# Sellwood Bridge Project Glossary of Terms January 25, 2007

## Acronyms, Agencies & Groups

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| **AASHTO** | **American Association of State Highway and Transportation Officials** | National association that develops safe and consistent highway standards | | |
| **ACOE** | See USACE | | | |
| **ADA Standards** | **Americans with Disabilities Act**; sets accessibilities guidelines. | | | |
| **ADT** | **Average Daily Traffic** | | | |
| **CETAS** | **Collaborative Environmental and Transportation Agreement for Streamlining** State and federal regulators who coordinate their review and comments on issues that concern them.. | Oregon's Department of Land Conservation and Development **(DLCD)**,<br>Environmental Protection Agency **(EPA)**,<br>Federal Highway Administration **(FHWA**),<br>National Marine Fisheries Service (**NMFS**),<br>Oregon Department of Environmental Quality (**ODEQ**),<br>Oregon Department of Fish and Wildlife (**ODFW**),<br>Oregon State Historic Preservation Office (**SHPO**),<br>Oregon Division of State Lands (**ODSL**),<br>US Army Corps of Engineers (**USACE**),<br>U.S. Fish and Wildlife Service (**USFWS**) | | |
| **CH2M** | **CH2M HILL** | Consultatnt to Multnomah County for the Sellwood Bridge Project NEPA process. Provides process leadership, engineering, environmental/permitting, writes of the Environmental Impact Statement (EIS). | CH2M HILL Team:<br>Parisi & Associates<br>TY Lin<br>Jeanne Lawson & Assoc<br>ECO Northwest<br>National Constructors Inc<br>Alta Planning<br>PTV America<br>Real Property Consultants | Specialties:<br>Traffic<br>Structural<br>Public Involvement<br>Financial Analysis<br>Cost Estimating<br>Bicycle/Ped Design<br>Traffic Demand<br>Appraisals |
| **Cooperating Agency** | Federal regulatory agencies that have a significant interest and stake in the outcome of an EIS, e.g. City of Portland. The cooperating agencies on the Sellwood Bridge project are involved in the PAG, PMT or CETAS. | | | |

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| **COC** | **Cogan Owens Cogan** | Consulting firm working with of the Community Task Force, Elaine Cogan, Facilitator; Suzaanne Roberts, Recorder. | | |
| **COP** | **City of Portland** | Jurisdiction in charge of streets within its jurisdiction (i.e. Tacoma, Macadam); parks, zoning, etc. | | |
| **CORPS** | See USACE | | | |
| **CTF** | **Community Task Force** | 20 citizens representing modes of travel, neighborhoods, business groups, and other interests. Meet monthly for duration of project. All meetings open to the public. | Barbara Barber<br>Jason Barbour<br>Gary Barth<br>Tom Brown<br>Bill Dickie<br>Elliot Eki<br>John Fyre<br>Dorothy Gage<br>Laura Jackson<br>Ken Love | Richard Marantz<br>Robert Mawson<br>Tina Nunez<br>Ludwien Rahman<br>William Ross<br>Scott Thayer<br>Angela Timmen<br>Robert Wilhelm<br>Brian Wilson<br>Sharon Wood Wortman |
| **EIS** | **Environmental Impact Statement** | All agencies receiving federal funds are required to submit an EIS to the EPA (or FHWA in transportation projects). The EIS is made available to all interested parties for review and comment.<br>**DEIS** (Draft EIS) examines several alternatives.<br>**FEIS (**Final EIS) indicates the preferred alternative. | | |
| **EJ** | **Environmental Justice** | The fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies. There will be an EJ section in the EIS for the Sellwood Bridge Project. | | |
| **FHWA** | **Federal Highway Administration** | Federal agency that provides funding for transportation projects, oversees and provides approval for EIS process and provides national design guidance. | | |
| **JPACT** | **Joint Policy Advisory Committee on Transportation** | A 17-member committee of elected officials and representatives of affected agencies that make recommendations to the Metro Council on transportation needs in this region. | | |
| **LOPTTAA**<br>**LOPAC**<br>**LOTAC** | **Lake Oswego to Portland Transit and Trail Alternatives Analysis (and committees)** | Metro study investigating ways to improve mobility between Lake Oswego and Portland via streetcar, express buses, ferries, bike trails, etc. Affects the west end of theSellwood Bridge Project. | | |

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| **NEPA** | **National Environmental Policy Act** | Requires federally-funded projects to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, lead agencies prepare a detailed statement known as an Environmental Impact Statement (EIS). | | |
| **ODOT** | **Oregon Department of Transportation** | Distributes FHWA funds and oversees transportation projects including EIS phase for the Sellwood Bridge Project; has jurisdiction over Highway 43, bridge design code. | | |
| **OTIA III** | **Oregon Transportation Investment Act III** | Funding package that provides more than $1.3 billion to repair or replace more than 300 state bridges by 2011. Also includes special rules and regulations that apply only to OTIA projects. (Sellwood Bridge is not an OTIA project.) | | |
| **PAG** | **Policy Advisory Group** | Elected and appointed officials from stakeholder jurisdictions. Reviews and decides whether to approve the recommendations of the CTF and senior staff. The PAG meets at each project milestone. | Multnomah County<br>City of Portland<br>Metro<br>Clackamas County<br>City of Milwaukie<br>ODOT<br>TriMet<br>Federal Highway<br>Oregon Senate<br>Oregon House | Maria Rojo de Steffey, chair<br>Sam Adams<br>Robert Liberty<br>Lynn Peterson<br>Jim Bernard<br>Jason Tell<br>Fred Hansen<br>David Cox<br>Kate Brown<br>Carolyn Tomei |
| **Participating Agency** | State and local agencies with an interest in the outcome of an EIS. The participating agencies on the Sellwood Bridge project are requested to review the recommendations at every milestone for review. | | | |
| **PMT** | **Project Management Team** | Project staff and consultants who manage the day-to-day progress of the Sellwood Bridge Project. | Multnomah County Bridge<br>Multnomah County Bridge<br>Mult. Co. Public Affairs<br>Multnomah Co. Planning<br>CH2M HILL<br>City of Portland<br>City of Portland<br>Metro<br>ODOT | Michael Eaton<br>Ian Cannon<br>Mike Pullen<br>Ed Abrahamson<br>Marcy Schwartz<br>John Gillam<br>Mauricio Leclerc<br>John Gray<br>Susan Whitney |
| **RTP** | **Regional Transportation Plan** | List of planned and prioritized projects in the tri-county region, for the next 20 years; developed by JPACT. | | |

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| **SAFETEA-LU** | **Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users** | Congressional authorization of $286 billion in spending for the five-year period 2005-09 for numerous surface transportation programs, such as highways, transit, freight, safety and research. Also sets goals, rules and regulations for that period. | | |
| **SAS** | **Senior Agency Staff** | Key advisors to PAG members, usually the Transportation Director of their jurisdiction. Meet monthly. | Multnomah County<br>City of Portland<br>Metro<br>Clackamas County<br>City of Milwaukie<br>ODOT<br>TriMet<br>Federal Highway<br>Oregon Senate<br>Oregon House | Ian Cannon<br>Sue Keil<br>Richard Brandeman<br>Cam Gilmor<br>Alex Campbell<br>Lainie Smith<br>Alonzo Wertz<br>Ed DeCleva<br>Hans Bernard<br>Debbie Runciman |
| **SLT** | **Sellwood Leadership Team** | Upper management oversight team within Multnomah County. Led by Commissioner Maria Rojo de Steffey. | | |
| **TAC** | **Technical Advisory Committee (City of Portland)** | City regulators who meet to coordinate their review and comments on the Sellwood Bridge Project. | Development Services<br>Planning Bureau<br>Parks and Recreation<br>Emergency Management<br>Environmental Services<br>Police<br>Fire and Rescue<br>Water Bureau | Transportation<br>Structures<br>Traffic<br>Maintenance<br>Bicycles<br>Pedestrians<br>Freight |
| **WG's** | **Working Groups** | Specific task groups that generate and develop concepts for alternatives. Include experts from consultants, jurisdictions, and citizenry. | Traffic<br>Roadway<br>Structures<br>Bicycles/Pedestrians<br>Freight<br>LOPTTAA | |
| **USACE** | **United States Army Corps of Engineers** | Jurisdiction in charge of all US waterways and wetlands. Controls the 404 Permit process; collects input from many other regulatory agencies. 404 Permit required for this project. | | |
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| **BRIDGE TERMS** | | | | |
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| **Abutment** | Supports at both ends of bridge. A retaining wall holding roadway fill material and supporting bridge beams. | | | |
| **Approach Fill** | Manmade compacted earth that supports road ramps leading to the ends of the bridge. | | | |
| **Approach Spans** | Short spans over land leading to the main spans. | | | |
| **Beam** | Thin horizontal members of the bridge that support the deck . | | | |
| **Bent** | General name for vertical support elements of the bridge; may be a column, pier, or abutment. | | | |
| **Chords** | In a truss, the *upper* and *lower* horizontal (or arched) members of the frame. | | | |
| **Cross-bracing** | Diagonal bracing that resists wind, earthquake or other forces on beams and trusses. | | | |
| **Cross-Section** | A diagramatic view of a roadway or bridge that "cuts" through the roadway like a a knife cutting thru a sausage and looks at the cut end to examine the width of the road; the lanes, the sidewalk, and other features. | | | |
| **Dead Load** | Self-weight of bridge that must be considered during design. | | | |
| **Deck** | Slab of concrete or steel that rests on the floor support system that is supported by beams. Traffic moves on the deck. | | | |
| **Delamination** | Separation of concrete from steel reinforcement bars; weakens the strength of the concrete member. | | | |
| **Fascia** | Outside beam or girder; also, non-structural decorative elements on the exterior. | | | |
| **Floorbeams** | Deck support beams perpendicular to the centerline of the roadway. | | | |
| **Footing** | At the bottom of a column or bent. A **spread footing** distributes a heavy load onto the soil. A **pilecap footing** distributes the load to piling that penetrates the soil down to bedrock. | | | |
| **Foundation** | The lowest support of the structure, usually the soil and/or bedrock beneath the footing. | | | |
| **Frame** | A structural skeleton designed to resist collapse due to the joint angles being fixed. | | | |
| **Girder** | Main load-carrying horizontal member of a span. | | | |
| **Grade** | Rate of change in elevation of road surface. | | | |
| **Horizontal Curve** | Left or right curve in the roadway. | | | |
| **Live Load** | Weight of traffic on the bridge, e.g. trucks, buses, cars, pedestrians. | | | |
| **Longitudinal** | Parallel to the direction of traffic and the centerline of the bridge. | | | |
| **Main Spans** | Differ from approach spans. Usually larger, longer, stronger and over water or primary obstacle. | | | |
| **Median** | An area in roadway or barrier between opposing travel lanes; minimize head-on collisions. | | | |
| **Members** | Structural pieces that compose a bridge: beams, columns, floorbeams, girders, for example. | | | |

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| **Model** | Mathematical representation of a real world problem for analysis purposes. Traffic and structural models are used on the Sellwood Bridge Project. |
| **Multi-Use Path** | For use by bicyclists and pedestrians; may be two way for bicyclists. |
| **Phase I Retrofit** | Methods to upgrade an existing bridge that involve tying the horizontal span members to the vertical supports (bents), to prevent the deck from falling. |
| **Phase II Retrofit** | Methods to upgrade an existing bridge that involve strengthening the footings and foundation to prevent them from settling during an earthquake. Roughly equivalent to new bridge in earthquake performance. |
| **Pier** | Similar to bent or column when it is located in water. |
| **Post-tensioning** | Strengthening a structural member by adding cables and shortening them, forcing the member into compression. Post-tensioning is done after the structural member is built and is in place. |
| **Prestressed** | Strengthening a structural member by adding cables and shortening them during the fabrication process. Structural members are delivered and installed in the compressed condition. |
| **Reinforced Concrete** | Concrete members made by forming a shape and installing a reinforcing steel cage before placing the concrete. Reinforced concrete is stronger, more elastic, cracks less, and can be used in tension as well as compression. |
| **Seismic** | Forces pertaining to earthquakes and earth vibrations. |
| **Sight Distance** | Distance of clear vision ahead required to stop if there is an blockage in the road. Related to speed of vehicle, horizontal and vertical curvature, or trees and signs that could obstruct vision. |
| **Spans** | Numbered segments of the bridge between vertical supports (bents). Spans over land are generally shorter than over water because the supports are more difficult to build in water. |
| **Spiral** | Curve with a changing radius. Spirals smooth out the transition between straightaways and currves. |
| **Substructure** | Supports, e.g. bents and footings. |
| **Superelevation** | Cross-slope in a road curves, designed in to prevent vehicles from rolling. |
| **Superstructure** | Part of bridge that rests on supports, e.g. beams, truss, deck, sidewalks. |
| **Transverse** | Perpendicular to the direction of traffic or centerline of the bridge. |
| **Truss** | Jointed open structure; the frame is divided into a series of triangular figures for rigidity and strength. Elements include upper and lower chords, verticals and diagonals. |
| **Vertical Curve** | Curve in the roadway in the vertical plane; either a crest (hill) or sag (valley). |