing Ln.
23.35	Cattlepass, Br. #02666
23.35	Fullerton Rd. (Co.)
23.69	Dugli Ln.
23.76	RCBC, Br. #02665
23.81	Tarbell Rd. (Co.)
24.48	Stevens Rd. (Co.)
24.62	Gary Ln. (Pvt.)
24.91	Berg Rd. (Co.)
25.00	Old Portland Rd. (Co.)
25.14	Frontage Rd. (Opp. M.P. F25.14)
25.25	Conn. No. 1 (M.P. IC25.25)
25.35	Frontage Rd. (Opp. M.P. F25.36)
25.36	Warren Creek
25.48	Olivetti Rd. (Co.)
25.79	Bennett Rd. (Co.)
25.91	Enter. Federal Aid Urban Area
25.92	Bay Hill Ln.
26.36	Achilles Rd. (Co.)
26.95	Millard Rd. (Co.)
27.12	Division Rd. (Co.)
27.40	Firway Ln. (Co.)
27.53	McNulty Creek, Br. #02599
27.59	City Limits, Firlok Park Blvd. (Co.)
27.69	Gable Rd. (Co.)
27.78	Road (Pvt.)
27.88	Sykes Rd. (Co.)
27.95	RCCL
28.17	McBride St.
28.23	S. Vernonia Rd.
28.36	Ellerson Rd. (Co.)
28.44	Milton Creek, Br. #00303
28.56	Columbia Blvd. (Co.)
28.62	Arnold St. (Co.)
28.65	St. Helens St.
28.79	Howard St., ODOT Maint. Station
28.89	N. 18th St.
28.92	Road, to Hospital
28.96	Wyatt St.
29.10	Pittsburg Rd., City Limits
29.41	Deer Island Rd. (Pub. Rt.), Liberty Hill Rd. (Lt.)
29.85	



OCTOBER 1998

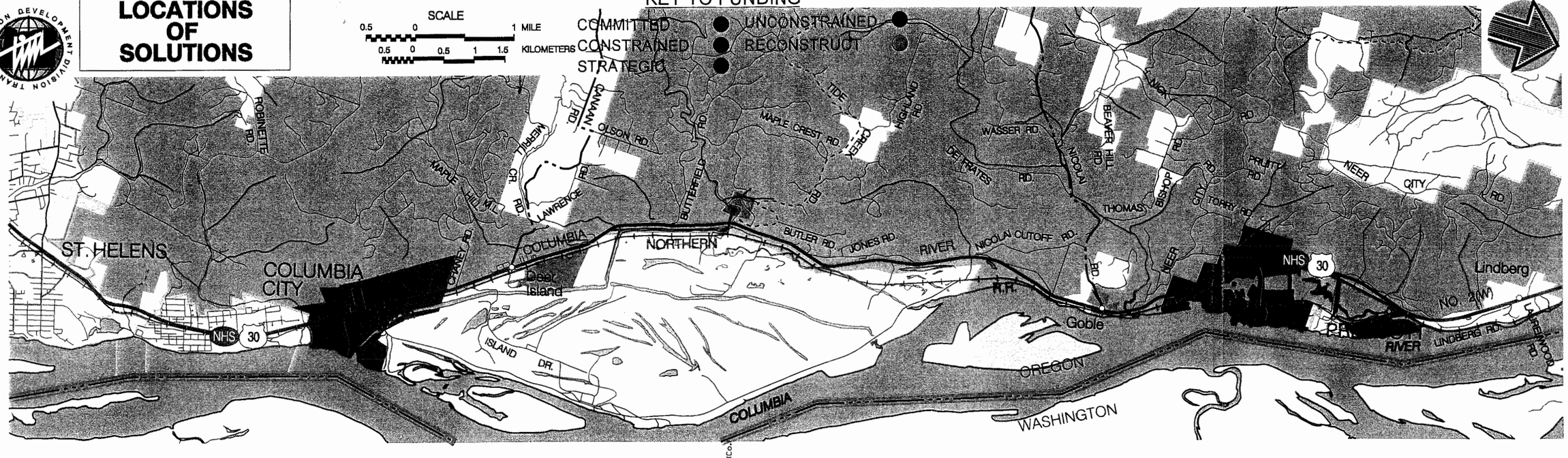
PREPARED BY TRANSPORTATION DEVELOPMENT DIVISION

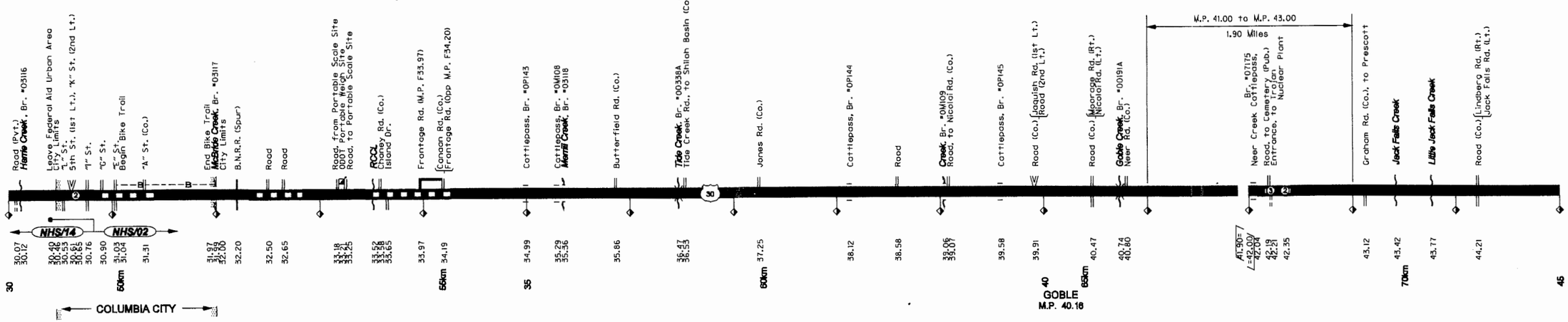
LOCATIONS OF SOLUTIONS

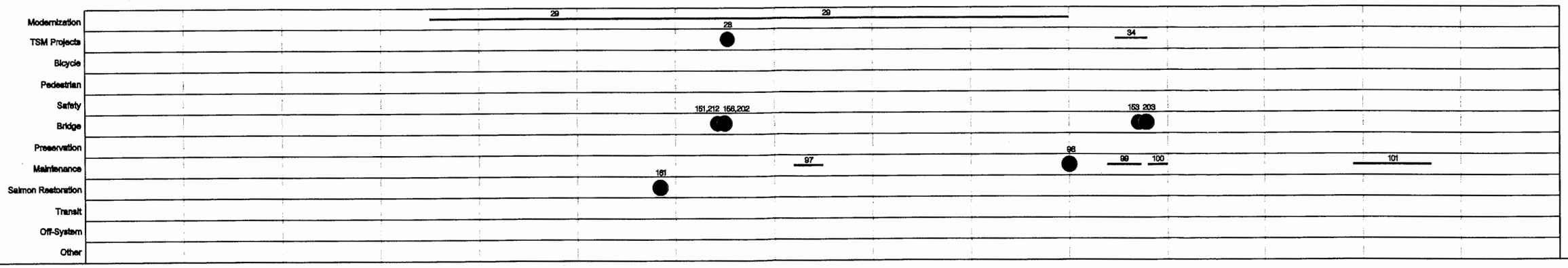
SCALE: 0.5 0 1 MILE; 0.5 0 0.5 1 1.5 KILOMETERS

KEY TO FUNDING: COMMITTED, CONSTRAINED, STRATEGIC, UNCONSTRAINED, RECONSTRUCT

NORTH







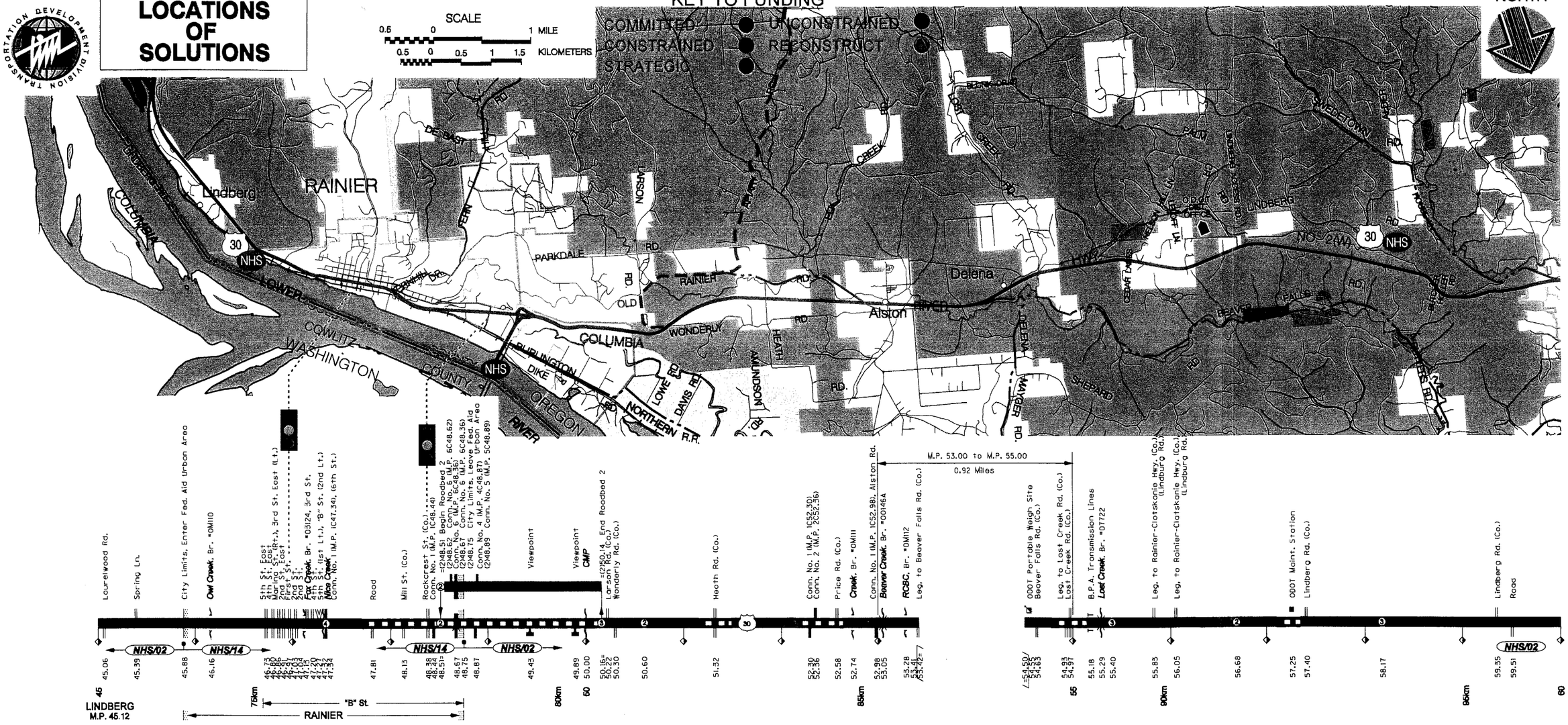
PREPARED BY TRANSPORTATION DEVELOPMENT DIVISION

LOCATIONS OF SOLUTIONS

SCALE
0.5 0 1 MILE
0.5 0 0.5 1 1.5 KILOMETERS

KEY TO FUNDING
COMMITTED
CONSTRAINED
STRATEGIC
UNCONSTRAINED
RECONSTRUCT

NORTH



PREPARED BY

LOCATIONS OF SOLUTIONS

SCALE
0.5 0 1 MILE
0.5 0 0.5 1 1.5 KILOMETERS

KEY TO FUNDING
COMMITTED
CONSTRAINED
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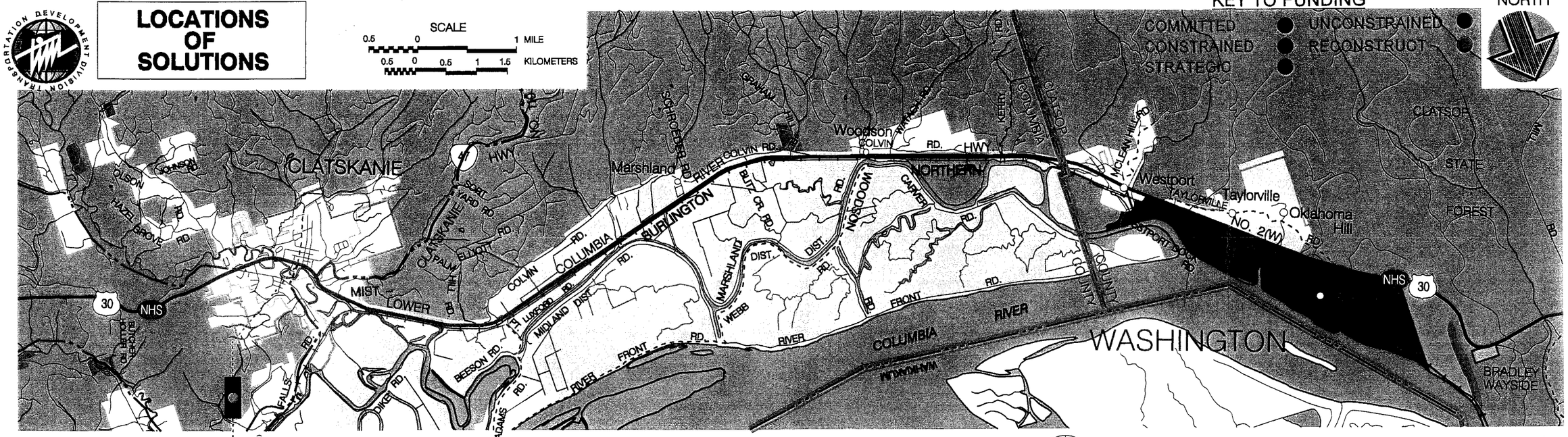
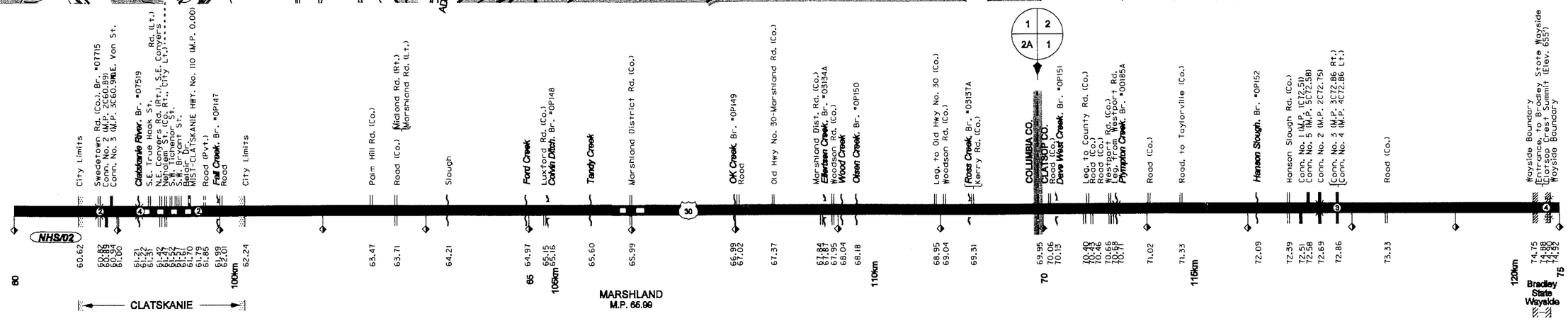
NORTH





Modernization	191, 111, 22, 31
TSM Projects	21, 23
Bicycle	
Pedestrian	
Safety	
Bridge	E,112,210,169, 36 158, 205
Preservation	
Maintenance	113, 114, 215, 115, 116
Salmon Restoration	
Transit	
Off-System	51, 20,70, 66
Other	

OCTOBER 1998

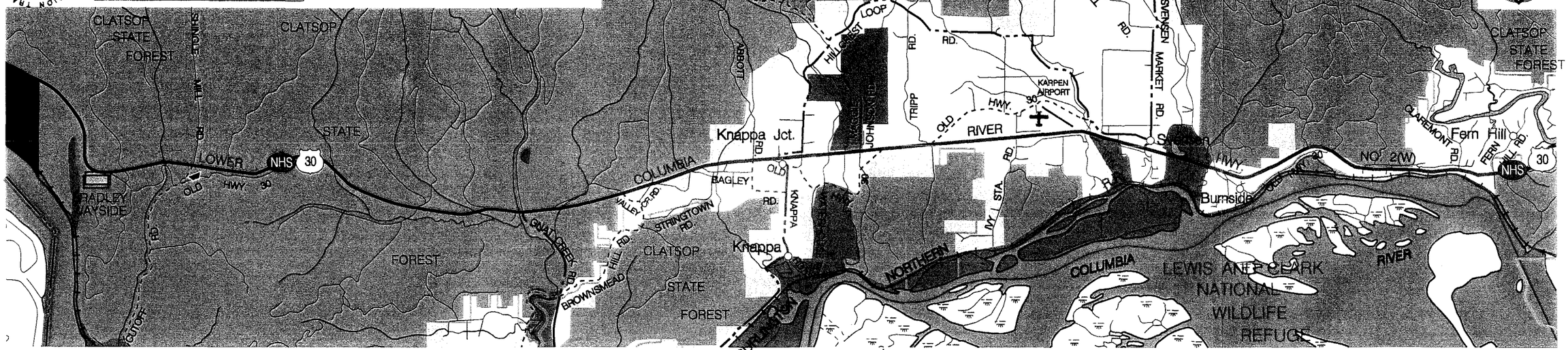
PREPARED BY

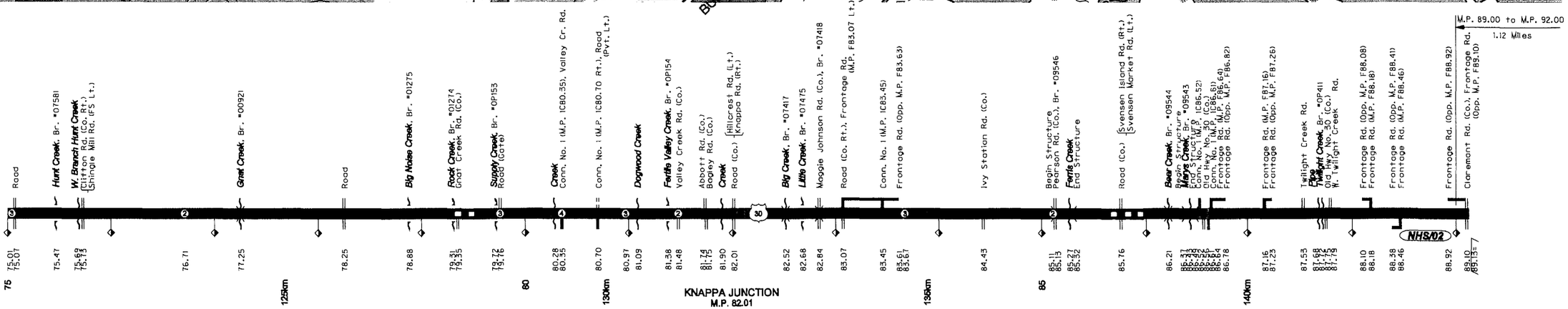
LOCATIONS OF SOLUTIONS

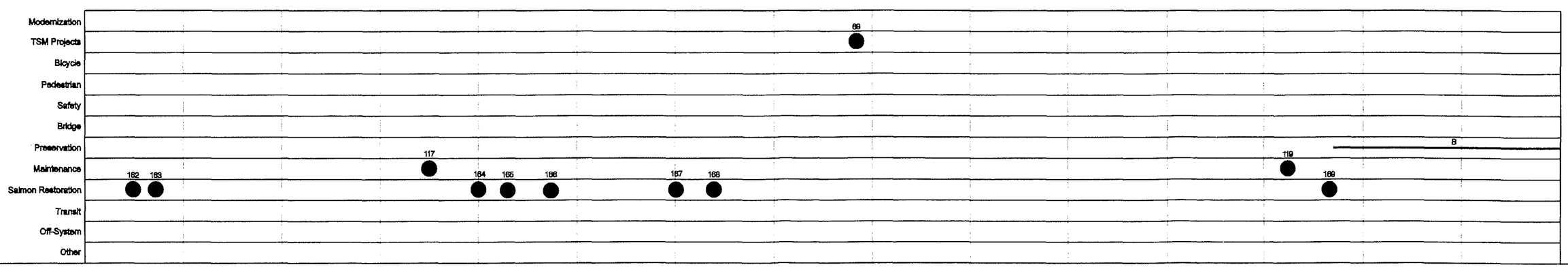
SCALE
0.5 0 1 MILE
0.5 0 0.5 1 1.5 KILOMETERS

KEY TO FUNDING
COMMITTED
CONSTRAINED
STRATEGIC
UNCONSTRAINED
RECONSTRUCT.

NORTH







OCTOBER 1998

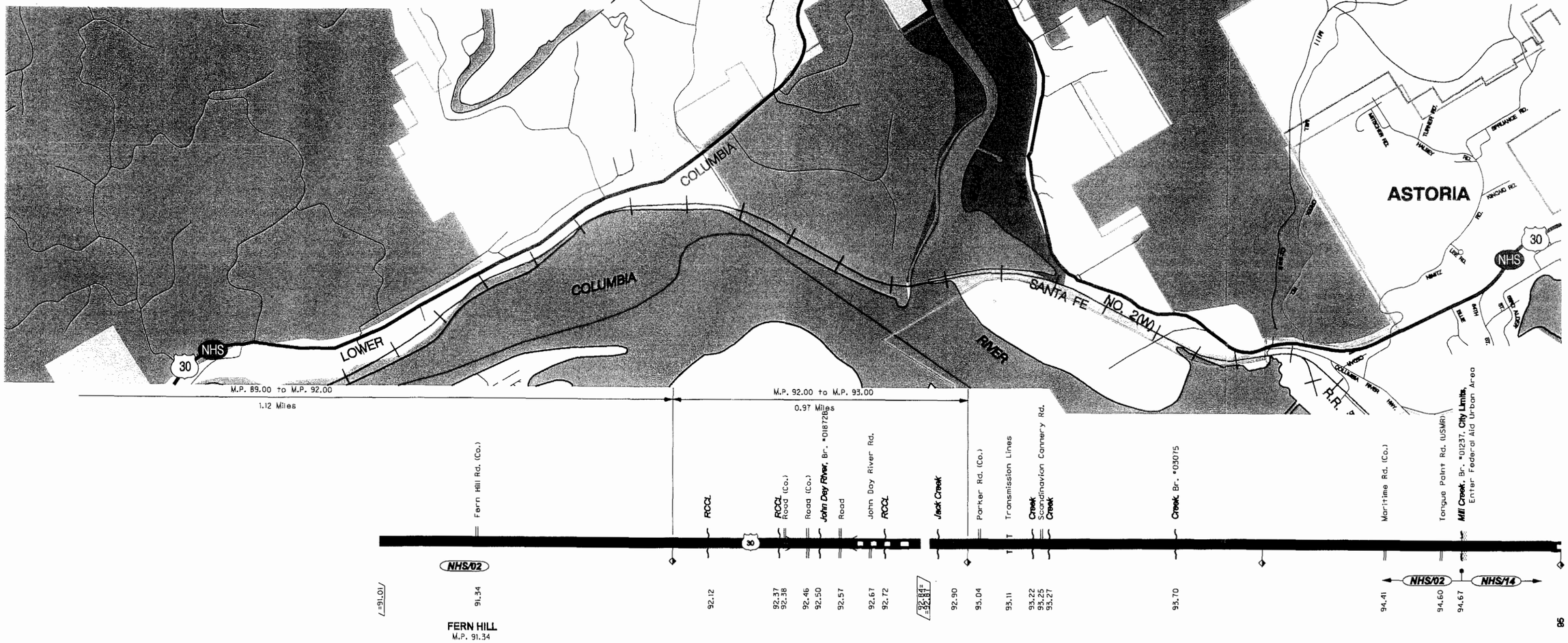
PREPARED BY TRANSPORTATION DEVELOPMENT DIVISION

LOCATIONS OF SOLUTIONS

SCALE
1000 0 2000 FEET
300 0 600 METERS

KEY TO FUNDING
COMMITTED ● UNCONSTRAINED ●
CONSTRAINED ● RECONSTRUCT ●
STRATEGIC ●

NORTH



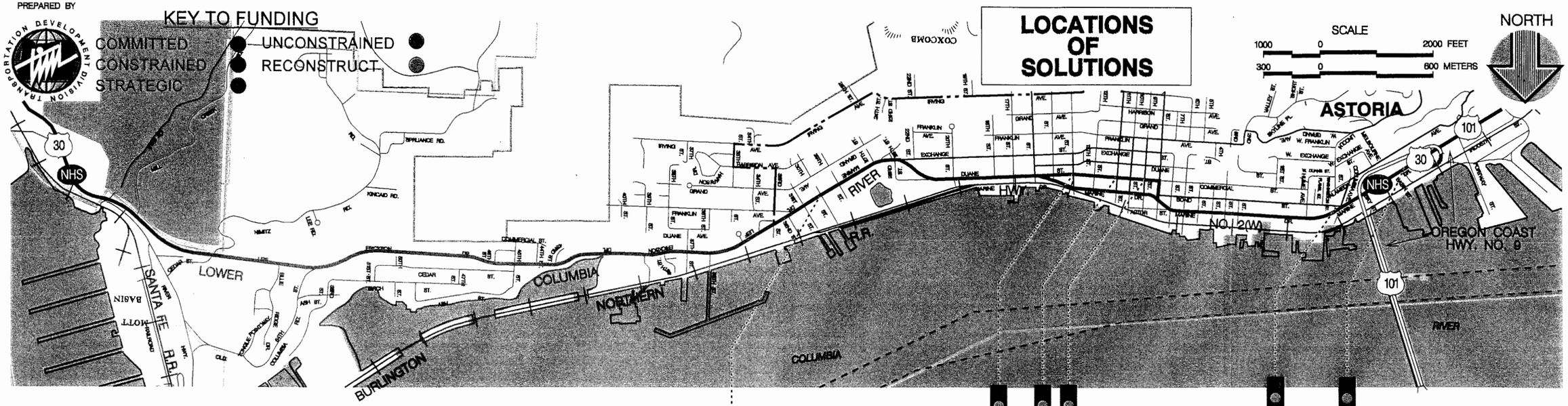
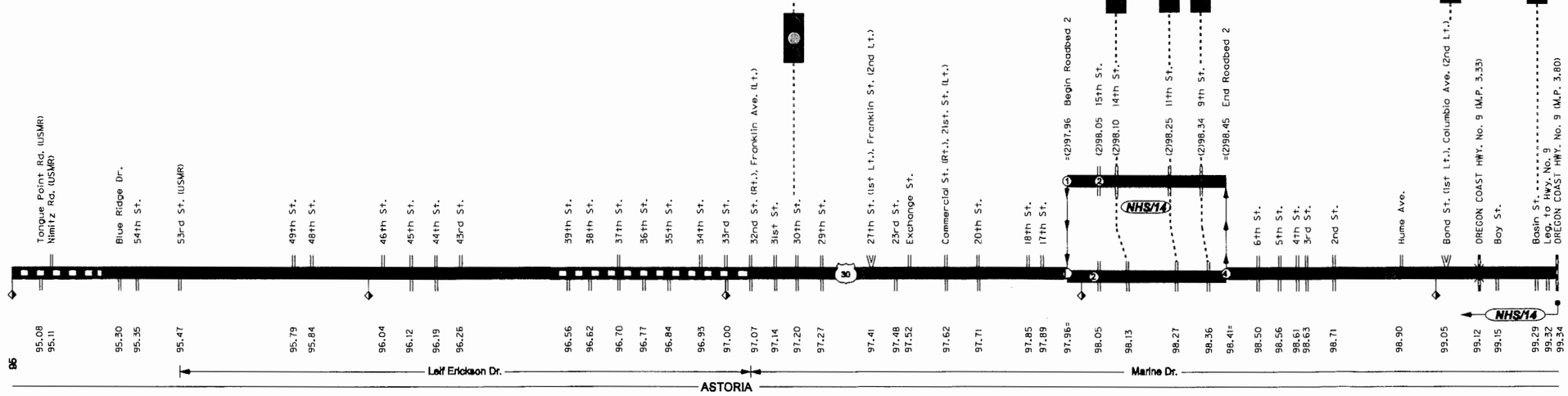
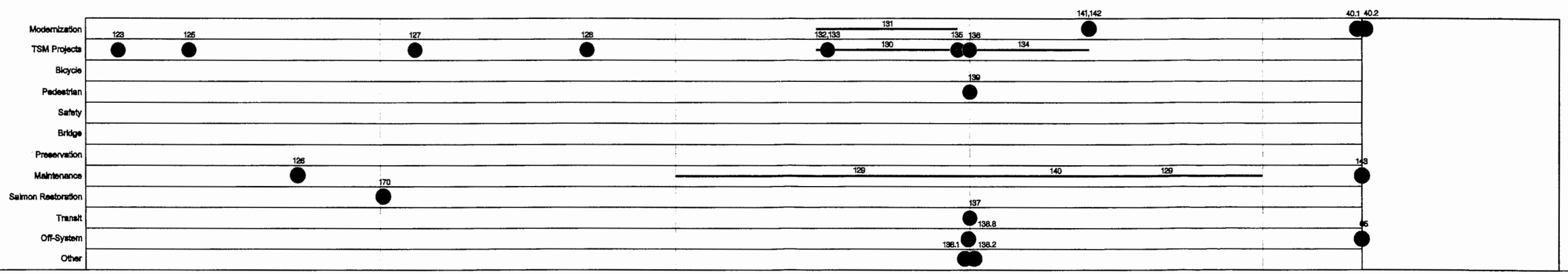
ASTORIA

Modernization	39.5 39.1 148 190
TSM Projects	122
Bicycle	
Pedestrian	
Safety	
Bridge	214 204
Preservation	B
Maintenance	120 121
Salmon Restoration	
Transit	
Off-System	67
Other	

PREPARED BY TRANSPORTATION DEVELOPMENT DIVISION

KEY TO FUNDING
- COMMITTED
- CONSTRAINED
- STRATEGIC
- UNCONSTRAINED
- RECONSTRUCT

LOCATIONS OF SOLUTIONS

SCALE 1000 0 2000 FEET; 300 0 600 METERS

NORTH