IOWA HIGHWAY RESEARCH BOARD

BUSINESS PLAN

Iowa County Engineer’s Association
Iowa Chapter, American Public Works Association
The University of Iowa
Iowa State University

In cooperation with

IOWA DOT
Iowa Department of Transportation

January 2015
Iowa Highway Research Board

Prelude…

In 1949, the Iowa General Assembly enacted legislation that designated 1 ½ percent of Iowa's farm-to-market highway funds for secondary road research. Primary road research funding was already permissible under existing laws. Following this action, in December 1949, the then Iowa State Highway Commission approved establishing the Iowa Highway Research Board to provide oversight for this research program. The Board held its first meeting on May 18, 1950. In addition to farm-to-market funding, the Commission allocates funding to support the Board's research program. In 1989, the Legislature established a direct allocation of municipal funds in support of research. Oversight of this funding was incorporated into the Board's program as well.

Background…

The Iowa Highway Research Board is an advisory board responsible for assisting the Iowa Department of Transportation (DOT), Iowa Counties, and Iowa Cities in the development and continuation of an effective program of research and development in highway transportation. Board membership includes representatives of Iowa's city and county government highway agencies, the Iowa DOT, and Iowa's public universities. The Board receives staff assistance from the DOT. This Business Plan provides further information on the organization, duties and functions of the Iowa Highway Research Board.

For further information, contact:

Vanessa Goetz  
Office of Research and Analytics  
Iowa Department of Transportation  
800 Lincoln Way  
Ames, Iowa 50010  
Phone: 515-239-1382  
FAX: 515-817-6597  
E-mail: Vanessa.goetz@dot.iowa.gov  
http://iowadot.gov/RA
Vision

Research that makes a positive difference to the transportation system in Iowa

Mission

Lead the identification of needed research and engineering development activity, encourage collaborative involvement, and support research implementation

Goal

Improve the efficiency and effectiveness of highway transportation and engineering in Iowa

Organization of the Board

The Iowa Highway Research Board (IHRB) is an advisory board for the Iowa Department of Transportation, Iowa Counties, and Iowa Cities. It assists in the development and continuation of an effective, coordinated program of research and development in highway transportation.

The Board is composed of 15 members:

- Seven engineers employed by Iowa counties, one from each of the six districts and the Iowa County Engineer’s Association (ICEA) Transportation Research Board representative, nominated by the ICEA.
- Two engineers employed by Iowa municipalities, nominated by the Iowa Chapter of the American Public Works Association.
- The Chair of the Department of Civil and Environmental Engineering at The University of Iowa and the Chair of the Department of Civil, Construction, and Environmental Engineering at Iowa State University.
- Four Iowa DOT engineers, representing the Department.

For each Board member, an alternate is also appointed to serve at the member's request when the member is unable to attend; alternates are nominated in the same manner as Board members.
The normal term for a member and an alternate is three years, beginning on January 1. However, when a vacancy occurs during a term, the person appointed to fill the vacancy will serve the unexpired part of the term beginning on the day of the appointment.

The Board will annually select a chair and vice-chair to serve beginning January 1. The Board will hold regular meetings at times determined by the Board and will establish the rules of procedure needed to perform its duties.

**Board Responsibility and Authority**

The Board will:

- Acquire knowledge of the research and development needs of highway transportation, particularly in Iowa.
- Receive and consider all suggestions, problem statements, and proposals for highway research and development.
- Develop a prioritized program of research needs and interests, and communicate it to interested parties.
- Recommend initiating individual projects determined to be necessary and appropriate. In doing so, the Board will include any limitations or specific requirements affecting the actual conduct of the project.
- Monitor the progress of recommended projects and encourage their prompt completion.
- Receive, consider, and act upon all reports on approved projects.
- Encourage and assist in disseminating information about highway research and development projects and trends.
- Oversee all projects and other activities recommended by the Board.
- Maintain a record of contracts and expenditures for activities recommended by the Board.
- Operate under the procedures outlined in this Business Plan. The Business Plan will be reviewed annually, as a minimum, and may be modified as necessary by the Board.
Board Operating Procedures

1. Meetings and Staff Support

- Each year, the Board will adopt and make available a calendar of meetings and other events. The calendar may be updated as appropriate.

- Board meetings will be conducted following Robert’s Rules of Order. The Office of Research and Analytics will advise the Board on interpretations as necessary.

- The Executive Secretary to the Board will perform the following duties:
  
  a) Arrange for regular and special meetings called by the Board and keep the minutes and other records of the Board.

  b) Inform members of matters requiring attention and provide members with all available data, reports, documentation, and other information concerning the matter.

  c) Transmit Board recommendations to the DOT for approval and implementation.

  d) Inform the Board of actions taken pursuant to its recommendations.

  e) Arrange, coordinate, and provide other necessary assistance as needed to support the Board’s activities.

  f) Manage and coordinate DOT support for the Board’s activities.

- The Secondary Road Research Engineer, will provide staff support to the Iowa County Engineers and will facilitate the conduct of research on and for the County road system. This staff support will include assistance in: securing funding for research projects of interest to the Counties, development of research work plans for the County projects, monitoring on County projects, and dissemination of results. The Secondary Road Research Engineer position is funded through the Secondary Road Research fund.

2. Guiding the Research and Engineering Development Program

The Board will provide opportunity for four alternative methods of identifying supported projects: by establishing a strategic program using an open and collaborative process; by providing an opportunity for projects of merit, not previously identified, to be considered for support by the Board; through continuation of previous projects; and consideration of pilot projects for novel or innovative ideas.
A. Establishing the Strategic Program

- Setting a Schedule of Activities

Each year, the Board will develop a schedule of planned activities for development of its program, including dates for receiving input and soliciting proposals.

- Input to the process

The Board will annually develop and publish a list of prioritized research needs and other interests. This list will be developed through an open and collaborative process that encourages individuals and organizations to provide input to the Board’s list. Input will be solicited from organized focus groups, public and private associations and interest groups, faculty, individuals, and agency staffs; and will be facilitated by the Board Secretary.

- Establishing the Program

The Board will use input received from interested parties, and needs identified by Board members, to develop and update a list of needs. Each year, the initial list of suggested needs will be reviewed and rated by individual Board members. A consolidated listing of rated needs will be prepared for further Board consideration. The Board will then reduce the list by combining individual statements, by rejecting individual statements as either not adequately developed or as representing research already in progress or completed, by changing the project concept and/or type of work to be done (e.g. synthesis, pilot project, feasibility study, phased project, etc.) as deemed appropriate by the Board. The Board then will rank them as individual statements of need and/or as groups of statements. To assist in developing its rankings, the Board may consult with others, including agency staffs, and/or request assessments of individual proposals. Votes may be submitted by proxy for the project ranking if an individual board member and their alternate are unable to be present.

In rating needs, the Board will consider:

- If the project is appropriate for research
- Iowa interests and requirements
- If the topic is more suited to other agendas, such as national programs (e.g. NCHRP, FHWA, multi-state pooled funds, etc.) and/or other opportunities to collaborate in sponsorship with others
- If the project can be adequately funded so as to provide an opportunity for success
- The opportunity for success and risk of failure
• The potential return on investment for successful projects
• The significance of the problem to Iowa practice and any potential solution that may emerge
• The likelihood of implementation
• The availability of needed resources to support the work
• The type of project (e.g. synthesis, phased work program, feasibility study, pilot project, etc.)

Communicating the Program

The Board will advise potentially interested groups and individuals, including those who have previously requested the information, of its annual review process and schedule. It will annually publish and circulate a statement of needs and interests to these and others it may identify as interested. The communication will include the anticipated schedule for establishing the Board’s annual program and for soliciting research proposals in response to the program.

Soliciting and Receiving Proposal

The Board may periodically solicit and accept competitive proposals on selected individual research needs. In doing so, deadlines for response and minimum requirements for content may be established as appropriate. Those who propose may be directed to incorporate specific provisions, activities or other elements in a proposal for it to be considered responsive.

The Board may invite one or more parties to individually or jointly submit project proposals for funding consideration. This may include providing direction to individuals or organizations to collaborate with other selected parties, including but not limited to other sponsors or researchers.

Selecting Proposals/Projects for Sponsorship

The Board will rank written proposals received under either process for possible funding recommendations. In doing so, the Board may direct a change in any aspect of a proposal as a condition of providing a funding recommendation. The Board may choose to recommend partial or full funding, or funding in phases based upon successful completion of elements of a proposal.

The Board will develop an overall program of recommended projects for funding based upon estimates of funding available and expected to be available. It will initially reserve a portion of the funds it anticipates will be available during any fiscal year for possible later consideration of additional projects, including for consideration of projects of individual merit not otherwise developed through the Board’s strategic program and solicitation process. Funds initially reserved may later be recommended
for projects/proposals from the prioritized list of projects if not otherwise recommended for commitments. The Board will include such decision points in its annual schedule of activity.

Considerations for sponsorship may include, but are not limited to: available funds, project budget needs, balance in the types of work to be supported (synthesis, feasibility studies, etc; types of projects), benefits expected from successful accomplishment, the potential for early payback, partnering opportunities and arrangements, opportunities for financial participation by others, and the urgency of the need.

Problem statements to the Board will require concurrence of the majority of the Board present for approval. Proposals to the Board will require concurrence from eight Board members for approval. Alternate members to the Board will vote only in the absence of their regular member. In instances where there is a group of competing proposals on a particular topic, a single proposal will be selected from the group before going to a vote for approval of a proposal.

Board members with a conflict of interest in a particular project will abstain from all discussion and voting related to that project. A conflict of interest is defined as the following:

a) Situations in which IHRB members may have the opportunity to influence the Board decisions in ways that could lead to personal gain or give improper advantage or gain to a member of an employee’s immediate family, employer, or organization; or

b) Situations in which financial or other personal considerations may compromise, or have the appearance of compromising, an IHRB member’s professional judgment in evaluating research proposals

Board meetings will be open to all visitors including those with proposals under consideration by the Board. However, those with competing proposals under consideration by the Board will abstain from participation in any discussion. In instances where a proposal is the sole response to a particular topic solicitation, questions and clarifications may be asked of the principal investigator either verbally or in written form, as necessary.

All proposals will be reviewed as submitted, with no modification by the proposing party allowed after the final submission deadline.

B. Projects of Merit Not Previously Identified

The Board will consider other projects of merit, not identified in the annual list of needs. The Board recognizes that, on occasion, worthwhile priority projects may be identified by individuals or organizations not initially included in the strategic program and the list of prioritized projects for the Board’s
annual review. The Board will maintain an open-door opportunity for receipt of such unsolicited written problem statements for further consideration and possible funding.

A screening process will be used in evaluating such problem statements, including but not limited to the following considerations:

- The timing criticality of the problem statement vs. the opportunity to refer the proposal to next year’s program development using the program setting process
- The limited time available to develop the project with potential co-sponsorship or others
- The influence of schedules set by others, (e.g. announcement of funding available by other sponsors, solicitations from other sponsoring organizations, etc.) whose schedules are not compatible with the Board’s
- How the project would rank if incorporated into the list of prioritized project topics.
- The relationship of the project to a prior completed IHRB project or an ongoing IHRB project.

All projects not identified in the annual list of needs will be subject to a two-stage approval process.

- A problem statement will be submitted to the board for review. All problem statements will meet the general guidelines of Attachment A. Problem statements are not required to include the level of detail that is required for proposals, but they should include enough detail to adequately describe the problem to be addressed by the Board. An estimate of funding is recommended, but a detailed budget is not required for problem statements.

To be considered, individual problem statements must be evaluated and recommended in the same manner, as those identified through the strategic program process. The Board may choose to recommend a proposal be developed from the problem statement, to modify the scope and redirect a proposal, and/or to defer the problem statement for further consideration during its annual review process.

- Upon approval of a problem statement, the Board will request that a proposal be developed for the project and brought before the Board for review. The proposal will meet all of the requirements of Attachment A
and must be evaluated and recommended in the same manner, as those identified through the strategic program process.

C. Continuation of Previous Projects

Special consideration will be given to problem statements generated from continuation of prior projects. Continuation projects will not be required to have been included in the priority needs generated by the Board in the development of its research and engineering development program.

Problem statements will be evaluated on their merit based on the needs of the Iowa transportation community. The Board’s approval of previous projects will not ensure that the continuation project will be funded. Continuation problem statements may be approved for the development of a proposal, modified, or rejected at the time that they are received or they may be tabled for inclusion in the next year’s research and engineering development program.

D. Pilot Projects for Novel or Innovative Ideas and Fundamental Advances

A primary goal for the Iowa Highway Research Board is to encourage innovation and longer-range technological advances in the field of transportation. To support such innovation and advances, the Board encourages individuals or groups to submit to the Board proposals requesting seed funding for projects that are innovative or explore longer-range advances in aspects of highway transportation.

These projects may be “high-risk, high-reward” in nature, or they may be basic research which can lead to new fundamental insights that in due course will result in substantive advances in design, construction, instrumentation and monitoring, modeling, or management of highway related projects. The proposing individual or group must demonstrate in their problem statement that their idea is truly innovative or addresses an important fundamental issue, and has the potential to bring about substantial benefits to transportation in Iowa. These projects are not necessarily expected to lead to results of immediate use in highway engineering, but produce results holding promise for further useful development. Proposals will be solicited by an annual call for proposals.

3. Proposal Format and Content

The Board will require a standard for proposal format and content (see Attachment A), including provisions for:

- Project Title
- Literature review, including a search of research in progress if appropriate
- Statement of the problem to be solved
- Outline of the objectives the research effort is to accomplish
- Proposed research outlining the work program including any recommended changes in project objectives to be submitted by person proposing
- Evaluation of the performance in relation to the project objectives
- Detailed budget including staffing and equipment needs
- Research period
- Reporting requirements
- Background and experience of Principal Investigator(s)
- Proposals for partnering with and/or funding by others
- Implementation plans
4. Managing and Reviewing Project Reports and Results

Completed reports will be presented to the Board by project staff and principal investigators. The Board will recommend final action of such reports and any other follow up actions, such as: close the project; additional research; more work on the current project; implementation activities, including possible technology transfer activities; reworking of the project, etc. The Board may also establish a schedule of regular progress reports for individual projects as appropriate; and may call for periodic reports on work in progress as appropriate.

A final draft of the final report will be presented to the Executive Secretary for review of the format, content, and contract compliance before printing of final copies.

The Board will adopt guidelines for final report content and format. Each final project report will be submitted in electronic-compatible form, or as specified in the project contract. The Board Secretary will cause the report to be published in various media and distributed, as appropriate.

5. Supporting Implementation

Each year, the Board will reserve a portion of the funds available to it to support research implementation. Methods used may include information publication and exchange, demonstrations, conferences and workshops, supported travel for presenting results, and other methods.

The Board will maintain an accessible list of prior projects. The list of projects will include project title, keywords, and a one-page abstract describing the project.

- Technical Advisory Committee (TAC) Responsibilities for Implementation

  The TAC is made up of people with a knowledge base and experience in the area of research under study. As such, the TAC is in the best position to recommend how implementation should be undertaken successfully.

  The basics of research implementation are described above. Specifically, the Principal Investigator under the guidance of the TAC, will be asked to provide a brief description to the Board at the end of the research project that includes the following:

  - The form in which the research results are to be reported – i.e. the final product(s).
  - Specifically, who or what office/entity should be informed of the results.
  - What standards, specifications and/or practices will be affected and what specific changes should be made.
• Identify any institutional issues, including resource requirements, administrative rules, or laws that might need to be addressed for successful implementation.

6. Statewide Transportation and Innovations Council

The Iowa Highway Research Board will serve as the Statewide Transportation Innovation Council (STIC) for the State of Iowa. See Attachment D for further details.
The following instructions are intended to help researchers prepare a proposal that will be acceptable for review by the IHRB. Proposals must comply with these requirements to be considered by the IHRB.

The research proposal should be prepared in a manner that defines the research problem and objectives, provides a detailed work plan for achieving the objectives, and indicates how the research findings are expected to be used. Proposals should provide a straightforward description of the researcher's ability to meet the stated objectives.

A technical advisory committee (TAC) will be assembled by the project Principal Investigator (PI) and the Iowa DOT research Staff prior to the start of each project. The project TAC will meet with the project PI(s) quarterly, or at an appropriate interval determined by the TAC at the start of the project, to review the project progress and to guide the research as necessary.

**Title Page**

The proposal cover should include the following information:

- Proposal title (from RFP)
- Research project number (from RFP);
- "Submitted by" name, institution, address, e-mail address, and phone and facsimile numbers of proposer
- "Submitted to Operations Research Engineer, Iowa Department of Transportation, Research and Technology Bureau, 800 Lincoln Way, Ames, Iowa 50010"
- Proposal date

**Table of Contents**

On a separate page, list the proposal's sections and page numbers.

**Problem Statement**

Concisely express your understanding of the problem presented in the RFP. Do not simply repeat the wording of the RFP, but rather demonstrate your own insight into the problem.
**Background Summary**

Include background information on the research topic. Summarize the findings of a preliminary literature search and state the relationship of the proposed study to prior research. The summary should reveal your understanding of underlying principles and should clearly express your appreciation of the problem.

The importance of the background summary should not be underestimated. A comprehensive summary ensures that all aspects of the research topic have been adequately considered so new research can build upon prior work rather than duplicate it.

**Objectives**

State, in order, each of the study’s technical objectives as it is cited in the RFP. Describe how each objective will be accomplished in the course of the research. Any deviations from the objectives listed in the RFP must be explained and justified.

**Research Plan**

Describe how the objectives will be achieved through a logical and innovative plan. State, in order, each task as it is cited in the Request for Proposal. Describe in appropriate detail how each task will be performed, and how each task contributes to accomplishing the study’s stated objectives. Any deviations from the tasks listed in the RFP must be explained and justified.

The plan should also describe the technical basis of the research. Describe the following, as appropriate:

- Principles or theories to be used
- Significant variables to be tested
- Analytical and statistical procedures
- Experimental and testing procedures
- Evaluation criteria
- Inspection and survey methods
- Controls to be used
- Material or procedure development

The plan should be complete, providing the greatest level of detail that the researcher's understanding of the problem permits.

Describe the facilities available to accomplish the research. Indicate equipment necessary to completion of the research and specify any restrictions on its use. Specify any equipment that is necessary but not currently on hand. If additional equipment is to be purchased with project funds, identify it in the budget estimate.
Products

List the products that will be delivered during the research project. Deliverables might include:

- Reports
- Computer programs
- Manuals
- Physical models
- Photographs
- Data bases
- Video or other audio/visual materials

Unless directed otherwise in the RFP, always include the following items as products:

- Quarterly progress reports to the TAC
- Draft final report
- Final report
- Executive summary

Electronic copies (PDF or Microsoft Word format) of the final report are required unless permission is specifically granted otherwise.

Implementation/Technology Transfer

Describe how (in general) Iowa cities, counties, or the Iowa DOT can apply the anticipated research results to improve their practice.

- Describe the form in which the research findings may be reported, such as a mathematical model, a laboratory test procedure, or a design technique. Describe these results in terms of the practicing engineer or administrator.

- State who would logically be responsible for applying the research results, such as the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), Iowa cities and counties, or the Iowa DOT and particular offices within Iowa DOT.

- Identify specific standards or practices that might be affected by the research findings, such as AASHTO or Iowa DOT specifications, policies and procedures, legislation, and funding or staffing requirements.

- Identify institutional issues, including resource requirements, administrative rules, or laws, that might need to be addressed for successful implementation.

If findings will not be suitable for immediate application at the conclusion of the research project, indicate what further work might be necessary.
The PI, under the guidance of the TAC, will ensure that the final report has an implementation section that specifically meets the above requirements.

**Benefits**

Identify potential benefits expected from the research. Describe how the research results can be used, and by whom, to improve transportation practice. Possible benefits include:

- Cost savings
- Increased safety
- Improved service
- Improved procedures

To the extent possible, describe how these benefits can be measured and their value can be determined after the study results are put into practice.

**Time Schedule**

Provide a bar chart or other graphical presentation illustrating the scheduling of the major research tasks (Table 1). Indicate the number of months allocated to each task. Always allow twenty (20) days for Iowa DOT review of draft reports.

<table>
<thead>
<tr>
<th>Task</th>
<th>Month 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Field Surveys</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Literature Review</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Field Tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Observe Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Cost Analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Develop Recommendations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Prepare Final Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Present Findings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Staffing**

Include pertinent background information for principal investigators and other team members significantly participating in the project. Provide specific information relating to their project responsibilities and to the value added to the project due to their participation. Support personnel may be identified by classification. Describe how academic, professional and research experiences relate to the project. Include a summary of past accomplishments in the same or closely related problem areas.
If subcontracting is necessary, include subcontractors' key personnel and support staff in the proposal. Clearly identify subcontractors' involvement. Describe current commitments to other work in sufficient detail to permit assessment of the researchers' ability to meet the proposal's commitments.

**Iowa DOT or Local Jurisdiction Involvement**

Describe any assistance required from Iowa cities, counties, or the Iowa Department of Transportation. Include such items as:

- Traffic control
- Construction
- Highway maintenance
- Drilling and sampling
- Access to transportation facilities
- Access to records or databases
- Interviews
- Material tests

Quantify the required level of effort as fully as possible. Any expected participation from Iowa DOT staff or resources must be approved by the responsible office in writing and submitted as part of the proposal document.

**Budget**

Show the estimated cost for the entire research project. If the proposal includes effort by subcontractors, a similar budget table should be included for each.

A breakdown of all travel costs must be identified separately and a detailed explanation of all travel costs must be provided.

Tuition is not an allowable budget line item.

The amount indicated as “Estimated Funding” on the RFP represents what Iowa Highway Research Board feels the research topic merits and what level of funding should be necessary to complete the work. Proposers should set the scope and depth of study accordingly.

Proposals responding to the RFP should respond to the identified budget and project goals. Additional project tasks, beyond those outlined in the solicitation, may be identified by the principal investigator if deemed useful in improving the general objective of the project. All additional tasks and budget items associated with them will be clearly identified in the proposal as extra work and will be shown separate from the project tasks and budget items associated with the solicitation’s objectives. Because of budget constraints, additional funding may not be available. No budget extensions should be anticipated.
Name of Principal Investigator:
Research Proposal Title:

REVIEWER’S EVALUATION OF THE PROPOSAL
Iowa Highway Research Board (IHRB) Program

Suggested Evaluation Techniques

1. Read the solicitation for the IHRB project.
2. Read all parts of this evaluation form. If questions arise, call the Iowa DOT Operations Research Engineer at 515-239-1447. Read the proposal.
3. Fill out the evaluation form, taking into account each of the considerations listed under each evaluation category.
4. Prepare to support your ratings that address the evaluation process.
5. This document is intended to be an aid to the reviewer during the proposal evaluation process. It will be used only for that purpose and will not be included in the project files.

Rating Summary: P – Poor, F – Fair, G – Good, VG – Very Good, E – Excellent

A. SCIENTIFIC AND TECHNICAL MERIT AND FEASIBILITY OF THE PROPOSAL

<table>
<thead>
<tr>
<th>P</th>
<th>F</th>
<th>G</th>
<th>VG</th>
<th>E</th>
</tr>
</thead>
</table>

CONSIDER

• Is the proposal responsive to a research topic in the current solicitation?

• Does the research have strong professional, scientific or technical merit? Potential for achieving quality results? Is the technical approach innovative?

• Is the literature review relevant, adequate and timely?

• Is the proposal well written in a technical sense?

• Do the investigators display an in-depth awareness of the problem?

• Will the research produce revolutionary or evolutionary change or significant improvement?

• Does the proposal contain a detailed description of the Phase I R&D plan, what will be done and how the R&D will be carried out?

• Does the proposal discuss the significance of the Phase I effort in providing a foundation for a possible Phase II effort?

• Does the proposal discuss plans or prospects for implementation of the research or R&D results?

Comments in Support of Rating:
B. THE ADEQUACY OF THE WORK PLAN AND APPROACH

<table>
<thead>
<tr>
<th>P</th>
<th>F</th>
<th>G</th>
<th>VG</th>
<th>E</th>
</tr>
</thead>
</table>

**CONSIDER**

- Is the management approach sound?
- Are the program plan, work tasks and work schedule clearly stated and adequate?
- Does the proposal discuss interaction and/or coupling with the people or groups who have the problem?
- Is the probability of achieving successful results high?
- Does the proposal discuss the process of research results implementation / dissemination?

Comments in Support of Rating:

C. QUALIFICATIONS OF THE INVESTIGATORS TO CONDUCT THE PROPOSED RESEARCH

<table>
<thead>
<tr>
<th>P</th>
<th>F</th>
<th>G</th>
<th>VG</th>
<th>E</th>
</tr>
</thead>
</table>

**CONSIDER**

- Are the credentials of the principal investigator valid for the particular topic that is proposed for the study?
- Do one or more of the investigators have a past history of achievement in the research topic?
- Do all of the investigators have a demonstrated expertise in some disciplinary field?
- If multidisciplinary, do the team members have a good disciplinary balance?
- Do each of the investigators have a background of successfully completed research projects in which the results have been utilized?

Comments in Support of Rating:
D. ADEQUACY OF SUPPORTING STAFF AND FACILITIES

Consider

• Is sufficient technical staff assistance available to the principal investigators?

• Do the professional members of the team other than the principal investigator complement the team in terms of expertise, experience and competence?

• Does the research team have all the necessary facilities, equipment, and data to conduct the research?

• Does the proposal have expensive items of equipment which must be purchased? Rented? Leased?

Comments in Support of Rating:

E. TECHNICAL REVIEW OF COST PROPOSAL

Consider

• Is the work compatible with the budget?


• Are the labor categories proposed compatible with the proposal? Identify categories required/not required.

• Are the labor hours for each category adequate to complete the proposed effort? Identify number of hours required/not required for each category.

Comments in Support of Rating:

OVERALL RATING OF THE PROPOSAL

Major Strengths of the Proposal

Major Weaknesses of the Proposal
This sheet is to be returned to the Iowa DOT Operations Research Engineer. The comments on this summary will be shared with the Principal Investigator who submitted the proposal. Please answer the questions as completely as possible so that the information may be used in the preparation of future proposals to the IHRB.

**OVERALL RATING OF THE PROPOSAL**

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>F</th>
<th>G</th>
<th>VG</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What Are The Major Strengths Of The Proposal?

What Are The Major Weaknesses Of The Proposal?

What Information Was Lacking That Would Improve Future Proposals?

Was This The Proposal That You Selected For The Project Topic?

Please Include Any Additional Comments (Add Additional Sheets As Necessary)
Attachment C
Iowa Highway Research Board
Calendar of Activities

January (NO MEETING)
Receive program input from interested individuals, focus groups and other organizations

February
Comments from Representatives who attended the TRB Annual Meeting
Prioritize project list / select projects to solicit proposals for the following fiscal year
Solicit project proposals based upon strategic research needs program
Solicit topics for STIC funding consideration

March
Finalize RFPs for 2nd solicitation for the fiscal year
Solicit proposals for Pilot Projects for Innovative Ideas
Select projects for STIC funding

April

May
Deadline for receipt of specific project proposals from 2nd solicitation (prior to meeting)
Review/Select project proposals from 2nd solicitation for the fiscal year

June
Develop/Finalize RFPs for 1st solicitation for the fiscal year

July
Deadline for receipt of specific project proposals from 1st Solicitation (prior to meeting)
Review/Select proposals from 1st solicitation for the fiscal year
Review proposals received from Pilot Projects for Innovative Ideas solicitation

August (NO MEETING)

September

October

November (NO MEETING)

December Meeting
Election of Chair / Vice-Chair
Announcement of new member appointments for the following year
Review the Business Plan and make changes as necessary
Annual calendar is reviewed/updated as appropriate

NOTE:
Emergency need and immediate opportunity project problem statements will be received throughout the year and considered at the next appropriate Board meeting. Project problem statements and proposals are to follow the format and content guidelines noted in the Board’s Business Plan and supplemental guidelines. Research project reports will be received and reviewed throughout the year as appropriate and as individually scheduled.
The Board does not meet during the months of January, August and November.
Attachment D
Iowa’s Statewide Transportation Innovation Council

The Iowa Highway Research Board (IHRB) serves as a liaison among the stakeholders represented by the membership, and provides a forum to discuss current and emerging issues in the transportation sector. A primary goal for the IHRB is to encourage innovation and longer-range technological advances in the field of transportation. To support such innovation and advances, the Board encourages individuals or groups to submit to the Board proposals requesting funding for projects that are innovative or explore longer-range advances in aspects of highway transportation.

The IHRB formally adopts this resolution and agrees to serve as the Statewide Transportation Innovation Council (STIC) for the State of Iowa.

The IHRB recognizes that while serving as the STIC for Iowa, and in addition to their traditional responsibilities, the board’s role includes evaluating, selecting, and implementing innovations. The IHRB will provide leadership to promote and support rapid deployment of selected technologies, tactics and techniques. As Iowa’s STIC, the IHRB will focus on those innovations that show high potential for implementation in Iowa.

The IHRB STIC will:

- Evaluate and select innovations including, but not limited to, Every Day Counts (EDC), AASHTO Technology Implementation Group (TIG), and others.
- Recommend projects for the Advanced Innovation Deployment (AID) and STIC Incentive funds.
- Work in conjunction with Federal Highway Administration, Iowa Division Office, Iowa DOT, Local Public Agencies, and the highway sector in selecting EDC initiatives that the State of Iowa will pursue.
- Decide the number of innovations to adopt and set the pace for implementation by establishing a baseline and setting a target goal. The IHRB will monitor performance metrics to ensure priority initiatives move into standard practice.
- Will share information with all state stakeholders as part of the implementation of innovations through meetings, workshops and conferences.

This resolution was approved by the board on May 30, 2014.