A G E N D A

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232-2736
TEL 503-797-1916 | FAX 503-797-1930

METRO

MEETING: **JOINT POLICY ADVISORY COMMITTEE ON TRANSPORTATION**

DATE: **January 18, 2007**

TIME: **7:30 A.M.**

PLACE: **Council Chambers, Metro Regional Center**

7:30 AM	1.		**CALL TO ORDER AND DECLARATION OF A QUORUM**	**Rex Burkholder, Chair**
7:35 AM	2.		**INTRODUCTIONS**	**Rex Burkholder, Chair**
7:35 AM	3.		**CITIZEN COMMUNICATIONS**	
7:40 AM	4.		**COMMENTS FROM THE CHAIR** ▪ JPACT Retreat: January 29th 4-8 p.m. at Metro	**Rex Burkholder, Chair**
7:45 AM	5.		**CONSENT AGENDA**	**Rex Burkholder, Chair**
		*	Consideration of JPACT minutes for December 14, 2006	
	6.		**ACTION ITEMS**	
8:00 AM	6.**1**	*	Resolution No. 07-3762, For the Purpose of Approving Portland Regional Federal Transportation Priorities For Federal Fiscal Year 2008 Appropriations – ACTION REQUESTED	**Richard Brandman**
8:15 AM	6.**2**	*	Resolution No. 07-3764, For the Purpose of Endorsing Regional Priorities for State Transportation Funding Legislation – ACTION REQUESTED	**Randy Tucker & Richard Brandman**
8:30 AM	6.**3**	*	Metropolitan Transportation Improvement Program (MTIP) Policy Direction for Final Cut – ACTION REQUESTED	**Ted Leybold**
	7.		**INFORMATION / DISCUSSION ITEMS**	
8:50 AM	7.**1**	*	RTP Draft Chapter 1: Policy Framework – INFORMATION / DISCUSSION	**Tom Kloster**
9:10 AM	8.		**ADJOURN**	

* Material available electronically.
** Material to be emailed at a later date.
# Material provided at meeting.
All material will be available at the meeting.

For agenda and schedule information, call Jessica Martin at 503-797-1916. e-mail: martinj@metro.dst.or.us
To check on closure or cancellations during inclement weather please call 503-797-1700.

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1916 | FAX 503 797 1930

METRO

DATE: November 2, 2006

TO: JPACT and Interested Parties

FROM: Andrew C. Cotugno, Director
Planning Department

SUBJECT: JPACT Meetings for Calendar Year 2007

Please mark your calendar for the following JPACT meeting times scheduled during calendar year 2007 in the Metro Council Chambers. JPACT typically meets on the second Thursday of each month, except where noted*:

*Thursday	January 18, 2007	7:30 a.m.
Thursday	February 8, 2007	7:30 a.m.
*Thursday	March 1, 2007	7:30 a.m.
Thursday	April 12, 2007	7:30 a.m.
Thursday	May 10, 2007	7:30 a.m.
Thursday	June 14, 2007	7:30 a.m.
Thursday	July 12, 2007	7:30 a.m.
Thursday	August 9, 2007	7:30 a.m.
Thursday	September 13, 2007	7:30 a.m.
Thursday	October 11, 2007	7:30 a.m.
Thursday	November 8, 2007	7:30 a.m.
Thursday	December 13, 2007	7:30 a.m.

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METRO

Joint Policy Advisory Committee on Transportation

M I N U T E S
December 14, 2006
7:30 a.m. – 9:00 a.m.
Council Chambers

MEMBERS PRESENT	AFFILIATION
Rex Burkholder, Chair	Metro Council
Rod Park, Vice Chair	Metro Council
Brian Newman	Metro Council
Sam Adams	City of Portland
Fred Hansen	TriMet
Roy Rogers	Washington County
Dick Pedersen	DEQ
Lynn Peterson	City of Lake Oswego, representing Cities of Clackamas County
Jason Tell	Oregon Department of Transportation (ODOT - Region 1)
Paul Thalhofer	City of Troutdale, representing Cities of Multnomah County

MEMBERS EXCUSED	AFFILIATION
Rob Drake	City of Beaverton, representing Cities of Washington County
Bill Kennemer	Clackamas County
Royce Pollard	City of Vancouver
Steve Stuart	Clark County
Maria Rojo de Steffey	Multnomah County
Don Wagner	Washington DOT
Bill Wyatt	Port of Portland

ALTERNATES PRESENT	AFFILIATION
James Bernard	City of Milwaukie, representing Cities of Clackamas County
Doug Ficco	WSDOT
Tom Hughes	City of Hillsboro, representing Cities of Washington County
Susie Lahsene	Port of Portland
Dean Lookingbill	SW Regional Transportation Council
Lonnie Roberts	Multnomah County

GUESTS PRESENT	AFFILIATION
Kenny Asher	City of Milwaukie
Edward Barnes	WSDOT Commission
Scott Bricker	BTA
Kathy Busse	Washington County
David Calver	HNTB
Roland Chlapowski	City of Portland

GUESTS PRESENT(cont.)	AFFILIATION
Olivia Clark	TriMet
Jef Dalin	City of Cornelius
Adam Davis	Davis Hibbits & Midghall
Elissa Gertler	Clackamas County
Cam Gilmour	Clackamas County
John Hartsock	City of Damascus
Tom Imeson	Port of Portland
Nancy Kraushaar	City of Oregon City
Robert Liberty	Metro Council
Tom Markgraf	Columbia River Crossing
Terry Moore	ECONorthwest
Sharon Nasset	ETA
Dave Nordberg	DEQ
Lawernce Odell	Washington County
Ron Papsdorf	City of Gresham
Claude "Rory" Rorabaugh	NW Cement Producers Group
Karen Schilling	Multnomah County
Phil Selinger	TriMet
Chris Smith	Citizen
Lainie Smith	ODOT
Paul Smith	City of Portland
Ron Swaren	Sellwood-Moreland Improvement League
Rebecca Woods	CREEC

STAFF
Richard Brandman, Jon Coney, Kim Ellis, Tom Kloster, Ted Leybold, Jessica Martin, Robin McArthur, Randy Tucker

1. CALL TO ORDER

Chair Rex Burkholder declared a quorum and called the meeting to order at 7:34 a.m.

2. INTRODUCTIONS

Chair Burkholder welcomed Commissioner Lonnie Roberts and Mayor Tom Hughes.

3. CITIZEN COMMUNICATIONS

Mr. Ron Swaren, 1543 SE Umatilla Street Portland, representing the Sellwood-Moreland Improvement League urged the committee to think about combining projects such as making improvements to the Sellwood Bridge in coordination with the possibility of adding streetcar.

Mr. Claude "Rory" Rorabough, 3225 F Place Washougal Washington, representing the Northwest Cement Producers Group appeared before the committee. He noted that his purpose as the Market Development Manager was to promote sustainable development with concrete. He distributed information (included as part of the meeting record) and noted that he would be pleased to serve as a resource and welcomed committee members to contact him with specific questions.

Mr. Chris Smith, 2343 NW Pettygrove Street Portland, addressed the committee. He stated his hope that streetcar would not only be thought of as a mode of transportation but also as a way to enhance the development of Centers.

4. COMMENTS FROM THE CHAIR

Draft FY-08 Earmark Priorities and Reauthorization Issues

Chair Burkholder directed the committee's attention to an updated draft of the FY08 Federal Transportation Appropriation Request List (included as part of the record). He reminded the committee of their previous discussions in which they agreed that only two projects from each jurisdiction be included on the list. He asked those jurisdictions with more than two projects to please reduce the number of projects on the list.

Chair Burkholder then directed the committee's attention to a handout (included as part of the record) listing potential issues for the Next-TEA Reauthorization Bill. Due to time constraints, he asked that the review the document and prepare to discuss at a future meeting. Mr. Andy Cotugno noted that while we are early in the reauthorization process, Congressman Earl Blumenauer encouraged the committee to begin developing ideas and concepts. He noted that the list before them contains existing issues just to get the ball rolling but that they will want to add to and evolve the list.

Proposed JPACT Retreat: January 29th 4-8pm at Metro Regional Center

Chair Burkholder announced that the JPACT retreat would take place on Monday, January 29th from 4-8p.m at Metro.

Joint JPACT / MPAC Meeting

MPAC has invited JPACT to attend their regular meeting on January 24th in order to discuss the RTP Draft Goals. Chair Burkholder stressed the importance of having JPACT members attend.

JPACT Letter to the Environmental Protection Agency

At the last meeting, JPACT approved sending a letter to the Environmental Protection Agency (EPA) urging them to revise its proposed rule regarding control of hazardous pollutants from mobile sources in a manner that would address a serious problem with benzene exposure in the region. Chair Burkholder distributed copies of a response to that letter from the EPA (included as part of the meeting record). Mr. Dick Pedersen spoke to the letter, noting that it just reiterates what the EPA is currently doing to lower benzene concentrations.

5. CONSENT AGENDA

Consideration of minutes for the November 9, 2006 JPACT meeting

MOTION: Chair Burkholder called for approval of the November 9, 2006 meeting minutes. Mr. Fred Hansen requested the conversation regarding Resolution No. 06-3712 be elaborated to better capture the nature of the debate. With the following amended text:

~~The~~ Overall, the committee ~~noted~~ agreed that ~~while~~ the project sounded~~s~~ good. However, they voiced concerns ~~about~~ over the process and procedure~~.~~ of reallocating funds from one previously agreed upon project to another. Commissioner Roy Rogers noted that if this project had been rated on it's own, it would not have scored high enough to receive funding. Councilor Newman stated his support for the request because he feels it is basically the same project, but also noted he would not be in favor of the request if the project were in a different corridor. Mr. Rian Windsheimer stated his support for the project and noted he would only have concerns if the county weren't using the funding to accelerate the delivery of the project. Mr. Fred Hansen also concluded that this is part of the same project. He cautioned however that there should be more criteria developed for this process in the future. Mayor Rob Drake noted that if this exact situation were created in the future, he would prefer the funds go to another high-priority project.

Mr. Hansen moved, seconded by Ms. Lynn Peterson to approve the minutes as amended. The motion passed.

6. INFORMATION / DISCUSSION ITEMS

6.1 RTP Finance Research & Findings

Ms. Kim Ellis appeared before the committee and directed their attention to a series of eight discussion draft background papers (included as part of this meeting record) that have been prepared to summarize the Phase 2 research and provide a comprehensive fact base that will inform future RTP update policy discussions.

Ms. Ellis presented a PowerPoint presentation (included as part of the meeting record) that included information on the following:

- Differences between this RTP update and past RTP updates
- Common Outcome Themes from RTP Stakeholder Workshops
- Highlights of the Background Papers
- Remaining RTP Research
- Project Timeline
- JPACT Next Steps

Mr. Terry Moore, with ECONorthwest, followed her presentation with a PowerPoint on the preliminary financial analysis, which covered the following information:

- Clarifications
- Assumptions
- Revenues
- Costs
- Estimated Funding Gap
- Next Steps

Mr. Moore clarified that this is not the financial element of the RTP, but rather the financial fact base, which will help inform policy discussions on reasonably available revenue and investment priorities. The full report will be available the week of December 18th.

Commissioner Sam Adams inquired about the federal definition of *adequate levels of maintenance*. Mr. Cotugno responded that while the Draft rules have a strict requirement, they might change. Another requirement states that a plan can't be adopted unless it is fiscally constrained and that it can't be fiscally constrained unless adequate levels of maintenance are provided for, though *adequate levels* is not defined.

The committee discussed revenues and definitions of a regional transportation system. Ms. Susie Lahsene stated that the way the current freight system is thought of – mostly of roads – should change to incorporate some rail infrastructure in order to reflect the entire transportation system. Commissioner Rogers noted that the regional transportation system is difficult to define and therefore makes it difficult to sell a regional package. Mr. Moore responded that preliminary work is currently being done in order for that larger discussion to occur.

6.2 Columbia River Crossing Focus Group findings & DEIS Recommendation

Due to time constraints, Mr. Doug Ficco noted that he would forgo the Project Update and Staff Recommendations for Draft Environmental Impact Statement (DEIS) Alternatives to allow enough time to provide information on the CRC Survey Findings.

Mr. Cotugno added that the reason for initially putting the DEIS on the agenda was because the current alternatives would soon be narrowed and the EIS phase will begin. While some JPACT committee members also serve on the Columbia River Crossing Project Sponsors Council, the full JPACT will eventually be asked to approve the findings of the committee. Mr. Cotugno noted the importance of having JPACT informed at this early stage in the project.

The Columbia River Crossing project hired Davis Hibbits and Midghall to conduct a telephone survey in the Portland tri-county are and in Clark County. The survey was administered to a total of 800 registered voters:

400 respondents from the Tri-County area and 400 from Clark County. Within Clark County, 180 were Vancouver residents and 220 lived in the county outside of Vancouver. The goal of the survey was to better understand public opinions on what if anything should be done with possible crossing alternatives. Mr. Adam Davis presented a PowerPoint, which included information on the following:

- Research Objectives
- Methodology
- Voters' Top Priorities
- Survey Results
- Observations and Conclusions

Ms. Lynn Peterson inquired as to how people feel about tolling. Mr. Davis responded that generally, tolling is not supported, but support for tolling increases with information.

6.3 MTIP

Chair Burkholder directed the committee's attention to a memo and draft executive summary comment report (included as part of the meeting record) included in the meeting packet. The memo lists several topic areas the committee will discuss at the January 18th meeting.

7. ADJOURN

There being no further business, Chair Burkholder adjourned the meeting at 9:18 a.m.

Respectfully submitted,

Jessica Martin
Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR DECEMBER 14, 2006

The following have been included as part of the official public record:

	ITEM	TOPIC	DOC DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
*	**5.**	Consent Agenda	11/9//06	Meeting Minutes from 11/09/06 JPACT Meeting	110906j-01
*	**4.**	Project List	12/7/06	FY08 Federal Transportation Appropriation Request List	110906j-02
*	**4.**	Issues List	N/A	Potential issues for Next-TEA Reauthorization Bill	110906j-03
*	**6.3**	Memo	12/07/06	To: JPACT From: Ted Leybold Re: Transportation Priorities Final Cut Narrowing Policy Topics	110906j-04
*	**6.1**	Memo	12/06/06	To: JPACT From: Kim Ellis Re: Phase 2 RTP Research and Analysis – Preliminary Research Results	110906j-05
**	**6.2**	CRC Survey	November 2006	Columbia River Crossing Survey Detail	110906j-06
**	**6.2**	Press Release	12/14/06	Columbia River Crossing Press Release	110906j-07
**	**6.2**	PowerPoint	12/14/06	Columbia River Crossing Project Briefing: PowerPoint Presentation	110906j-08
**	**6.2**	PowerPoint	December 2006	Columbia River Crossing Opinion Survey by Adam Davis	110906j-09
**	**4.**	Project List	12/13/06	UPDATED: FY08 Federal Transportation Appropriation Request List	110906j-10
**	**5.**	Consent Agenda		Proposed amended language to 11/9/06 minutes	110906j-11
**	**6.1**	PowerPoint	N/A	Briefing on Preliminary Research Presentation by Kim Ellis	110906j-12
**	**6.1**	PowerPoint	N/A	Preliminary Financial Analysis Presentation by Terry Moore	110906j-13
**	**6.3**	Report	January 2007	MTIP: DRAFT Executive Summary Public Comment Report	110906j-14
**	**6.1**	Report	12/11/06	Phase 2 RTP Research and Analysis – Preliminary Research Results: Background Papers	110906j-15
*	**Non-Agenda Item**	Comments from the Chair	12/11/06	Letter to: Rex Burkholder From: EPA Re: JPACT's letter to EPA regarding Benzene Levels	110906j-16
*	**Non-Agenda Item**	Citizen Communications	N/A	Informational Packet From: Claude "Rory" Rorabough To: JPACT Re: Benefits of Concrete	110906j-17

* Included in packet

**Distributed at meeting

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF APPROVING PORTLAND REGIONAL FEDERAL TRANSPORTATION PRIORITIES FOR FEDERAL FISCAL YEAR 2008 APPROPRIATIONS	))))	RESOLUTION NO. 07-3762 Introduced by Councilor Rex Burkholder

WHEREAS, the Portland metropolitan region relies heavily on various federal funding sources to adequately plan for and develop the region's transportation infrastructure; and

WHEREAS, Metro must comply with a wide variety of federal requirements related to transportation planning and project funding; and

WHEREAS, the Metro region's Congressional delegation has advised the regions transportation agencies to develop a coordinated request for legislation related to the annual federal transportation appropriations bill; and

WHEREAS, Metro's Joint Policy Advisory Committee on Transportation (JPACT) has approved Exhibit A to this resolution, entitled, "Metro Area FY08 Federal Transportation Appropriations Request List,"; now therefore

BE IT RESOLVED, that the Metro Council hereby approves Exhibit A of this resolution, entitled "Metro Area FY08 Federal Transportation Appropriations Request List" and directs that it be submitted to the Oregon Congressional delegation.

ADOPTED by the Metro Council this 1st day of February 2007.

David Bragdon, Council President

APPROVED AS TO FORM:

Daniel B. Cooper, Metro Attorney

FY08 Federal Transportation Appropriation Request List			
Project Type/Name	**Appropriation Request ($million)**	**Source**	**Purpose**
Regional Highway Projects			
I-5 / 99 W Connector (Washco)	$2.5 M	Surface Transportation Projects	PE/EIS
Columbia River Crossing (ODOT)	$5 M	Interstate Maintenance Discretionary	PE/EIS
I-5 Wilsonville (ODOT)	$3 M	Interstate Maintenance Discretionary	PE/EIS
Port of Portland: Airport Way/I-205 Northbound	$2 M	Interstate Maintenance Discretionary	PE/NEPA
Port of Portland/Mult.Co: Troutdale Interchange I-84 & 257th	$1 M	Interstate Maintenance Discretionary	PE/ROW
Highway 217 Corridor (Washco)	$2 M	Surface Transportation Projects	PE/NEPA
Total	$15.5 M		
Regional Transit Priorities			
Washington County Commuter Rail (T/M)	$0.27 M	FTA 5309 New Starts	Construction
I-205/Portland Mall Light Rail (T/M)	$80 M	FTA 5309 New Starts	Construction
Milwaukie - PE/FEIS (T/M)	$4 M	FTA 5309 New Starts	PE/FEIS
Bus Replacement (T/M)	$7.7 M	FTA 5309 Bus & Bus Facilities	Construction
SMART Bus - Wilsonville	$1.75 M	FTA 5309 Bus and Bus Facilities	Construction
Streetcar Prototype (COP & T/M)	$1. M	FTA 5314	Construction
Total	$94.72 M		
Local Project Priorities			
*Portland:South Portal, South Waterfront	$2 M	Surface Transportation Projects	EIS
Portland: East Burnside/Couch Couplet	$2 M	Surface Transportation Projects	Construction
Gresham: Springwater/US 26 Industrial Access	$5 M	Transportation Community and System preservation Program; Surface Transportation Projects	PE/EIS/ROW/
Wilsonville: Kinsman Road	$2 M	STP, TCSP	PE/ROW
Milwaukie: Kellogg Creek Bridge Replacement	$1.5 M	TCSP	PE
Metro: TOD Revolving Fund	$5 M	STP, TCSP Funds	Construction
Total	$21.5 M		
Non-Transprotation Appropriations Bills			
Port of Portland: Columbia River Channel Deepening	$25 M	Energy & Water *(Corps of Engineers Budget)*	Construction
Total	$25 M		
Support of OTA Transit Request			
Sandy: Bus Replacement	$0.44	FTA 5309 Bus	Replacement
South Clackamas: Bus Replacement	$0.24	FTA 5309 Bus	Replacement
Canby: Bus Replacement	$0.20	FTA 5309 Bus	Replacement
Total	$0.88		
Support for Washington/Clark County Priorities			
Columbia River Crossing	$5 M	Interstate Maintenance Discretionary	PE/EIS
Total	$5 M		
Grand Total - Transportation Appropriations	$162.6 M		

* If the I-5/North Macadam Access Project is not appropriated in FY07, it will replace the Portland: South Portal South Waterfront project.

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 07-3762, FOR THE PURPOSE OF APPROVING PORTLAND REGIONAL FEDERAL TRANSPORTATION PRIORITIES FOR FEDERAL FISCAL YEAR 2008 APPROPRIATIONS

Date: February 1, 2007 Prepared by: Andy Cotugno

BACKGROUND

The region annually produces a position paper that outlines the views of the Metro Council and the Joint Policy Advisory Committee on Transportation (JPACT), a regional body that consists of local elected and appointed officials, on issues concerning transportation funding that are likely to be considered by Congress during the coming year. This year priorities are limited to the FY '08 appropriations bill.

The Portland region is pursuing an aggressive agenda to implement a high-capacity transit system. This effort involves implementing two projects concurrently within the next three to five years: finishing the Wilsonville to Beaverton commuter rail and initiating construction of the I-205/Downtown LRT. Project development is also underway for the next corridor to Milwaukie. Additionally, there are several complementary projects for which the region is requesting funding: bus and bus facility purchases regionwide, Wilsonville Park and Ride, highway projects and others. All of these projects have a strong economic development emphasis.

Oregon and Washington continue developing a cooperative strategy to address the transportation needs in the I-5 Trade Corridor. The paper outlines the Federal funding needs and sources for continuing this work and requests support for obtaining these funds. Other interstate issues addressed in the paper include Columbia River channel deepening.

This FY 08 appropriations request for earmarked funding from SAFTEA-LU represents the consolidated regional request. Additional independent requests should not be submitted by any member jurisdiction or agency represented by JPACT (with exception of ODOT outside the metro region).

ANALYSIS/INFORMATION

1. **Known Opposition** None known.

2. **Legal Antecedents** Projects within the region earmarked for federal funding must be consistent with the Regional Transportation Plan, adopted by Metro Resolution No. 03-3380A, For the Purpose of Designation of Adopting the 2004 Regional Transportation Plan as the Federal Metropolitan Transportation Plan to meet Federal Planning Requirements.

3. **Anticipated Effects** Resolution would provide the US Congress and the Oregon Congressional delegation specifically with the region's priorities for transportation funding for use in the federal transportation appropriation process.

4. **Budget Impacts** Metro is involved in planning related to several of the projects included in the priorities paper and must approve many of the requested funding allocations. Failure to obtain funding for one or more of the projects could affect the FY 08-09 Planning Department budget. However, most of the funding requests deal with implementation projects sponsored by jurisdictions other than Metro.

RECOMMENDED ACTION

Approve Resolution 07-3762 for submission to the Oregon Congressional delegation for consideration in the Federal Fiscal Year 08 Appropriations Bill.

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ENDORSING REGIONAL PRIORITIES FOR STATE TRANSPORTATION FUNDING LEGISLATION	))))	RESOLUTION NO. 07-3764 Introduced by Councilor Rex Burkholder

WHEREAS, an efficient and adequately funded transportation system is critical to ensuring a healthy economy and livable communities throughout the state of Oregon; and

WHEREAS, the Governor and the Oregon Legislature have taken action to address critical transportation needs with the passage of the Oregon Transportation Investment Acts in 2001, 2002, and 2003 and the Connect Oregon multi-modal package in 2005; and

WHEREAS, the investments that have been made possible by OTIA I, II, and III and Connect Oregon will help Oregon respond to both population growth and important economic opportunities; and

WHEREAS, these acts have provided new transportation investment dollars for the Portland metropolitan region, both for new projects and for maintenance of the existing system; and

WHEREAS, these investments will have a positive impact on the regional economy; and

WHEREAS, even with these important actions, the Portland region remains several billion dollars short of what is needed to adequately address its critical transportation needs over the next 20 years; and

WHEREAS, the 2005 report entitled "The Cost of Congestion to the Economy of the Portland Metropolitan Region" demonstrated how several factors make the Portland region more highly dependent than most metropolitan areas on an efficient transportation system; and

WHEREAS, that report demonstrated how connecting Oregon's people and businesses with local, domestic and international markets is critical for a healthy economy; and

WHEREAS, that report found that without additional investment in the region's transportation infrastructure, increasing congestion will undermine the economic competitiveness of the region and the state and cost the region's businesses and motorists an estimated $844 million annually by the year 2025; and

WHEREAS, Oregon's population growth continues to outpace the nation's, and the Portland region expects to be home to one million more people by 2030; and

WHEREAS, freight volumes in Oregon are expected to increase by 80% and freight volumes in the Portland metropolitan area are expected to double in the next twenty-five years; and

WHEREAS in 2006 the trade and transportation sector accounted for nearly 200,000 jobs in the Portland-Beaverton-Vancouver MSA, representing slightly more than 20% of the region's total employment; and

WHEREAS, funding for non-highway transportation projects is an appropriate and wise use of state funds; and

WHEREAS, the region has identified multiple project and funding needs for all modes of transportation through its Regional Transportation Plan, which has been adopted by Ordinance No. 00-869A For the Purpose of Adopting the 2000 Regional Transportation Plan; amending Ordinance No. 96-647C For the Purpose of Adopting a Functional Plan For Early Implementation of the 2040 Growth Concept; Ordinance No. 97-715B For the Purpose of Adopting the Regional Framework Plan; Resolution No. 00-2969B For the Purpose of Adopting the 2000 Regional Transportation Plan as the Federal Metropolitan Transportation Plan; Resolution No. 03-3380A For the Purpose of Adopting the 2004 Regional Transportation Plan as the Federal Metropolitan Transportation Plan to Meet Federal Planning Requirements; and Ordinance No. 04-045A For the Purpose of Amending the 2000 Regional Transportation Plan ("RTP") For Consistency With the 2004 Interim Federal RTP and Statewide Planning Goals; and

WHEREAS, the Regional Transportation Plan documents a need for $10.4 billion in multi-modal transportation improvements to ensure a vibrant economy and the efficient movement of freight, automobiles and transit; and

WHEREAS, there is a need to build major new facilities to serve high growth areas in the Portland Metro region and throughout the state; and

WHEREAS, Oregon's highway funding per mile continues to be among the lowest, if not actually the lowest, of all western states; and

WHEREAS, Oregon's gas tax has not increased since 1993 and has lost nearly one-third of its value to inflation since then, even as gasoline prices have risen by nearly two-thirds (adjusted for inflation); and

WHEREAS, fuel taxes are expected to lose an additional 40% of their purchasing power by 2030; and

WHEREAS, approximately 60% of the needed transportation improvements called for in the Regional Transportation Plan remain unfunded; and

WHEREAS, there is also a funding shortfall to maintain, operate and improve the existing city, county and state transportation system; and

WHEREAS, additional funding to meet these transportation needs will create or sustain thousands of jobs and help stimulate the economy of the region and the state; and

WHEREAS, it is in the interest of local governments inside Metro to jointly seek additional transportation funding from the 2007 Oregon Legislature; now, therefore

BE IT RESOLVED that the Metro Council and the Joint Policy Advisory Committee on Transportation (JPACT) endorse a state legislative funding proposal for a multi-faceted transportation program as described in Exhibit "A," including:

1. New revenues to support road and bridge operations, maintenance and modernization.
2. Lottery bonds to support the construction of the next leg of the region's high-capacity transit system (currently defined as the Portland to Milwaukie Light Rail Project).
3. Lottery bonds to support transit, freight and passenger rail, marine and aviation projects statewide ("Connect Oregon II").

ADOPTED by the Metro Council this _____ day of _____, 2007.

_____
David Bragdon, Council President

Approved as to Form:

_____
Daniel B. Cooper, Metro Attorney

Local government officials in the Portland region are virtually unanimous in their belief that current transportation funding from all sources is inadequate to support a strong economy and maintain the region's quality of life. Numerous discussions over the interim have highlighted the need for additional funding for a range of purposes. JPACT and the Metro Council support a three-part legislative agenda on transportation funding that consists of the following elements:

- **New revenues for roads and bridges:** After increasing virtually every year from 1981 until 1993, Oregon's gas tax has remained flat since 1993. In that time, the gas tax has lost about one-third of its purchasing power to inflation, even as gas prices, adjusted for inflation, have increased by two-thirds. It is expected that fuel taxes will lose another 40% of their purchasing power by 2030. The 2007 Legislature should:

  - Increase the gas tax and/or another funding source (e.g., registration fee or title fee);
  - Index the gas tax to keep pace with inflation;
  - Continue the 50%-30%-20% apportionment to the state, counties, and cities for any new revenues generated.

- **Transit funding:** Since the construction of the Westside light rail line, which was partially funded with $120 million in lottery bonds, the region has built or begun three new light rail lines (Airport, Interstate, I-205/Mall) without any lottery dollars. The Westside bonds will be paid off in 2010. The region supports efforts to secure a new round of lottery funding to build the next leg of the regional high-capacity transit system (currently defined as the Portland to Milwaukie Light Rail Project)

- **Connect Oregon II:** On the heels of the passage of the "Connect Oregon" multimodal transportation package in 2005, the Governor has submitted a bill for another round of funding. The Governor's initial proposal is identical to the bill that passed in 2005, which authorized the allocation of $100 million in lottery dollars to air, rail, marine, and public transit projects. 15% of the $100 million was allocated to each of five regions roughly corresponding to the ODOT regions, leaving 25% of the total for statewide allocation. The region supports Connect Oregon II, with the following assumptions:

  - It continues to include public transit as an eligible category of expenditure;
  - The portion of overall funding allocated by region is reduced or linked more closely to statewide economic benefits; and
  - There is also a road funding package to provide a more comprehensive solution to the state's transportation challenges (see first bullet).

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 07-3764, FOR THE PURPOSE OF ENDORSING REGIONAL PRIORITIES FOR STATE TRANSPORTATION FUNDING LEGISLATION

Date: January 10, 2007 Prepared by: Richard Brandman

BACKGROUND

The Metro Council approved the Regional Transportation Plan in 2000 and a Plan update in 2004. Currently, the Plan calls for $10.4 billion in multi-modal transportation improvements within the region to meet transportation needs, provide efficient movement of people, goods, autos, trucks, and transit, and ensure a healthy economy and livable region. However, about 60 percent of these improvements have no identified funding source. This shortfall includes funding to maintain, operate and improve the existing city, county and state road system. The three-part agenda described in Resolution 07-3764 and Exhibit A has received the support of TPAC, the JPACT Finance Committee, and (as part of a broader regional legislative agenda) MPAC.

ANALYSIS/INFORMATION

1. **Known Opposition** There is widespread local government support for the Legislature to provide increased transportation funding. It is unknown what the Legislature's response will be since the recommendations include an increase in taxes or fees and use of lottery proceeds.

2. **Legal Antecedents**

   Ordinance No. 00-869A For the Purpose of Adopting the 2000 Regional Transportation Plan; amending Ordinance No. 96-647C For the Purpose of Adopting a Functional Plan For Early Implementation of the 2040 Growth Concept; Ordinance No. 97-715B For the Purpose of Adopting the Regional Framework Plan; Resolution No. 00-2969B For the Purpose of Adopting the 2000 Regional Transportation Plan as the Federal Metropolitan Transportation Plan; Resolution No. 03-3380A For the Purpose of Adopting the 2004 Regional Transportation Plan as the Federal Metropolitan Transportation Plan to Meet Federal Planning Requirements; and Ordinance No. 04-045A For the Purpose of Amending the 2000 Regional Transportation Plan ("RTP") For Consistency With the 2004 Interim Federal RTP and Statewide Planning Goals; and

2. **Anticipated Effects** Needed multi-modal projects would be built, the next leg of the region's high-capacity transit system would be constructed, and many miles of roads would be maintained or expanded. This activity would also mean thousands of jobs created and economic benefits distributed throughout the State and region.

3. **Budget Impacts** There is no direct impact to the Metro budget.

RECOMMENDED ACTION

Approval of Resolution No. 07-3764, For the Purpose of Endorsing Regional Priorities for State Transportation Funding Legislation.

M E M O R A N D U M

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METRO

DATE: January 9, 2007

TO: JPACT, Metro Council and Interested Parties

FROM: Ted Leybold: MTIP Manager

SUBJECT: Transportation Priorities Final Cut Narrowing Policy Issues

* * * * * * *

Introduction: Public comments and specific project applications expose new policy issues or the possibility for clarification on existing policy direction on how to prioritize projects for funding. Following are topic areas provided to JPACT for comment at its December meeting and may consider adoption of policy direction at the January 18th meeting. Additional policy direction would assist Metro staff and TPAC develop a recommended list of projects to receive funding.

Issues:

1. **Additional funding on current projects.** Which applications for additional funding on a currently funded project should be recommended for additional funds?

The existing policy states: Recommend additional funding for existing projects when the project scores well and documents legitimate cost increases relative to unanticipated factors. It is expected, however, that projects will be managed to budget. Only in the most extraordinary of circumstances will additional monies to cover these costs be granted.

Four applications for additional funding have been submitted. Documentation of the cost increases is provided in Attachment 1.

Options:
A. No change to existing policy.

B. Add consideration of types of cost factors eligible for additional funding. The factors recommended could be tied to existing policy emphasis areas. Factors identified by applicants include:
    a. materials (asphalt, steel) and labor inflation,
    b. AASHTO design standards premium,
    c. federal project development process premium,
    d. unanticipated mitigation costs,
    e. addition of agency overhead costs,
    f. unanticipated construction easement ROW costs, and
    g. changes in scope of design elements included in project.

TPAC: No changes recommended.

2. **Recycled projects.** Should projects that have traded out funding or recommended funding be recommended again for funding in the current funding cycle?

One project that had been recommended for funding in previous round is again a candidate for funds.

The Cully Boulevard project received PE funding two funding cycles previous and was recommended for right-of-way and construction funding in the previous cycle by TPAC. The right-of-way and construction funding recommendation was not adopted by JPACT as those funds were transferred to other candidate projects within the City of Portland that had not been recommended for funding by TPAC.

Potential Options:

A. No new policy regarding ability to reapply for projects previously recommended for funding.
B. Direct that funding for such projects only be recommended under particular circumstances.

TPAC: No changes recommended.

3. **Funding of priority categories.** Should specific funding implications be defined to the priority modal categories (bicycle, boulevard, freight, green street, pedestrian, regional travel options, transit, transit oriented development) or those that are not identified as priority modal categories (bridge, road capacity, road reconstruction)?

The existing policy regarding priority modal categories states:

"In developing both the first cut and final cut narrowing recommendations, Metro technical staff will consider . . .

• Technical rankings and qualitative factors:

- The top-ranked projects at clear break points in technical scoring in the bicycle, boulevard, freight, green streets, pedestrian, regional travel options, transit and TOD categories (with limited consideration of qualitative issues and public comments).

- Projects in the road capacity, reconstruction or bridge categories when the project competes well within its modal category for 2040 land use technical score and overall technical score, and the project best addresses (relative to competing candidate projects) one or more of the following criteria:

• Project leverages traded-sector development in Tier I or II mixed-use and industrial areas;

• Funds are needed for project development and/or match to leverage large sources of discretionary funding from other sources;

• The project provides new bike, pedestrian, transit or green street elements that would not otherwise be constructed without regional flexible funding (new elements that do not currently exist or elements beyond minimum design standards)."

This policy provides direction on the types of projects to recommend from each of the modal categories, but does not provide any specific direction about how to emphasize any particular modal category relative to another modal category.

Potential Options:

A. No change to existing policy.
B. Provide funding targets to modal categories or groups of modal categories (e.g. policy emphasis categories should be targeted to receive 75% of regional flexible funds allocated).

TPAC: No changes recommended.

4. **Freeway/highway capacity projects.** Under what conditions should regional flexible funds be used for highway/freeway capacity projects?

The candidate application for planning/EIS work on Highway 217 has raised the issue of the role of regional flexible funds relative to ODOT administered funds in the TIP and Unified Planning Work Program (UPWP). While ODOT has funds for planning, engineering and construction of these projects, current policy only restricts regional flexible funds from being used on right-of-way or construction of the main line portion of throughway projects.

Potential Options:

A. No change to existing policy direction.
B. Add conditions to when technical staff should recommend regional flexible funds be allocated to limited access highway project applications. Sub-options could include:
    a. a planning or engineering commitment from ODOT administered funds,
    b. the provision of a financial strategy from ODOT and partner agencies on how the full project funding is intended to be pursued,
    c. additional limitations to particular project elements such as over crossings or interchanges,
    d. additional limitations to project phases such as planning only, or others.

TPAC: Develop recommendation in consultation with ODOT staff.

5. **Urban growth boundary expansion areas.** How should staff prioritize projects in new urban growth boundary areas relative to projects in already urbanized areas?

Current policy clarifies the eligibility of UGB expansions areas to only those that have completed concept plans. Priority of projects within those areas is the same as every where else in the region: the focus is on economic development within the centers and industrial areas.

Two candidate projects, Gresham's 190th Avenue and Clackamas County's 172nd Avenue projects are the first projects to be evaluated under this policy. Has the process brought any policy considerations into focus that are not adequately addressed at this time? Should these areas compete on the same evaluation factors as the rest of the region?

TPAC: No changes recommended.

6. **Diesel projects.** What priority should diesel emission reduction projects receive relative to the modal project categories?

This is a new "modal" category created in response to federal policy language in SAFETEA-LU reauthorization bill emphasizing the eligibility and priority of these projects for CMAQ funding (approximately 37% of regional flexible funds). While federal guidance reiterates that the allocation of STP and CMAQ funds are a local decision, Metro will need to document how we responded to the federal policy language of making diesel retrofits a priority (along with other cost-effective projects to improve air quality) for the allocation of CMAQ funds.

Potential Options:

A. State intention to work with CMAQ partners to adopt policy direction on diesel retrofits with policy update process for the next funding cycle.
B. Request technical staff recommend some amount of funding toward diesel retrofit candidate projects given the quality of current applications.

TPAC Recommendation: Direct technical staff to implement both policy options A and B.

Attachment 1

The following projects have been funded for construction phases in previous cycles of the Transportation Priorities funding allocation process. Due to various circumstances, they are applying for additional funds. A summary of the explanation for why the projects are requesting additional funds is provided below.

Rock Creek Trail: to NW Wilkens

The Rock Creek Trail project received funding in the last MTIP allocation (2006-2009). However, in recent project reviews with ODOT, it was discovered that our previous cost estimates were too low in light of federal AASHTO standards. Although the trail design meets local and regional standards, the federal standards for engineering, planning and design (including environmental assessment requirements unique to federal funding) as well as construction dimensions are greater, and therefore, the project will cost more than originally estimated.

For example, our original proposal was for a 10' wide multimodal trail throughout; AASHTO standards require 2' additional "shy" distance on each side of the developed trail so that the developed trail with shoulder is 14' wide instead. Trail sections constructed of boardwalk are likely to be 12' wide instead of 10', with a correspondingly higher cost. The requested funding will supplement the previous allocation, and enable to the project to be completed as planned.

10th Avenue: Main to Baseline (Hillsboro)

Per Engineer's Cost Estimate, adjusted for inflation and recent escalation of materials pricing due to fuel, trucking, and oil (paving) cost increases. Also includes estimated budget for construction of mitigation improvements to adjacent business to avoid full acquisition costs and backfill of Construction funds transferred to cover budget shortage in PE.

This request is for supplemental construction funds to address projected budget shortfalls. Approximately 2/3 of the proposed funding request is to replace funds transferred, with ODOT's approval, from Construction to cover a shortage of budget for PE. The remaining 1/3 of the requested funds are for accommodation of the extra ordinary increases experienced in construction costs due principally to the dramatic increase in oil prices, negatively affecting trucking costs on all materials and equipment operation, as well as the cost of roadway paving. Also a factor is the improvements to the economy which have

employed a large sector of the construction industry, causing the cost of work to escalate as available labor resources have declined.

223rd Avenue Railroad under crossing

Additional funding being sought due to the rising costs of construction and materials and design and construction conditions imposed by UPRR.

Division Street: 6th to 39th Reconstruction

1. Unanticipated Cost Increases
The City is requesting an additional $2.0 million in federal transportation funds to keep the project fully-funded and maintain the project's goals identified in the 2002 MTIP application.

Recent increases in construction costs have been seen around the region and nation following the hurricanes in the Gulf Coast. These cost increases were above and beyond increases anticipated in the 2002 estimate.

Additionally, our office anticipates a 68% increase in asphalt prices between 2005 and 2007. The June 2006 cost estimate reflects this trend and follows Metro's cost estimating methodology for a Preliminary Level cost estimate.

2. PDOT Cost Recovery Now Included
At the time of the 2002 application, PDOT was not charging cost recovery on federally-funded projects and therefore, the cost estimate did not include overhead costs. The current estimate includes cost recovery charges at the federally approved rate of 32.32%. For the current application, cost recovery is estimated at $400,000 - $475,000 over the life of the project. This accounts for 20% to 24% of the 2006 request for $2 million.

3. ROW Needs Determined
The 2002 cost estimate and application did not include any costs for right-of-way acquisition. The cost estimate now includes $55,725 for costs to acquire temporary construction easements where construction requires access to work on private property for restoration behind sidewalks.

4. Project Scope Further Developed
The 2002 estimate for pavement work was $1.232 million and was based on limited information about the condition of the pavement. Since then, PDOT hired a consultant to test the condition of the pavement which revealed a need for more extensive pavement reconstruction between SE 6th and SE 10th. With the pavement data, PDOT developed a pavement design for the street and a

formal cost estimate for the paving portion of the project using bid items and quantities. The cost for pavement work is now estimated at $3.8 million.

In addition, the 2002 estimate was prepared before any planning work had begun on the TGM- funded Division Green Street/Main Street Plan. The initial cost estimate included a construction budget of $350,000 for curb extensions at four transit stops and street tree planting. The TGM- funded planning process identified further needs for streetscape, signalization, traffic safety and green street improvements. The City's 2006 application includes a $1.6 million engineering and construction budget for the streetscape, traffic safety and green street work. Project development would identify improvements that meet this proposed budget.

5. City Commitment to Project with Substantial Overmatch
In light of the 2006 cost estimate, the City dedicated additional street maintenance funds to the project to reduce the budget shortfall. At this time, the City has committed $1.348 million to the project for a 23% local match, which is over twice the required 10.27% match.

MTIP: $4,500,000 77%
Local Match: $1,348,000 23%
Total project: $5,848,000 100%

Other Projects Previously Receiving Construction Funds

The following projects have also received construction funding in previous allocation processes but only for portions of their original application amounts. These applications are for remaining, unfunded portions of the previous applications or new extensions to previous applications.

Trolley Trail

Previous MTIP cycles have funded portions of this trail. The 2006-09 application requested $1,500,000 to complete the trail, $742,000 of which was awarded to construct a segment of the trail. The current application requests $1,875,000 million to complete the trail to Gladstone.

Marine Drive Trail Gaps

The previous MTIP cycle funded portions of this trail. The 2006-09 application requested $1,651,000 for the project, $966,000 of which was awarded to construct a portion of the trail gaps. The current application requests $1,873,000 million to complete the previous project plus one additional gap segment to the Portland city limit with Gresham.

NE 102nd Avenue: Glisan to Stark

In the 2003 MTIP cycle, the applicant requested $3.35 million for the 102nd Avenue Boulevard project between Weidler to Burnside of which $1 million was awarded. With additional federal earmark funds, a project between Weidler and Glisan is underway. The current application would extend the project south to Stark Street.

Tualatin-Sherwood ATMS

The previous MTIP cycle funded a segment of Tualatin-Sherwood Road for improvements to signal coordination and timing. The current application extends the segment of where improvements will be provided and adds project elements for ATMS improvements on this facility.

M E M O R A N D U M

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METRO

DATE: January 5, 2007

TO: RTP Interested Parties

FROM: Tom Kloster, Transportation Planning Manager
Kim Ellis, Principal Transportation Planner

SUBJECT: Regional Transportation Plan Vision - Working Draft 1.0

The attached working draft is a proposed new structure for Chapter 1 of the Regional Transportation Plan (RTP) that will eventually replace more than 40 pages of current policy language. The result is a dramatically simplified, more concise statement of intent for the plan that will guide planning for and investment in the region's transportation system.

The purpose of this transition is to sharpen the focus of the RTP on those transportation actions that most affect the implementation of the 2040 Growth Concept and to respond to the key findings and implications of the research conducted during Phase 2 of the RTP update.

The updated Chapter 1 is organized as follows:

- **Section I** describes the history and values surrounding the region's long-term vision for growth – Region 2040 - and the RTP as a key tool for implementing the Region 2040 vision.

- **Section II** describes the desired outcomes the RTP is trying to achieve and how to measure success when evaluating investment alternatives and making decisions about future transportation investments. The RTP vision is a set of goals and measurable objectives that describe long- and short-term desired outcomes for the regional transportation system to best support the Region 2040 vision and protect the region's quality of life. The goals and measurable objectives are organized into two sections: system design and management and governance.

More specific strategies (actions) will be developed for how to achieve these goals and objectives during Phase 3 of the RTP update.

To simplify Chapter 1, there are several components that are either replaced or consolidated in the new format. This is a working document in early draft form, so the following summary of major edits will grow as the document evolves:

- There are just two system maps - one for the design of the street system, and one for the design of the transit system. The merging of other modal system maps is discussed below.

  Rationale for change: *This consolidation emphasizes a systems perspective rather than a modal perspective for the design, management and governance of the regional transportation system.*

- The motor vehicle functional classification system is dropped, with the remaining design and performance objectives for this system merged with street design objectives and a street design classification map.

  Rationale for change: *The current two system map perspective for the design and function of the regional street system has been confusing, and in many cases ignored, during local implementation.*

- The current motor vehicle level-of-service (LOS) policy is updated, and replaced with multi-modal design objectives set forth in the system design section and a multi-modal corridor performance measure set forth in the system management section.

  Rationale for change: *The current LOS policy is not realistically attainable given other desired outcomes for land use, the economy, equity, fiscal stewardship and the environment. Recent amendments to the Oregon Transportation Plan also recognize the issues inherent with traditional approaches to dealing with congestion. This change moves the RTP away from level-of-service as the primary tool used to determine transportation needs and how big to size the system. The updated Chapter 1 uses aggregate, multi-modal system design objectives and a person-trip capacity measure to inform sizing of the transportation system over time. Reliability of the system, particularly for freight and goods movement, is also emphasized through travel time objectives and performance measures. The traditional level-of-service measures (e.g., demand-to-capacity ratios and travel speeds) would continue to be used as a diagnostic tool to identify problem areas, monitor performance of the system and inform phasing of transportation investments needed to complete the system over time. More specific strategies will be developed for how to achieve these objectives.*

- The regional freight functional classification system is dropped, and replaced with a regional freight corridors map that simply informs design and management objectives for critical freight access routes that includes road, rail, air and waterways.

  Rationale for change: *The focus of the RTP should be ensuring critical freight access routes are provided and that they be reliable and designed to facilitate efficient freight and goods movement. A functional classification system map is not needed to accomplish these objectives. More specific strategies will be developed for how to achieve these objectives.*

- The regional bicycle and pedestrian classification systems are dropped, and replaced with design objectives that expected to be implemented for all streets in the region.

  Rationale for change: *The current system map approach for the design and function of the regional bicycle and pedestrian systems has been confusing, and in some cases ignored, during local implementation. The focus of the RTP should be ensuring a safe, continuous and attractive network of bikeways and pedestrian facilities on all streets in the region. A functional classification system map is not needed to accomplish these objectives. The regional street design*

guidelines and livable streets handbooks will continue to guide the design of streets to promote walking, biking and access to transit in the region. More specific strategies will be developed for how to achieve these objectives.

- The transit system map will be expanded to reflect a design and management approach for providing radial bus service to 2040 centers from their respective, overlapping radial systems to serve cross-town market areas of regional centers and town centers.

  ***Rationale for change**: This change responds to changing travel patterns in the region in response to significant growth in population and jobs in areas outside the Central City that are not well-served by the traditional hub and spoke system that has been in place in the Portland metropolitan region since the 1980's. RTP background research demonstrated a growing demand and desire for a web of convenient travel service connections between suburban areas of the region that also remain linked to the Central City. The RTP vision retains the regional transit service elements from the current RTP integrates them in a different way to serve this growing demand. More specific strategies will be developed for how to achieve these objectives, with particular attention to supporting the total transit trip as well as transit-oriented development and pedestrian access needed to support transit service.*

- A system management perspective is more prominently emphasized, encompassing the transportation system management and operations (TSMO) and transportation demand management (TDM) work currently underway in the region.

  ***Rationale for change**: This change responds to policy recent direction from the federal and state levels to better link system management to planning for the region's transportation system as a cost-effective approach to improve travel choices in addition to the performance and reliability of the system. The management objectives focus on optimizing corridors for people and goods movement. More specific strategies will be developed for how to achieve these objectives.*

- Green Corridors are dropped as an RTP feature, and the policy components merged with the Parkway design designation for the purpose of the RTP. The Green Corridor designation would remain in the 2040 Growth Concept and Urban Growth Management Functional Plan, with the Parkway design as the basic RTP implementing strategy.

  ***Rationale for change**: This change responds to the complexity of Green Corridors implementation that is more appropriately addressed through Metro's Urban Growth Management Functional Plan and intergovernmental agreements.*

WORKING DRAFT 1.0

Chapter 1
Regional Transportation Vision

Preface

Transportation shapes our communities and our daily lives in profound and lasting ways. What we plan for today will affect the health of our communities, our economy and our environment for many years to come.

Looking ahead, the Portland metropolitan region is at an important crossroads.

- Our region is experiencing unprecedented growth and with that increasing congestion that threatens the economic competitiveness of state.
- Our system of roads and bridges is aging – much of it built 50 years ago.
- There is increasing competition for transportation funds, yet fewer dollars to maintain the infrastructure we have, let alone fund new high-cost solutions.

While the Portland metropolitan region is faced with many difficult challenges that also face other metropolitan areas throughout the nation – these issues also pose an opportunity for the region's elected officials and business and community leaders to work together and be innovative in how we move forward to protect our quality of life and economy. This important work begins with updating the vision for the region's transportation system to re-define the responsibility of the Regional Transportation Plan (RTP) to keep this region a great place to live and work for everyone, and preserve its unique qualities and natural beauty.

Our work will be both challenging and exciting, requiring a new level of collaboration between the Metro Council, public and private sector leaders, community groups, businesses and the residents of the region. Our success in addressing these complex challenges will be measured in many ways and by many people – including future generations who will live and work in the region.

Document Organization

This document is organized into two sections:

- Section I. describes the history and values surrounding the region's long-term vision for growth – Region 2040 - and the RTP as a key tool for implementing the Region 2040 vision.

- Section II. describes a vision of what the RTP is trying to achieve and how to measure whether or not we are successful when evaluating investment alternatives and making decisions about future transportation investments.

A glossary of terms is provided at the end of the document for reference.

The RTP Goals and Measurable Objectives defined in this document represent a statement of the vision (desired outcomes) for the region's transportation system to best support the Region 2040 vision and will be used to evaluate and prioritize transportation investments during Phase 3 of the RTP update. The methods for conducting this evaluation will be described in a separate technical memorandum.

Eventually, this document will become a chapter in the updated Regional Transportation Plan that is anticipated to be approved by JPACT and the Metro Council in November 2007, pending air quality analysis.

WORKING DRAFT 1.0

CHAPTER 1

Regional Transportation Vision For the Portland Metropolitan Region

TABLE OF CONTENTS

I. REGIONAL CONTEXT 1

METRO CHARTER 1

Ethics of Sustainability and The Regional Transportation Plan 1

2040 GROWTH CONCEPT 2

2040 FUNDAMENTALS 2

II. REGIONAL TRANSPORTATION PLAN VISION 3

OVERVIEW 3

Organizational Structure for RTP Vision (Goals and Objectives) 4

SYSTEM DESIGN AND MANAGEMENT 6

Overview 6

System Design and Management Goals and Objectives 7

Goal 1 Compact Urban Form and Economic Competitiveness 7

Goal 2 Equitable Access 8

Goal 3 Mobility and Reliability 9

Goal 4 Safety and Security 10

Goal 5 Human Health and the Environment 11

System Design Concept 12

Overview 12

Street Design Elements 12

Transportation Management Concept 16

Overview 16

System Management Elements 17

GOVERNANCE 18

Overview 18

Governance Goals and Objectives 19

Goal 6 Effective Public Involvement 19

Goal 7 Fiscal Stewardship 20

Goal 8 Accountability 21

GLOSSARY OF TERMS 22

I. REGIONAL CONTEXT

Metro Charter

In 1978, the voters within the metropolitan areas of Clackamas, Multnomah and Washington counties approved a ballot measure that made Metro the nation's first directly elected regional government. That vote gave Metro the responsibility for coordinating the land use plans of the 28 jurisdictions in the region as well as other issues of "regional significance." In 1992, the voters of the region approved a charter that gave Metro jurisdiction over matters of metropolitan concern and required the adoption of a Regional Framework Plan.

> *We, the people of the Portland area metropolitan service district, in order to establish an elected, visible and accountable regional government that is responsive to the citizens of the region and works cooperatively with our local governments; that undertakes, as its most important service, planning and policy making to preserve and enhance the quality of life and the environment for ourselves and future generations; and that provides regional services needed and desired by the citizens in an efficient and effective manner, do ordain this charter for the Portland area metropolitan service district, to be known as Metro.*[1] *(emphasis added)*

The preamble to the Metro Charter, which defines the agency's most important service as "…to preserve and enhance the quality of life and the environment for ourselves and future generations," lays the groundwork for all of Metro's regional planning activities to directly address sustainability, including development of the Regional Transportation Plan (RTP).

Ethics of Sustainability and The Regional Transportation Plan

There are many definitions of sustainability, but all of them have three common ethics that address equity, environment and economy. To ensure integration of these ethics of sustainability into the larger RTP vision and desired outcomes the implementation of the plan is trying to achieve, the following ethics of sustainability must be the foundation for all planning activities governed by the RTP:

> Equity - the responsibility of the plan to all current and future residents and businesses of the region. The RTP shall provide a comprehensive system of transportation services and infrastructure that provides safe and affordable travel choices and ensures equitable access to work, education and nature for the people of region.
>
> Environment - the responsibility of the plan to the landscape. The RTP shall ensure that transportation services and infrastructure protect and enhance human health and the natural environment.
>
> Economy - the responsibility of the plan to of the economy of the region. The RTP shall provide for transportation services and infrastructure that reflect and help implement the region's long-term vision for growth and support the health of our economy.

[1] Metro. *Preamble of Metro Charter as approved in 1992 and amended in 2000.*

2040 Growth Concept

Adoption of the 2040 Growth Concept in 1995 responded to the mission called out in the Metro Charter and established a new direction for planning in the Portland metropolitan region by linking transportation investments to desired outcomes for urban form, the economy and the environment. The unifying theme of the 2040 Growth Concept is to preserve the region's economic health and livability while planning for expected growth in this region in an equitable and fiscally sustainable manner. This new direction reflected a regional commitment to implementation of a long-term strategy to protect the things that the residents of the Portland metropolitan region have consistently said they value: vibrant communities, a strong regional economy, access to jobs, affordable housing and nature, protecting habitat and the environment for wildlife and people, transportation choices and resources for future generations.

The following are descriptions of each of the 2040 Growth Concept land-use components and the transportation system envisioned to serve them. The 2040 Growth Concept land-use components, called 2040 Design Types, are grouped into a hierarchy that serves as a framework to guide RTP investment priorities. Table 1 lists each 2040 Design Type, based on this hierarchy.[2]

Table 1. Hierarchy of 2040 Design Types

Primary land-use components	**Secondary land-use components**
Central city	Local industrial areas
Regional centers	Station communities
Regionally significant industrial areas	Town centers
Intermodal facilities	Main streets
	Corridors
Other urban land-use components	
Employment areas	
Inner neighborhoods	
Outer neighborhoods	

Decisions about land use and transportation cannot be, and should not be separated. Success of the 2040 Growth Concept, in large part, hinges on achieving the regional transportation goals and objectives identified in this plan.

2040 Fundamentals

In 1996, the Metro Council approved policies[3] *(actions)* to implement the 2040 Growth Concept and committed to monitoring the progress of these actions. In 1997, the growth concept vision was condensed into eight fundamental values that express the region's vision for implementation of the 2040 Growth Concept and desired outcomes for urban form and the health of our communities, our economy and our environment.

[2] More detailed descriptions of the land use and transportation elements of each 2040 Design Type can be found in the Regional Urban Growth Goals and Objectives and Regional Framework Plan.
[3] Metro. Urban Growth Management Functional Plan.

Adopted by the region in 1997 as part of the Regional Framework Plan, the 2040 Fundamentals focused the scope of efforts to monitor implementation of the Region 2040 plan and the degree to which the actions taken are achieving the Region 2040 vision over time. The 2040 Fundamentals embrace the ethics of sustainability described earlier for all Metro's planning and 2040 implementation activities.

The Regional Transportation Plan is a key tool for implementing the 2040 Growth Concept vision as well as other federal and state mandates for transportation planning.[4] Planning and investments in the transportation system are the means to an end - citizens of the region do not measure their quality of life by how good a plan is or how many bike lanes or highway miles are constructed in their community. Quality of life is measured by how well they live and the extent to which where they live is economically prosperous and affordable, and the quality of the natural, community and social environments. These elements are what people value and transportation planning and investments are a means to assure the region's quality of life and economy are protected.

The Regional Transportation Plan (RTP) vision described in this chapter relies on the 2040 Fundamentals as an expression of what the citizens of this region value to provide focus for what the RTP will address and monitor over time and to measure whether the plan is helping to maintain regional quality of life for its citizens. For purposes of the RTP, the 2040 Fundamentals have been consolidated into the 6 fundamentals described below:

1. Vibrant Communities - *A vibrant place to live and work, and compact development that uses both land and infrastructure efficiently and focuses development in 2040 centers, corridors, and industrial and employment areas.*

2. Healthy Economy - *A healthy economy that generates jobs and business opportunities and sustains the region's agricultural industry.*

3. Healthy Environment - *Forests, rivers, streams, wetlands, air quality and natural areas are restored and protected.*

4. Transportation Choices - *An integrated transportation system that supports land use and provides reliable, safe and attractive travel choices for people and goods.*

5. Equity - *Equitable access to affordable housing, jobs, transportation, recreation and services for people in all income levels is provided.*

6. Fiscal Stewardship - *Stewardship of the public infrastructure ensures that the needs and expectations of the public are met in an efficient and fiscally sustainable manner.*

II. REGIONAL TRANSPORTATION PLAN VISION

Overview

The Regional Transportation Plan (RTP) is the vision for the major transportation system in the Portland metropolitan region. The plan establishes the framework for the design, management and governance of all major system investments, and is a statement of positive future

[4] Development of the Regional Transportation Plan must also respond to a variety of mandates included in Oregon Transportation Plan, Oregon Transportation Planning Rule, and federal legislation such as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

outcomes that reflect public opinion and support the things the residents of the region most value.

This RTP reflects the continued evolution of regional transportation planning from a primarily project-driven endeavor to one that is framed by the larger set of outcomes that affect people's everyday lives and the quality of life in this region. An outcomes-based plan requires careful monitoring to ensure that incremental decisions to implement the plan through corridor and project planning are consistent with the plan vision, as measured by specific outcomes, and flexible enough to adapt to the challenges of the 21st century.

Organizational Structure for RTP Vision (Goals and Objectives)

The RTP vision is organized into a series of *goals* and *measurable objectives* that have been identified to guide the design, management and governance of the region's transportation system to best support the 2040 Fundamentals.

- *Goals* are statements of purpose that describe long-term desired outcomes (or a vision) for the region's transportation system to support and implement the Region 2040 vision.
- *Measurable objectives* comprise two elements - an objective statement and a performance measure – that represent even more specific outcomes the RTP is trying to achieve.
    - *Objectives* are similar to goals as they also represent a desired outcome. However, an objective is an intermediate, shorter-term result that must be realized to reach the long-term goals the RTP is trying to achieve.
    - *Performance measures* characterize the objective with quantitative or qualitative data to assess how well objectives are being met. They can be applied at a system level and project level, and provide the planning process with a basis for evaluating alternatives and making decisions on future transportation investments.

The goals and measurable objectives are further organized into two sections. These sections are:

1. System Design and Management – Goals and measurable objectives that define desired outcomes for the physical design and management of the transportation system over time to best support the Region 2040 vision as expressed through the 2040 Fundamentals.
2. Governance - Goals and measurable objectives for that define desired outcomes for jurisdictional and fiscal governance of the transportation system to ensure meaningful public involvement, maximization of public investments and accountability to the public to build and maintain public trust in government.

A summary of the goals and measurable objectives is provided in Table 2.

Table 2. Regional Transportation Plan Goals

Transportation Design and Management
Goal 1 Compact Urban Form and Economic Competitiveness Decisions about land use and transportation services and infrastructure are integrated to support efficient development, promote job and housing proximity and strengthen the economy.
Goal 2 Equitable Access Transportation services and infrastructure provide all residents of the region with equitable access to affordable housing. jobs, shopping, educational, cultural and recreational opportunities and business access to the workforce.
Goal 3 Mobility and Reliability Transportation services and infrastructure provide a seamless and well-connected network of throughways, arterials and transit services to ensure effective and reliable travel choices for people and goods movement.
Goal 4 Safety and Security Transportation services and infrastructure are safe and secure for the public and goods movement.
Goal 5 Human Health and the Environment Transportation services and infrastructure protect and enhance the quality of human health and the natural environment.
Governance
Goal 6 Effective Public Involvement All major transportation decisions are open and transparent, and grounded in meaningful public involvement of the public, including those traditionally under-represented, businesses, community groups and local, regional and state jurisdictions that own and operate the region's transportation system.
Goal 7 Fiscal Stewardship Regional transportation planning and investment decisions maximize the public investment in infrastructure, preserving past investments for the future and prioritizing cost-effective solutions that reinforce Region 2040 to address transportation needs.
Goal 8 Accountability The region's government, business and community leaders work together so the public experiences transportation services and infrastructure as a seamless, comprehensive system of transportation facilities and services that bridge institutional and fiscal barriers.

Collectively, the RTP goals and measurable objectives described in this chapter will be used to prioritize critical transportation investments that best support the long-term vision for managing growth in our region and the broader sustainability mission identified in the Metro Charter. The goals and measurable objectives will also be the basis for monitoring performance of the plan over time. Through evaluation and monitoring, the region can be sure that investments in the transportation system are achieving desired outcomes.

System Design and Management

Overview

Since the adoption of the Region 2040 Growth Concept in the mid-1990s, the region has embarked on an aggressive effort to further define urban form through design and management of the transportation system. For transportation, this effort has included a new emphasis on an interconnected multi-modal network and facility design and management that reinforces planned urban form, supports a healthy economy, protects natural systems and rural reserves and serves access needs for all people, including children, seniors and people with disabilities.

Regional street design guidelines contained in Metro's Livable Streets handbooks[5] address federal, state and regional transportation planning mandates with street design concepts intended to support local and regional implementation of the 2040 Growth Concept. In addition, the evolution of new design and operations practices is allowing for better management of stormwater runoff and the impact of transportation systems on wildlife habitat and migration corridors.

Effective design and management of the transportation system support many desired outcomes, as set forth in the Region 2040 vision, including:

- promotes an efficient and compact urban form that creates vibrant communities and minimizes urban sprawl in a growing region, which in turn helps protect natural resources and rural reserves.
- supports the region's economy by providing for the cost-effective and reliable movement of people and goods through an interconnected system of throughways, arterial streets, transit, air, marine and rail systems.
- provides affordable and equitable travel choices in the region so all residents of the region have an opportunity to meet their daily needs and meaningfully participate in their community.
- maximizes the public return on transportation investments in streets and transit by optimizing the existing system and focusing future growth in areas where public infrastructure already exists, or can be reasonably expanded.
- promotes active living through the development of safe, convenient and attractive multi-modal systems that increase walking and bicycling, which in turn, has public health and environmental benefits.

[5] The handbooks are: Creating Livable Streets: Streets for 2040, Green Streets: Innovative Solutions for Stormwater and Stream Crossings and Trees for Green Streets.

System Design and Management Goals and Objectives

The following goals and measurable objectives define the vision for the design and management of the regional transportation system to support the region's long-term vision for growth in the Portland metropolitan region

Goal	Objectives	Potential Performance Measures
Goal 1 Compact Urban Form and Economic Competitiveness Decisions about land use and transportation services and infrastructure are integrated to support efficient development, promote job and housing proximity and strengthen the economy.	Objective 1.1 Compact Urban Form - Reinforce growth in and access to 2040 centers, industrial areas, freight and passenger intermodal facilities, corridors and employment areas with investment decisions.	• *Transportation investments (by 2040 land use).*
	Objective 1.2 Economic Competitiveness and Job Creation - Promote the expansion and diversification of the region's economy and business opportunities through the efficient and effective movement of people, goods, services and information.	• *Tons of freight transported (by mode).*
	Objective 1.3 Reliable Market Area Access - Ensure that 2040 Centers, Industrial Areas and Intermodal Facilities have adequate access to surrounding market areas as measured in travel time, as defined in Table 2.	• *Travel time between key locations.*
	Objective 1.4 Freight Reliability - Protect and enhance investments on regional freight routes to maintain off-peak reliability for moving freight into, through and within the region.	• *Average daily truck delay for regional freight corridors.* • *Off-peak hour traffic congestion on regional freight corridors.*
	Objective 1.5 Travel Choices - Provide a multi-modal transportation system to reduce reliance on the automobile for people movement and provide businesses choice in goods movement.	• *Percent of trips to work by walking, biking, transit and shared ride (by 2040 land use).* • *Progress toward Modal Targets in Table 3.* • *Percent on freight tonnage by mode.*

Goal	Objectives	Potential Performance Measures

Goal	Objectives	Potential Performance Measures
Goal 2 Equitable Access Transportation services and infrastructure provide all residents of the region with equitable access to jobs, shopping, educational, cultural and recreational opportunities and business access to the workforce.	Objective 2.1 Equitable Access to Travel Choices - Provide all residents and businesses of the region with equitable access to travel choices to carry out their essential daily activities.	• *Percent of homes within 30 minutes travel time of employment by auto and transit during peak periods.* • *Percent of jobs within 30 minutes of travel time to workforce by auto and transit during peak periods.* • *Percent of homes and parks within one-quarter mile of regional multi-use trail system.*
	Objective 2.2 Barrier Free Transportation - Provide a seamless and coordinated system that is barrier-free and serves transportation needs for all people, including people with low income, children, seniors and people with disabilities.	• *Percent of seniors and people with disabilities within one-quarter mile of regional transit service.* • *Percent of low-income households within one-quarter mile of regional transit service.*

Goal	Objectives	Potential Performance Measures

Goal	Objectives	Potential Performance Measures
Goal 3 Mobility and Reliability Transportation services and infrastructure provide a seamless and well-connected network of throughways, freight rail, air and water networks, arterials and transit services to ensure effective and reliable travel choices for people and goods movement.	Objective 3.1 Off-Peak Reliability – The regional system is managed to maintain off-peak reliability to support goods movement throughout the region.	• *Travel times in key corridors.*
	Objective 3.2 Effective People and Goods Movement - The regional throughway system is monitored in the context of broad corridors that extend to adjacent arterial and transit systems within one mile to maintain total person-trip capacity during peak travel periods (see Figure 2).	• *Total person-trip and freight capacity for key corridors.*
	Objective 3.2.1 Throughway Connectivity - Provide a network of limited-access throughways that connect the Central City, Regional Centers, Industrial areas, and freight Intermodal Facilities to primarily serve interstate, intercity and inter-regional movement.	• *Percent of Regional Centers, Industrial Areas and Freight Intermodal Facilities served by direct arterial connections to throughways.*
	Objective 3.2.2 Street and Regional Transit Connectivity - Provide a complementary network of regional arterials at one-mile spacing, and community arterials streets at half-mile spacing and local streets at one-tenth mile spacing, with regional transit service on all arterial streets.	• *Percent of homes and jobs within one-quarter mile of regional transit service.*
	Objective 3.2.3 High Capacity Transit Connectivity - Provide a network of high capacity transit service that connects the Central City, Regional Centers and passenger intermodal facilities.	• *Percent served by high capacity transit service (by 2040 land use).* • *Percent of homes within one-half mile of high capacity transit service.*
	Objective 3.2.4 Community Transit Connectivity - Provide a complementary network of community bus services connections that serve 2040 Growth Concept centers, industrial areas, employment areas and corridors, and provide access to the regional high capacity transit network.	• *Percent of homes and jobs within one-quarter mile of community transit service.*
	Objective 3.2.5 Regional Freight Connectivity – Designate a multimodal network of well-connected and efficient regional freight routes on arterial streets that provide direct freight access from industrial areas and freight intermodal facilities to throughways.	• *Percent of Industrial areas and freight intermodal facilities served by direct arterial connections to throughways.*
	Objective 3.2.6 Bike Connectivity - Provide a continuous network of safe, convenient and attractive bikeways on all streets and improve access to transit facilities.	• *Percent of street system with bikeways.*
	Objective 3.2.7 Pedestrian Connectivity - Provide a continuous network of safe, convenient and attractive pedestrian facilities on all streets and improve access to transit facilities.	• *Percent of street system with sidewalks.* • *Percent of regional transit stops with connecting sidewalks.*

Goal	Objectives	Potential Performance Measures
	Objective 3.10 Regional Multi-Use Trail Connectivity - Provide a complementary network of regional multi-use trails with a transportation function that connect primary 2040 land uses, on-street bikeways, and pedestrian and transit facilities.	• *Percent of regional multi-use trails with a transportation function completed.*
Goal 4 Safety and Security Transportation services and infrastructure are safe and secure for the public and goods movement.	Objective 4.1 Improve Safety - Reduce traffic fatalities and crashes per capita for all modes of travel.	• *Per capita traffic crashes and fatalities (by mode).*
	Objective 4.2 System Deficiencies - Eliminate deficiencies in the regional transportation system that threaten the safety and security of the public and goods movement.	• *Percent and number of Safety Priority Index System (SPIS) locations addressed.*
	Objective 4.3 Improve Security - Reduce vulnerability of the public, goods movement and critical transportation infrastructure from terrorist actions and natural hazard emergencies (e.g., severe storms, earthquakes, landslides and flooding).	

Goal	Objectives	Potential Performance Measures
Goal 5 Human Health and the Environment Transportation services and infrastructure protect and enhance the quality of human health and the natural environment.	Objective 5.1 Compact urban form - Reinforce the development of a compact urban form to minimize the impact of growth and urban sprawl on natural systems.	
	Objective 5.2 Natural Environment - Protect and minimize impacts on habitat connectivity, ecological viability and water quality.	• *Acres of environmentally-sensitive land impacted by new transportation infrastructure.* • *Number of culverts on regional road system that inhibit fish passage.* • *Acres of riparian corridors impacted by new transportation infrastructure.* • *Percent of street system with street trees that provide canopy for interception of precipitation.* • *Percent of street system with infiltration capacity.*
	Objective 5.3 Air Quality - Protect and enhance air quality so that as growth occurs, human health and visibility of the Cascades and the Coast Range from within the region is maintained.	• *Daily tons of smog forming, particulate and air toxics pollutants released.*
	Objective 5.4 Human Health - Promote physical activity, reduce noise impacts and advance efficient trip-making patterns in the region.	• *Number of trips per capita per day.* • *Daily vehicle miles traveled per person.* • *Average trip length.* • *Average auto occupancy.* • *Percent of non-single occupancy vehicle trips (e.g., walking, bicycling, transit and shared ride).*

System Design Concept

This section describes the elements that make up the system design concepts shown in Figures 1 and 2. The system design concept defines a vision for build-out of the regional transportation system.

Overview

The design of the transportation system has profound and lasting impacts on a community. The following transportation system design elements reflect the fact that streets perform many functions, and the need to provide a well-designed transportation system to make the transportation system safer and more effective for all modes of travel while also support the Region 2040 vision. Implementation of the design elements is intended to promote community livability by balancing all modes of travel and address the function and character of surrounding land uses when designing streets of regional significance.

Street Design Elements

Throughways

Limited-access facilities designed for cross-regional travel with average lengths of 5 miles or more.

- *Freeways* - limited-access facilities of 4-6 lanes with interchanges at spacing of no less than one mile.
- *Highways* - limited access facilities of 4-6 lanes with a mix of at-grade and separate-grade interchanges.
- *Parkways* - limited access facilities of 4 lanes with a mix of at-grade and separate-grade interchanges, multi-use trail system and adjacent greenway.

Regional Arterials

General access facilities that provide for sub-regional travel and access to throughways, with average trip lengths of less than 5 miles.

- *Regional Boulevards:* Four-lane facilities with turn lanes designed to emphasize transit, bicycle and pedestrian travel in 2040 Centers, Main Streets and Station Communities, while accommodating high traffic volumes.
- *Regional Streets:* Four-lane facilities with turn lanes designed to serve all modes of travel in 2040 Industrial Areas, Corridors Employment Areas and Neighborhoods, while accommodating high traffic volumes.

Community Arterials

General access facilities that provide for community travel and connections to regional arterials, with average trip lengths of less than 3 miles.

- *Community Boulevard:* Two or four-lane facilities with turn lanes designed to emphasize transit, bicycle, pedestrian travel and on-street parking in 2040 Centers, Main Streets and Station Communities.

- *Community Street:* Two or four-lane facilities with turn lanes designed to serve all modes of travel in 2040 Industrial Areas, Corridors Employment Areas and Neighborhoods.

Figure 1
Regional Street System Concept

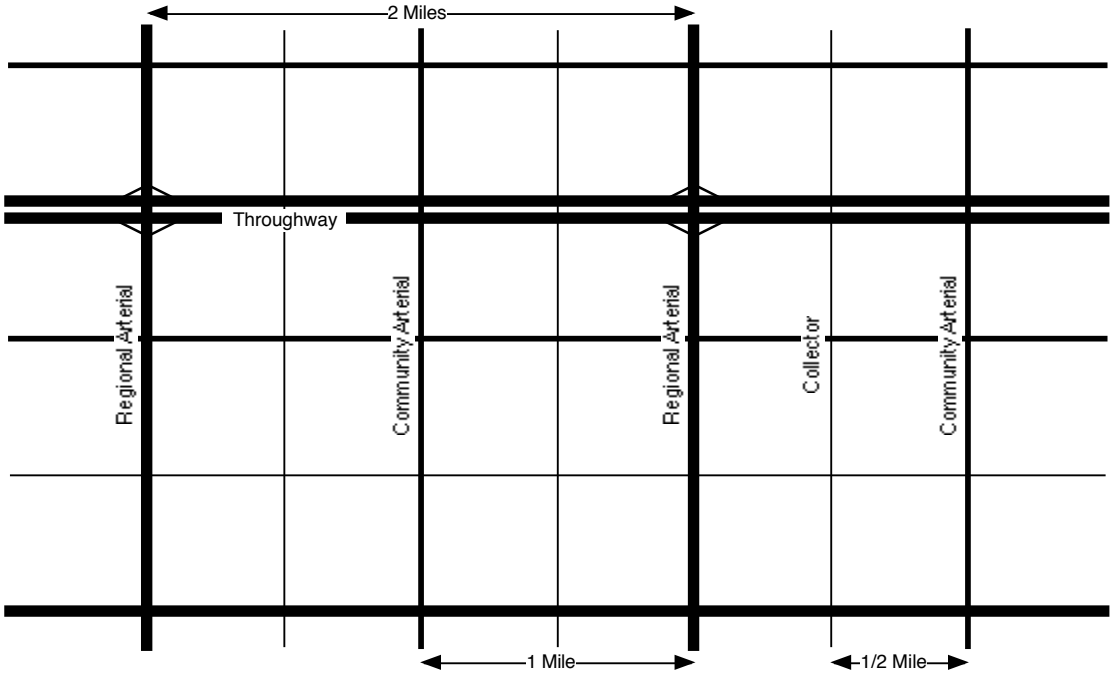
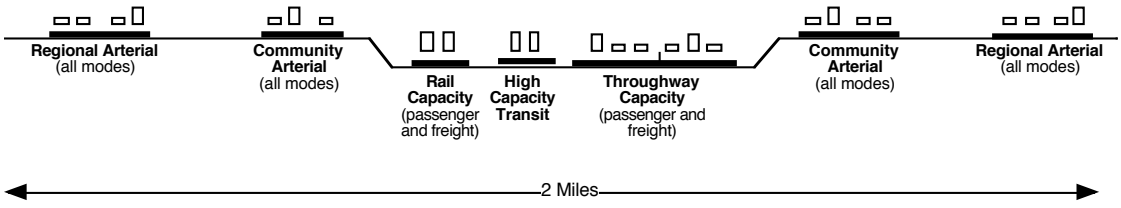


Figure 2
Regional Multi-Modal Corridor Capacity Concept

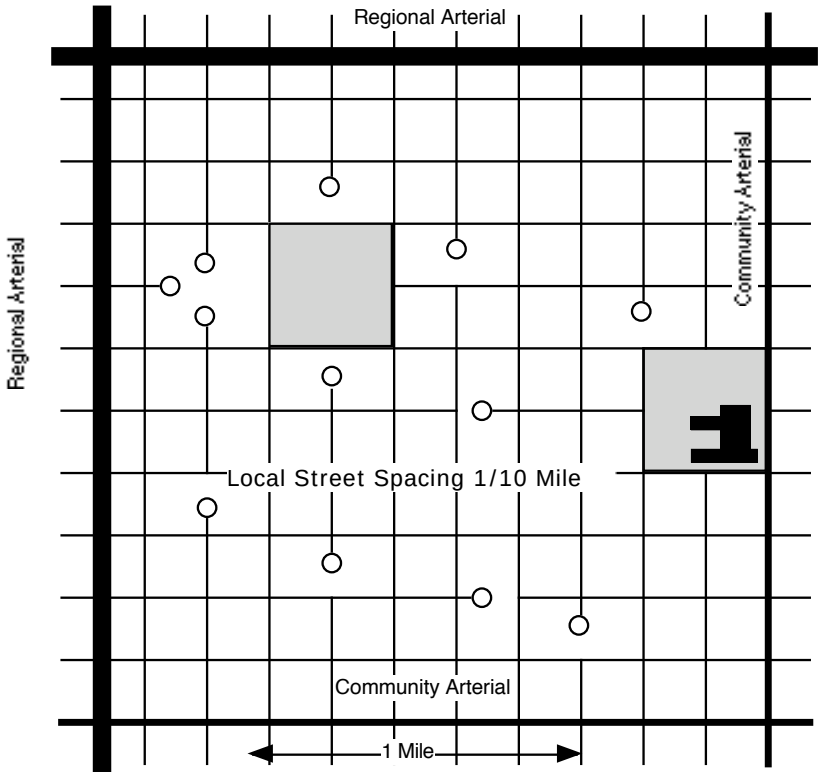


Collector and Local Streets

General access facilities that provide for community and neighborhood circulation, with average trip lengths of less than 2 miles. Collector streets have two travel lanes and provide connections to the regional and community arterial system. Local streets have one or two travel lanes and a pavement width of 20-32 feet, on-street parking and sidewalks on two sides. Local and collector

streets are spaced at one-tenth mile intervals, or more frequent bike and pedestrian connections made where streets cannot be constructed.

Figure 3
Local Street System Concept



Transit System Design Concept

This section describes the elements that make up the transit system design concept shown in Figure 3. The transit system design concept defines a vision for build-out of the regional transit system.

This section describes elements of the regional and local transit system.

High Capacity Transit Network

High capacity transit provides the backbone of the transit network connecting the Central City, Regional Centers, and passenger intermodal facilities. It operates on a fixed guideway within an exclusive right-of-way to the extent possible. High levels of passenger amenities are provided at transit stations and station communities including schedule information, ticket machines, special lighting, benches, shelters, bicycle parking, and commercial services. Speed and schedule reliability are maintained using signal preemption at at-grade crossings and/or intersections. Types of high capacity transit facilities and services include:

- Light Rail
- Commuter Rail

- Bus Rapid Transit
- Intermodal Passenger Facilities (Amtrak & Greyhound)

Regional Transit Network

The regional transit network relies on transit service headways of 15-minutes or less on all arterial roadways (the time of day will be determined). This service also includes preferential treatments at major transit stops and high ridership locations such as signal preemption and enhanced passenger amenities such as covered bus shelters, curb extensions and special lighting. Types of regional transit facilities include:

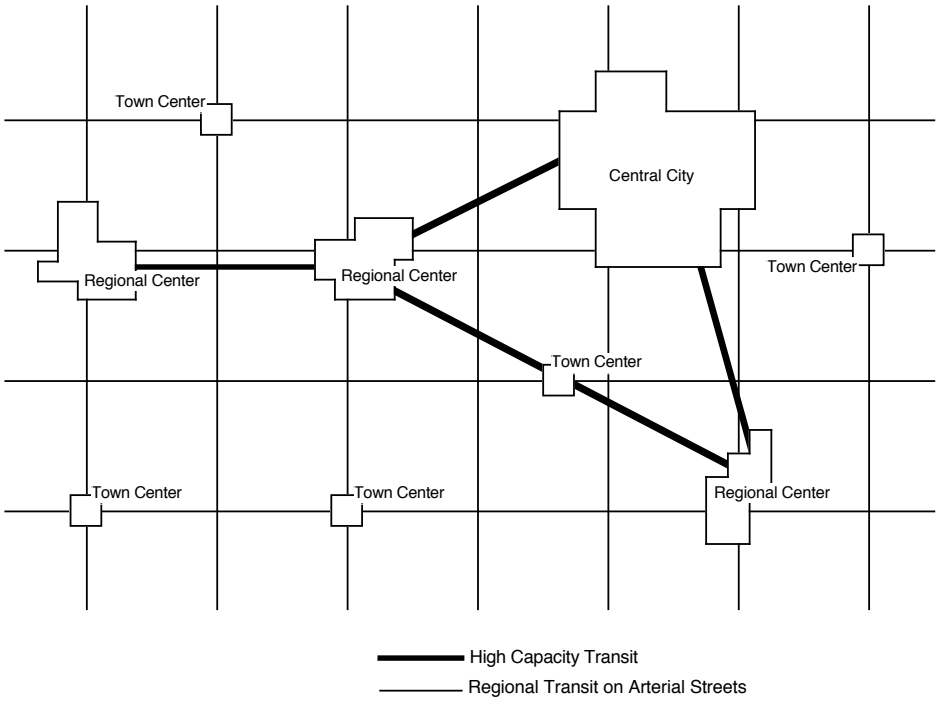
- Frequent & Regional Bus
- Streetcar
- Park-and-Ride Lots
- Major Transit Stops

Local Transit Network

The local transit network provides basic service and access to the regional and high capacity transit networks. It also offers coverage and access to primary and secondary land-use components. Transit preferential treatments and passenger amenities are appropriate at high ridership locations. Types include:

- Local Bus
- Park-and-Ride Lots
- Mini-Bus
- Para-Transit

Figure 4
Regional Transit System Concept



Transportation Management Concept

The preceding section on system design and management, five goals were listed:

- Compact Urban Form and Economic Competitiveness
- Equitable Access
- Mobility and Reliability
- Safety and Security
- Human Health and Environment.

These goals and measurable objectives also guide management of the regional transportation system.

Overview

Transportation infrastructure represents a major public investment. Roads, bridges and Port facilities often constitute the largest assets owned by local governments and Port authorities.

Despite the effort put into designing an ideal system, the street, freight and transit networks sometimes do not perform up to their true potential. A road or rail line that does not provide good service to its users is similar to buying a stock that goes nowhere: both have a low return on investment. Therefore, managing the system so that the full potential is realized is a cost-effective way to increase the rate of return on the public's investment in the transportation system and a necessary step before investing in further expansion of transportation infrastructure.

To accomplish this, many states and metropolitan areas are therefore looking at new models for managing the capacity that already exists on regional transportation systems, and for managing the addition of new capacity. Strategies that allow the region to better use the existing transportation system benefit all users of it.

The concept of transportation management has two components. The first component includes strategies that focus on making the infrastructure better serve the users. The second component includes programs that enable the users to take advantage of everything the system has to offer. These components are commonly known as system and demand management, respectively.

- <u>System Management Elements</u>

  System management, which is also known as Transportation System Management and Operations (TSMO), requires a careful balance between safety and performance. Perhaps the most rudimentary example is the speed limit: lower speeds reduce capacity but increase safety. The same is true of traffic signals. A common TSMO strategy involves optimizing traffic signal timing to reduce congestion and delay without compromising safety. Signals, speed limits, access management and many other elements can be managed to improve the performance of existing infrastructure and thereby maximize the value of the public investment.

- <u>Demand Management Elements</u>

Demand management, which is also known as Transportation Demand Management (TDM), focuses on the user of the system, the barriers they encounter and the benefits of traveling efficiently for all trip purposes. TDM helps the system as a whole perform optimally by providing services, incentives, supportive infrastructure and awareness for travel options. Examples of each are: rideshare matching services; employer transit pass incentive programs; end-of-trip facilities like bike racks and showers; and, marketing programs that provide individualized travel information.

Application in the Portland Metropolitan Region

In some parts of the Portland metropolitan region, the transportation system is already complete, while in other parts of the region, especially those where new development is planned, significant amounts of infrastructure will be added. In both contexts, management strategies have great value. Where the system is already built-out, such strategies may be the only ways to manage congestion and achieve other objectives. Where growth is occurring, system and demand management strategies can be integrated before and during development.

Notably, technology is playing an increasing role in the implementation of transportation management strategies. The application of advanced technology to transportation, referred to as Intelligent Transportation Systems (ITS), can multiply the benefits of some strategies and create opportunities where none existed before. For example, a common strategy for managing throughways is to try to respond quickly when an incident occurs. This simple approach to system management does not require any technology, but it benefits from surveillance devices that shorten the time it takes to determine that a crash or breakdown has occurred or communication technology that expedites the dispatching of a tow truck or police car.

System Management Elements

There are many types of system management strategies. The categories employed here reflect the fact that some of these strategies are implemented continuously while others are deployed in response to certain events, some of which can be anticipated while others cannot.

- Ongoing

  These are strategies that are carried out continuously, such as traffic signals and ramp meters. Through ongoing management, minor adjustments can be made, sometimes in real-time, to improve the system performance. In the transit realm, for example, the location of buses can be monitored so that dispatchers know if one is behind schedule or off route.

- Preparedness

  These strategies are oriented to situations that may arise at any time and for which operators must be prepared. The most common example is traffic incidents, which includes crashes as well as breakdowns and stalls. When such an event occurs, the relevant operators are prepared to respond quickly so that traffic can be restored.

- Advance Planning

  These strategies are also oriented to occasional situations but in this case, the events are known in advance, such as a parade, a major sporting event, a work zone or other kind of disruption. For example, with a major sporting event, departing spectators may create a strain on the local roads as well as the transit service. Operators can adjust signal timing, increase transit service and take other measures to limit the disruption.

Demand Management Elements

Demand management strategies are equally diverse. A meaningful way to categorize them is according to the travel choices that individuals make, including when, where, and how to go from one place to another.

- Fewer and Shorter Trips

  These programs promote the concept that by combining trips, a person can save time and money (such as the cost of gas if they are driving). For example, doing several errands on one trip often requires less driving than making each errand separately. Living near work, school and shopping shortens trip length, allowing for walking trips which increases community health. Working from home via phone or computer is an option for some people to eliminate commute trips. Such programs depend on raising awareness, showing costs and benefits, and providing incentives.

- Mode choice

  These programs promote benefits and reduce barriers to travel options, helping people efficiently get to work, school, shopping, and other trip purposes. While some trips may require travel by car, others are possible by walking, biking or taking transit. Some programs focus on travelers who are not using these options because they lack information that would increase their comfort. For example, many people would like to ride their bikes to work or school but are unaware of a map that can guide them to safe routes. Other programs in this category seek to increase use of options by such means as providing rideshare matching services, partially financing vanpools and reserving parking spaces for these vehicles. This example demonstrates that mode choice programs depend on providing services, incentives and supportive infrastructure while raising awareness.

- Choice of route and timing

  These programs seek to help travelers find the best route and timing for their trips. For example, some driving commuters take one route out of habit even though another route might be more reliable. Other programs work closely with employers to allow employees to commute before or after the peak travel periods. Such programs depend on public-private partnerships to share knowledge and expertise.

Governance

Overview

While this RTP reflects a more fiscally-constrained approach to managing the transportation system, it also seeks to stabilize funding at a strategic level needed to support the Region 2040 Growth Concept and meet the desired outcomes described in the plan. Reaching a consensus on how best to deliver a transportation system that meets public expectations rests on a level of public involvement, fiscal stewardship and accountability that helps build public trust in government's ability to meet the region's transportation challenges today and in the future. The goals in this section are the vision for gaining that public trust.

Governance Goals and Objectives

Goal	Objectives	Potential Performance Measures
Goal 6 Effective Public Involvement[6] All major transportation decisions are open and transparent, and grounded in meaningful involvement and education of the public, including those traditionally under-represented, businesses, community groups and local, regional and state jurisdictions that own and operate the region's transportation system.	Objective 6.1 Meaningful Input Opportunities Develop a public involvement plan early in the planning process that includes timelines, key decision points and opportunities for meaningful input throughout the decision-making process consistent with Metro's adopted public involvement policy for transportation planning.	*Inclusiveness of planning process and opportunities for involvement.*
	Objective 6.2 Inclusion of Underrepresented - Involve those in the decision-making process who have traditionally been underrepresented in such processes and consider their needs in developing the transportation plan.	*Inclusiveness of planning process and opportunities for involvement.*
	Objective 6.3 Inclusion of Affected Stakeholders - Involve affected stakeholders, including resource agencies, business and community stakeholders, and local, regional and state jurisdictions that own and operate the region's transportation system in plan development and review.	*Inclusiveness of planning process and opportunities for involvement.*

[6] Note that Goal numbering continues from Transportation Design and Management section.

Goal	Objectives	Potential Performance Measures
Goal 7 Fiscal Stewardship Regional transportation planning and investment decisions maximize the public investment in infrastructure, preserving past investments for the future and prioritizing cost-effective solutions that reinforce Region 2040 to address transportation needs.	Objective 7.1 Preservation – Emphasize the preservation and maintenance of existing transportation services and infrastructure in the region in a cost-effective and efficient manner.	*Condition of transportation system (by type).* *Percent of road maintenance and preservation needs funded at local and state levels.*
	Objective 7.2 Cost-effectiveness - Invest limited transportation financial resources in a cost-effective and efficient manner, prioritizing investments that achieve multiple goals.	*Cost per vehicle hours of delay reduced.* *Cost per lane miles of congestion reduced.* *Transit trips per transit revenue hour.* *Relative cost comparison for roadway and transit operations and maintenance.* *Percent of funding spent on high-priority projects that achieve multiple goals.*
	Objective 7.3 Protect Public Investments - Reinforce growth in centers, industrial areas, intermodal facilities, corridors and employment areas and ensure land use decisions protect public investments in infrastructure.	*Transportation investments (by 2040 land use).* *Agreements between transit service providers and local jurisdictions on the provision of transit service and the build-out of priority 2040 land-use areas and related street infrastructure.*
	Objective 7.4 Innovative Partnerships - Develop innovative partnerships to advance long-term Region 2040 vision and establish appropriate revenue sources and financing mechanisms that provide consistent stable funding for operations, maintenance and preservation activities and priority regional transportation investments.	*Transportation investments by funding source or strategy.* *Public and private commitments to pursue appropriate revenue sources.*

Goal	Objectives	Potential Performance Measures
Goal 8 Accountability The region's government, business and community leaders work together so the public experiences transportation services and infrastructure as a seamless, comprehensive system of transportation facilities and services that bridge institutional and fiscal barriers.	Objective 8.1 Representative Decision-Making- Ensure representation in regional decision-making is equitable.	*Geographic distribution of JPACT and MPAC representation.*
	Objective 8.2 Coordination and Cooperation - Improve coordination and cooperation among the local, regional and state jurisdictions that own and operate the region's transportation system to remove barriers so the system can function as one system and to better provide for state and regional transportation needs.	*Percent of regional roadways connected to central operations center and ODOT operations center.*
	Objective 8.3 Equitable Distribution - Develop a regionally balanced plan that provides equity in the distribution of investments (benefits and impacts).	*Distribution of transportation investments (by environmental justice target area).*
	Objective 8.4 Collaboration - Improve public and private sector collaboration to fund the desired regional transportation system.	*New transportation funding secured beyond existing resources, including those forecasted as necessary for the financially constrained and the illustrative systems.*

GLOSSARY OF TERMS

Bus Rapid Transit: Bus Rapid Transit (BRT) service emulates LRT service in speed, frequency and comfort, serving major transit routes with limited stops. This service runs at least every 15 minutes during the weekday and weekend mid-day base periods. Passenger amenities are concentrated at transit centers. Regional rapid bus passenger amenities include schedule information, ticket machines, special lighting, benches, covered bus shelters and bicycle parking.

Commuter rail: Commuter rail is the use of existing freight railroad tracks either exclusively or shared with freight use, for passenger service. The service is typically focused on peak commute periods but can be offered other times of the day when demand exists and where rail capacity is available. The stations are typically located one or more miles apart, depending on the overall route length. Stations offer basic amenities for passengers, bus and LRT transfer opportunities and parking if supported by adjacent land uses.

Cross-regional travel: longer trips that span the region, including interstate and intrastate travel, but occur within the larger metropolitan travelshed.

Frequent Bus: Frequent bus service provides slightly slower, but more frequent, local bus service than rapid bus along selected transit corridors. This service runs at least every 10 minutes and includes transit preferential treatments such as reserved bus lanes and signal preemption and enhanced passenger amenities along the corridor and at major bus stops such as covered bus shelters, curb extensions, special lighting and median stations.

Inter-city bus: Inter-city bus connects points within the region to nearby destinations, including neighboring cities, recreational activities and tourist destinations. Several private inter-city bus services are currently provided in the region.

Light Rail Transit: Light rail transit (LRT) is a frequent and high-capacity service that operates on a fixed guideway within an exclusive right-of-way to the extent possible, connecting the central city with regional centers. LRT also serves existing regional public attractions such as Civic Stadium, the Oregon Convention Center and the Rose Garden, and station communities. LRT service runs at least every 10 minutes during the weekday and weekend midday base periods with limited stops and operates at higher speed outside of downtown Portland. A high level of passenger amenities are provided at transit stations and station communities including schedule information, ticket machines, special lighting, benches, shelters, bicycle parking and commercial services. The speed and schedule reliability of LRT can be maintained by the provision of signal preemption at-grade crossings and/or intersections.

Local Bus: Local bus lines provide coverage and access to primary and secondary land-use components. Local bus service runs as often as every 30 minutes on weekdays. Weekend service is provided as demand warrants.

Major transit stops. Major transit stops are intended to provide a high degree of transit passenger comfort and access. Major transit stops are located at stops on light rail, commuter rail, rapid bus, frequent bus or streetcar lines in the central city,

regional and town centers, main streets and corridors. Major transit stops may also be located where bus lines intersect or serve intermodal facilities, major hospitals, colleges and universities. Major transit stops shall provide schedule information, lighting, benches, shelters and trash cans. Other features may include real time information, special lighting or shelter design, public art and bicycle parking.

Mini-bus: Mini-bus service provides coverage in lower density areas by providing transit connections to primary and secondary land-use components. Mini-bus services, which may range from fixed route to purely demand responsive including dial-a-ride, employer shuttles and bus pools, provide at least a 60-minute response time on weekdays. Weekend service is provided as demand warrants.

Modal Targets. Targets for increased walking, biking, transit and shared ride as a percentage of all trips. The targets apply to trips *to, from and within* each 2040 Design Type. The targets reflect mode shares for the year 2040 needed to comply with Oregon Transportation Planning Rule objectives to reduce reliance on single-occupancy vehicles.

2040 Regional Non-SOV Modal Targets

2040 Design Type	Non-SOV Modal Target
Central city	60-70%
Regional centers **Town centers** **Main streets** **Station communities** **Corridors**	45-55%
Industrial areas **Intermodal facilities** **Employment areas** **Inner neighborhoods** **Outer neighborhoods**	40-45%

Para-transit: Para-transit service is defined as non-fixed route service that serves special transit markets, including “ADA” service throughout the greater metro region.

Park-and-ride. Park-and-ride facilities provide convenient auto access to regional trunk route service for areas not directly served by transit. Bicycle and pedestrian access as well as parking and storage accommodations for bicyclists are considered in the siting process of new park-and-ride facilities. In addition, the need for a complementary relationship between park-and-ride facilities and regional and local land use goals exists and requires periodic evaluation over time for continued appropriateness.

Passenger intermodal facilities: Passenger intermodal facilities serve as the hub for various passenger modes and the transfer point between modes. These facilities are closely interconnected with urban public transportation service and highly accessible by all modes. They include Portland International Airport, Union Station and inter-city bus stations.

Passenger rail: Inter-city high-speed rail (up to 79 miles per hour) is part of the state transportation system and extends from the Willamette Valley north to British Columbia. Amtrak already provides service south to California, east to the rest of the continental United States and north to Canada. These systems should be integrated with other public transportation services within the metropolitan region with connections to passenger intermodal facilities. High-speed rail needs to be complemented by urban transit systems within the region.

Pedestrian district. A pedestrian district is a comprehensive plan designation or implementing land use regulations designed to provide safe and convenient pedestrian circulation, with a mix of uses, density, and design that support high levels of pedestrian activity and transit use. The pedestrian district can be a concentrated area of pedestrian activity or a corridor. Pedestrian districts can be designated within the 2040 Design types of Central City, Regional and Town Centers, Corridors and Main Streets, as designated in local plans. Pedestrian districts emphasize a safe and convenient pedestrian environment, and facilities to support and integrate efficient use of several modes within one area (e.g., pedestrian, auto, transit, and bike).

Streetcar: Street cars provide fixed-route transit service for more locally oriented trips in higher density mixed-use centers. This service runs at least every 15 minutes and includes transit preferential treatments such as signal preemption and enhanced passenger amenities along the corridor such as covered bus shelters, curb extensions and special lighting.

Regional bus: Regional bus service is provided on most major urban streets. This type of bus service operates with maximum frequencies of 15 minutes with conventional stop spacing along the route. Transit preferential treatments and passenger amenities such as covered bus shelters, special lighting, signal preemption and curb extensions are appropriate at high ridership locations.

Materials following this page were distributed at the meeting.

FY08 Federal Transportation Appropriation Request List			
Project Type/Name	**Appropriation Request ($million)**	**Source**	**Purpose**
Regional Highway Projects			
I-5 / 99 W Connector (Washco)	$2.5 M	Surface Transportation Projects	PE/EIS
Columbia River Crossing (ODOT)	$5 M	Interstate Maintenance Discretionary	PE/EIS
I-5 Wilsonville (ODOT)	$3 M	Interstate Maintenance Discretionary	PE/EIS
Port of Portland: Airport Way/I-205 Northbound	$2 M	Interstate Maintenance Discretionary	PE/NEPA
Port of Portland/Mult.Co: Troutdale Interchange I-84 & 257th	$1 M	Interstate Maintenance Discretionary	PE/ROW
**Highway 217 Corridor (Washco)	$2 M	Surface Transportation Projects	PE/NEPA
Total	$15.5 M		
Regional Transit Priorities			
Washington County Commuter Rail (T/M)	$0.27 M	FTA 5309 New Starts	Construction
I-205/Portland Mall Light Rail (T/M)	$80 M	FTA 5309 New Starts	Construction
Milwaukie - PE/FEIS (T/M)	$4 M	FTA 5309 New Starts	PE/FEIS
Bus Replacement (T/M)	$7.7 M	FTA 5309 Bus & Bus Facilities	Construction
SMART Bus - Wilsonville	$1.75 M	FTA 5309 Bus and Bus Facilities	Construction
Streetcar Prototype (COP & T/M)	$1. M	FTA 5314	Construction
Total	$94.72 M		
Local Project Priorities			
*Portland:South Portal, South Waterfront	$2 M	Surface Transportation Projects	EIS
Portland: East Burnside/Couch Couplet	$2 M	Surface Transportation Projects	Construction
Gresham: Springwater/US 26 Industrial Access	$5 M	Transportation Community and System preservation Program; Surface Transportation Projects	PE/EIS/ROW/
Wilsonville: Kinsman Road	$2 M	STP, TCSP	PE/ROW
Milwaukie: Kellogg Creek Bridge Replacement	$1.5 M	TCSP	PE
Metro: TOD Revolving Fund	$5 M	STP, TCSP Funds	Construction
Total	$21.5 M		
Non-Transprotation Appropriations Bills			
Port of Portland: Columbia River Channel Deepening	$25 M	Energy & Water *(Corps of Engineers Budget)*	Construction
Total	$25 M		
Support of OTA Transit Request			
Sandy: Bus Replacement	$0.44	FTA 5309 Bus	Replacement
South Clackamas: Bus Replacement	$0.24	FTA 5309 Bus	Replacement
Canby: Bus Replacement	$0.20	FTA 5309 Bus	Replacement
Total	$0.88		
Support for Washington/Clark County Priorities			
Columbia River Crossing	$5 M	Interstate Maintenance Discretionary	PE/EIS
Total	$5 M		
Grand Total - Transportation Appropriations	$162.6 M		

* If the I-5/North Macadam Access Project is not appropriated in FY07, it will replace the Portland: South Portal South Waterfront project.

**If the Hillsboro: Century Blvd. Bridge Project is not appropriated in FY07, it will replace the Highway 217 Corridor (Washco) project.

TO: JPACT MEMBERS
FROM: SHARON NASSET

Paper: Oregonian, The (Portland, OR)
Title: PORTLAND BRIDGES
Date: February 8, 2004

The 10 Willamette River bridges in Portland vary in their vulnerability in a major earthquake.

ST. JOHNS BRIDGE

Owner: State of Oregon

Completed: 1931

Type: Two tower steel suspension

Original cost: $3.9 million

The suspended deck's built-in flexibility is helpful, but the height of the towers could be a liability in a major quake. A $33 million renovation under way includes a new deck, sidewalks, electrical system and paint, but no earthquake protection.

BROADWAY BRIDGE

Owner: Multnomah County

Completed: 1913

Type: Double leaf bascule

Original cost: $1.6 million

TriMet added some bracing to the east approach that Interstate MAX trains will pass under, but the brige has no other seismic protection. A $26 million improvement project now under way includes no seismic improvements.

MORRISON BRIDGE

Owner: Multnomah County

Completed: 1958

Type: Double leaf bascule

Original cost: $12.9 million

Lift decks are supported by concrete rather than steel beams, making them more susceptible to crumbling. Tall, slim piers and eastside approaches are potential liabilities. Portalnd and the county plan a $2 million multiuse path improvement in 2005, but no money is slated for seismic improvements.

HAWTHORNE BRIDGE

Owner: Multnomah County

Completed: 1910

Type: Vertical lift

Original cost: $500,000

Eastside approaches stand on soft fill. Two 450-ton counterweights above the left span increase damage risks in a prolonged quake. A $21.3 million improvement project completed in 1999 added no seismic strengthening.

ROSS ISLAND BRIDGE

Owner: State of Oregon

Completed: 1926

Type: Steel deck cantilvever truss

Original cost: $1.9 million

The bridge's 123-foot height over the river makes it more vulnerable to seismic activity. A $12.5 million improvement project completed in 2001 added no seismic strengthening.

FREMONT BRIDGE

Owner: State of Oregon

Completed: 1973

Type: Steel tied arch

Original cost: $82 million

The span is considered earthquake-worthy, but approaches probably would not survive a major quake. No improvements planned.

STEEL BRIDGE

Owner: Union Pacific Railroad

Completed: 1912

Type: Double deck vertical lift

Original cost: $1.7 million

This bridge was built sturdy enough to carry the weight of railroad trains. Yet it has no specific seismic bracing and its large towered counter-weights could cause catastrophic damage in a quake strong enough to cause lateral swaying.

BURNSIDE BRIDGE

Owner: Multnomah County

Completed: 1926

Type: Double leaf bascule

Original cost: $3 million

Identified in regional disaster plans as an emergency route. Seismic bracing added in 2002 on its static trusses. Work in 2005 would make the center lift decks less vulnerable to earthquakes.

MARQUAM BRIDGE

Owner: State of Oregon

Completed: 1966

Type: Double deck through canti lever truss

Original cost: $14 million

Probably the safest bridge. Restraining devices added in the 1990s tie the decks to piers, reducing the chance of decks collapsing. Additional bracing was added to eastside approaches.

SELLWOOD BRIDGE

Owner: Multnomah County

Completed: 1925

Type: Four-span continuous deck truss

Original cost: $541,000

Probably Portland's least-safe bridge. Noted for its narrow width and light construction materials. Suffers from earth movement at west approaches. Replacement cost: $90 million.

Map.

Author: MICHAEL MODE - The Oregonian, SOURCES: The Portland Bridge Book; Oregon Department of Transportation; Multnomah County
Section: GRAPHICS
Page: B04

TO: JPACT MEMBERS
FROM: SHARON NASSET

Questions and Answers on the National Bridge Inspection Standards 23 CFR 650 subpart C

(NBIS were published in December 14, 2004 *Federal Register*)

Implementation | General | Purpose | Applicability | Definitions | Bridge Inspection Organization Qualifications of Personnel | Inspection Frequency | Inspection Procedures | Inventory | Reference Manuals

Implementation

QI-1 When did the revised National Bridge Inspection Standards (NBIS) take effect? (listed 6/21/05)

> **AI-1** The NBIS took affect on January 13, 2005, thirty days after publication in the *Federal Register* on December 14, 2004.

QI-2 Will the FHWA expect full compliance with the revised NBIS 30 days after publication in the *Federal Register*? (listed 6/21/05)

> **AI-2** The FHWA anticipates that the majority of States or Federal Agencies will be in compliance with the NBIS within the thirty-day period; however, we recognize that there may be situations where some items need to be implemented over a period of time. The expectation is that our Division Offices will work with the States to develop an acceptable implementation plan that identifies the specific items to be addressed and reasonable timeframes for full implementation. Likewise, when requested, the FHWA HQ Office of Bridge Technology will work with Federal Agencies to develop an acceptable implementation plan that identifies the specific items to be addressed and reasonable timeframes for full implementation. The FHWA expects that implementation plans will be developed by April 13, 2005 and that the plans will be fully implemented by January 13, 2006.

QI-3 How soon must a State or Federal Agency establish criteria for inspection level and frequency? (listed 6/21/05)

> **AI-3** The establishment of inspection level and frequency criteria for such inspections as underwater, scour critical, fracture critical members, complex, damage, in-depth and special inspections should in most cases already be in place. If the State or Federal Agency requires additional time, the FHWA Division Office should work with the State or Federal Agency to complete this requirement by April 13, 2005.

QI-4 How soon must a State or Federal Agency establish systematic quality control (QC) and quality assurance (QA) procedures? (listed 6/21/05)

> **AI-4** A plan to implement a systematic quality control and quality assurance procedure should be established by April 13, 2005. The State and/or Federal Agency should fully implement the quality control and quality assurance procedure by January 13, 2006. Examples of quality control/quality assurance procedures are available at the following link: http://www.fhwa.dot.gov/bridge/qcqa.htm

QI-5 How soon must a State or Federal Agency establish procedures to follow up on critical findings? (listed 6/21/05)

> **AI-5** For many years the FHWA has placed emphasis on the importance of having a procedure in place to track and follow up on critical findings. It is anticipated that most State and Federal Agencies already have an operational procedure. For those States and/or Federal Agencies that do not have a critical findings procedure, a plan to implement a procedure should be established by April 13, 2005. The State and/or Federal Agency should fully implement the critical finding procedures by January 13, 2006.

General Questions and Answers:

QG-1 Why were the FHWA bridge inspection program regulations developed and what is the history of the program? (listed 6/21/05)

AG-1 The FHWA bridge inspection program regulations were developed as a result of the Federal-Aid Highway Act of 1968 (sec. 26, Public Law 90-495, 82 Stat. 815, at 829) that required the Secretary of Transportation to establish national bridge inspection standards (NBIS). The primary purpose of the NBIS is to locate and evaluate existing bridge deficiencies to ensure the safety of the traveling public.

The 1968 Federal-Aid Highway Act directed the States to maintain an inventory of Federal-aid highway system bridges. The Federal-Aid Highway Act of 1970 (sec. 204, Public Law 91-605, 84 Stat. 1713, at 1741) limited the NBIS to bridges on the Federal-aid highway system. After the Surface Transportation Assistance Act of 1978 (STAA) (sec. 124, Public Law 95-599, 92 Stat. 2689, at 2702) was passed, NBIS requirements were extended to bridges greater than 20 feet on all public roads. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (STURRA) (sec.125, Public Law 100-17, 101 Stat. 132, at 166) expanded bridge inspection programs to include special inspection procedures for fracture critical members and underwater inspection.

QG-2 Why revise the NBIS? (listed 6/21/05)

AG-2 To address perceived ambiguities in the NBIS that have been identified since the last update to the regulation in 1988. The revisions clarify the NBIS language that was vague or ambiguous; reorganize the NBIS into a more logical sequence; incorporate advances in inspection practices; and make the regulation easier to read and understand, not only by the inspector in the field, but also by those administering the highway bridge inspection programs at the State or Federal Agency level. The FHWA also brought into the NBIS important requirements that were previously in policy memorandums such as the scour plan of action and fractural critical inspection requirements. Additionally the new regulation incorporated several important inspection documents into the regulation through reference. See section 23 CFR 650.317

Section 650.301 Purpose

Q301-1 What is the purpose of the NBIS? (listed 6/21/05)

A301-1 The NBIS sets the national standards for the proper safety inspection and evaluation of all highway bridges in accordance with 23 U.S.C. 151.

Section 650.303 Applicability

Q303-1 What structures are covered by the NBIS? (listed 6/21/05)

A303-1 The NBIS regulations apply to all publicly owned highway bridges longer than twenty feet located on public roads. Railroad and pedestrian structures that do not carry highways are not covered by the NBIS regulations. Similarly, the NBIS does not apply to inspection of sign support structures, high mast lighting, retaining walls, noise barrier structures and overhead traffic signs. Tunnels, since they are not bridges, are not covered by the NBIS.

Q303-2 Does the NBIS apply to privately owned bridges? (listed 6/21/05)

A303-2 No. While 23 U.S.C. 151 states that the NBIS are for all highway bridges, the FHWA has no legal authority to require private bridge owners to inspect and maintain their bridges. However, the FHWA strongly encourages private bridge owners to follow the NBIS as the standard for inspecting their highway bridges. Where a privately owned bridge carries a public road, States should encourage the private bridge owner to inspect their bridge in accordance with the NBIS or reroute their public road.

Q303-3 Are some of the privately owned bridge inspection data kept in the National Bridge Inventory (NBI)? (listed 6/21/05)

A303-3 Yes. The National Bridge Inventory (NBI) lists roughly 2,200 privately owned highway bridges in some 41 States and Puerto Rico. However, the total number of privately owned bridges is unknown because the States are not required to report them to the FHWA.

Q303-4 Does the NBIS apply to public railroad bridges not carrying highway traffic? (listed 6/21/05)

A303-4 No. The NBIS only applies to bridges that carry highways.

Q303-5 Does the NBIS apply to tribally owned bridges? (listed 6/21/05)

A303-5 Indian tribes as sovereign nations, have a unique government-to-government relationship with the Federal Government. There is no explicit requirement in 23 U.S.C. 144 that requires inventory of tribally owned bridges. Likewise, there is no explicit requirement in 23 U.S.C. 151 that requires inspection of tribally owned bridges. Absent such clear language, the FHWA has no legal authority to require federally recognized Indian tribes to inventory tribally owned bridges or to comply with the NBIS. While the FHWA does not have the authority to compel the federally recognized Indian tribes to inspect tribally owned bridges, the FHWA strongly encourages that Indian tribes follow the NBIS, as the standard for inspecting tribally owned bridges, particularly those open to public travel. Indian tribes that do not inspect their bridges to the NBIS can open themselves to liability for deaths or injuries because of bridge failure. Additionally one of the requirements for participation in the Indian Reservation Road Bridge Program (IRRBP) and eligibility for Federal funding is for the bridge to be recorded in the NBI maintained by the FHWA (see 23 CFR 661.25). In order for this to occur the bridge has to be inspected according to the NBIS regardless of ownership.

Q303-6 Does the NBIS apply to federally owned bridges on roads that are used only by employees and not open to the general public? (listed 6/21/05)

A303-6 The FHWA recognizes that the NBIS does not apply to federally owned bridges on roads that are used only by employees and not open to the general public. These bridges and administratively used roads support behind-the-scenes operations, are used by employees engaged in official business, and are not open to the general public. While the NBIS does not apply to such bridges, these bridges need to be periodically inspected to assure the safety of employees, contractors, official visitors and the motoring public which may inadvertently use these facilities. The public looks at the transportation infrastructure as seamless and may not know that they have driven on an administratively used road. Furthermore, public authorities could be liable for injuries or death resulting from the use of bridges that are not properly and systematically inspected and maintained.

Section 650.305 Definitions

Q305-1 Why were definitions added to the regulation and placed in one section? (listed 6/21/05)

A305-1 The definitions add clarity to the regulation and provide a convenient reference for commonly used terms. The definitions were added to ensure that there is a common understanding of terms within the NBIS.

Q305-2 How many definitions were added to the NBIS? (listed 6/21/05)

A305-2 A total of 33 definitions are in the regulation, many of which were added to clarify language that was vague or ambiguous and added in response to comments during the rulemaking process. Only 3 definitions were carried over from the previous version.

Q305-3 What is a Public Road? (listed 6/21/05)

A305-3 A public road is defined in 23 U.S.C. 101(a)(27) as "any road or street under the jurisdiction of and maintained by a public authority and open to public travel."

Q305-4 What is a bridge? (listed 6/21/05)

A305-4 A bridge is defined in section 650.305 Definitions as "A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening."

Section 650.307 Bridge Inspection Organization

Q307-1 What is the general intent of the Bridge Inspection Organization section? (listed 6/21/05)

A307-1 In general, this section is intended to clarify and describe bridge inspection program responsibilities, organizational requirements, and delegation requirements.

Q307-2 Who is responsible for the inspection of bridges that fall under the NBIS requirements in a State? (listed 6/21/05)

A307-2 The language of 23 U.S.C. 151 is clear that a State is ultimately responsible for the inspection of all public highway bridges within the State, except for those that are federally or tribally owned. The State may delegate bridge inspection bridge inspection policies and procedures, quality assurance and quality control, preparation and maintenance of a bridge inventory, bridge inspections, reports, load ratings and other requirements of these standards to smaller units of the State like a city or county. However, such delegation does not relieve the State transportation department or Federal Agency of any of its responsibilities. Because of the fundamental relationship established in Title 23 of the U.S. Code between the FHWA and a State, if the inspections by a city or county were not done in accordance with the NBIS, the FHWA could withhold Federal-aid highway funds from the State.

Q307-3 Who is responsible for the inspection of city and county owned bridges? (listed 6/21/05)

A307-3 Under the NBIS, FHWA holds the State responsible for the inspection of public highway bridges within the State, with the exception for those that are federally or tribally owned. Delegation of the NBIS functions to counties or cities is a State issue but does not relieve the State of its responsibility.

Q307-4 How are agreements between the State and Local Agencies concerning delegation of NBIS functions to be established? (listed 6/21/05)

A307-4 The State may follow its own policies for agreements. The FHWA encourages the States to use a formal means for delegating these activities. It is essential that all parties involved have a clear understanding what requirements are and are not being delegated.

Q307-5 Can counties use Federal-aid bridge funds to perform bridge inspections? (listed 10/05/06)

A307-5 Federal Bridge Funds (i.e., Highway Bridge Program (HBP) funds) may be spent on bridge inspection activities. The use and distribution of HBP funds within the State for publicly owned structures is at the State's discretion, with the proviso in Title 23 U.S.C. 144 that requires fifteen percent of the HBP funds be spent on off system bridges.

Q307-6 Who is responsible for inspecting and reporting of federally owned bridges? (listed 6/21/05)

A307-6 The Federal Agency that owns the structure is responsible.

Q307-7 Do the States have to inspect or report federally owned bridges? (listed 6/21/05)

A307-7 No - see section 23 CFR 650.315(a). We do not require that States collect or report the federally owned or tribally owned bridge information. The FHWA annually provides a copy to each State of all the inspection information that was submitted by Federal Agencies for each State. This is done so that the States may have a complete inventory and have access to Federal bridge data within the State.

Q307-8 Are Local Agencies required by the FHWA to have a Program Manager? (listed 6/21/05)

A307-8 No. Since the FHWA holds the State accountable for the inspection of all public highway bridges within the State, with the exception for those that are federally or tribally owned, the FHWA only requires the State to have a statewide Program Manager. The required qualifications of the Local Agency inspection personnel that manage or consult out the inspections are determined by the statewide bridge inspection Program Manager. However, States should use caution when delegating to Local Agencies that do not have a qualified bridge inspection Program Manager. In such cases, the State must assume a direct Program Manager role in the delegated inspection program.

Q307-9 May consultants be used to perform duties under the NBIS? (listed 6/21/05)

A307-9 The State, cities, counties and other agencies may use consultants for bridge inspection, reporting and load rating activities. The consultant must meet the qualification requirements for the activities they perform. Due to the fundamental relationship established in title 23 of the U.S. Code between the FHWA and a State DOT, the FHWA requires the State to have a statewide bridge inspection Program Manager (PM).

Section 650.309 Qualifications of Personnel

Q309-1 What is the intent of the qualifications of personnel section? (listed 6/21/05)

A309-1 This section defines the minimum qualifications required for a Program Manager, a Team Leader, an underwater bridge inspector and the individual responsible for determining load ratings for bridges.

Q309-2 What is meant by bridge inspection experience? (listed 6/21/05)

A309-2 Active participation in bridge inspections in accordance with the NBIS, in either a field inspection, supervisory, or management role. See 23CFR305 "Bridge Inspection Experience"

Q309-3 Does all the required bridge inspection experience for a Team Leader have to be obtained through bridge safety inspections? (listed 6/21/05)

A309-3 Evaluating all of the factors that contribute to an individual's overall qualifications for performing bridge safety inspections can be complex. Extensive experience in the bridge inspection field should be the goal for all Program Managers and Team Leaders.

Desired Minimum Bridge Inspection Experience Level
The predominate amount, or more than fifty percent, should come from NBIS bridge safety inspection experience. Other experience in bridge design, bridge maintenance, or bridge construction may be used to provide the additional required experience.

Program Managers Approval:
There will be occasions where it is appropriate for the Program Manager to evaluate and approve a potential Team Leader's overall bridge inspection experience. The expectation is that these occasions will become more and more infrequent as States and Federal Agencies establish programs to eventually meet the desired minimum bridge inspection experience level as outlined above. (listed 6/21/05)

Evaluating NBIS Bridge Safety Inspection Experience
When an individual's NBIS bridge safety inspection experience is less than fifty percent, the State

or Federal Program Manager may, in accordance with the evaluation of experience criteria below, review and approve an appropriately varied combination of NBIS bridge safety inspection, inspection associated with bridge design, bridge construction inspection, and bridge maintenance inspection experience to satisfy the fifty percent requirement. Since some NBIS bridge safety inspection experience is necessary to become familiar with inspection, safety, and data collection practices and procedures, NBIS bridge safety inspection experience shall be part of the experience required.

Evaluating Remaining Experience (non-predominate portion)
The remaining experience would preferably be obtained through other bridge design, bridge maintenance, and bridge construction activities. The State or Federal Program Manager may, in accordance with the evaluation of experience criteria below, approve for this remaining experience other activities that enable an individual to develop skills that are directly applicable to the leadership of a bridge safety inspection team

Special Cases: Federal Highway Concurrence Required
In special situations, the Program Manager may have a highly qualified individual with less than fifty percent of combined bridge inspection experience, or other remaining experience that is not directly bridge related. The State Program Manager, in concurrence with the local FHWA Division Office, or Federal Program Manager in concurrence with the FHWA Office of Bridge Technology, may determine that the individual meets the intent of the regulation and certify the individual as meeting the experience requirements of a Team Leader. This determination should be the exception, rather than the rule.

Evaluation of Experience Criteria:
When the State or Federal Program Manager evaluates an individual's actual experience for compliance with the experience requirements for a Team Leader, the following minimum criteria are to be considered:

1. The relevance of the individual's actual experience, i.e., has the other experience enabled the individual to develop the skills needed to properly lead a bridge safety inspection.
2. Exposure to the problems or deficiencies common in the types of bridges being inspected by the individual.
3. Complexity of the structures being inspected in comparison to the knowledge and skills of the individual gained through their prior experience.
4. The individual's understanding of the specific data collection needs and requirements.
5. Demonstrated ability, through some type of a formal certification program, to lead bridge safety inspections.
6. The level of oversight and supervision of the individual.

Q309-4 In meeting the requirements of a Team Leader or a Program Manager would education obtained at foreign universities be counted towards accreditation? (listed 6/21/05)

A309-4 The Accreditation Board for Engineering and Technology (ABET) evaluates institutions outside of the United States. The evaluation is not the same as accreditation; however, an ABET evaluation can result in an assessment of "substantial equivalency." The "substantial equivalency" determination implies reasonable confidence that the foreign institution's program has prepared its graduates to begin professional practice at the entry level. Information on the substantial equivalent programs, including a list of programs that have been assessed by ABET, is available at: http://www.abet.org/

Additionally, in 1989, several countries including the United States entered an international agreement known as the "Washington Accord" which recognizes the substantial equivalency of engineering programs accredited by these countries. The accord further recommends that graduates of accredited undergraduate programs in any of the signatory countries be recognized by the other countries as having met the requirements for entry into the practice of engineering. Additional information, including a list of signatory countries, may be obtained at: http://www.washingtonaccord.org/

In consideration of international engineering education programs, the regulation has been revised to reference the substantial equivalency options available through the ABET.

Q309-5 Why do all Team Leaders (TL) and Program Managers (PM) have to successfully complete comprehensive bridge inspection training? (listed 6/21/05)

A309-5 Comprehensive training provides an opportunity to:

1. Thoroughly familiarize participants with bridge inspection terminology and techniques along with data collection practices and procedures in order to ensure consistency and reliability of the bridge inspection program.
2. Keep up with changes in technology and practices, as well as perform a self-check. Is what I've been doing for the past several years consistent with what is being taught today?
3. Help us address the weaknesses in accuracy and reliability identified through our research and training experiences.
4. Share experiences and learn from other participants as well as become familiar with the kinds of problems others are having in the field.
5. Identify areas of inconsistent interpretation of policies and procedures.

For a Program Manager, there are additional reasons:

1. As the person responsible for the overall bridge inspection program within the State, it would be desirable to have completed the same level of training as those who are performing the necessary fieldwork.
2. To become familiar with and monitor the training that is being provided to inspection personnel, and is in a better position to identify additional training needs or areas for improvement.

Our ultimate goal is to make sure that all Program Managers and Team Leaders are well qualified to provide accurate and reliable information through both training and experience.

Q309-6 Do highly experienced individuals who are Professional Engineers and were actively serving as a Team Leader or Program Manager under the previous regulation need to meet the comprehensive training requirement? (listed 6/21/05)

A309-6 Yes; however, we have determined that Team Leaders and Program Managers may satisfy the intent of the comprehensive training requirements with a combination of extensive experience, training and their PE. Those individuals who:

1. Held these titles and were actively serving in this capacity prior to January13, 2005, and
2. Are registered Professional Engineers, and
3. Have extensive on-the-job training of 5 years or more involving direct field inspection of bridges, and
4. Successfully complete bridge inspection refresher training within a reasonable time period (say by January 2006).

In other words, the combination of professional engineering licensing requirements, prior on-the-job training, and refresher training would be considered equivalent to the comprehensive training as defined in the regulation. Obviously, those individuals who successfully completed formal comprehensive training under the previous regulation meet the new training requirements as well.

Since the States are responsible for overall compliance with the NBIS regulation, they must ultimately decide how the NBIS qualification requirements are to be addressed for all Team Leaders and Program Managers operating within their State. The criteria outlined above provide an option that FHWA considers acceptable.

Q309-7 How can underwater bridge inspection divers meet the qualification requirements of this new regulation? (listed 10/05/06)

A309-7 The intent of the regulation is to ensure that underwater bridge inspection divers have comprehensive training, which years of experience alone do not necessarily provide. There are several ways to satisfy the training requirements:

1. Underwater bridge inspection divers can take either NHI course #130055A, Safety Inspection of In-Service Bridges or NHI course #130091, Underwater Bridge Inspection. Course #130055A is a longer course that meets the requirements of comprehensive training to become a Team Leader, but generally only has a few hours on underwater bridge inspection. Course #130091, although not meeting the comprehensive training requirements to become a Team Leader, is three days long devoted to only underwater bridge inspection.
2. A State may develop their own comprehensive bridge inspection training, or underwater bridge inspection training course and provide it to the underwater bridge inspection divers. The training course would need to be approved by the FHWA Division office in consultation with the FHWA Office of Bridge Technology.
3. The State or Federal Agency Program Manager may review an underwater bridge inspection diver training history to verify that it covers the topics covered in a comprehensive bridge inspection training course or an underwater bridge inspection course. (Meaning that if an individual can document that he/she has received training throughout their career that covers the topics covered in either course, he/she meets the intent.) Approval by the Program Manager would need the concurrence from the FHWA Division Office in consultation with the FHWA Office of Bridge Technology. Whether a diver is a certified commercial diver or not would not be in itself sufficient to meet these bridge inspection training requirements.

Q309-8 May a State or Federal Agency develop it's own comprehensive bridge inspection training class instead of using the NHI training class #130055A? (listed 6/21/05)

A309-8 Yes. The current comprehensive training course offered by the National Highway Institute is not the only option available. A few States have developed their own comprehensive training and certification programs. In recognition of the need to retain this flexibility, States and Federal organizations are permitted to develop their own "comprehensive bridge inspection training" programs subject to approval by the FHWA. The NHI course material is available for those States who wish to deliver the training using their own resources.

Q309-9 How do States or Federal Agencies obtain approval of alternate training classes? (listed 6/21/05)

A309-9 The local FHWA Division office, in consultation with the FHWA Headquarters Office of Bridge Technology will review and approve alternate training proposals from the States. The FHWA Headquarters Office of Bridge Technology will review and approve alternate training proposals from Federal Agencies. It is expected that alternate training proposals will include a complete copy of all slides, workbooks and other materials to be used in the training. An agenda showing the course schedule and duration of each topic should be part of the proposal. The FHWA will use the "comprehensive bridge inspection training" definition in the new regulation along with the Bridge Inspector's Reference Manual (BIRM) as criteria to apply when reviewing these programs.

Q309-10 What constitutes "successful completion" of training and is it based on the test scores received after each NHI course? (listed 6/21/05)

A309-10 Every NHI course now includes a test at the conclusion of the training in order to measure retention of the learning outcomes. The reason for the test has to do with NHI's response to State requests for endorsement of NHI courses by IACET (International Association for Continuing Education and Training). Apparently, NHI's name on training courses was not sufficient to ensure recognition by the States of the Continuing Education Unites (CEU's) received upon completion of each course. Endorsement by IACET requires attendance for 100 percent of the training and a final test with a minimum passing score of 70 percent. NHI keeps a database of course participants and information on pass/fail based on the 70 percent cutoff. Scores of 70 and above get CEU credit in the database. All participants who attend 100 percent of the training receive a certificate of attendance, but the certificates have been changed and no longer mention CEU credits.

Successful completion of bridge inspection training can be based on the same cutoff as used by NHI, or some alternate criteria established by the State

Section 650.311 Inspection Frequency

Q311-1 What is the intent of the inspection frequency section? (listed 6/21/05)

A311-1 This section defines the frequency of routine, underwater, fracture critical member, damage, in-depth and special inspections to assure the safety of the motoring public.

Q311-2 What is the procedure for requesting FHWA approval to inspect certain bridges at the 48-month frequency? (listed 6/21/05)

A311-2 States must submit their proposed 48-month inspection frequency policy to their FHWA Division Office, who in turn will forward the policy, along with the Division's recommendation, to the Director of the FHWA headquarters Office of Bridge Technology (HIBT) in Washington, D.C. for review and approval. Counties and Local Agencies must work through their State. Federal Agencies must submit their proposed 48-month inspection frequency policy directly to HIBT. Final approval of any policy must be obtained from HIBT. The requirements for a 48-month inspection frequency policy are described in the FHWA Technical Advisory T 5140.21 dated September 16, 1988. This document is available on-line at: http://www.fhwa.dot.gov/legsregs/directives/techadvs.htm

Along with the policy to be approved, there will generally be a requirement to submit a computer listing of the affected bridges along with bridge data pertaining to the States or Federal Agency proposed criteria. Once the 48-month inspection frequency policy is approved, the State or Federal Agency will be expected to add or remove bridges to the 48-month list based on the criteria that is defined in their approved policy. No further approval from the FHWA is required unless the State or Federal Agency wants to amend its policy.

Q311-3 How may a State obtain approval for increasing their underwater inspection frequency from 60 months to 72 months? (listed 6/21/05)

A311-3 State Program Managers now have an option to develop a 72-month underwater inspection frequency policy for their bridges needing an underwater inspection. States must submit their proposed 72-month inspection frequency policy to their FHWA Division Office, who will in turn forward the policy along with the Division's recommendation, to the Director of the FHWA headquarters Office of Bridge Technology (HIBT) in Washington D.C. for review and approval. Counties and Local Agencies must work through their State. Federal Agencies must submit their proposed 72-month underwater inspection frequency policy directly to HIBT. Final approval of any proposed policy must be obtained from HIBT. For States receiving approval, the FHWA Division office will monitor the 72-month underwater inspection frequency policy as part of the normal NBIS program review process. The State, working with the FHWA Division office, will use the policy to select structures, on case-by-case basis, eligible for the 72-month underwater inspection frequency.

Guidance for developing a 72-month underwater inspection frequency policy can be found the American Society of Civil Engineers (ASCE) Manuals and Reports on Engineering Practices number 101 titled "Underwater Investigations Standard Practice Manual" and the FHWA publication number FHWA-DP-80-1, titled "Underwater Inspection of Bridges." The following NBI rating attributes are also suggested.

The substructure should be in at least good to fair condition, NBI item 60 (substructure) should have a rating of 5 or better. If the substructure elements are unprotected steel or unwrapped wood and are in an aggressive environment such as salt water or fast currents they should not be considered for a 72-month inspection. The channel should be stable with NBI item 61 a 7 or better. The structure should not have stream stability or scour issues and should be a known foundation type. NBI item 113 should have a rating of 4, 5, 7, 8, or 9.

Q311-4 Is there any grace period in the required routine inspection cycle? (listed 6/21/05)

A311-4 The routine inspection frequency should not exceed 24 months unless FHWA approval is given for a 48-month routine cycle. We recognize that severe weather, concern for bridge inspector safety, concern for inspection quality, the need to optimize scheduling with other bridges, or other unique situations may be cause to adjust the scheduled inspection date. The adjusted date should not extend more than 30 days beyond the scheduled inspection date, and subsequent inspections should adhere to the previously established interval.

Section 650.313 Inspection Procedures

Q313-1 What is the intent of the inspection procedures section? (listed 6/21/05)

A313-1 This section defines procedures to be used in inspecting and rating highway bridges, quality control/quality assurance, as well as follow up on critical findings.

Q313-2 Does the Occupational Safety and Health Administration (OSHA) regulation apply when performing above and below water inspections according to the NBIS. (listed 6/21/05)

A313-2 Yes. OSHA regulations pertain to both underwater and above-water inspections, so any omission in this standard does not relieve inspectors of the requirement to follow OSHA regulations.

Q313-3 Does an inspector, that meets the requirements of a Team Leader, have to be on site during bridge inspections? (listed 6/21/05)

A313-3 Yes. During any bridge inspection that is either an initial, routine, in-depth, fracture critical member or underwater inspection, a Team Leader must be present. This is required for State, Local Agency, consultant or any other organization that inspect bridges under the NBIS.

Q313-4 Are there any bridge inspections that can be performed without a Team Leader on site? (listed 6/21/05)

A313-4 Special and Damage inspections do not require a Team Leader. These inspections do not meet the requirements of an initial, routine or any other inspection that requires a Team Leader. However, it is important to have individuals with expertise in the special or damaged items being inspected.

Q313-5 What is a Damage inspection? (listed 6/21/05)

A313-5 A damage inspection is defined in this regulation as "an unscheduled inspection to assess structural damage resulting from environmental factors or human actions."

Q313-6 What is a special inspection? (listed 6/21/05)

A313-6 A special inspection is defined in this regulation as "an inspection scheduled at the discretion of the bridge owner, used to monitor a particular known or suspected deficiency."

Q313-7 Who is allowed to perform a load rating calculation for a bridge? (listed 6/21/05)

A313-7 The person with overall responsibility for the load rating of a bridge must be a registered professional engineer. The professional engineer may supervise a process using non-registered professional engineers. See 23 CFR 650.309(c).

Q313-8 What methods, other than posting, can be used to 'restrict' a bridge when it cannot carry unrestricted legal loads? (listed 6/21/05)

A313-8 Structures that cannot carry legal loads must be posted. If conditions allow, it may be permissible to restrict an entire route to a low load-posted limit, but the limits must be visible at the beginning and all entrances to the route. An example would be a route where trucks are not allowed.

Q313-9 What methods, other than posting, can be used to 'restrict' a bridge when it cannot carry permit or routine permit loading? (listed 6/21/05)

A313-9 When restricting permit or routine permit loads from crossing specific bridges, States or Federal Agencies may elect to erect posting signs or to issue restrictions to the permit holders to keep them from traveling specific routes with permit load capacity problems.

Q313-10 What is a fracture critical member? (listed 6/21/05)

A313-10 A fracture critical member (FCM) is a steel member in tension, or with a tension element, whose failure would probably cause a portion of or the entire bridge to collapse.

Q313-11 What is meant by a fracture critical member (FCM) inspection? (listed 6/21/05)

A313-11 A FCM inspection must be at least a hands-on inspection of the fracture critical member or member component. The term hands-on means that the inspector must be close enough to place their hands on the fracture critical member or member component (tension area) being inspected. The inspection may also include non-destructive evaluation or non-destructive testing methods as determined by the Program Manager and outlined in the FCM inspection procedures.

Q313-12 How often must FCMs be inspected? (listed 6/21/05)

A313-12 Fracture critical members or member components must be inspected every 24 months or less in accordance with the fracture critical inspection criteria and procedures. Bridges with FCM are not eligible for a 48-month inspection frequency.

Q313-13 Does the FHWA have any material or guidance for the inspection of FCMs. (listed 6/21/05)

A313-13 Yes. The FCM inspections should be done in accordance with FHWA-IP-86-26, "Inspection of Fracture Critical Bridge Members." In addition the FHWA National Highway Institute has a three-day class on the inspection of FCMs. The URL to this NHI structures courses is supplied here. http://www.nhi.fhwa.dot.gov/training/course_detail.aspx?num=FHWA-NHI-130078&num=

Q313-14 Where in the inspection records are the location, frequency and procedures for fracture critical members and the four elements of underwater inspections described in 650.313(e)(1) and (2) to be recorded? (listed 6/21/05)

A313-14 The features of the FCM inspections and the underwater inspection elements should be shown in a listing or procedures manual, included in the inspection records, or maintained in an electronic database.

Q313-15 Does the FHWA expect a unique scour plan of action for each highway bridge? (listed 6/21/05)

A313-15 No, where applicable, the plan of action for some bridges may be the same or very similar. Additional information of scour plans of action is available at: http://www.fhwa.dot.gov/engineering/hydraulics/bridgehyd/poa.cfm

Q313-16 Will scour monitoring during and after flood events be the same for all highway bridges? (listed 6/21/05)

A313-16 The monitoring and assessment during and after flood events may be done using different levels of effort depending on the degree of risk. Monitoring is described in the FHWA guidance manuals, "Evaluating Scour at Bridges" (HEC-18) and "Bridge Scour and Stream Instability Countermeasures" (HEC-23). These publications can be found at: http://www.fhwa.dot.gov/engineering/hydraulics/library_sub.cfm?keyword=007

Q313-17 How often should the State notify the FHWA of critical findings? (listed 6/21/05)

A313-17 The period between notifications is to be agreed upon between the local FHWA division office and the State. As a guide, some States report every finding with very little delay (hours to a few days). Others have a standard cycle when a summary report is given to FHWA. In the absence of an existing defined reporting time period, a period of one to three months is recommended.

Q313-18 What is a critical finding? (listed 6/21/05)

A313-18 A broad definition for "critical finding" is provided in the regulation to allow flexibility to establish, with agreement of the FHWA, criteria and reporting procedures specific to a particular State or Federal Agency. The FHWA non-regulatory supplement in the Federal Aid Program Guide (FAPG) section 23 CFR 650C provided an example of an FHWA process for follow-up on critical findings that include criteria for critical findings. The section from the FAPG is repeated here for your convenience:

NON-REGULATORY SUPPLEMENT 23 CFR 650C (listed 6/21/05)

b. One FHWA process for follow-up might include the following components: A procedure where the State promptly submits to the Division office a copy of inspection reports or recommendations contained therein for all on-system and off-system bridges which meet the following criteria:

(1) Bridges with recommendations for immediate work on fracture critical members;

(2) Bridges with recommendations for immediate correction of scour or hydraulic problems;

(3) Bridges with condition ratings of 3 or less for the superstructure or substructure or appraisal ratings of 3 or less for waterway adequacy; and

(4) Bridges with recommendations for immediate work to prevent substantial reduction in the safe load capacity.

The URL to NON-REGULATORY SUPPLEMENT 23 CFR 650C is as follows:
http://www.fhwa.dot.gov/legsregs/directives/fapg/0650csup.htm

Q313-19 Is there any guidance or examples to help bridge owners develop a Bridge Inspection QC/QA Program? (listed 11/03/05)

A313-19 Code of Federal Regulations 23 CFR 650.313(g) Quality Control and Quality Assurance requires each state to assure that systematic Quality Control (QC) and Quality Assurance (QA) procedures are being used to maintain a high degree of accuracy and consistency in their inspection program. The FHWA has developed a recommended framework for a bridge inspection QC/QA program to assist bridge owners in developing their QC / QA programs.

We also have a list of available resources related to Bridge Inspection QC/QA and a summary of commendable practices from state DOTs that currently have Bridge Inspection QC/QA procedures in place.

Section 650.315 Inventory

Q315-1 What is the intent of the inventory section? (listed 6/21/05)

A315-1 This section defines highway bridge inventory reporting requirements for the various inspection types required under the NBIS and deadlines for submission into the NBI.

Q315-2 Are States required to maintain an inventory of federally owned bridges in their State? (listed 6/21/05)

A315-2 We do not require that States collect, report or retain the Federal bridge information. The FHWA annually provides the State a copy of all the inspection information that was submitted by Federal Agencies for their State. This is done so that the States may have a complete inventory and access to Federal bridge data within the State.

Q315-3 What is the intent of requiring States and Federal Agencies to incorporate the latest inspection information or changes in bridge status into their databases within 90 days of the status change? What is the significance of the time period? (listed 6/21/05)

A315-3 Up to date information is vital to the program oversight, management and stewardship for the State and the FHWA. It is also important that the FHWA have current data because a) based on the data collected, funds are distributed for the HBRRP program, 23 USC 133, b) reports are made to Congress, and c) decisions are made by the FHWA regarding the bridge program. This necessitates adherence to a firm 90-day data entry period. The 90-day time period is consistent with the old regulation in that it allows a reasonable amount of time for completion of the inspection report and data entry. Longer timeframes could impact the program since data is collected only once a year by the FHWA.

Section 650.317 Reference manuals

Q317-1 Why was the section on reference manuals added to the NBIS? (listed 6/21/05)

A317-1 The AASHTO Manual was referred to in the former NBIS but not incorporated by reference. This manual is discussed in the NBIS, and provides good guidance for the inspection and evaluation of highway bridges, and for that reason was incorporated by reference.

Q317-2 The AASHTO Manual for Condition Evaluation of Bridges is included in the NBIS regulation through incorporation by reference. What does that mean? (listed 6/21/05)

A317-2 Incorporation by reference (IBR) is a technique used by Federal Agencies to include and make enforceable materials published elsewhere without republishing those materials in full text in the agencies' regulations. Most typically this technique is used by agencies to incorporate widely used industry-developed codes such as the National Fire Protection Code. The FHWA uses IBR extensively to incorporate documents such as AASHTO design standards into 23 CFR part 625 and to incorporate FHWA's Manual on Uniform Traffic Control Devices into 23 CFR part 655.

Q317-3 What if there is implied or conflicting language between the reference manuals and the NBIS? (listed 6/21/05)

A317-3 The NBIS takes precedence over any material contained in the reference manuals i.e. AASHTO manual and interim revisions. Where there may be implied or conflicting language between the documents, the nationwide direction provided by the NBIS will always govern.

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