

 <b>Oregon Department of Transportation</b>  <b>Highway Directive</b>	NUMBER TRA 10-16	SUPERSEDES NEW
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	AUTHORING BRANCH Technical Services Branch – Traffic / Roadway	
SUBJECT Guiding Principle for Work Zone Safety	APPROVED SIGNATURE 	

**PURPOSE:**

Maintaining and improving safety and mobility through work zones are critically important to ODOT, contractors, and the traveling public. The purpose of this Highway Directive is to establish the requirement to begin use of the ODOT Work Zone Guiding Principle Document, approved as part of the December 7, 2015 Work Zone Executive Strategy Sessions meeting.

**BACKGROUND:**

ODOT Director Garrett convened the Work Zone Executive Strategy Sessions Committee in December of 2013 to explore opportunities for improving safety in highway work zones. The Work Zone Executive Strategy Sessions Committee (WZESSC) is a partnership of executive representatives of stakeholders whose intent is to enhance work zone safety for the traveling public and workers in the work zone. Members include Oregon Department of Transportation, Oregon State Police, Association of General Contractors, Oregon Trucking Association, Triple A of Oregon and Idaho, and Oregon State University. In December 2015, WZESSC adopted the Work Zone Guiding Principle Document. Director Garrett and Highway Administrator Paul Mather approved its implementation for use in ODOT.

**DIRECTION:**

Implementation of the Guiding Principle Document includes ongoing consideration of the Guiding Principle Document as a normal part of planning and executing work on or along public right-of-way.

The Project Delivery process requires the use of the associated Work Zone Decision Tree and Transportation Management Plan (TMP) during scoping, project development and design, as well as during construction. Use of the Decision Tree and TMP will document project design options that will build-in future separation of workers from traveling vehicles, and work zone options considered and the impacts of those options, and record the subsequent recommendations and decisions that provide for or improve separation of workers from traffic and other options intended to improve work zone safety. As the Work Zone Decision Trees are filled out, they will be added to the project Transportation Management Plan. The Work Zone Guiding Principle Document is attached to this Highway Directive.

**GUIDELINES:**

All stages of the project delivery lifecycle are subject to the Guiding Principle and use of the Work Zone Decision Tree. The Work Zone Guiding Principle requires that consideration of

options for construction staging, traffic control, separation strategies, public/stakeholder involvement, and communications occur throughout the entire project lifecycle while recognizing that some options for increasing separation could impact mobility, project schedules, budgets and other aspects of project delivery. The options considered, resulting impacts, stakeholder input, recommendations and decisions are to be documented in the Work Zone Decision Tree, which will become part of the Transportation Management Plan (TMP) required for all projects. The Work Zone Decision Tree is a living document throughout the life of the project that includes all of the options evaluated during scoping, during design and during construction.

The Guiding Principle and Work Zone Decision Tree is to be used at the following project phases:

- **Scoping Documentation** (Scoping Leader/Project Sponsor) – The initial identification and cost planning for a project significantly shapes the range of available traffic management strategies, both during construction and throughout the lifecycle of the facility. Evaluate and document traffic management options using the Work Zone Guiding Principle and Work Zone Decision Tree. Estimates for traffic control costs should be adjusted accordingly to allow for recommended work zone strategies to be further developed during project development.
- **Design Acceptance** (Project Leader/Area Manager) – Consideration of the Work Zone Guiding Principle is part of refining the project scope/estimate/schedule, and finalizing footprint impacts (e.g., right-of-way, environmental) into a specific construction strategy. The Work Zone Decision Tree is used to document alternative options evaluated, resulting impacts, Practical Design applications, recommendations and decisions made regarding work zone strategies and maintenance of traffic.
- **Mobility Coordination** (Project Leader/Region Mobility Liaison/Construction Project Manager/Area Manager) – The policies defined in the Mobility Procedures Manual and PD-16 require coordination with the MCTD and the Mobility Committee regarding mobility concerns including delays of traffic and restrictions on lane width and vertical clearance throughout project development and for any proposed changes to the TCP during construction. The project TMP, which includes all the Work Zone Decision Tree entrees beginning at the initial project scoping, is to be provided to MCTD who can make them available to the Mobility Committee when necessary. The TMP must also include and clearly summarize the project delay analysis and any clearance restrictions.
- **Final PS&E** (Project Leader/TCP Designer) – The TMP is to be included as an eBids document that informs the bidders of the options evaluated, identified impacts, recommendations and decisions made regarding work zone strategies and maintenance of traffic.
- **Construction: Award through Project Completion** (Construction Project Manager) – Project staging and traffic control plans are occasionally requested to be changed during construction. The TMP describes the reasoning, including commitments to stakeholders, for the traffic control design represented in the plans. The Construction Project Manager is to

use the Work Zone Decision Tree to document coordination with stakeholders as they evaluate proposals for changes to TCP's. Upon completion of a project, the Construction Project Manager is responsible to assure that an update is made to the TMP and the project Work Zone Decision Tree, to document either that there were no changes to the TCP, or to document use of the Guiding Principle in the consideration of proposed changes and what changes were eventually made. Once the Construction Project Manager has updated the Work Zone Decision Tree, a complete copy of the Work Zone Decision Tree and TMP will be sent to the Work Zone Traffic Analyst in the Traffic Control Plans Group in the Traffic Roadway Section (TCP Group). The updated TMP becomes a final project record.

- **Process Review and Lessons Learned** (TCP Group) – FHWA requires a biannual process review for work zone traffic control. As part of this effort, the TCP Group publishes an annual work zone review report. The completed TMP will be reviewed and incorporated into the annual report. Where significant challenges or changes have occurred, the TCP Group will coordinate “lessons learned” meetings with project staff to improve the process for future projects.

**LOCAL AGENCY AND CONSULTANT DESIGNED PROJECTS**

The Work Zone Guiding Principle applies to all projects on ODOT facilities, including local agency projects that are on the state highway system. Local agencies are encouraged to follow a similar process to enhance safety and mobility for their projects off the state highway system.

Consultant designed and/or administered Projects on the state highway system shall include use of the Guiding Principle, completion of Work Zone Decision Trees and the TMP during design and construction. Consultants shall provide these documents with submittals outlined in the consultant services contract. Since ODOT provides initial scoping for outsourced projects, the Consultant Project Manager, Local Agency Liaison, or Regional Designee will be responsible for the initial decision tree documentation, which will be provided to the consultant.

**PROCESS/ACTION REQUIRED:**

Effective immediately, ODOT staff is to incorporate the Guiding Principle Document into all projects at their current stage in the project lifecycle. The focus on work zone safety warrants the additional considerations that adding this documentation will promote regardless of the current point on the project lifecycle. Progress made towards implementing ODOT's Guiding Principle will be reported to the WZESSC.

<b>RESPONSIBILITY</b>	<b>STEP</b>	<b>ACTION</b>
Area Manager Scoping Team	Scoping	Assure completion of Work Zone Decision Tree during initial scoping phase. Complete project Scoping Report with justifications from scoping Work Zone Decision Tree.
Project Leader	Project Initiation to Design Acceptance	Assure completion of Work Zone Decision Tree and document decisions for Project Development Initiation, including any prior decisions that may not have been formally documented during scoping. Update the TMP as project proceeds

through Design Acceptance.

Project Leader,  
TCP Designer,  
Region Mobility Liaison

Design  
Acceptance  
to Advanced  
& Final Plans

Complete Work Zone Decision Tree and document decisions for Design Acceptance to Advanced Plans (if the Advanced Plans step applies to the project) and Final Plans. Region Mobility Liaison to submit Work Zone Decision Tree and TMP to MCTD for coordination with freight and industry stakeholders.

Construction Project  
Manager

Construction

Complete the Work Zone Decision Tree for any proposed changes to the project staging or Traffic Control Plan and evaluate safety strategies in light of the Guiding Principle and previous decisions recorded in the TMP. If no changes are made to staging or TCP during construction, document such in the TMP.

## Work Zone Executive Strategy Sessions Committee

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### Guiding Principle

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**Mission:** ODOT's mission is to provide a safe, efficient transportation system that supports economic opportunity and livable communities.

**Goal:** Our work zone safety goal is zero fatalities and injuries, including ODOT employees, contractors, public safety professionals and the traveling public while efficiently moving people and goods.

**Guiding Principle:** The best work zone design and management plan will maintain safety and mobility, a balance that shall be analyzed continuously throughout the lifecycle of the facility.

**Directive/Strategy:** To accomplish this goal, project design teams shall consider the full range of options including but not limited to separation of the traveling public from workers and work areas, speed reductions, law enforcement, enhanced traffic control devices and signage, and overall roadway and work zone design. Effective communication with travelers is essential to establish reasonable expectations and minimize unsafe driver behavior. While there is no single solution that is appropriate for all roadway designs and work zones, whenever practicable workers should be separated from traffic.

**Resources:**

- Mobility Committee
  - ODOT's Mobility Committee is a resource that can provide necessary balanced guidance.
  - Work through your mobility coordinator and the mobility committee to reach resolution.
  - Bring issues forward early in the scoping and design stage to avoid surprises and keep everyone in the problem solving mode.
- Work Zone Separation Decision Tree
  - The decision tree will help us identify separation options available per work zone.
  - Impacts to safety, mobility, scope, schedule, budget, delay, driver convenience, and 'other' impacts shall be identified when assessing separation options.
  - To help guide us through our decision making, the following decision tree is intended to provide new tools and approaches.

Approved 12/7/15