

## WHAT IS A STIP?

The Statewide Transportation Improvement Program, known as the STIP, is Oregon's four-year transportation capital improvement program. It is the document that identifies the funding for, and scheduling of, transportation projects and programs. It includes projects on the federal, state, city, and county transportation systems, multimodal projects (highway, passenger rail, freight, public transit, bicycle and pedestrian), and projects in the National Parks, National Forests, and Indian tribal lands.

Federal regulations require each state to produce a STIP at least once every two years. This requirement is for two reasons:

1. Fiscal Constraint – to show that a state is not scheduling more transportation projects for construction than it has funding for; and
2. To certify that a state's transportation program conforms to federal air quality regulations.

Oregon's STIP covers a four-year construction period, but is updated every two years in accordance with federal requirements. The currently approved program is the *2004-2007 STIP*, which may be viewed at [www.odot.state.or.us/STIP](http://www.odot.state.or.us/STIP). The *Draft 2006-2009 STIP* is currently under development, and is scheduled for public review in October and November, 2004. At that time, it will be available for viewing and comment at the same website address.

Programs and projects funded through the STIP must comply with state and local land use laws. Projects are developed in accordance with federal planning regulations, and the goals, policies, and guidance set forth in the *Oregon Transportation Plan*, ODOT's overall policy document directing transportation investments for the state.

### TYPES OF PROJECTS IN THE STIP

Federal regulations require that all federally funded transportation projects and all "regionally significant" transportation projects be identified in the STIP. Regionally significant refers to projects with air quality impacts, such as adding more lanes, building a bypass, or installing a new signal. Regionally significant also refers to projects that are of significant interest to the local community.

Additionally, all federally funded and/or regionally significant transportation projects in an MPO TIP (Metropolitan Planning Organization Transportation Improvement Program) must be included in the STIP.

Most projects in the STIP can be separated into two categories: (1) Preservation projects, and (2) Modernization projects. Preservation projects protect the state's investment in the transportation infrastructure by systematically preserving all elements of the existing system, while Modernization projects primarily add new capacity to the system. Under these two broad categories are many Work Types (e.g., Safety, Pavement, Bridge, Operations, Public

Transportation, Special Programs). All of the projects in the STIP have elements of safety, preservation, and operations in them. The following are descriptions of the major work types in the STIP.

*NOTE: Emergency projects and emergency relief (ER) funds are not included in the STIP. If the system suffers emergencies beyond what federal emergency funds can cover, projects programmed in the STIP may have to be delayed in order to fund the emergency work.*

**Modernization:** Modernization projects add capacity (new lanes) to the transportation system, thereby reducing congestion and improving safety. These projects are typically very expensive and may take years from planning to completion. Projects are identified and prioritized through extensive planning and public involvement, and must take into account numerous factors and considerations, including environmental impacts and resources, current and projected land uses, integration of other transportation modes (pedestrian, bicycle, public transit), public support, economic impacts, and access management issues. By state law (ORS 366.507), ODOT must dedicate the equivalent of its share of four cents of state gas tax revenues to highway modernization projects. Currently, the amount is approximately \$51 million per year. Modernization projects may be funded with either federal or state revenues.

Starting with the 2004-2007 STIP, the Oregon Transportation Commission (OTC) approved “Project Eligibility Criteria and Prioritizing Factors” (please see the STIP website for details on the criteria and prioritizing factors). For the Modernization Program, this means all proposed modernization projects must be consistent with the applicable acknowledged transportation system plan (TSP) or, in the absence of that, the applicable acknowledged comprehensive plan and any applicable adopted TSP; and must also be consistent with the *Oregon Highway Plan* policy on Major Improvements (Policy 1G, Action 1G.1) where applicable. This policy requires ODOT to maintain highway performance and improve safety by improving system efficiency and management before adding capacity.

**Safety:** While every project includes elements of safety, ODOT also funds specific, qualifying safety projects using the Safety Investment Program (SIP) and the Hazard Elimination Program (HEP). These programs identify locations where the most people are being killed and seriously injured on the state system, and applies the most cost-effective measures to reduce the number of crashes.

The *Oregon Traffic Safety Performance Plan for 2003* states the objective of the Safety Investment Program in terms of a reduced traffic fatality rate. The goal is to reduce fatalities to 0.99 per hundred million vehicle miles traveled by the year 2010. The year 2000 rate was 1.29, 2001 was 1.42, 2002 was 1.26, and 2003 was 1.46.

The SIP incorporates a three-pronged approach:

- ❑ For pavement preservation projects with a history of fatal or serious crashes, proposed safety countermeasures are examined for effectiveness by a rigorous benefit/cost analysis. Those measures which have the highest potential payback are incorporated into the project.

- ❑ For safety projects that are not incorporated into a pavement preservation project, the selected feature(s) are also based on a benefit/cost analysis. These “stand-alone” projects are identified and prioritized based on crash history.
- ❑ Safety features are not automatically built into projects with little or no record of safety problems. This is a significant change from past practice. It results in projects with fewer amenities, allowing more funding to go directly to system preservation.

Data used to identify problem areas comes from an annually updated, site-specific, Safety Priority Index System (SPIS) which shows accident history by highway milepoint. Further information is available through a software program that provides a PC-based analysis of highway sections. Information is presented in layers of crash history, STIP projects by work type, connecting road systems, SPIS sites, etc.

The HEP is a federally funded program which mandates that each state conduct and systematically maintain an engineering survey of safety needs on all public roads. The mission of the HEP is "to carry out safety improvement projects to reduce the risk, number, and/or severity of accidents at highway locations, sections and elements on any public road." HEP projects are typically smaller and address safety problems on the local or state system.

**Pavement Preservation:** Projects in the Pavement Preservation Program improve the safety of the interstate and state highway systems through improving conditions related to the roadway surface (ruts, slick surfaces, drainage problems, cracks, and potholes) as well as funding a limited number of safety items like durable striping, guardrail, roadside obstacle removal, and slope flattening. Safety items which exceed 6% of the construction cost of the pavement project must be funded through the Safety Program.

Like the Modernization program, the Pavement Preservation Program is subject to the OTC-approved “Project Eligibility Criteria and Prioritizing Factors”. All preservation projects must be consistent with the applicable acknowledged transportation system plan (TSP) or, in the absence of that, the applicable acknowledged comprehensive plan and any applicable adopted TSP; and must be identified through the Department’s Pavement Management System process.

**Bridge Preservation:** Projects funded through the Bridge Preservation Program improve the safety and condition of the state’s bridges, overpasses, and culverts. Projects vary from complete replacement, rehabilitation or repair of a structure, to bridge painting or cathodic protection (to protect the reinforcing steel inside bridges from the effects of rust); and can include safety items such as overpass screening, bridge end treatments, and fixing deficient railing. If a bridge project is in the STIP strictly for increasing capacity, it is a modernization project, as opposed to a bridge project.

The “Project Eligibility Criteria and Prioritizing Factors” also apply to the Bridge Program. The only bridge projects that are eligible for funding are those that are identified and prioritized through the Department’s Bridge Management System process.

**Operations:** The Operations Program funds system management improvements that lead to more efficient and safer traffic operations and greater system reliability. It is separated into several sub-programs. The first includes installing and maintaining Intelligent Transportation System (ITS) elements, such as ODOT's website for travelers (*TripCheck.com*), mountain pass and urban traffic cameras, variable message signs, ramp metering, traffic management operations centers, and incident response vehicles. Others include installing new or upgraded signals and signs, fixing slides and rockfalls, and funding transportation demand management programs for local governments (rideshare and vanshare programs, Guaranteed Ride Home programs, park-and-ride lots). The Operations Program may also provide funding for public transportation capital improvements.

**Public Transportation (Transit):** Transit projects include transit capital investments (e.g., buying new buses, upgrading transit facilities), transit operations, and transit planning activities. Transit investments provide mobility, and the opportunities that mobility provides, to citizens who otherwise may not have them.

## ODOT'S PROJECT SELECTION PROCESS

State projects in the STIP are identified and prioritized using the processes specified by the US Department of Transportation (USDOT) in the 1991 federal transportation funding act, ISTEA (Intermodal Surface Transportation Efficiency Act) and continued in the 1998 funding act, TEA-21 (Transportation Equity Act for the 21<sup>st</sup> Century).

Project identification and prioritization are based primarily on system conditions, or "needs". Conditions are monitored using "management systems". These are objective, technically-based data collection and analysis tools that track the physical conditions of the state's transportation system. They also predict future conditions based on given investment levels. ODOT uses management systems for the Pavement, Bridge, and Safety programs, and to a lesser degree, the Operations program. For the Modernization program, ODOT uses acknowledged transportation systems plans and comprehensive plans as a management system.

ODOT regions use the project lists developed through the management systems and apply localized "in-the-field" knowledge in conjunction with input from Area Commissions on Transportation (ACTs), local government partners, regional partnerships, councils of government (COGs), tribal governments, metropolitan planning organizations (MPOs), advisory committees, ports, transportation stakeholders, and the public. This process results in the projects and relative prioritizations listed in the STIP.

Regionally significant local government projects in the STIP are identified and prioritized utilizing system management data and public involvement at the local government level. ODOT is included in the process as directed by federal law.

All projects are scheduled for construction or implementation according to their priority and funding availability. Recognizing that a project may be unavoidably delayed, or actual revenues from state and federal sources may differ from those originally forecast, projects in a STIP can

be moved from one year to another within the first three years of the program. The fourth year is considered “informational only” by the federal government, and if a project from the fourth year is rescheduled to be constructed earlier, a formal STIP amendment must be processed and approved by the federal DOT.

## **PUBLIC AND GOVERNMENT INVOLVEMENT REQUIREMENTS**

There are federal regulations and state policies regarding local government and public involvement for the STIP. The federal regulations state that public involvement must be proactive, must provide opportunities for early and ongoing involvement, and must continue throughout the transportation planning and programming process. The state must comply with the requirements set out in Title VI of the Civil Rights Act, and the Executive Order pertaining to Environmental Justice. They further stipulate that the state provide:

- ❑ A process for demonstrating explicit consideration and response to public input during the planning and program development process; and
- ❑ A process for seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low income and minority households, which may face challenges accessing employment and other amenities.

ODOT’s own Public Involvement Policies and Procedures document (December 1994) is more prescriptive, stating that:

- ❑ The Department will provide a 45-day public review of the draft STIP, and a 45-day public review of any major revision of the approved STIP;
- ❑ The Department will provide statewide opportunities for public comment on the draft STIP by scheduling at least two public meetings in each of ODOT’s five regions prior to adoption of the program by the Oregon Transportation Commission; and
- ❑ The Department will consider all public comment on the draft STIP prior to adoption of the program by the Oregon Transportation Commission.

### **Local Governments**

The federal planning requirements (23 CFR 1410.216(b)) state that:

- ❑ MPOs shall be involved on a cooperation basis for portions of the STIP affecting metropolitan planning areas;
- ❑ Indian Tribal Governments and the Secretary of the Interior shall be involved on a consultation basis for portions of the STIP affecting areas of the state under the jurisdiction of an Indian Tribal Government;

- ❑ Federal lands managing agencies shall be involved on a consultation basis for the portions of the program affecting areas of the state under their jurisdiction; and
- ❑ Affected local officials with responsibility for transportation shall be involved on a consultation basis for the portion of the STIP in non-metropolitan areas of the state.

### **Area Commissions on Transportation**

An Area Commission on Transportation, or ACT, is an Oregon Transportation Commission-sanctioned body composed of local transportation representatives, local elected officials, and business people representing the area.

ACTs improve the lines of communication and interaction between ODOT and local governments, the business community, and the public. ACTs propose and comment on policy set by the OTC, propose, review and endorse programs and projects, and provide a link to the OTC for citizens with transportation concerns. Information about the ACTs can be found on ODOT's website: <http://www.odot.state.or.us/otc/ACT.htm>.

### **Governor's Economic Revitalization Team, Regional Partnerships**

The Governor's Economic Revitalization Team (GERT) was established in 1995 to focus state agencies on working together at the local level to increase economic opportunity and help local governments and business and property owners bring industrial sites to "shovel ready" status. Formerly the Community Solutions Team, the GERT emphasizes multi-agency coordination on projects of local and statewide significance. The GERT has regional coordinators deployed around the state to help Oregon communities and businesses succeed.

The Governor's Office has directed the GERT agency directors to create lasting and systematic changes to agency policies, programs, and processes for greater effectiveness and improved efficiency. In addition to ODOT, the following agency directors are members of GERT: Oregon Economic and Community Development Department, Department of Consumer and Business Services, Department of Land Conservation and Development, Department of Environmental Quality, Department of State Lands, Oregon Department of Agriculture, and Oregon Housing and Community Services.

In addition to the GERT, Regional Partnerships now exist in seven locations around the state. In some locations, the Partnership has the same membership as the Area Commission. In other locations, Partnerships exist where ACTs do not. Regional Partnerships bring together local, state, federal, non-profit, and private community development partners to strategize solutions to complex inter-jurisdictional community development issues from a region-wide perspective.

As ODOT strives to best meet the transportation needs of the state with limited resources, these improved communication processes become critical for identifying issues and needs, prioritizing solutions, and implementing programs and projects.

## **Outreach Opportunities**

“Outreach” activities – focused discussions with transportation stakeholders, community groups and civic clubs, city and county public works officials and staff, and councils of governments (COGs) – are part of each ODOT region’s monthly public involvement activities. These meetings provide the public with opportunities to learn about and comment on ODOT’s programs, projects, goals, and challenges. Ongoing feedback from this interaction provides ODOT management with necessary guidance as it develops the biennial STIP funding proposal.

## **CLEAN AIR ACT COMPLIANCE**

All projects in the STIP must conform to the goals of the federal *Clean Air Act Amendments* (CAAA) and the related *State Implementation Plan for Air Quality*.

Oregon has nine areas that fall under the CAAA designation of “non-attainment or maintenance” relating to the quality of air. These areas are Portland/Metro, Salem/Keizer, Eugene/Springfield, Medford, Grants Pass, Klamath Falls, Lakeview, Oakridge, and La Grande. All regionally significant projects (those that may impact air quality) proposed for construction in these areas must conform to the goals of the CAAA in order to be approved for funding.

A transportation modeling process is used to determine an area’s or project’s conformity. The modeling is complex, expensive and lengthy – usually about four months and upwards of \$80,000 per area. Modeling takes place after the open public review period for the draft STIP and prior to the approval of the final STIP.

## **FISCAL CONSTRAINT**

By federal regulation, the first three years of the STIP must be fiscally constrained. This means the STIP can only include projects for which the state can reasonably expect adequate funding. No projects will be listed unless the funding source is identified.

## **FINANCIAL BASIS**

The *Draft 2006-2009 STIP* contains over \$1.2 billion in projects and programs (this is a four-year total). Sources available for funding include approximately \$850 million in federal transportation funds, approximately \$265 million in state highway funds, and approximately \$4 million in other funds. These funding levels are estimates. They are based on the current federal funding act, TEA-21, which expired September 30, 2003. Actual federal funds coming to the state may vary considerably.

Additionally, the Oregon State Legislature passed two bills in 2001 and 2002 (OTIA – “Oregon Transportation Investment Act” – I and OTIA II) which resulted in allowing the Department to sell bonds, bringing \$500 million into the State Highway Fund. The 2003 Legislature passed the

Oregon Transportation Investment Act III (OTIA III), which allows the Department to sell bonds to bring an additional \$2.5 billion into the State Highway Fund. Money from these bills has been dedicated to modernization, bridge, and pavement preservation projects.

Funding levels for the four-year program are based on projections of state and federal revenues. The projections are compared to the conditions and needs of the transportation system and the wants of the transportation users. Guidance and goals set forth in the *Oregon Transportation Plan* and its modal plans provide overall direction. The comparison and guidance results in initial funding levels and performance goals for the various programs funded through the STIP. The Oregon Transportation Commission approves the funding levels and performance goals, with input from ODOT management and staff, Area Commissions on Transportation, Metropolitan Planning Organizations, local governments, ports, transportation advisory committees (e.g., freight, bicycle/pedestrian, safety) and the public.

The approved funding levels, or “targets”, are allocated to the five ODOT regions of the state. The regions use the management system lists of identified needs, transportation system plans, corridor plans, and other long and short-range plans, and work with centrally located ODOT staff and transportation stakeholder groups, to transform the targets into projects for the draft program. Typically, the new projects are only added to the STIP’s third and fourth years; the program’s first and second years contain the projects from the previous STIP’s third and fourth years. The proposed projects need to support the performance goals approved by the Oregon Transportation Commission.

## **OTHER PROGRAMS IN THE STIP**

There are several smaller, specialized programs funded through the STIP.

Both the federal **Transportation Enhancement (TE) Program** and the federal **Congestion Mitigation and Air Quality (CMAQ) Program** provide funds to cities and counties for qualifying transportation projects that enhance or improve the transportation system. These are reimbursement programs which require matching non-federal funds of at least 10.27%.

The state-funded **Bicycle and Pedestrian Program** has three components: (1) a grant program; (2) a program to fund pedestrian improvements on pavement preservation projects; and (3) the “Quick Fix” program, to fund minor improvements on state highways. These programs have been established to fulfill ODOT's obligation to fund needed pedestrian and bicycle facilities, as required by ORS 366.514.

The federal **Railroad Crossing Safety Improvements Program** makes funds available to address unsafe public railroad crossings. This reimbursement program is available to local governments. Non-federal matching funds of 10% are required.

Through the **Fish Passage and Large Culvert Improvement Program**, ODOT provides funds to replace or repair culverts under state and federal highways that currently block anadromous fish passages. The Department has made this commitment as part of *The Oregon Plan for*



*Salmon and Watersheds*, the program that funds the salmon recovery effort. At this level of funding, it will take approximately 20 years to fix all identified culverts.

There are more small specialized programs listed in the “Statewide Programs” section of the STIP. ODOT does not have discretion over most of these programs; the funding is dedicated to them by law.

## INFLATION

The discussion would not be complete without addressing the annual impact of inflation. The annual inflation rate in the construction industry for the years 2004 through 2009 is estimated to be 4%.

	<b>Current (2004)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual Inflation Rate	100.00%	104.00%	104.00%	104.00%	104.00%	104.00%
Compounded Rate	100.00%	104.00%	108.16%	112.49%	116.99%	121.67%
Looks Like This	0.00%	4.00%	8.16%	12.49%	16.99%	21.67%
<b>Example</b>	<b>\$1,000,000</b>	<b>\$1,040,000</b>	<b>\$1,081,600</b>	<b>\$1,124,864</b>	<b>\$1,169,859</b>	<b>\$1,216,653</b>

Inflation is projected to add over \$200,000 – a fifth of its original cost – to a project in just a five-year period. Right of way acquisition costs (not shown here) inflate at a higher rate, estimated at 10% annually.

While property acquisition and construction costs inflate annually, gas tax revenues do not. Broadly put, without an increase in revenue, the Department could lose one-fifth of its ability to fund construction projects by the year 2009.

## SUMMARY

The STIP is a four-year transportation project scheduling and funding program, updated every two years. The *Draft 2006-2009 STIP* is built on revenue estimates of \$1.2 billion. It includes all federally funded projects, all regionally significant state and locally funded projects, projects on Indian reservation lands, and alternate mode (bicycle, public transit) projects. It is developed with ongoing public, local government, and transportation stakeholder involvement. Every two years before final approval, it goes through a public review process, where comments are received and relayed to the Oregon Transportation Commission and ODOT management. Programs and projects funded in the STIP reflect all these public involvement efforts.