Application Instructions

All Roads Transportation Safety Program

Welcome to the All Roads Transportation Safety (ARTS) Program's safety project application Form instructions. We appreciate your interest in contributing to the enhancement of transportation safety in Oregon. The ARTS Program is dedicated to supporting safety projects that are data-driven and reduce fatal and serious injuries statewide.

The application form has been designed to help you present your safety project concept effectively and efficiently. By providing us with detailed information about your project's goals, methods, and expected outcomes, you are taking a significant step toward making our roads safer for everyone. We look forward to reviewing your application and working together to improve safety for all. Thank you for your commitment and for being a part of the solution to enhance safety across our diverse network of roadways.

Applicants can download the PDF application from the Traffic-Roadway Section (TRS) Highway Safety website under the "Forms and Tools" drop down section. The application form and supporting documentation for each safety project must be submitted by the deadline identified on the ARTS website. Applicants are encouraged to submit applications through the weblink below however, a hard copy can also be mailed to the ARTS program region manager. Applications that are submitted after close of business on the due date or are postmarked later than the due date will not be accepted.

All electronic applications must be submitted within the application window (September 5th 2023 through December 15th 2023) at the following weblink:
- https://www.odot-arts-2023.com/

Application submittals **are required to** include the following completed documents:
- The application form
- Cost estimate
- Crash data reports (in Excel format from ODOT's crash reporting website or output from the Tableau data viewer)
- Benefit-Cost worksheet(s) **or** Cost-Effectiveness worksheet(s)
- Aerial vicinity map / location map
- Traffic analysis (traffic counts, operations analysis, NCHRP 562 spreadsheet, etc.) – only required for specific countermeasures

While we have designed the application form to capture essential details about your safety project, we understand that there may be additional information and/or context that you would like to share that can greatly assist us in understanding the full scope and potential impact of your safety project. The following documents are examples of additional information that would be helpful:
- Field scope verification (pictures, field observations, user behavior)
- Conceptual layout or project concept drawing
- Collision diagram(s)
- Additional background information (road safety audit findings, previous scoping documents, planning studies, letters of support, etc.)

It is important to read through the Application Instructions before attempting to prepare and submit the application. Applicants are highly encouraged to utilize and follow these instructions

in a step-by-step process as they complete their application(s). Applications that do not include these items may be incomplete and may not be considered in the evaluation and selection process. If you have trouble filling out the application, please contact the region ARTS program manager (see ARTS [website](#)) or DKS ([lacy.brown@dksassociates.com](#)) for support.

Agencies are encouraged to apply for multiple projects however, ODOT will only accept **one proposed project per application**. Applications types include:

- Hotspot: to qualify, the location must have a crash history of at least one fatal or serious injury crash within the last five years of available crash data. Hotspot applications must include a Benefit-Cost (B/C) analysis.

- Systemic Roadway Departure: to qualify, the application must have at least one location with a roadway departure fatal or serious injury crash within the last five years of available crash data. Systemic roadway departure applications must include a Benefit-Cost (B/C) analysis for all locations.

- Systemic Intersection: to qualify, the application must have at least one location with an intersection-related fatal or serious injury crash within the last five years of available crash data. Systemic intersection applications must include a Benefit-Cost (B/C) analysis for all locations.

- Systemic Pedestrian and Bicycle: to qualify, the application must demonstrate a crash risk for a pedestrian or bicyclist. This application type does not require a crash history but must include Cost Effectiveness Index (CEI) analysis for all locations.

It's important to note that the hot spot safety approach and the systemic safety approach are not mutually exclusive; they can complement each other. Some analysts may use a combination of both countermeasure types to create a comprehensive and effective safety strategy that addresses both specific locations and broader systemic issues. While ODOT asks applicants to submit separate applications for hotspot and for systemic treatments, the flexibility exists to combine these approaches, provided that the application type being proposed contributes to over 50% of the projected benefits. It is important to note that a maximum of four countermeasures can be applied in one application.

Multiple locations can be included into one application however, the Benefit-Cost (B/C) spreadsheet and Cost Effectiveness Index (CEI) tool can only evaluate the proposed project if the same (up to 4) countermeasures are applied across locations. If characteristics and countermeasures vary by location, please group those into separate applications. Once approved for funding, the measures can be combined by the Region office under one project if desired.

General Preparations

Applicants are expected to submit applications based on a data-driven, comprehensive safety evaluation of their agency's roadway infrastructure, traffic volumes and crash data. Prior to filling out the PDF application, it is recommended that applicants complete some general preparations:

Review the ARTS program guidance on the ARTS webpage and:

- o Become familiar with available tools and the Crash Reduction Factors (under the Crash Reduction Factors section) eligible for this program.
- o Review Safety Priority Index System (SPIS) and the safety implementation plans (under the Safety Improvement Plans section) for roadway departure, intersection, and bicycle and pedestrian safety. These documents provide proposed roadway (both state and non-state) locations and segments that would benefit from implementation of systemic countermeasures.
- o Obtain crash data through ODOT's crash data website: TDS - Crash Reports (state.or.us)
- o Safety Priority Index System: Developed by ODOT, the SPIS is a flagging tool that identifies public roadway segments experiencing unusually high crash occurrences. Annual reports are generated (both state and non-state), listing roadway segments with a calculated SPIS score based on crash rate, frequency, and severity over the prior three calendar years. A higher SPIS score indicates higher potential safety needs for the identified roadway segment.
- o Roadway Departure Safety Implementation Plan: Identifies additional areas in which roadway departure (RwD) safety can be improved.
- o Intersection Safety and Implementation Plan: Provides specifics on countermeasure implementation actions, key steps, schedules, and investments needed to achieve Oregon's TSAP goal of reducing the number of fatalities in Oregon.
- o Pedestrian and Bicycle Safety Implementation Plan: Identifies corridors with the most potential for reducing frequency and severity of pedestrian and bicycle crashes. Also identifies priority locations and potential countermeasure options.

Application Form

Basic Project Information

- Hot Spot or Systemic- Select application type (choose only one); if the application is systemic, further identify the type (intersection, road departure or bicycle/pedestrian).

- STIP Round- Type in the STIP round for the application

- Agency- Type in the full name of the agency applying.

- ODOT Region- Type in the ODOT region that the proposed project will take place in. If you do not know which region the project is in, consult ODOT's TransGIS website. Use the menus to choose Display – Layer Catalog – Boundaries – ODOT Regions. (This site will also help you find geographic coordinates, if you need them to describe your project.)

- County- Type in the name of the county where the proposed project will be located. If there are multiple counties, please note this.

- City (if applicable) -Type in the city that the proposed project will take place in. Type "None" if not applicable. If there are multiple cities, please note this.
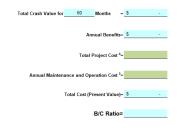
Under Contact Information

- Type in the project engineer and sponsor's name, title, phone number and email address. The project engineer is the technical lead who is developing the project. The project sponsor is the person with budget authority who can commit to funding the match for the project. This information will be used to coordinate with the agency relating to funding results and later for project delivery questions.
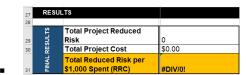
Under Project Information

- Provide road name(s), intersection cross street names, and/or geographical references of where the project is located. For proposed projects on the state highway system, please provide highway names, numbers, and mile points. If there are multiple locations, please list them in the space provided or attach a separate document summarizing the locations. In addition, for local agencies, please acknowledge the 10% match for the projects estimate cost.

  - Example for non-state roads

    o *On Park Ave between 5th St and 10th St*

  - Example for state highways

    o *On Eugene-Springfield Highway (Hwy 227) MP 1.52 – MP 3.86*

    o *On Tualatin Valley Highway (OR8) from Murray Blvd to SW 198th Ave*

- Project Cost-This value is taken directly from the Cost Estimation Workbook and is the same cost inputted in "Estimated Project Cost" cell on the Benefit Cost Analysis worksheet.

- A 10% match is automatically calculated based on the estimated project cost. Please acknowledge the match by checking the box. ODOT requires participating agencies to submit a 10% non-federal cash match. If unable to contribute this match, please coordinate with your appropriate Region Traffic Office after you have submitted your application to discuss potential alternatives. The local agency and ODOT Region staff may develop a funding plan to cover the local match subject to the ODOT Highway Administrator's approval.

- In the drop-down menu, select whether the project is applying a B/C or CEI prioritization approach.

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Project Cost:	MATCH AMOUNT (10%) $0.00	CHECK BOX TO ACKNOWLEDGE MATCH AMOUNT ☐	CHOOSE ONE ▾
Countermeasures			Benefit/Cost Ratio: Cost Effectiveness Index (CEI):

- This value is taken directly from the "B/C Ratio" cell on the Benefit Cost Analysis worksheet or from the "Cost- Effectiveness Index" cell in the CEI worksheet.

  - B/C spreadsheet

  - CEI tool: under final results, the value for Total Reduced Risk per $1,000 Spent (RRC)

Countermeasures

- Select from the drop-down list the countermeasure(s) this project will include. Please note that a maximum four countermeasures can be included in each application and the selected countermeasures shall be selected from the approved ODOT Crash Reduction Factor List

Scope Description

- The scope description should include all intended work for the proposed project, including work not represented by the countermeasures listed. Include the focus area, scope of work and safety benefits the project is addressing as well as a listing of all locations within the project area (intersections, mid-blocks, segments etc.). Clearly state the project objectives and explain why this project is necessary including data or evidence of the safety issues and trends that support the project need.

  - *Protected/permissive LT phasing on both Holgate and 112th*

  - *Install supplemental signal heads at the intersections of Butner @ Cedar Hills Blvd and Skyline @ Sunset Hwy-Skyline Blvd*

Other Stakeholders/Coordination

- List other stakeholders or coordination efforts needed to complete the project.

Narrative Questions

- These questions are designed to provide details and nuances relative to the project that provides a more comprehensive understanding of why the project is needed. Provide as

much detail as possible.

Application Attachments

Please double check all attachments are included in this application.

- Cost Estimate (required)
  - Applicants must provide a thorough cost estimate.
  - The detailed engineer's estimate must demonstrate how the total construction cost is being split among countermeasures, other safety related improvements and non-safety-related improvements. The estimate should include other costs such as PE, CE, mobilization, ADA upgrades, etc.
  - If your cost estimate is inadequate, you may be asked to revise the cost estimate or provide additional justification.

- Crash Report(s) (required)
  - Must be electronic copy; if one cannot be provided, please contact your Region Traffic Office.
  - Applicants must include a list of crashes that matches the crashes applied to a countermeasure in the benefit/cost or cost-effectiveness calculations. This list shall be a direct output from the ODOT Crash Data Reports.
    - If the output list includes crashes that were not appropriate to include in the project B/C calculations, these crashes must be crossed through or removed.

- Benefit/Cost Analysis/Cost-Effectiveness Index Worksheet (required)
  - Benefit Cost Analysis is required for **all** proposed hot spot, roadway departure or intersection projects.
  - Cost-Effectiveness Index is required for **all** proposed bicycle and pedestrian projects.
  - Applicants must use the appropriate worksheets provided by ODOT.

- Aerial Vicinity Map/Location Map (required)
  - The application reviewers and the program managers must be able to quickly pinpoint the project's location in the state and local agency. This map needs to show where the project is located within the overall agency. It is not intended to show the specific project limits.

- Traffic Analysis (required where applicable)
  - Required when the project includes an improvement that requires an engineering study to warrant the installation of certain traffic control devices, e.g., bike signals, pedestrian hybrid beacons, etc. When applications include traffic control features like these, it is the applicants' responsibility to ensure all requirements of the latest MUTCD are met. Failure to include required warrants completed per MUTCD will result in the project being disqualified.
  - Other traffic analysis can include traffic counts, NCHRP 562 spreadsheet, pedestrian study, capacity analysis, etc.

- Field Scoping Verification (highly recommended)

- o Notes from a site visit or mini road safety audit to observe user behavior. Notes can include other countermeasures that were considered but not recommended and why. A site visit can help verify the defined problem and support the recommended solution.
  - o Pictures or a note that pictures can be provided as requested.

- Conceptual Layout/Project Concept Drawing (highly recommended)
  - o The limits of all planned construction items/activities must be shown, including any non-safety elements of the project that will be going to construction.
  - o Show individual limits of each countermeasure utilized in the benefit/cost or cost-effectiveness calculations for the application.
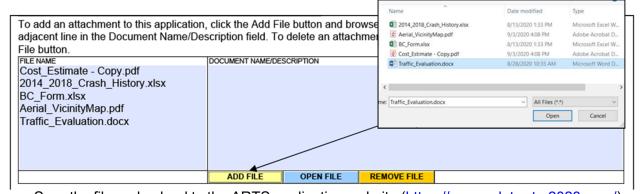
- Collision Diagram(s) (optional)
  - o If your agency already has a completed collision diagram for the project location(s), please attach them. This will help the reviewers to quickly identify crash patterns.

- Additional Background Information (optional)
  - o These may be used to help illustrate the safety concerns within the project limits, to provide justification and support for the cost estimate, to show other work that has been done in support of the project and support future scoping efforts.
  - o These should be directly related to documenting the merits of the need, purpose and scope of the project.

This application form is set-up to allow you to save the required documents within the application form.
- Save a copy of the application form to your local drive.
- Add the required attachments.
  Please note that the form will not accept macro enabled spreadsheets. Please make sure the excel extension is **.xlsx.**

- Save the file and upload to the ARTS application website (https://www.odot-arts-2023.com/)

Project Commitment

It is the agency's responsibility to ensure the ARTS application is reviewed and supported. Applications that do not contain the required project sponsor name, title and signature will be

disqualified. This signature can be provided electronically or through a hard copy application.

The agency's transportation manager attesting to the information in the application must take care to ensure they follow these application instructions, including but not limited to:
- All data is accurate and represents the total scope and costs;
- Countermeasures are applied consistently, and;
- Crash data is accurately shown and applied to countermeasures.

Submitting the Application

All applications must be submitted within the application window (September 5th 2023 through December 15th 2023) at the following weblink: https://www.odot-arts-2023.com/ . Applicants are encouraged to submit applications through the weblink above however, a hard copy can also be mailed to the ARTS program region manager. Applications that are submitted after close of business on the due date or are postmarked later than the due date will not be accepted.

If you have any questions about **how to fill out or submit the ARTS application**, please feel free to contact the appropriate region representative as listed below,
- ODOT Region 1:
  - Sam Sharma, Shyam.SHARMA@odot.oregon.gov
  - Tiffany Slauter, Tiffany.Slauter@odot.oregon.gov
- ODOT Region 2:
  - Keith Blair, keith.p.blair@odot.oregon.gov
  - Amanda Salyer, Amanda.SALYER@odot.oregon.gov
- ODOT Region 3:
  - Aaron Brooks, Aaron.g.BROOKS@odot.oregon.gov
- ODOT Region 4:
  - Mark Barrett, mark.s.barrett@odot.oregon.gov
  - Dan Serpico, Daniel.S.SERPICO@odot.oregon.gov
- ODOT Region 5:
  - Dan Fine, Daniel.fine@odot.oregon.gov
  - Marlow Stanton, Marlow.STANTON@odot.oregon.gov
- Or contact our consultant support at DKS Associates: Lacy Brown, lacy.brown@dksassociates.com, 503-391-8773.