



**Michigan Center for  
Advancing Safe Transportation throughout the Lifespan  
Research Excellence Program**

**2010  
REQUEST FOR PROPOSALS  
(RFP Number 04)**

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Issued on May 25, 2010

Letter of Intent due June 4, 2010 (send to [m-castl@umich.edu](mailto:m-castl@umich.edu))

Proposals due June 25, 2010 (send to [m-castl@umich.edu](mailto:m-castl@umich.edu))

Funding begins September 15, 2010

The Michigan Center for Advancing Safe Transportation throughout the Lifespan (M-CASTL) invites proposals for research projects for the period September 15, 2010 – September 14, 2011. We plan to fund up to four projects, with a maximum award of \$75,000 per project.

**This is a University-wide, interdisciplinary research funding opportunity in the area of “safety and mobility throughout the lifespan.”**

**Background**

M-CASTL is a University Transportation Center at the University of Michigan (U-M) funded through the US Department of Transportation’s (USDOT) Research and Innovative Technology Administration (RITA). M-CASTL strives to advance knowledge and best practices in areas related to the safety and mobility of both young people and older adults through basic and applied research, education, and technology transfer. Detailed information about M-CASTL can be found at: <http://m-castl.org>.

**Overview of Research Proposals**

M-CASTL invites proposals that address the Center’s three research thrusts:

- Understanding and addressing the changing perceptual, cognitive, and psychomotor abilities of older drivers to help them maintain safe driving
- Understanding and addressing the transportation needs of young people and older adults when they are unable or choose not to drive themselves
- Understanding and addressing the elevated crash risk of young drivers

Although M-CASTL welcomes all research ideas within these three broad thrust areas, research topics of particular interest to the Center and its stakeholders for this round of funding include:

- *Driver drowsiness/fatigue* - e.g., understanding factors that contribute to drowsiness such as medical conditions among older drivers, and identifying strategies to address them.
- *Safety culture* - e.g., how to instill among young people a culture of safety and responsibility.
- *Advanced technologies to improve safety* - e.g., how to develop effective and acceptable technologies that provide decision support or increased levels of automation to novice and older drivers.
- *Data surveillance systems* - e.g., how to improve such systems to better understand the magnitude of problems and risks imposed on the public, and develop mechanisms for evaluation.
- *Evaluation of education, training, and self awareness programs for young and older drivers* - e.g., self-screening instruments such as Roadwise Review, recently introduced technology components of novice driver education, cognitive training programs.
- *Evaluation of other safety-related programs and policies* - e.g., driver licensing practices for older adults, specific components of graduated driver licensing programs for young beginning drivers.
- *Driver distraction* - e.g., factors that lead to distraction, effects on young and older drivers, and systems that might be effective in mitigating these effect.
- *Medical conditions and medication use* - e.g., effects of co-morbidities and the medications used to treat them on driving performance.
- *Livable communities* - e.g., development of place-based policies and investments that increase transportation choices.
- *Accessibility* - e.g., understanding and improving peoples' ease of reaching places through mobility, proximity, and connectivity.
- *Transit operators* - e.g., assessing the functional abilities of transit operators and developing monitoring and training programs to improve their performance.
- *Caregiver economics* - e.g., understanding the economic costs to caregivers and families of older drivers transitioning from driving to dependence on others for transportation.

Proposals should also be supportive of the national research priorities of the USDOT as outlined in the *Department of Transportation Strategic Plan* ([http://www.dot.gov/about\\_dot.html](http://www.dot.gov/about_dot.html)), the *US Department of Transportation Research, Development, and Technology Plan* ([http://www.rita.dot.gov/publications/transportation\\_rd\\_t\\_strategic\\_plan/](http://www.rita.dot.gov/publications/transportation_rd_t_strategic_plan/)), and other items that RITA may post on the UTC Program's website (<http://utc.dot.gov>).

Applicants are required to provide a 100 percent non-federal cost share and/or cost match for the proposed project's direct costs. **M-CASTL will work individually with each applicant during the proposal stage to develop the appropriate cost share/match.<sup>1</sup>**

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<sup>1</sup> The rules governing the use of cost share and cost match are set forth in the most recent revision of OMB Circular A-110. Cost match/share must be used to accomplish program objectives and the purpose of the grant, and be fully documented and carefully accounted for in the Grantee's records. **M-CASTL will work with each applicant during the proposal stage to develop the appropriate documentation and tracking mechanisms.** Applicants are responsible for ensuring that proposed cost share and cost match funds are allowable, and if such funds are deemed unallowable after project award, responsibility for covering the funds will rest with the applicants' department/unit.

Applicants are also required to build a “quad-team” for research projects consisting of faculty members from at least two different U-M units, at least one student, and at least one government/industrial/community representative. The quad approach is intended to ensure multidisciplinary research, student involvement in projects, and the translation of research results into practical transportation solutions.

### **Eligibility requirements**

- Academic and research faculty submitting proposals must be eligible to serve as Principal Investigators (PIs) at U-M.
- Proposals must focus on one or more of the three research thrust areas.
- Investigators must provide a 100 percent non-federal cost share and/or cost match.
- Investigators must use a quad-team approach as described above.
- Total Center-funded budget cannot exceed \$75,000 direct costs.
- The proposed project period should be one year.

### **Selection process and criteria**

Submitted proposals will first be reviewed by Center staff to ensure that they meet the eligibility and other requirements of the RFP. Those not meeting the requirements will be dropped from the selection process and the PIs will be notified. Those meeting the requirements will be forwarded to the M-CASTL Research Subcommittee responsible for overseeing the selection process. Each proposal will be peer-reviewed by at least three reviewers with the goal of having one from the USDOT and one from outside of U-M. Reviewers will provide written comments and score proposals, based on the selection criteria below. The subcommittee will then meet to select proposals for funding based on the peer-reviews and priorities of M-CASTL. PIs of both successful and unsuccessful proposals will be notified and provided with the written comments of the reviewers. PIs of successful proposals will be required to sign an agreement stating that they will follow M-CASTL research project requirements, including requirements for reporting and technology transfer. Selection criteria include:

- Significance (30%):
  - Does the proposed study address an important issue?
  - How will the proposed study advance scientific knowledge or clinical/professional practice?
  - To what extent does the proposed study address the USDOT-wide priority areas?
- Approach (30%):
  - Are the research aims clearly delineated?
  - Are the conceptual framework, design, methods, and analyses adequately developed, integrated, reasoned, and appropriate to the aims of the proposed study?
  - Are potential problems acknowledged and strategies proposed for overcoming them?
- Innovation (20%):
  - Is the proposed study new and original?

- Does the proposed study develop or use novel concepts, approaches, methods, tools, or technologies for this area?
- Investigators (10%):
  - Are the investigators appropriately trained and well suited to carry out this work?
  - Is the work proposed appropriate to the experience level of the principal investigator and other researchers?
  - Does the research team bring complementary and integrated experience to the proposed study?
- Practical Application (10%):
  - Is there a potential for translating research results into practical applications (e.g., guidelines, standards, or other products) that can be used by government and other professionals?
  - Are the investigators well positioned to disseminate knowledge generated from the research (e.g., through papers, presentations, teaching)?

### **Proposal Content**

Proposals should include a title page, abstract, problem statement, work plan, budget and budget justification, and biographical sketches for key investigators. Each proposal should identify the specific priority research topics being addressed. Length requirements are outlined below:

- Cover page including title, names of PI and co-investigators, contact information for PI, and other pertinent information – one page. Click <http://m-castl.org/files/M-CASTLRFP2010-04CoverPageTemplate.doc> for cover page template.
- Abstract – up to 300 words. Click <http://m-castl.org/files/M-CASTLRFP2010-04AbstractTemplate.doc> for abstract template.
- Problem statement including background and relevance – up to one page.
- Work plan discussing the scientific approach – up to five pages.
- Reference list – length as needed.
- Budget - Click <http://m-castl.org/files/M-CASTLRFP2010-04BudgetTemplate.xls> for budget template.
- Budget justification – length as needed. Detailed information on sources of cost match/cost share is required. M-CASTL will work individually with each applicant during the proposal stage to develop the appropriate cost share/match.
- M-CASTL Proposal Approval Form. Click <http://m-castl.org/files/M-CASTLRFP2010-04PAFTemplate.pdf> for PAF.
- Biographical sketches for PI and co-investigators – up to two pages per person.

- Names and contact information for two to four individuals you believe are qualified to review the proposal (one-two from U-M, one-two from outside U-M).
- All documents are available to download on our website at <http://m-castl.org/node/87>.

The proposal should be in Times Roman font (12 point), with one-inch margins all around. Proposals should not exceed page limits identified above, but should have sufficient detail to address the selection criteria.

### **Project reporting and technology transfer requirements**

- Quarterly progress reports.
- Final report.
- Preparation of a five-minute video summary of the methods, findings, and implications for safety and mobility to be included in web briefings program (recorded by M-CASTL staff).
- Copies of all papers submitted to journals or conferences based on project research provided to M-CASTL.

Information will be provided on the M-CASTL website prior to project award on the required format for progress reports and final summary reports.

### **Submission instructions**

Letter of intent should be submitted electronically in PDF or Word format directly to M-CASTL at [m-castl@umich.edu](mailto:m-castl@umich.edu).

Proposals should be submitted electronically in PDF or Word format directly to M-CASTL at [m-castl@umich.edu](mailto:m-castl@umich.edu). For administrative or financial questions about this RFP, please contact Amanda Dallaire at [m-castl@umich.edu](mailto:m-castl@umich.edu) or 734-764-6240. For questions about the research content, contact Lisa J. Molnar at [ljmolnar@umich.edu](mailto:ljmolnar@umich.edu) or 734-763-2466.