



**IDAHO TRANSPORTATION DEPARTMENT – DIVISION OF HIGHWAYS
WRONG WAY DRIVER RESEARCH PROJECT
REQUEST FOR PROPOSAL**

GENERAL INFORMATION, SUBMISSION OF PROPOSAL, EVALUATIONS, AND AWARD

SECTION 1 - GENERAL INFORMATION

1.1 Purpose

The Idaho Transportation Department (ITD), is seeking the services of qualified researchers to conduct an investigation and provide a detailed analysis into the extent of wrong way driving events and identifying wrong way driving hotspot roadway segments and lone wolf exits with high wrong way driving risk on Idaho high speed roadways.

1.2 Background

Wrong way driving (WWD) is a rare, but serious, problem on high-speed roadways. According to the National Transportation Safety Board (2012), WWD crashes make up about 3% of all crashes on high-speed divided highways. However, the fatality rate for WWD crashes can be up to 27 times that of other crash types.

ITD has experienced a limited amount of WWD crashes in recent years but the full extent of the WWD problem in Idaho is unknown. This project will investigate the frequency of WWD events on limited access and other high-speed roadways in Idaho to identify the extent and characteristics of WWD based on crashes, citations, computer-aided dispatch (CAD) calls, traffic management center (TMC) logs, and other available WWD data. Non-crash events (law enforcement citations, CAD calls, TMC logs, etc.), which could potentially lead to WWD crashes, need to be considered to fully understand the extent of WWD. Crash, citation, and CAD data related to WWD are available in Idaho but will require extensive review and analysis to identify WWD events and understand the contributing factors. Prior research on WWD has shown that most WWD crashes occur at night and involve older drivers.

It is important to consider all types of WWD events, not just crashes, to obtain a comprehensive understanding of WWD behavior and risk. The status of existing signs, pavement markings, or other WWD countermeasures will also be examined to identify areas where these preventative measures could be implemented or improved.

1.3 Funding

The use of SPR funds must comply with [23 CFR 420.121\(j\)](#)

SECTION 2 – SCOPE OF WORK AND DELIVERABLES

2.1 Goal

As more people move into Idaho who are unfamiliar with the roadways (especially older drivers), it's likely that WWD behavior and risk could increase. The goal of this research is to identify locations where WWD could potentially be most prevalent, enabling ITD to focus treatment efforts on these locations and achieve the most reduction in WWD risk. Additionally, a better understanding of WWD event data can help improve the identification of and response to these events. The findings of this research can also be implemented in the design of future interchanges.

2.2 Tasks

A list of tasks is detailed below. In addition to the tasks that follow, the consultant and ITD PM are expected to maintain regular contact as needed. Consistent communication is required to make certain that tasks can be effectively accomplished in accordance with the project timeline, and to ensure that issues or setbacks can be promptly addressed if they arise.

Task 1: Kickoff Meeting

Host and conduct a meeting at start of the project with ITD Project Manager and Research Program staff to discuss:

- Project tasks and deliverables
- Project schedules and timelines
- Data and information needs
- Data management plan
- Staff responsibilities and assignments (as applicable)
- Proposed schedule for project meetings
- Communication plan and expectations

Task 2: Literature Review

Perform a review of applicable literature and provide a summary of WWD events from throughout the United States with special focus on states like Idaho where there are significant rural areas. This will include:

- Research on the frequency and characteristics of both WWD crash and non-crash events.
- Review research methodologies and approaches used by other State DOT's
- Available tools and established methods for WWD typing and analysis.
- Modeling efforts to identify significant contributing factors and locations with high WWD frequency.
- Various countermeasures available and effective at reducing WWD behavior.

The literature review summary should be presented to the project team when it's completed and will be incorporated as a chapter in the final report.

Task 3: Data Collection and WWD Event Identification

Compile all available data of WWD events for all high-speed, limited access roadways in Idaho including:

- Crash data and crash reports
- Law enforcement citation data
- Computer Aided Dispatch (CAD) data
- Traffic Management Center (TMC) logs
- Other available WWD data not listed above

Other data collection will include:

- Roadway and interchange designs and configurations
- Traffic volumes
- Existing roadway features (i.e., signs, pavement markings, lighting, etc.) and existing countermeasures, if applicable.

Researchers are encouraged to propose innovative approaches and strategies for data collection and identification of WWD events not referenced herein that could be done within the funding and schedule constraints of the project.

Task 4: WWD Event Analysis and review of existing WWD countermeasures.

Conduct a thorough analysis of the WWD event data collected in task 3 to identify:

- Locations
- Trends
- Patterns (temporal, spatial, i.e., “Hot Spots”)
- Common characteristics
- Status of existing countermeasures, if present

Researchers will use the analysis outlined above to gain understanding of the extent of WWD events, how to detect them, broadcast warnings, and respond to WWD events. Identify roadways and interchanges where improvements are most needed. If any WWD detection devices or advanced countermeasures are deployed during the first eighteen (18) months of this project, data from these deployments will also be collected and analyzed.

Task 5: WWD Hotspot Modeling.

Use the results from tasks 3 and 4 to develop a WWD hotspot model for Idaho high-speed roadways. This model will be used to predict WWD risk on multi-exit roadway segments based on the following:

- WWD crash and non-crash events
- Roadway and interchange design characteristics
- Traffic volumes
- Countermeasure status and other potential contributing factors

The developed model will not only identify hotspot roadway segments with high WWD risk, but also show the significant factors that impact this risk. These factors could be used to estimate WWD risk at new interchanges in the future. The results of this task can be used to help ITD develop a priority list of exits for future WWD countermeasure implementations and improvements.

Task 6: Draft Final Report and Closeout Meeting.

Develop the draft final report containing the details and results of all tasks, along with recommendations for implementation of these results to help ITD achieve the most benefits from this project. The closeout meeting will discuss the results of this project and potential future implementation plans based on this project’s recommendations.

Task 7: Final Report.

The consultant will prepare and present a written report that must be reviewed by a qualified peer reviewer. The final report will be developed and written by the consultant team with input and guidance from the ITD PM. The final report will address any comments from ITD on the draft final report. The final report document will incorporate feedback and address any concerns identified by ITD during initial review of the draft report. The final report must also follow [ITD Style Manual for Research Reports](#) and formatting requirements as described in deliverables listed below. The Style Manual and Research Report Template can be downloaded from the [ITD Research Program website](#) by selecting the “Resources for Researchers” section from the menu.

2.3 Deliverables

The following deliverables are required for this project:

- 1 The kickoff meeting will take place within 1 month of the project start date. A PowerPoint presentation will be submitted to ITD project management team ahead of the meeting date.
- 2 Literature Review. A document compiling and summarizing the reviewed WWD research and practice in this field will be submitted within 4 months of the project start date.

- 3 Data Collection and WWD Event Identification. A document discussing the various Idaho data sources utilized and available data collected for this project (crashes, citations, CAD data, traffic volumes, roadway and interchange designs, existing WWD countermeasures, etc.), along with how the WWD event data were identified from the event data sets, will be submitted within 10 months of the project start date. Researchers will also provide a copy of the dataset(s) of WWD events developed through the research and a data dictionary for this data.
- 4 WWD Event Analysis and Review of Existing WWD Countermeasures. A document analyzing the collected WWD event data and the status of existing WWD countermeasures on ITD roadways will be submitted within 15 months of the project start date.
- 5 WWD Hotspot Modeling. A document detailing the WWD hotspot modeling methodology and obtained results will be submitted within 20 months of the project start date.
- 6 Draft Final Report and Closeout Meeting. The draft final report will be submitted no later than 3 months before the project end date and the closeout meeting will take place no later than 1 month before the project end date.
- 7 Final Report and Closeout Meeting. The final report will be revised as needed to address any comments from ITD and will be submitted as Section 508-compliant Word and PDF files by the project end date.

SECTION 3 – SUBMISSION RESPONSE

3.1 Submission Contact

Proposals must be submitted electronically to the following:

Name: Ned Parrish, Research Program Manager

Email: research@itd.idaho.gov

3.2 Submission Response Deadline

Contractor response must be submitted no later than **January 24, 2023 by 5:00 PM (MDT)**. Submissions must be submitted to the Submission Contact listed above in order for your submission to be evaluated.

3.3 Inquiries

Questions regarding this request must be submitted to the Submission Contact listed above. Questions must be submitted no later than **December 23, 2022 by 5:00 PM (MDT)**.

Responses to all questions will be compiled into one (1) list once the questions submission date has expired. Questions and responses will be posted on the Research Program webpage along with other solicitation information within ten (10) business days of the deadline for submitting questions.

3.4 Response Content

Response must be submitted as a PDF, not to exceed ten (10) pages (excluding resumes for proposed team members) and must be organized to include the following:

- 1 Cover Page - must include the following information:
 - a) Project Title (Wrong Way Driving Research Project)
 - b) "Submitted by" section including name, institution, address, phone, fax #, and e-mail address
 - c) "Submitted to" section indicating the proposal is being submitted to the Idaho Transportation Department, Research Program
 - d) Proposal Date
- 2 Business Information - Provide a profile of your business, university department or research center, including business history, description of current service area, and customer base. Provide

contact information for a minimum of three (3) references from customers who have received same or similar service.

- 3 **Problem Statement** - Concisely express your understanding of the problem(s) presented in this solicitation. Do not just restate language in the research request, but instead articulate your own understanding of, and insight into, the problem(s).
- 4 **Research Approach/Work Plan** - Describe the work that will be performed to complete the tasks and deliverables. Include each of the tasks listed in **Section 2 – Scope of Work and Deliverables** and describe in detail how each task will be performed. Identify any additional tasks you feel are needed and explain any deviations from the tasks required by ITD. Identify any obstacles you see to achieving the objectives and how you would propose overcoming them.

The research plan should be complete and logically organized. It should clearly articulate the researcher’s approach to the problem and how the work done will contribute to accomplishment of the project tasks and deliverables. The response should include discussion of applicable principles and theories, the type and range of data needed, the data analysis methods to be employed, and how possible recommendations will be identified and develop

- 5 **Research History** - Explain types of research performed, and provide samples if allowed and not confidential, with same or similar to the scope of this project. This may include previous publications as attachments or links to web-hosted documents.
- 6 **Project Management and Communications Approach** - Describe project management strategy including steps that will be used to 1) monitor project schedule and budget, and 2) ensure that regular communication occurs with ITD’s PM throughout the project. Include your company’s escalation process, with points of contact, in the event ITD will need to escalate concerns during the contract.
- 7 **Schedule** - Identify the estimated start and completion dates for the project, as well as the completion dates for each task and deliverable. Each proposal should include a Gantt chart depicting the schedule for completing each task and deliverable. The schedule must indicate the number of months allocated to each task and deliverable.

Be sure to build sufficient time into your time schedule to complete the work outlined in your proposal. It is very important to ITD’s Research Program that projects be completed on time. **As a result, the project must be complete within twenty-four (24) months from the award date of the contract; this includes the kick-off meeting.**

Example of a schedule below:

Task	Month													
	1	2	3	4	5	6	7	8	9	10	11	12		
1 Literature Review	■													
2 Field Survey		■	■	■	■									
3 Lab Study			■	■	■	■								
4 Develop Database						■	■	■						
5 Develop Recommendations							■	■	■					
6 Prepare Draft Final Report								■	■	■				
7 Peer Review of Draft Report									■	■				
8 Editorial Review of Draft Report										■	■			
9 Make Peer Review/Editorial Changes and Submit to ITD											■	■		
10 ITD Initial Review of Report Draft												■		
11 Revise Draft and Resubmit for Final Review													■	
12 Make Any Final Changes and Submit Final Report														■

- 8 Staffing - Include the following information:
- Identify all members of the proposed research team and describe their role in the project.
 - Explain how team members' past academic, professional, and research experience relate to the work they will perform.
 - Provide information about other commitments the principal investigator(s) and research team will have during the project. This information must be sufficiently detailed to allow assessment of the researchers' experience, projects completed, and ability to complete the work within the required time schedule.
 - Identify the individuals who will perform quality control work on the project, including:
 - An independent peer reviewer with sufficient expertise to assess the adequacy of the work performed and the conclusions reached by the project team, and
 - A report editor responsible for ensuring project reports are clearly and concisely written and are prepared in accordance with ITD Research Program guidelines.
 - Provide a detailed breakdown of each team member's involvement in each task and deliverable.

Example of a detailed breakdown below:

Name Of Person	Role in Study	Hourly Rate	Task (Hours)												Total
			1	2	3	4	5	6	7	8	9	10	11	12	
Researcher A	Principal Investigator	\$ 75.00	10	40		40	40	40			20	20	10	10	230
Researcher B	Co-Principal Investigator	\$ 60.00	10		40	40	40	40			20	20	10	10	230
Subcontractor A	Statistical Analysis	\$ 35.00	25	200		100	40	100			40	20	10	10	545
Subcontractor B	Role description	\$ 50.00	25		200	100	40	100			40	20	10	10	545
Peer Reviewer	Technical Review	\$ 50.00								40					40
Report Editor	Report Editing	\$ 25.00									40				40
Etc.	Role description	\$ 25.00	10						10						30
Total Hours			80	240	240	280	160	290	40	40	120	80	40	50	1660

- 9 Required ITD Involvement - Describe any assistance required from ITD, such as:
- Data collection
 - Access to ITD records or databases
- 10 Budget - Provide a quote of the costs for the work outlined in your proposal using the format provided in the table below. **The total cost for the project must not exceed \$325,000.** This is ITD's estimate of the level of funding necessary to complete the work. Contractor should set the scope and depth of the study accordingly.

Example of a quote:

	Hourly Rate	Benefit Percentage	Task Number												Total
			1	2	3	4	5	6	7	8	9	10	11	12	
Salaries and Benefits															
	Researcher A														
	Researcher B														
	Researcher C														
	Editor														
	Etc.														
	Total Salaries and Benefits:														
Other Costs															
	Flights														
	Parking														
	Rental Car														
	Rental Car Gas														
	Meals														
	Lodging														
	Lodging Tax														
	Subcontractor Expenses														
	Peer Review Costs														
	Materials and Supplies														
	Other Direct Expenses														
	Total Other Costs:														
	Total Direct Costs:														
Percent															
Overhead:	Applied to direct labor at:														
Fixed Fee:	Applied to overhead and director labor at:														
Total Budget:															

SECTION 4 – PROPOSAL REVIEW AND SELECTION

4.1 Response Evaluation

Proposals will be evaluated by an ITD technical review team comprising staff knowledgeable in the background and content of the project topic. Selection will be made in consideration of general criteria based on the vendor’s response to the Scope of Work and as follows:

- a) The expertise, and technical capabilities of team members to perform the proposed work, resources including any specialized services available to perform the work within the specified project timeline, and record of past performance, including references, quality of work, and contract administration
- b) The research approach and methodology detailed in the proposal to meet the project tasks and deliverables
- c) Proposed project management and communications approach
- d) Thorough budget and cost estimate that is within project budget constraint

Evaluation criteria will be weighted as shown below:

Evaluation Criteria	Weight
Experience and Qualifications	35%
Proposed Research Approach	35%
Project Management and Communications Strategy	10%
Budget and Cost Estimate	20%
Total	100%

The scores from the technical evaluation will be summed and the proposals will be ranked according their total scores. Technical reviewers are required to refrain from discussing proposals with other review team members prior to determination of final score. The contract will be awarded to the responsive and responsible proposer with the highest score.

Proposal review is expected to take approximately two weeks following the date of the submission deadline. The technical review team expects that proposers will be notified of selection for this project no later than **February 14, 2023**.

ITD reserves the right to reject any and all proposals submitted. It may negotiate with the proposer to address specific weaknesses in the proposal submitted.

SECTION 5 – AWARD

5.1 ITD Contract Award Agreements

The result of this request will be awarded as a Professional Service Agreement (PSA) if a private consultant is selected or as a Memorandum of Agreement (MOA) if the contract is awarded to a public university.

5.2 Term

The resulting Contract shall commence on the date of the final signature provided by the Submission Contact listed above. The anticipated term of this contract will be for **twenty-four (24) months** unless extended by mutual agreement between the parties or terminated earlier, in writing, in accordance with the PSA or MOA.

SECTION 6 – TERMS AND CONDITIONS

6.1 State of Idaho Standard Contract Terms and Conditions

For terms and conditions including insurance requirements, please see [State of Idaho Standard Contract Terms and Conditions](#). Any requested modifications to the Standard Contract Terms and Conditions should be identified in the proposal.

6.2 Insurance

Within 5 days of notification of award (or such other time as designated by the Purchasing Activity), the apparent successful Bidder or Offeror will provide certificates of insurance required herein and will maintain the insurance during the life of the Contract. There are no provisions for exceptions to this requirement. Failure to provide the certificates of insurance within the five (5) business day period may be cause for your Bid or Proposal to be declared non-responsive or for your Contract to be cancelled.

(Attachment 1 – Insurance Requirements)

6.3 Administrative Fees

Administrative fee detailed in [State of Idaho Standard Contract Terms and Conditions](#) does not apply under the resulting contract agreement.

Attachment 1 – Insurance Requirements

Within 5 days of notification of award (or such other time as designated by the Purchasing Activity), the apparent successful Bidder or Offeror will provide certificates of insurance required herein and will maintain the insurance during the life of the Contract. There are no provisions for exceptions to this requirement. Failure to provide the certificates of insurance within the 5-business day period may be cause for your Bid or Proposal to be declared non-responsive or for your Contract to be cancelled.

Contractor shall carry liability and property damage insurance that will protect it and the State of Idaho from claims for damages for bodily injury, including accidental death, as well as for claims for property damages, which may arise from operations under the Contract whether such operations be by themselves or by anyone directly or indirectly employed by either of them

Contractor shall not commence work under the Contract until it obtains all insurance required under this provision and furnishes a certificate or other form showing proof of current coverage to the State. All insurance policies and certificates must be signed copies. After work commences, the Contractor will keep in force all required insurance until the Contract is terminated.

1. Commercial General and Umbrella Liability Insurance. Contractor shall maintain Commercial General Liability (CGL) and, if necessary, Commercial Umbrella insurance with a limit of not less than \$1,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to the Contract.
2. CGL insurance shall be written on ISO occurrence form CG 00 01 (or a substitute form providing equivalent coverage) and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract).
3. Commercial Automobile and Commercial Umbrella Liability Insurance. Contractor shall maintain Commercial Automobile Liability and, if necessary, Commercial Umbrella Liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).
4. Bidder or Offeror may request a waiver from providing Commercial Automobile and Commercial Umbrella Liability Insurance in its Bid or Proposal if the Bidder or Offeror will not use any owned, hired or non-owned vehicles to conduct business under the Contract, if it is awarded the Contract, and the State of Idaho will consider the request. If the Bidder or Offeror submits a request to waive the provision of Commercial Automobile and Commercial Umbrella Liability Insurance after the due date and time for receipt of Bids or Proposals, the State of Idaho may not consider the request.
5. Workers Compensation Insurance and Employer's Liability. Contractor shall maintain workers compensation and employer's liability. The employer's liability shall have limits not less than \$500,000 each accident for bodily insurance by accident or \$500,000 each employee for bodily injury by disease.
6. Contractor must provide either a certificate of workers compensation insurance issued by a surety licensed to write workers compensation insurance in the State of Idaho, as evidence that the Contractor has in effect a current Idaho workers compensation insurance policy, or an extraterritorial certificate approved by the Idaho Industrial Commission from a state that has a current reciprocity agreement with the Idaho Industrial Commission.
7. State of Idaho as Additional Insured: The liability insurance coverage required for performance of the Contract shall include the State of Idaho, the (agency) and its divisions, officers and employees as additional insured, but only with respect to the Contractor's activities to be performed under the Contract.
8. The Contractor must provide proof of the State of Idaho, the (agency) and its divisions, officers and employees being additional insured by providing endorsements to the liability insurance policies

showing the State of Idaho, the (agency) and its divisions, officers and employees as additional insured. The endorsements must also show the policy numbers and the policy effective dates.

9. If a liability insurance policy provides for automatically endorsing additional insured when required by contract, then, in that case, the Contractor must provide proof of the State of Idaho, the (agency) and its divisions, officers and employees being additional insured by providing copies of the policy pages that clearly identify the blanket endorsement.
10. Notice of Cancellation or Change: Contractor shall ensure that should any of the above described policies be cancelled before the expiration date thereof, or if there is a material change, potential exhaustion of aggregate limits or intent not to renew insurance coverage(s), that written notice will be delivered to the Division of Purchasing (if the Contract was issued by the Division) or to the Purchasing Activity (contracting state agency) in accordance with the policy provisions.
11. Contractor shall further ensure that all policies of insurance are endorsed to read that any failure to comply with the reporting provisions of this insurance, except for the potential exhaustion of aggregate limits, shall not affect the coverage(s) provided to the State of Idaho, and its divisions, officers and employees.
12. Acceptable Insurers and Deductibles: Insurance coverage required under the Contract shall be obtained from insurers rated A-VII or better in the latest Bests Rating Guide and in good standing and authorized to transact business in Idaho. The Contractor shall be financially responsible for all deductibles, self-insured retention's and/or self-insurance included hereunder. The coverage provided by such policy will be primary to any coverage of the State on or related to the Contract and shall provide that the insurance afforded applies separately to each insured against whom a claim is made, except with respect to the limitation of liability.
13. Waiver of Subrogation: All policies shall contain waivers of subrogation. The Contractor waives all rights against the State and its officers, employees, and agents for recovery of damages to the extent these damages are covered by the required policies. Policies may contain deductibles but such deductibles will not be deducted from any damages due to the State.