

# **Electronic Construction Collaboration—Phase 1**

**Final Report  
June 2009**

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# **ELECTRONIC CONSTRUCTION COLLABORATION SYSTEM—PHASE I**

**Final Report  
June 2009**

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## **EXECUTIVE SUMMARY**

Bridge construction projects are becoming increasingly complex as the demand for context-sensitive solutions, aesthetic designs, and accelerated bridge construction becomes more prevalent. In addition, the Iowa Department of Transportation (Iowa DOT) is entering a phase of design and construction of large border bridges, such as the I-80 (let 2008 for \$56 million) and US 34 bridges over the Missouri River and I-74 over the Mississippi River.

Compared to typical construction projects, these bridges generate more contractor Requests for Information (RFIs), Value Engineering (VE) proposals, Requests for Changes (RFCs), and shop drawings. Management of these submittals is a significant challenge for Resident Construction Engineers (RCEs) and other Iowa DOT staff. In addition, some submittals require cross-departmental and project consultant reviews. Commercially available software exists for managing submittals and project collaboration teams; in-house solutions may also be possible. Implementation is intended to speed construction submittal review time, reduce incidence of delay claims, and free up Iowa DOT staff from project management administrative tasks.

Researchers from Iowa State University (ISU) working with the Iowa DOT conducted a multi-pronged approach to identify a web-based collaboration solution for Iowa DOT bridge projects. An investigation was first launched to determine the functional needs of the Iowa DOT. Researchers sought to determine the current needs and practices of the Iowa DOT and other potential users of the collaboration solution. Researchers also needed to investigate what would promote or hinder the success of the proposed solution.

Concurrently, commercial solutions were evaluated to identify currently available functionality. Researchers then worked to determine if commercially available solutions met the Iowa DOT's functionality requirements. In many cases, commercially available solutions had capabilities beyond the functionality requirements identified by the Iowa DOT. Such excess functionality could be valuable but overlooked by potential users because they are unfamiliar with the capabilities of commercial solutions. Therefore, researchers also investigated these capabilities and considered them as possible additions to the list of functional requirements.

A comparison of required and available functionality was used to make a recommendation to the Iowa DOT for an electronic collaboration solution to be used on pilot projects. Successful utilization of the selected solution should serve as validation for the research and also provide lessons learned for future wide-scale implementation. Ultimately, this research will help provide the knowledge necessary for the Iowa DOT to successfully implement a long-term solution to assist all project participants in the management of Iowa DOT bridge projects.

To investigate the functionality required by the Iowa DOT for a web-based collaboration solution, interviews were conducted with users who would be affected by the proposed system. Interviews were conducted with Iowa DOT employees, consultants, contractors, and suppliers. Additionally, interviews were conducted with construction professionals from other construction sectors because these professionals had more experience with electronic collaboration systems

than Iowa DOT users. Finally, a survey was developed and carried out to learn how other state departments of transportation are progressing with respect to their collaborative practices.

Interviews were conducted in a relatively unstructured format. A questionnaire was developed based on research done by others, initial contacts with Iowa DOT personnel, and information on commercial solutions. The questionnaire utilized primarily open-ended questions so as to not limit the response of the interviewees and to obtain as much information as possible. On some topics, researchers also probed deeper to obtain additional information.

The comparison of commercially available software programs was accomplished by viewing demonstrations for a variety of solutions in order to obtain the information necessary to fill out a questionnaire for each solution. All of these questionnaires were then combined into a matrix to facilitate the comparison of the programs.

To develop a set of questions to evaluate commercially available solutions, an initial round of demonstrations was conducted to determine a baseline of functionality for commercially available solutions. The researchers then used the results of these initial demonstrations, interviews, Internet research, and criteria from other researchers to develop the set of questions. These questions were primarily closed-ended to facilitate a direct comparison between solutions. Using a broad range of tactics, researchers identified over 30 web-based collaboration solutions. This list was deemed to be too large for an in-depth analysis of each solution, so prior to conducting the in-depth examinations, the researchers short-listed a dozen solutions that best met the Iowa DOT's requirements.

Based on the required functionality of the Iowa DOT, a number of solution attributes were determined to be critical for the pilot project. First, it was determined that the solution used for the pilot project should be used as part of a "software as a service" agreement. By having a vendor host the solution, the solution could be much more easily and rapidly deployed. The solution also needed to have the functionality to meet the Iowa DOT's four primary document types. These document types were contract documents, shop drawing submittals, RFIs, and meeting minutes. User-friendliness was also critical to a solution's success. A solution that did not present unnecessary functionality in a distracting way was deemed to be desirable. Additionally, features such as email alerts along with "dashboard" and "ball-in-court" features to alert users to new information or items requiring their attention were also deemed to be necessary. A workflow that preserved the Iowa DOT's current practices was also added as a requirement. Finally, a requirement was added that the solution needed to provide adequate data security for the Iowa DOT. Research showed that there were a number of commercially available solutions that met these requirements. Due to the quantity of solutions meeting the Iowa DOT's requirements, researchers didn't recommend a specific program for the Iowa DOT but recommended a category of solutions meeting these requirements. Ultimately, the Iowa DOT worked with ISU researchers to issue a Request for Proposals (RFP) in order to most objectively select the solution to be pilot tested.

In the second phase of this research project, a solution will be selected and implemented for two pilot projects. This solution should improve project success for all parties involved in the project by promoting accountability, increasing transparency, and decreasing the review time of

documents. By pilot testing a web-based collaboration solution, it is expected that the Iowa DOT will be able to learn valuable lessons that can be applied to future projects. This should help the Iowa DOT become better prepared to manage future complex bridge projects. Finally, the results of this project could assist other government agencies in the State of Iowa move toward web-based collaboration on their construction projects.



## **INTRODUCTION**

### **Problem Statement**

Bridge construction projects are becoming increasingly complex as the demand for context-sensitive solutions, aesthetic designs, and accelerated bridge construction becomes more prevalent. In addition, the Iowa Department of Transportation (Iowa DOT) is entering a phase of design and construction of large border bridges, such as the I-80 (let 2008 for \$56 million) and US 34 bridges over the Missouri River and I-74 over the Mississippi River.

Compared to typical construction projects, these bridges generate more contractor Requests for Information (RFIs), Value Engineering (VE) proposals, Requests for Changes (RFCs), and shop drawings. Management of these submittals is a significant challenge for Resident Construction Engineers (RCEs) and other Iowa DOT staff. In addition, some submittals require cross-departmental and project consultant reviews. Commercially available software exists for managing submittals and project collaboration teams; in-house solutions may also be possible. Implementation is intended to speed construction submittal review time, reduce incidence of delay claims, and free up Iowa DOT staff from project management administrative tasks.

### **Research Objectives**

Researchers from Iowa State University (ISU) working with the Iowa DOT conducted a multi-pronged approach to identify a web-based collaboration solution for Iowa DOT bridge projects. An investigation was first launched to determine the functional needs of the Iowa DOT. Researchers sought to determine the current needs and practices of the Iowa DOT and other potential users of the collaboration solution. Researchers also needed to determine what would promote or hinder the success of the solution.

Concurrently, commercial software programs were evaluated to identify commercially available functionality. Researchers then worked to determine if commercially available solutions met the Iowa DOT's functionality requirements. In many cases, commercially available solutions had capabilities beyond the functionality requirements identified by the Iowa DOT. Such excess functionality might be valuable but overlooked by potential users because they are unfamiliar with the capabilities of commercial solutions. Therefore, researchers also investigated these capabilities and considered them as possible additions to the list of functional requirements.

A comparison of required functionality and available functionality was used to make a recommendation to the Iowa DOT for an electronic collaboration solution to be used on two pilot projects. Successful utilization of the selected solution on a pilot project should serve as validation for the research and also provide lessons learned for future wide-scale implementation. Ultimately, this research will help provide the knowledge necessary for the Iowa DOT to implement a long-term solution to assist all project participants in the management of Iowa DOT bridge projects. Other government agencies in the State of Iowa could also use the results of this research in their own implementation of web-based collaboration solutions on their projects.

## **Implementation of Solutions**

To initially test the functionality of web-based collaboration solutions, two pilot projects were launched prior to the formal investigation of the Iowa DOT's functional needs. First, a webpage on the Iowa DOT's website was launched for the I-80 bridge project in Council Bluffs. This website served as a place where contract documents, working drawings, and meeting minutes were posted. Following this project, a project website was launched for the Jackson 108 bridge project. This project utilized an FTP site along with the Google Groups application to create a collaborative environment for the project participants. Both of these projects demonstrated some of capabilities for collaborative solutions and the need for a more robust, full-featured solution.

Following the conclusion of the investigation of functional needs and commercially available options, a Request for Proposals (RFP) was released for a "software as a service" (SaaS) solution, or a solution hosted by the vendor as part of an on-demand agreement, to be used on a number of pilot projects. The goal was to implement a robust, full-featured solution on a number of pilot projects in order to fully test the capabilities of web-based collaboration for Iowa DOT bridge projects. Additionally, lessons learned from these pilot projects can be applied to the development of a long-term collaboration solution for the Iowa DOT. The actual selection and implementation of the solution for pilot testing will occur in the fiscal year 2010 research period.

## **IDENTIFICATION OF FUNCTIONAL NEEDS**

### **Interviews**

To investigate the functionality required by the Iowa DOT for a web-based collaboration solution, interviews were conducted with users who would be affected by the proposed system. Interviews were conducted with Iowa DOT employees, consultants, contractors, and suppliers. Additionally, interviews were conducted with industry professionals from other construction sectors because these professionals had more experience with electronic collaboration systems than Iowa DOT users. A survey was developed and conducted to determine the processes of other state departments of transportation (DOTs). Also, contractors and consultants with more knowledge on this subject were interviewed to determine what they had found to be important.

Interviews were conducted using a relatively ad hoc format. A questionnaire was developed based on research done by other researchers, initial contacts with Iowa DOT personnel, and initial research on commercial solutions. The questionnaire utilized primarily open-ended questions so as to not limit the responses of the interviewees and to gain the most information. Researchers also expanded some questions at their discretion to maximize the knowledge gained from the interviewees. Appendix A displays the general format of the questionnaire. Appendix B provides a list of interviewees and their employers.

## *Iowa DOT*

Interviews of Iowa DOT personnel showed that few of them had any exposure to web-based collaboration solutions. After giving the interviewees a brief overview of typical web-based collaboration solution capabilities, most were very receptive to implementing one. Generally, most interviewees felt that a solution like this would help them considerably. Potential benefits that interviewees expected included improved turnaround time for submittals and RFIs, more accountability, easier tracking, better documentation, less paper, improved communication, and easier archiving of documents.

Concerns recognized by Iowa DOT personnel fell into two categories: user-friendliness and Internet connectivity. A widely identified possible stumbling block for successful implementation was a non-user-friendly solution. A collaboration solution should be sufficiently convenient so that people want to use it. Additionally, it is important that occasional users, such as subcontractors, are not so overwhelmed that they try to circumvent the solution. The second main concern dealt with the Internet connectivity of field offices. Slow download times from the Iowa DOT servers hinders the paperless transition. Connectivity is especially an issue with printing for the Iowa DOT; printing a 100-page document can take four hours in the Iowa DOT field offices due to how their networks are setup. Other concerns are that a solution will need to maintain the “look” of the Iowa DOT website and that security standards could make third party hosting difficult.

## *Contractors*

Interviews of prime contractors on the technical advisory committee showed a very positive response to implementing a collaboration solution. These contractors also had limited experience with collaboration solutions but were positive when discussing the possibilities. Advantages for the contractors include possibilities for less paper consumption, easier communication with subcontractors and suppliers, faster processing of submittals, and the potential to only have to submit one copy of each submittal. Additionally, incorporating a preloaded list of required submittals into a web-based collaboration solution would be very helpful. Concerns were mostly related to technological capabilities of contractors and user-friendliness. The general response was that most contractors who might need to use this solution would have the capabilities to use it.

## *Consultants*

Most of the Iowa DOT consultants who were interviewed had considerable knowledge about web-based collaboration solutions, including what solutions are available and how to best use them. One of the points emphasized by the consultants who were interviewed was that it is important to make sure that the selected solution is not unnecessarily complex. Solutions with unnecessary features are usually very difficult to use, especially for occasional users. One consultant cited an example of a collaboration solution that contractors were not comfortable in using, so they relied on clerks for all data entry. Additionally, it is important to specify not only that the solution will be used in the contract but also how it will be used. When setting up a solution, it is important to include the project management team in the discussions so that current

workflows and terminology can be incorporated into the solution. After the project is running, it is necessary to have someone take ownership of the solution to make sure that it is being used correctly and that participants are not working outside of the solution. The setup of the initial program can be quite involved, depending on the solution and modules used. However, once the solution is set up, maintenance is usually low, and it is typically easy to add new projects.

### *Suppliers*

During the interviews, suppliers indicated that they transmit most of their shop drawing submittals via postal mail. However, they indicated that they are comfortable with transmitting them electronically and believe it would be quite easy for them to use one of these systems. Some of the suppliers said it is actually easier for them to electronically submit shop drawings.

Only one of the suppliers interviewed did not currently have the technology required to electronically submit shop drawings. The supplier indicated that in order to electronically submit documents, which would not be a problem in the future, the equipment would need to be updated.

### *Other Construction Sectors*

The Facilities Planning and Management staff at ISU were interviewed to assess their experience with collaboration solutions. ISU has used the software program Centric to manage its projects for eight years and has been satisfied with the solution. That being said, it is open to considering that there may be a solution that is currently on the market that may better fit its needs. Some reported advantages of Centric include the fact that ISU personnel have found it is easy to keep internal “conversations” private and to manage user interfaces so that only certain users can see certain items (e.g., budget). Approximately two years ago, ISU encountered problems with insufficient bandwidth. Now that broadband service is more readily available to external users, bandwidth limitations have not been an issue. If ISU were to consider an alternative system, its decision makers would put a greater emphasis on ensuring solution compatibility with handheld computers such as Blackberries. Finally, unlike other organizations, ISU does not preload submittals because participants have found out that this action results in too many “unused” submittals that clog up the submittal log and make it difficult to find which submittals are actually outstanding.

To gain a broader perspective on ISU’s use of Centric, a contractor currently working for the university was interviewed. M. A. Mortenson Company is acting as the construction manager on the Hach Hall Chemistry Building being constructed on the university’s campus. At the time of interview, Mortenson had used Centric for three to four months to manage the project. Overall, Mortenson feels that the program works quite well. However, Mortenson has chosen to duplicate all of Centric’s documents in its own system. One of the reasons for this is due to the way Centric is setup; Mortenson is unable to turn an RFI document directly into a Change Order. The system is set up so only ISU employees can set up Change Orders. Because of this workflow, there is no way to track an issue in Centric from the time an RFI is answered to when the Change Order is created. This discontinuity in documentation has caused Mortenson to independently track all issues on its internal system so as to prevent an error in this transition phase between

documents. An additional problem for Mortenson is that it needs to have its own backup copy of data. In order to accomplish this, all documents are printed from Centric for filing.

Another commercial construction company that was interviewed was the Ryan Company. Ryan is currently in the final stages of implementing Meridian System's Proliance. This is an "Enterprise" solution that is used for tasks beyond just document management. Ryan's recent implementation of this system provides insight into the challenges of implementing one of the more complex electronic collaboration systems.

Beginning in early 2006, Ryan started searching for a new system for managing its finances and documents. The company spent most of 2006 evaluating the functionality of available systems before deciding on one in November 2006. The entire calendar year of 2007 was spent customizing the system. Finally, the system was rolled out during the first half of 2008.

Ryan's system has over 500 users, including approximately 150 project managers. To support the system, Ryan dedicated four full-time information technology (IT) specialists; some Ryan employees think they would benefit by having an additional four. All of the employees using the system received approximately one week of initial training, followed by ongoing training.

To obtain additional perspective from a company that has a well-established collaboration system, researchers interviewed an employee from the Weitz Company. Weitz has been using Prolog software for over 11 years to manage its projects; the software is used to manage issues such as RFIs and submittals and to track cost changes from Change Orders. Weitz has found that employees do not need any formal training in order to use Prolog because it is sufficiently user-friendly. While Weitz uses Prolog to manage its projects, it is not set up in a web-enabled capacity, and, therefore, RFIs and submittals are still transmitted via email or postal mail. Weitz has found that only about half of its subcontractors are comfortable with electronically managing these documents.

#### *Other State Departments of Transportation*

To find out what other state DOTs are using for electronic collaboration software, a survey was developed. The survey first asked if the DOT used an electronic collaboration solution. If it did, subsequent questions asked which solution was used, what projects it was used on, who entered the data, and who hosted the program. This survey was then sent out to all of the states. Of the 27 responses, 10 states reported they are currently using an electronic collaboration solution. Only three of the ten DOTs relied on people outside of their staff to enter data. Each of these three is currently in the process of developing and implementing its system. Because the systems are not up and running, limited system information was available from these DOTs.

The three DOTs that are currently implementing electronic collaboration systems for external use are Texas, New York, and the District of Columbia. All three are planning to use these systems on all of their projects, and they will be used primarily for document management. The Texas Department of Transportation is customizing FileNet by IBM for its own use, while the District of Columbia Department of Transportation is customizing SharePoint. The New York

Department of Transportation is in the process of implementing Contract Manager by Primavera. All three will be self-hosted.

**Table 1. State survey**

<b>State</b>	<b>Web-based Collaboration Used?</b>	<b>Used on All Projects?</b>	<b>Contractor Entry?</b>
New Mexico	No		
Oregon	No		
Wyoming	No		
South Dakota	No		
North Dakota	No		
Mississippi	No		
North Carolina	No		
Virginia	Yes	Yes	No
West Virginia	No		
Illinois	No		
Montana	No		
Arkansas	No		
Mass	No		
Alaska	No		
Hawaii	No		
Georgia	Yes	Yes	No
Vermont	No		
Minnesota	Yes	No	No
Kentucky	No		
Texas	Yes, Implementing Now	Yes	Yes
Kansas	Yes	Yes	No
Colorado	No		
D.C.	Yes, Implementing Now	Yes	Yes
New York	Yes, Implementing Now	Yes	Yes
Nevada	Yes	No	No
Ohio	Yes	No	No
Washington	Yes, Implementing Now	No	No

Responses from the survey and follow-up interviews with many of the DOTs yielded a broad range of information on the use of collaboration solutions. Some of the major concerns expressed by many of the DOTs using collaboration systems included the cost of the solution and how the solution interfaced with existing applications. Due to the variety of ways the DOTs are using collaboration solutions, it is difficult to make generalizations about the solutions.

The Wisconsin Department of Transportation (WisDOT) was interviewed due to its recent use of Primavera Expedition (now Contract Manager) to manage the Marquette Interchange. The use of

this system was supported by URS, Inc., a consulting engineering company. This system was not web-based, and WisDOT avoided connectivity problems by having a fiber cable installed at the jobsite along with an on-site server. Because this solution was not web-based and extensive training was required to learn the solution, clerks were employed to enter data into the system. On this \$800 million project, 12 people were required to manage and enter data into the system. Additionally, a technician reviewed the specifications and preloaded all of the submittal requirements into the system. Given the investments required, WisDOT indicated that it would only use Pimavera Expedition on projects with a construction cost of \$25 million or more.

WisDOT used Expedition for four tasks: management of change, issues, budget, and schedule. Due to the size of this project, the Federal Highway Administration required a very comprehensive management process to avoid errors and omissions, and this system helped to meet those requirements. Overall, WisDOT was very happy with Expedition and had no complaints. WisDOT found that the following capabilities of Expedition were helpful: linking issues and meeting minutes to RFIs and submittals, linking submittals to the schedule, and tracking correspondences.

### **Required Functionality**

Compiling the information from all of the interviews gave a broad range of information on the Iowa DOT's needs. Researchers worked to condense this information into a list of the functional needs for the Iowa DOT. In order to best incorporate the results of the interviews into the selection of a web-based collaboration solution, researchers sought to develop a concise list of needs that could easily be transferred into questions for the sales representatives of the potential solutions. Researchers accomplished this by determining the most important needs, the frequency of certain responses to certain questions, the experience of the interviewee, and the interviewee's potential level of involvement in the future system. As a result of this process, the following list of functional needs for a web-based collaboration solution was developed:

- Is an online web-based solution
- Is specifically designed to handle construction documents
- Able to hide comments on submittals
- Able to alter workflow of documents
- Able to work outside of solution and enter information later
- Does not have excessive features if they add to complication
- Able to work with available bandwidth
- Can be accessible with only an Internet browser
- Has "ball-in-court" feature
- Has a "dashboard" to show new and outstanding documents
- Able to meet Iowa DOT "look" and ADA requirements
- Able to mark up documents without original software
- Able to work with existing Iowa DOT software
- Able to allow customization to fit Iowa DOT terminology
- Able to send email reminders
- Maintains Iowa DOT workflow

- Has a search feature
- Has a document history that is accessible to users
- Allows documents to be linked together

After this list was created, it was validated by the project's technical advisory committee's review. Members on this committee consisted of Iowa DOT personnel, contractors, and consultants. This list of functional needs was then used as part of the comparison between the available functionality of commercial solutions and the required functionality for the Iowa DOT.

## **FUNCTIONALITY OF AVAILABLE SOLUTIONS**

### **Identifying Commercially Available Solutions**

To investigate which electronic collaboration solutions were commercially available, a comprehensive search was carried out. Researchers sought to develop a complete list of available solutions that covered the spectrum of available functionality. Solutions were identified by searching the Internet, speaking with experienced industry professionals, and reading journal articles. The initial investigation yielded over two dozen possible solutions. Further research has identified another two dozen solutions.

The investigation of solutions focused on identifying web-based collaboration solutions designed specifically for the construction industry. Key words such as "collaboration," "construction," "project management," and "web-based" were used. Internet search results, interviews, and publications were filtered to ensure the identified solutions met the minimum criteria. Researchers compiled a list of all of the identified programs for investigation. This list can be seen in Appendix C.

### **Categorizing Software Programs**

As researchers began to investigate commercially available solutions, they noticed some primary differences between solutions. Researchers grouped solutions by these differences prior to investigating the Iowa DOT's functionality requirements. By grouping the solutions, researchers were able to more easily short-list and later evaluate appropriate solutions. These groups helped researchers better match the required Iowa DOT functionality with available functionality.

Hosting is a primary differentiating factor between solutions. Typically, commercial solutions can be self-hosted by the owner or hosted by the vendor (Nitithamyong and Skibniewski 2004). For a self-hosted solution, the solution is hosted by the owner, and all of the information resides on the owner's system. In the vendor hosting option, the vendor hosts the solution, and all of the information is kept on the vendor's system. This arrangement is typically part of a SaaS agreement. Factors influencing an organization's hosting choice can include the existing IT infrastructure, timeframe for development, and the functional needs of the company (Chan and Leung 2004). In order to most effectively test a collaboration solution on a pilot project, the authors recommended using a commercially available solution in a SaaS agreement. This would

allow Iowa DOT personnel to test the solution on pilot projects with a minimal initial investment and start-up effort.

Two main functional categories existed in the identified solutions: an “Enterprise” category and a “Document Management” category. The “Enterprise” category includes software that will manage documents, schedules, and budgets. Although these programs have greater capabilities, they can be more complex for users. The programs in the “Document Management” category have been developed primarily to manage documents and construction administration. These solutions usually present less complexity to users than “Enterprise” solutions. Some programs fall in the gray area between these two categories because they do include some budget tracking (some users consider budget tracking to be linked to the “Document Management”), but the solutions do not have the level of customizability and functionality researchers associated with “Enterprise” solutions. For the pilot projects, researchers suggested that a “Document Management” system would most likely meet the needs of the Iowa DOT. These systems contain the functionality the Iowa DOT requires without added unnecessary functionality that could cost more and reduce user-friendliness. This emphasis on user-friendliness was deemed critical by the authors based on the responses of interviewees and also work done by other researchers (Nitithamyong and Skibniewski 2006). An “Enterprise” system could more than meet the Iowa DOT’s functional needs for a pilot project, but concerns with possible higher costs and challenges with the user interface may prevent such solutions from being preferred.

The licensing structure of a solution was another differentiating factor. The two most common ways to price a solution are a fixed cost for a project or a cost per license. A fixed project cost is often a fee paid based off of the total project construction cost. This can be represented by a percentage of the construction cost. For a document management system, a typical range is 1/8% to 1/4% of the project construction cost (see Appendix D). This sort of price structure is most often associated with SaaS software and usually allows an unlimited number of users for a project. The other option is a per license fee. This fee structure can be associated with licenses specific to each person or licenses that limit the number of users that can be logged into the solution at once. This structure is most often associated with self-hosted programs. For the Iowa DOT pilot projects, the fixed cost price method would be preferred. This would allow the maximum number of users to interface with the collaboration system in order to learn the most from the pilot project. Using a solution with a limited number of licenses may limit the number of project participants that can be directly involved in the web-based collaboration and the lessons learned for future projects.

The structure of the workflow of documents can vary greatly from solution to solution. Some solutions use a very rigid workflow where documents have a predetermined and unchangeable path they must follow. Other solutions have a very flexible workflow where the document creator chooses the document’s path. Along this path, users can reroute the document as necessary. Other solutions use a gatekeeper. In this setup, the gatekeeper controls the flow of all documents between the contractors and the owner or consultant. For the Iowa DOT, it was determined that a combination of these options would best preserve the current workflow, which was important as identified during the interview process. For the pilot project, researchers recommended that the RCEs act as the Iowa DOT gatekeepers; this would best preserve the existing Iowa DOT workflow and would provide a structure that would encourage RCEs to stay informed on project progress. Researchers also recommended that reviewers have the flexibility

to reroute documents in case they need to be reviewed by a person with greater expertise. The Iowa DOT does have a predetermined workflow for submittals, but since all of the submittals would be funneled through the RCE, a flexible workflow would allow the RCE to customize the workflow somewhat without sacrificing a reasonable amount of supervision by a knowledgeable Iowa DOT representative.

The amount of allowable customization varies from solution to solution. Some solutions allow significant customization so that the solution can interface with existing programs to automatically transfer information on budget, etc. to and from the solutions. Other systems only allow changing terminology on the user interface and reports. Typically, the larger programs that are self-hosted allow the largest amount of customization, while the SaaS solutions offer the least amount of customization. For the pilot project, a minimal amount of customization will be required. It would be beneficial to change terminology to maintain consistency with the current Iowa DOT practices. Some minor changes may also need to be made to the forms and workflow of the system. This amount of required customization is consistent with what is available from most SaaS solutions.

## **Review of Solutions**

With over two dozen programs identified during the initial investigation, it was necessary to narrow the list of programs that would be fully evaluated. The researchers worked to pare down the list of programs for evaluation to around one dozen to ensure that the evaluation of the remaining collaboration solutions would be comprehensive. The researchers identified which programs initially seemed to best meet the Iowa DOT's needs. This initial evaluation was done by reviewing vendor websites. Solutions that were not specifically geared for the construction phase of projects were eliminated. Additionally, programs that did not meet the Iowa DOT's basic functionality needs identified during the interview process were eliminated. The result of this short-listing process was a list of 12 programs that initially met the Iowa DOT's requirements.

After a list of programs for further evaluation was developed, a review process was devised to objectively compare the short-listed solutions. Using the functionality requirements of the Iowa DOT along with a list of concerns about implementation and cost, a set of questions was developed to be used to review each solution. The questions were developed to be sufficiently objective to allow the most direct comparison between solutions. Prior to the evaluation of the short-listed solutions, demonstrations were conducted with four vendors to assist researchers in gaining a basic understanding of what was commercially available in order to develop questions that would best compare the solutions.

In order to review of the 12 short-listed solutions, researchers observed web meeting demonstrations (with an audio connection provided by a simultaneous conference call) with each of the vendors. Vendors presented the functionality of their solution, and the researchers followed up with questions in order to complete the questionnaire. Each of the vendors was allotted an hour and was given similar prompts regarding the Iowa DOT's needs and the issues driving the project. Upon completion of all of the demonstrations, the questionnaires were

combined into one matrix to assist in comparing the solutions. This matrix can be seen in Appendix D.

An analysis indicated that many of the solutions were quite similar. Furthermore, multiple solutions appeared to meet the requirements of the Iowa DOT. In order to make the selection of the solution objective, the researchers chose to issue an RFP for the actual software selection for pilot testing. The RFP was developed by the researchers and the Iowa DOT and issued by the Iowa DOT. This process ensured that all vendors had an equal opportunity to submit a proposal for their solution to be selected for use on the pilot projects. Due to this decision, no recommendation was made for a specific solution based on the review process.

## **LIMITED-SCALE PILOT PROJECTS**

### **I-80 Project**

The I-80 bridge replacement project in Council Bluffs (project number NHS-080-1(318)0—11-78) is one of the largest bridge projects the Iowa DOT has recently managed. The size and complexity of this project generated more shop drawing submittals and RFIs than the Iowa DOT typically manages. Due to the large number of submittals, the Iowa DOT needed to develop a method to track the project documents different from the typical method of tracking through email. In an attempt to address this challenge, the Iowa DOT IT Division developed a project website for this bridge.

The project website was a page built on the Iowa DOT's website. This page required users to log in with a password-protected user ID. The website served as a location for the Iowa DOT to post contract drawings, working drawings, and meeting minutes.

The website served as a worthwhile partial solution for the challenges presented by the I-80 bridge project, but it only allowed a minimal amount of collaboration. Users were able to obtain many documents and other useful information on the site, but they were unable to interface with the site or receive notification when new information had been placed on the site. Additionally, document could not be reviewed within the site; the site only allowed the posting of final drawings.

### **Jackson 108 Project**

To test some of the capabilities of web-based collaboration systems, a pilot project was launched on the Iowa DOT's bridge replacement project located at the US 52 crossing of ICE Railroad and Mill Creek in Jackson County (project number BRF-052-1(70)—38-49). This project is more commonly referred to as the Jackson 108 bridge. The Jackson 108 bridge was chosen for a pilot project due to the timing of its construction and the amount of submittals and collaboration required to construct it.

The system used for electronic collaboration was a combination of the Iowa DOT website and the Google Groups application. A publically accessible webpage for the Jackson 108 bridge was set up on the Iowa DOT website ([www.iowadot.gov/jackson108/plans.html](http://www.iowadot.gov/jackson108/plans.html)). This webpage posted the proposal, plans, addendums, special provisions, specifications, plan revisions, vibration monitoring reports, and meeting minutes for the project. The webpage also had a link to upload shop drawings via an FTP site. To facilitate further collaboration, the “Jackson 108” group was set up using the Google Groups application and linked to the Jackson 108 webpage. The Google Groups application created a password-protected place where project participants could upload RFIs for review and collaborate on project issues through online discussions.

For the Jackson 108 Bridge, the combination of the Iowa DOT website and Google Groups application served as a simple way to pilot a web-based collaborative environment. The two components of this pilot project did not require a large investment of time and allowed the project participants a simple way to electronically submit shop drawings. While the collaborative environment created for the Jackson 108 project worked well, there were many areas that required additional improvement. Some of the issues that arose on the project were the inability to keep conversations on Google Groups private, the lack of a “ball-in-court” or “dashboard” features to allow participants to know who was working on what, and the inability to control what emails participants received from Google Groups. Due to the inability to privatize conversations and other issues, not all of the submittals on the project were managed through the Google Groups application. Another issue with the FTP site was the amount of time Iowa DOT engineers had to spend transferring documents that had been uploaded to the website. The full process of uploading a drawing could take an Iowa DOT engineer 30 minutes. On large projects with considerable drawings and revisions, this administrative function would become very time consuming. Due to the amount of staff time required to service an FTP site, Iowa DOT personnel deemed this approach not feasible for future projects. Except for the aforementioned issues, so far the system developed for the Jackson 108 project, while limited in its capabilities, has worked well. However, the limitations of this system would make it impractical for a project where considerably more submittals and collaboration were required.

## **Lessons Learned**

The limited-scale pilot projects served as a good initial test of the possibilities of web-based collaboration. Users were shown to be quite receptive to the solutions. Some initial issues, such as participants working around rather than through the pilot solutions, have demonstrated the importance of user-friendliness and making sure that the selected solution is sufficiently convenient so that users want to use it rather than avoid it.

One of the benefits of the limited-scale pilot projects was having a single location where project information resided for all project participants. The websites also served as a place for posting documents that were too large for email. The Google Groups application showed the benefits of actual web-based collaboration along with the importance of users being able to easily determine what they need to do and the status of documents.

The biggest issue with the limited-scale pilot projects was the amount of user interface required to keep the site up to date. Iowa DOT personnel constantly had to manually transfer data and

update the site in order to keep it current. Additionally, while there were some notification emails from the Google Groups application as part of the Jackson 108 project, users had little control over the interface. Overall, these two projects showed the possibilities for web-based collaboration but also emphasized the need for a more full-featured, robust solution.

## **FULL-IMPLEMENTATION PILOT PROJECT**

### **Pilot Projects**

The full-implementation pilot projects will serve as a test bed for a full-featured commercial solution. Two pilot projects have been selected for testing with the possibility of one to two more projects being added at a later date. Lessons learned from the limited-scale pilot projects will be applied to these projects to continue to improve the quality of the solutions being offered to the project participants. The solution used for these projects will be selected using the previously described RFP process (further details will be provided below) and will be hosted in a SaaS agreement. The use of a full-featured collaboration solution on these projects will allow the researchers to investigate the use of comprehensive solutions for future projects. Lessons learned from these projects will assist the Iowa DOT in the implementation of long-term collaboration solutions. These pilot projects will also provide lessons for managing future large and complex bridge projects with web-based collaboration.

#### *Broadway Viaduct Bridge*

The US 6 Broadway Viaduct in Council Bluffs (Pottawattamie 210, project number BRF-006-1(113)—38-37) was selected as the first pilot project. This bridge will be a prestressed, pretensioned concrete beam bridge to be let in the winter of 2010, with a construction cost of approximately \$25 million. This bridge was selected because foundation and aesthetic details will create a significant number of shop drawings. The quantity of these documents will make this a desirable pilot project.

#### *Iowa Falls Arch Bridge*

The US 65 arch bridge over the Iowa River in Iowa Falls (Hardin 110, project number BRFN-065-6(42)—39-42) was selected as the second pilot project. This will be a steel arch bridge to be let in the summer of 2010, with a construction cost of approximately \$12 million. This project was selected because the non-standard design of the bridge will result in numerous submittals and RFIs. The quantity of these documents will make this project a good pilot project.

### **Request for Proposals**

To select a solution for the Iowa DOT to use on the full-implementation pilot projects, Iowa DOT personnel decided to issue an RFP. Researchers worked with the Iowa DOT to create the RFP in a manner so that the selection process was transparent and objective. The RFP was

devised to allow all interested vendors to participate and to clearly communicate the needs of the Iowa DOT to the vendors. Researchers assisted in drafting the RFP and the Iowa DOT issued it.

The RFP was developed by researchers to model previous RFPs issued by the Iowa DOT for technology services. Researchers consulted with Iowa DOT personnel in multiple departments for questions and content reviews. The RFP (Appendix E) outlined the scope of the project and listed the requirements of a web-based collaboration solution. At the end of the fiscal year 2009 research period, researchers had developed and issued the RFP but were still waiting for vendor responses.

### **Special Contract Provision**

To ensure that not only is a solution properly selected but that it is also properly used, a special contract provision was developed for use on the pilot projects. The researchers worked with existing Iowa DOT requirements and special contract provisions, other state contract specifications, and the results of interviews to create a special contract provision requiring the proper use of the solution by contractors, subcontractors, and suppliers. The researchers had contractors on the technical advisory committee review the special contract provision on behalf of the Associated General Contractors of Iowa to ensure that the contractors felt the special contract provision was reasonable. The special contract provision, which will be issued with the contract documents for both full-implementation pilot projects, will be reviewed by the office of contracts before it is issued this fall; a draft is included in Appendix F.

### **SUMMARY**

Work on the electronic construction collaboration project has focused on two main areas: determining the functional needs of the Iowa DOT and evaluating software and solutions that are currently available to meet those needs. Functional requirements have been determined by researchers by examining current issues faced by the Iowa DOT, identifying the needs of Iowa DOT project stakeholders, and learning how others are using collaboration solutions. The researchers have also worked to identify commercially available solutions and review them to determine the suitability of a commercial solution for use by the Iowa DOT on pilot projects.

Through this investigation, the researchers have recommended that a “Document Management” system set up as part of a SaaS agreement would best meet the Iowa DOT’s needs for pilot testing. This solution should be able to manage contract documents, shop drawing submittals, RFIs, and meeting minutes. Additionally, this solution should consider the workflow of the Iowa DOT, user-friendliness, and data security. Researchers working with the Iowa DOT have developed and issued an RFP to select the solution for use on two pilot projects.

Additionally, limited-scale pilot projects were launched on the I-80 bridge in Council Bluffs and the Jackson County 108 bridge using a combination of the Iowa DOT website and the Google Groups application. These pilot projects were successful in giving project participants an initial exposure to the concepts of electronic project collaboration but demonstrated the need for a more robust, full-featured collaboration solution.

Thus far, the results of this research have focused on the assessment of the Iowa DOT's functional needs and the selection of a solution for pilot testing. Future work will focus on selecting, implementing, and reviewing a solution for pilot projects. Ultimately, this project should prepare the Iowa DOT for implementing a long-term collaboration solution. It will also assist the Iowa DOT in the management of future complex bridges using a web-based collaboration solution. Finally, the results of this project could help other government agencies in the State of Iowa move toward web-based collaboration on their construction projects.

## **RESEARCH FOR PHASE II**

Research for the second phase of this project will focus on selecting and implementing a web-based collaboration solution for pilot projects. Researchers working with the Iowa DOT will begin by reviewing responses to the RFP issued during the first research period. The review team will short-list the vendors from the original responses and then make a decision on which solution to pilot test. Upon selection of the software, researchers will work with the Iowa DOT to customize and implement the software to best meet its needs.

Once the solution is operational, researchers will develop a user's manual for the pilot project participants to use. The researchers will also finalize the special contract provision developed during the previous research period so that it can be issued with the bid documents for both pilot projects. The researchers will then assist the Iowa DOT throughout the duration of the pilot projects occurring in fiscal year 2010 to ensure the solution is being effectively used. Both pilot projects will be evaluated through the use of both pre- and post-project surveys that will be administered to the project participants.

Finally, a formal evaluation of the Jackson 108 pilot project will be completed. A report will be submitted to the Iowa DOT detailing the results of the Jackson 108 pilot project. This report will include the results of a post-project survey with project participants to evaluate the success of the project. Researchers will work with the technical advisory committee to adjust future work on this project to best meet the Iowa DOT's needs.

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## **APPENDIX A. GENERAL INTERVIEW QUESTIONS**

### **Electronic Collaboration Interview Questions:**

#### General Information Questions:

1. What is your name and position?
2. What is your role on DOT bridge projects?
3. Do you have any experience with electronic collaboration systems?
4. If so, was it a web based system?
5. What mediums of communication do you rely on to get information (email, blackberry, etc)?
6. How much of your day do you have access to the Internet?

#### Electronic Collaboration System Proposal Questions:

1. What is your initial reaction to implementing a system like this?
  - a. Potential benefits
  - b. Disadvantages
2. How would a system like this specifically impact you?
3. Can you think of a time in the past when a system like this would have been very useful?
4. What areas does this have the potential to make the most impact (i.e., submittals, RFIs, etc)

#### Implementation Questions:

1. Are you familiar with DOT I-80 website, if so what are pro's/ cons of this website?
2. Can you make any recommendations for commercially available software?
3. Do you know of any compatibility issues that may arise during this project?
4. Based on your knowledge what size of project would warrant implementing this system for you?
5. Do you have any recommendations for a pilot project and how it should be implemented?

#### Other Questions:

1. Do you have any other questions or comments?



## APPENDIX B. LIST OF INTERVIEWEES

- George Feazell-Iowa DOT
- Orest Lechnowsky-Iowa DOT
- Kevin Merryman-Iowa DOT
- Kyle Frame-Iowa DOT
- Mark Brandl-Iowa DOT
- Tom Jacobsen-Iowa DOT
- Wes Musgrove-Iowa DOT
- Cherice Ogg-Iowa DOT
- Keith Norris-Iowa DOT
- Kim Powell-Iowa DOT
- Wayne Sunday-Iowa DOT
- Jim Webb-Iowa DOT
- Sam Mousalli-Iowa DOT
- Ahmad Abu-Hawash-Iowa DOT
- Dan Timmons-Jensen
- Mark Leusink-Cramer
- Steve Sandquist-United
- Robert Cramer-Cramer
- Doug Jackson-HDR
- Linda Rolfes-HNTB
- Peter Graf-LPA
- Andrews Prestressed
- DeLong Steel
- HiWay Products
- PDM Bridge
- Iowa State University
- M. A. Mortenson
- Ryan Company
- The Weitz Company
- Union Pacific
- New York Department of Transportation
- North Carolina Department of Transportation
- WisDOT
- Texas Department of Transportation
- Nevada Department of Transportation
- Ohio Department of Transportation
- Minnesota Department of Transportation
- District of Columbia Department of Transportation



## APPENDIX C. IDENTIFIED COMMERCIAL SOLUTIONS

Active project	<a href="http://activeproject.com/">http://activeproject.com/</a>
Attolist	<a href="http://www.attolist.com/">http://www.attolist.com/</a>
Bidx	<a href="https://www.bidx.com/">https://www.bidx.com/</a>
BIW	<a href="http://www.biwtech.com/">http://www.biwtech.com/</a>
Buildpoint (isqft)	<a href="http://www.isqft.com/">http://www.isqft.com/</a>
Buzzsaw	<a href="http://usa.autodesk.com/">http://usa.autodesk.com/</a>
Centric	<a href="http://www.centricsoftware.com/">http://www.centricsoftware.com/</a>
Citadon	<a href="http://www.sword-ctspace.com/">http://www.sword-ctspace.com/</a>
CMiC	<a href="http://www.cmic.ca/">http://www.cmic.ca/</a>
Construction Communicator	<a href="http://www.constructioncommunicator.com/">http://www.constructioncommunicator.com/</a>
Constructware	<a href="http://usa.autodesk.com/">http://usa.autodesk.com/</a>
Eadoc	<a href="http://www.eadocsoftware.com/">http://www.eadocsoftware.com/</a>
Ebuilder	<a href="http://www.e-builder.net/">http://www.e-builder.net/</a>
FACS	<a href="http://facsware.com/">http://facsware.com/</a>
Inquest	<a href="http://www.inquesttechnologies.com/">http://www.inquesttechnologies.com/</a>
Ironspire	<a href="http://www.ironspire.com/">http://www.ironspire.com/</a>
Newforma	<a href="http://www.newforma.com/">http://www.newforma.com/</a>
Omega PIMS	<a href="http://www.omega.no/">http://www.omega.no/</a>
Primavera Contract Manager	<a href="http://www.oracle.com/primavera/">http://www.oracle.com/primavera/</a>
Procore	<a href="http://www.procore.com/">http://www.procore.com/</a>
Project Center	<a href="http://projectcenter.com/">http://projectcenter.com/</a>
Project Dox	<a href="http://projectdox.com/">http://projectdox.com/</a>
Project EDGE	<a href="http://www.projectedge.com/">http://www.projectedge.com/</a>
Project Grid	<a href="http://projectgrid.com/">http://projectgrid.com/</a>
Project Solve	<a href="http://www.projectsolve2.com/">http://www.projectsolve2.com/</a>
Project Village	<a href="http://projectvillage.com/">http://projectvillage.com/</a>
Projectmates	<a href="http://www.projectmates.com/">http://www.projectmates.com/</a>
ProjectWise	<a href="http://www.bentley.com/">http://www.bentley.com/</a>
Prolog	<a href="http://www.meridiansystems.com/">http://www.meridiansystems.com/</a>
Skire	<a href="http://www.skire.com/">http://www.skire.com/</a>
Spectrum	<a href="http://www.dexterchaney.com/">http://www.dexterchaney.com/</a>
Submittal exchange	<a href="http://www.submittalexchange.com/">http://www.submittalexchange.com/</a>
Timberline	<a href="http://www.sagecre.com/">http://www.sagecre.com/</a>
TRACSepm	<a href="http://www.tracsepm.com/">http://www.tracsepm.com/</a>
Trimble Connected Community	<a href="http://www.trimble.com/">http://www.trimble.com/</a>
Tririga	<a href="http://www.tririga.com/home/">http://www.tririga.com/home/</a>
Viecon	<a href="http://www.bentley.com/">http://www.bentley.com/</a>
View Point V6	<a href="http://www.viewpointcs.com/">http://www.viewpointcs.com/</a>
Vista 2020	<a href="http://www.marketstreet.com/">http://www.marketstreet.com/</a>



## APPENDIX D. SOFTWARE REVIEW MATRIX

<b>Software Program</b>	<b>CMiC-Project Management</b>
<u>Functionality:</u>	<i>2.13.09</i>
How many functions are there?	Cost/Budget, Bidding, Document Management, Site Management
How much of the solution is document management?	1 of 4 functions
How is the workflow setup (i.e., rigid or flexible)?	Standard predetermined workflows
Can workflow easily be customized?	Yes, if the user has the correct security privilege
Is the system designed for multiple-party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Yes, through different security privileges for each tab
Can documents be linked to other documents?	Yes, RFIs, etc. can be linked to change orders
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Yes, users can email in and out of the system
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes, new items sent to users are bolded in menu
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	List attached to each document
<u>Technical:</u>	
How is the system hosted?	Self-hosted, SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	4–6 weeks to customize
How many DOT hours are required to implement?	Depends on customization
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	5 days for a DOT system "expert"
How many hours of training are required for occasional users?	2–3 hours

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**Software Program**

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**CMiC-Project Management**

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Technical (continued):

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*2.13.09*

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How is the solution priced?

For SaaS: \$20,000 to customize, \$200 mo/user for core users, \$100 mo/user for collaborative users

How is system support and maintenance set up?

On demand, included in license fee

What bandwidth have users found adequate?

Broadband or 3G

How are projects achieved, what file format?

For SaaS: archived by CMiC, also can export read-only csv file

To what extent can the system be customized?

Designed to integrate with many systems

What other programs can this system interface with?

Depends on customization

Does this system meet the DOT/ADA requirements?

Appears to meet ADA requirements

What changes would be required to go to full implementation?

Would probably want to move away from SaaS to self-hosting due to cost

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General:

---

What is the history of this system?

35 year old company, 20,000 users, A/E/C industry started as accounting software

Who are the primary users of this system?

A/E/C- Turner, Walsh, Beck

What have other users said about this system?

Other comments?

Heavy emphasis on financial  
Looks very powerful  
California Department of Transportation has been evaluating CMiC  
System is designed to easily integrate with other programs

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**Software Program**

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**attolist**

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Functionality:

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*2.24.09*

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How many functions are there?

Document Management, Site Management, Construction Administration

How much of the solution is document management?

1 of 3 functions

How is the workflow set up (i.e., rigid or flexible)?

Flexible, with one point person controlling the document flow

Can workflow easily be customized?

Point person can alters the workflow

Is the system designed for multiple party reviews?

Yes

**Software Program****attolist**Functionality (continued):

2.24.09

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Can users collaborate on issues using restricted conversations?	Yes, collaboration comments deleted when submittal is approved
Can documents be linked to other documents?	Yes, RFIs link as they are revised
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Yes, can email links to files in attolist
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes, Users can create reports to show any outstanding items
Can users manipulate which emails they receive?	Yes, only can control if weekly updates are emailed
How is the document history displayed?	Bottom of each document

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Technical:

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How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	1 month depending on customization
How many DOT hours are required to implement?	Very little, depends on customization
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	Couple hours formal training, 2–3 days of typical use
How many hours of training are required for occasional users?	Couple hours formal training
How is the solution priced?	Expect no more than \$1,000/ mo for one project, unlimited users, cost to customize varies
How is system support and maintenance setup?	On demand, included in license fee
What bandwidth have users found adequate?	Broadband or 3G
How are projects achieved, what file format?	Stored by attolist, also exported on DVD
To what extent can the system be customized?	Designed to work off the shelf, owner can do some customization
What other programs can this system interface with?	None
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements

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<b>Software Program</b>	<b>attolist</b>
<u>Technical (continued):</u>	<i>2.24.09</i>
What changes would be required to go to full implementation?	Nothing
<u>General:</u>	
What is the history of this system?	Unknown
Who are the primary users of this system?	Vertical A/E/C
What have other users said about this system?	
Other comments?	DWG changes are linked to an index sheet System has a large upgrade in May 2009 Has a nice search function Custom tracking reports looks very useful Would need to replace CSI submittal numbering with DOT system

<b>Software Program</b>	<b>Prolog/ Project Talk</b>
<u>Functionality:</u>	<i>2.26.09</i>
How many functions are there?	Cost, Purchasing, Document Management, Field Administration
How much of the solution is document management?	1 of 4 functions
How is the workflow set up (i.e., rigid or flexible)?	Flexible, send documents to groups or individuals
Can workflow easily be customized?	Yes
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Yes
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Can email out pdfs of documents in AIA format
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document

<b>Software Program</b>	<b>Prolog/ Project Talk</b>
<u>Technical:</u>	<i>2.26.09</i>
How is the system hosted?	Self-hosted, Vendor-hosted, or SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	2–3 Weeks
How many DOT hours are required to implement?	Depends on customization
How many DOT hours are required to start new project?	1/2 Day or less
How many hours of training are required for everyday users?	2–3 Day, more for Administrator
How many hours of training are required for occasional users?	1/2 day
How is the solution priced?	Per user per month, concurrent licenses; full-user or partial-user
How is system support and maintenance setup?	On demand, depending on agreement may be included in license
What bandwidth have users found adequate?	Broadband or 3G
How are projects achieved, what file format?	Exported on a DVD
To what extent can the system be customized?	Will work off the shelf, can be extensively customized
What other programs can this system interface with?	Depends on Customization
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	Move to self-hosting
<u>General:</u>	
What is the history of this system?	Over 12 years old, extensively used by the industry
Who are the primary users of this system?	A/E/C HDR, Weitz
What have other users said about this system?	
Other comments?	Uses Citrix

<b>Software Program</b>	<b>Projectmates</b>
<u>Functionality:</u>	<i>3.6.09</i>
How many functions are there?	Document Management, Construction Management, Contracts, Cost
How much of the solution is document management?	1 of 4 functions
How is the workflow set up (i.e., rigid or flexible)?	Flexible w/point person
Can workflow easily be customized?	Yes, can reroute documents
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Yes
Can documents be linked to other documents?	No
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Yes, can email out
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document
<u>Technical:</u>	
How is the system hosted?	Self-Hosted or SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	Less than a week
How many DOT hours are required to implement?	2 days
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	1–2 days
How many hours of training are required for occasional users?	No formal training
How is the solution priced?	Per project per user, \$10-15 mo/project/user, \$950 setup, plus training
How is system support and maintenance setup?	Included in pricing, support only if user had paid training

**Software Program****Projectmates**Technical (continued):

3.6.09

What bandwidth have users found adequate?

Broadband/3G

How are projects achieved, what file format?

Archive online at anytime and can download

To what extent can the system be customized?

Change labels and interface with other programs, etc.

What other programs can this system interface with?

Depends on customization

Does this system meet the DOT/ADA requirements?

Appears to meet ADA requirements

What changes would be required to go to full implementation?

Move self-hosting

General:

What is the history of this system?

25,000 users currently

Who are the primary users of this system?

Owners 50%, Architects 20%, Contractors 20%

What have other users said about this system?

Other comments?

Currently submittals labeled by CSI

**Software Program****Contract Manager (Primavera)**Functionality:

3.4.09

How many functions are there?

Budget, Schedule, Construction Administration

How much of the solution is document management?

1 of 3 functions

How is the workflow set up (i.e., rigid or flexible)?

Flexible w/ point person

Can workflow easily be customized?

Yes

Is the system designed for multiple party reviews?

Yes, kind of complex method

Can users collaborate on issues using restricted conversations?

Yes

Can documents be linked to other documents?

Yes

Can files be marked up without their native software?

No, could link a third party software such as Brava

Can users work outside of the system?

Yes, can email out

Is there a “dashboard” feature?

Yes

Is there a “ball-in-court” feature?

Yes

<b>Software Program</b>	<b>Contract Manager (Primavera)</b>
<u>Functionality (continued):</u>	<i>3.4.09</i>
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document
<u>Technical:</u>	
How is the system hosted?	Self-hosted or SaaS by Load Spring (through Catalyst)
Is more than an Internet browser required?	No
How long does it take to get this system running?	2 Weeks
How many DOT hours are required to implement?	1–2 Days
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	1–2 days
How many hours of training are required for occasional users?	2–3 hours
How is the solution priced?	Per user, one license type, need a separate license for every user
How is system support and maintenance setup?	Additional cost (SaaS hosting also is) bundled with user fee
What bandwidth have users found adequate?	Broadband/3G
How are projects achieved, what file format?	Can download data, formats pdf, Excel, csv
To what extent can the system be customized?	Depends on customer needs
What other programs can this system interface with?	Oracle, can be customized to interface with others
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	Move to self-hosting, further customization
<u>General:</u>	
What is the history of this system?	Previously was called expedition
Who are the primary users of this system?	A/E/C
What have other users said about this system?	See WisDOT
Other comments?	Can import contact information from Excel

**Software Program****ebuilder**Functionality:*3.10.09*

How many functions are there?	Budget, Forms, Document Management, Schedule
How much of the solution is document management?	1 of 4 functions
How is the workflow set up (i.e., rigid or flexible)?	Flexible or rigid depending on how system is set up
Can workflow easily be customized?	If it is set up flexible
Is the system designed for multiple party reviews?	Yes, if set up correctly
Can users collaborate on issues using restricted conversations?	Yes
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Yes, can email or fax out
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document

Technical:

How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	6–8 Weeks
How many DOT hours are required to implement?	Varies, 1–3 days expected
How many DOT hours are required to start new project?	1/2 Day or less
How many hours of training are required for everyday users?	2 day for "power users"
How many hours of training are required for occasional users?	2–3 hrs by "power users"
How is the solution priced?	Per user (starts with 10 users) \$1,000/user/year (may vary for pilot)+ customization (only users creating forms needs a license)
How is system support and maintenance setup?	On demand included in fee
What bandwidth have users found adequate?	Broadband/3G

**Software Program**

**ebuilder**

Technical (continued):

3.10.09

How are projects achieved, what file format?

Retained by ebuilder, can download into excel or get a DVD

To what extent can the system be customized?

Change labels, workflow, can interface with other systems

What other programs can this system interface with?

Depends on customization, i.e., could interface with MS Project or accounting software

Does this system meet the DOT/ADA requirements?

Appears to meet ADA requirements

What changes would be required to go to full implementation?

None

General:

What is the history of this system?

Unknown

Who are the primary users of this system?

A/E/C

What have other users said about this system?

Other comments?

Can email or drag and drop directly into folders  
Can create own reports  
If workflow is setup flexible, history is tracked to assist in setting up a rigid workflow later

**Software Program**

**Submittal Exchange**

Functionality:

3.13.09

How many functions are there?

Document Management

How much of the solution is document management?

Main Function

How is the workflow set up (i.e., rigid or flexible)?

Typically rigid for submittals (because preloaded) and flexible with point person for RFIs

Can workflow easily be customized?

Yes, (system is set up so subcontractors need to go through GC then to Point Person then to recipient)

Is the system designed for multiple party reviews?

Yes

Can users collaborate on issues using restricted conversations?

Yes

Can documents be linked to other documents?

No

Can files be marked up without their native software?

No

<b>Software Program</b>	<b>Submittal Exchange</b>
<u>Functionality (continued):</u>	<i>3.13.09</i>
Can users work outside of the system?	Yes, can email out link
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes, items are highlighted red
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	Bottom of each document
<hr/>	
<u>Technical:</u>	
How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	3–5 days, including uploading submittals
How many DOT hours are required to implement?	1/2 day
How many DOT hours are required to start new project?	3–5 including uploading submittals
How many hours of training are required for everyday users?	1 hr
How many hours of training are required for occasional users?	Less than an hour
How is the solution priced?	Per Project, starts at \$1,000 (for a \$25 million project would be around \$8,000) varies depending on number of submittals etc
How is system support and maintenance setup?	On demand included in fee
What bandwidth have users found adequate?	Broadband/3G
How are projects achieved, what file format?	DVD in html format
To what extent can the system be customized?	Change tabs, labels, forms
What other programs can this system interface with?	None
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	None
<hr/>	
<u>General:</u>	
What is the history of this system?	Unknown
Who are the primary users of this system?	A/E/C
What have other users said about this system?	KJWW

<b>Software Program</b>	<b>Submittal Exchange</b>
<u>General (continued):</u>	<i>3.13.09</i>
Other comments?	Preloads list of submittals based on specs
<b>Software Program</b>	<b>eadoc</b>
<u>Functionality:</u>	<i>3.23.09</i>
How many functions are there?	Document Management, Budget, Field Management, Construction Administration
How much of the solution is document management?	1 of 4 functions
How is the workflow set up (i.e., rigid or flexible)?	Depends on how it is setup, typically both
Can workflow easily be customized?	Yes
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Yes
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	No, because would require active X
Can users work outside of the system?	Yes can email out
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	Bottom of each document
<u>Technical:</u>	
How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	1–2 weeks
How many DOT hours are required to implement?	1/2–1 day
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	3 hours
How many hours of training are required for occasional users?	No formal training
How is the solution priced?	Per project, 0.11% of construction cost

<b>Software Program</b>	<b>eadoc</b>
<u>Technical (continued):</u>	<i>3.23.09</i>
How is system support and maintenance setup?	On demand included in fee
What bandwidth have users found adequate?	Broadband/3G
How are projects achieved, what file format?	Download to FTP site, or DVD
To what extent can the system be customized?	Files, tabs, etc.
What other programs can this system interface with?	Can be customized to interface with accounting
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	None
<u>General:</u>	
What is the history of this system?	Unknown
Who are the primary users of this system?	A/E/C
What have other users said about this system?	
Other comments?	Contractor manages subcontractor account Shows flow charts of linked documents Can track materials
<b>Software Program</b>	<b>Buzzsaw (Autodesk)</b>
<u>Functionality:</u>	<i>3.30.09</i>
How many functions are there?	Document Management, Construction Administration, Bidding
How much of the solution is document management?	1 of 3 functions
How is the workflow set up (i.e., rigid or flexible)?	Depends on how it is setup, typically uses a point person to control the document flow
Can workflow easily be customized?	Yes
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Yes
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	Can markup .dwg files, should be able to markup pdfs soon
Can users work outside of the system?	Yes, can email out

<b>Software Program</b>	<b>Buzzsaw (Autodesk)</b>
<u>Functionality (continued):</u>	<i>3.30.09</i>
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	Bottom of each document
<u>Technical:</u>	
How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	2–3 weeks, with "quick start"
How many DOT hours are required to implement?	Varies, 1–3 days expected
How many DOT hours are required to start new project?	1/2 day or less
How many hours of training are required for everyday users?	1–2 days, +2–3 days for administrator
How many hours of training are required for occasional users?	1–3 hours
How is the solution priced?	Per user, named user, expect \$500–600 user/year + implementation and training
How is system support and maintenance setup?	On demand included in fee
What bandwidth have users found adequate?	Broadband/3G
How are projects achieved, what file format?	Download to desktop
To what extent can the system be customized?	Tabs, forms, names, etc.
What other programs can this system interface with?	Usually none, but possibly could. If this is important, should use Constructware not Buzzsaw
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	None
<u>General:</u>	
What is the history of this system?	
Who are the primary users of this system?	A/E/C
What have other users said about this system?	Penn. Turnpike

<b>Software Program</b>	<b>Buzzsaw (Autodesk)</b>
<u>General (continued):</u>	<i>3.30.09</i>
Other comments?	MS style layout, lots of buttons and menus Can configure forms with MS info path Second Autodesk program Constructware is more database driven and works better with budgeting Need to check box in RFI to email out
<b>Software Program</b>	<b>Centric</b>
<u>Functionality:</u>	<i>3.31.09</i>
How many functions are there?	Schedule, Budget, Document Management, Bidding, Construction Administration
How much of the solution is document management?	1 of 5 functions
How is the workflow set up (i.e., rigid or flexible)?	Depends on how it is setup
Can workflow easily be customized?	Depends on how it is setup
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	Could, would need to attach separate document with restricted access
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Yes, can email out
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document
<u>Technical:</u>	
How is the system hosted?	Self-hosted or SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	1–2 weeks
How many DOT hours are required to implement?	1–2 days
How many DOT hours are required to start new project?	1/2 day or less

<b>Software Program</b>	<b>Centric</b>
<u>Technical (continued):</u>	<i>3.31.09</i>
How many hours of training are required for everyday users?	1/2 day
How many hours of training are required for occasional users?	No formal training
How is the solution priced?	Per user, named license, subscription fee for SaaS, and implementation
How is system support and maintenance setup?	Included in subscription fee
What bandwidth have users found adequate?	3G/Broadband
How are projects achieved, what file format?	html, download or DVD's
To what extent can the system be customized?	Tabs, forms, names, etc.
What other programs can this system interface with?	Yes
Does this system meet the DOT/ADA requirements?	Appears to meet ADA requirements
What changes would be required to go to full implementation?	None
<u>General:</u>	
What is the history of this system?	Unknown
Who are the primary users of this system?	A/E/C
What have other users said about this system?	ISU, Kiewit
Other comments?	None
<b>Software Program</b>	<b>Project Center</b>
<u>Functionality:</u>	<i>4.14.09</i>
How many functions are there?	Construction Administration, Document Management, Bidding
How much of the solution is document management?	1 of 3 functions
How is the workflow set up (i.e., rigid or flexible)?	Depends on how it is setup
Can workflow easily be customized?	Depends on how it is setup
Is the system designed for multiple party reviews?	Yes
Can users collaborate on issues using restricted conversations?	No
Can documents be linked to other documents?	Yes
Can files be marked up without their native software?	Yes
Can users work outside of the system?	Could print to pdf and then email

<b>Software Program</b>	<b>Project Center</b>
<u>Functionality (continued):</u>	<i>4.14.09</i>
Is there a “dashboard” feature?	Yes
Is there a “ball-in-court” feature?	Yes
Can users manipulate which emails they receive?	Yes
How is the document history displayed?	With each document
<u>Technical:</u>	
How is the system hosted?	SaaS
Is more than an Internet browser required?	No
How long does it take to get this system running?	1–3 Days
How many DOT hours are required to implement?	1/2 day to 1 day
How many DOT hours are required to start new project?	Less than 1/2 day
How many hours of training are required for everyday users?	No formal training, 3 hrs for administrator
How many hours of training are required for occasional users?	No formal training
How is the solution priced?	Per project per year; \$5,940 for 5Gb, \$15,000 for 20Gb
How is system support and maintenance setup?	Included in subscription fee
What bandwidth have users found adequate?	3G/ Broadband
How are projects achieved, what file format?	Zip download or cd, all folders are archived
To what extent can the system be customized?	Labels and forms
What other programs can this system interface with?	Could be modified to interface with other programs, but probably wouldn't make a lot of sense
Does this system meet the DOT/ADA requirements?	Appears to meet ADA Requirements
What changes would be required to go to full implementation?	None
<u>General:</u>	
What is the history of this system?	Developed in 1997
Who are the primary users of this system?	A/E/C
What have other users said about this system?	
Other comments?	Used on Lucas Oil Stadium Can export calendar to outlook

<b>Software Program</b>	<b>ProjectWise DCS</b>
<u>Functionality:</u>	<i>5.12.09</i>
How many functions are there?	Construction Administration, Document Management
How much of the solution is document management?	1 of 2 functions
How is the workflow set up (i.e., rigid or flexible)?	Flexible
Can workflow easily be customized?	Yes
Is the system designed for multiple party reviews?	May require customization
Can users collaborate on issues using restricted conversations?	Would require customization
Can documents be linked to other documents?	Yes, in ProjectWise
Can files be marked up without their native software?	No
Can users work outside of the system?	Must add users through ProjectWise
Is there a “dashboard” feature?	Has "To Do" List
Is there a “ball-in-court” feature?	“To Do” List
Can users manipulate which emails they receive?	May require customization
How is the document history displayed?	With each "Issue"
<u>Technical:</u>	
How is the system hosted?	Self-hosted
Is more than an Internet browser required?	Excel for Transmittal Form
How long does it take to get this system running?	2 months
How many DOT hours are required to implement?	Varies
How many DOT hours are required to start new project?	1/2 day
How many hours of training are required for everyday users?	2–3 days
How many hours of training are required for occasional users?	1 day
How is the solution priced?	There would be an additional cost beyond the existing Enterprise Licensing Agreement
How is system support and maintenance setup?	Depends on licensing agreement
What bandwidth have users found adequate?	3G/ Broadband
How are projects achieved, what file format?	Information would reside on DOT servers

**Software Program****ProjectWise DCS**

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Technical (continued):

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*5.12.09*

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To what extent can the system be customized?

Extensively

What other programs can this system interface with?

Unknown

Does this system meet the DOT/ADA requirements?

Appears to meet ADA Requirements

What changes would be required to go to full implementation?

None

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General:

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What is the history of this system?

Only a couple months old

Who are the primary users of this system?

A/E/C (Europe)

What have other users said about this system?

Other comments?

This solution would require extensive customization



APPENDIX E. REQUEST FOR PROPOSALS



# Iowa Department of Transportation

## Request for Proposal

For

**Web-based Construction Collaboration Services**

Issued by:

IOWA DEPARTMENT OF TRANSPORTATION  
Procurement and Distribution  
Purchasing Section  
Proposal No. LT00723

**Letting Date:**

July 22, 2009

Must be submitted no later than 1:00 PM Central Standard Time  
**Proposals received after this date will be rejected**

**For information about this notice, and during this procurement,  
interested persons shall contact only:**

Ms. Renee R. Shirley, Senior Purchasing Officer  
800 Lincoln Way  
Ames, Iowa 50010  
Phone: 515-239-1578  
Fax: 515-239-1538  
E-mail: renee.shirley@dot.iowa.gov



Office of Procurement and Distribution  
800 Lincoln Way  
Ames, IA 50010

		Date Bids Due: July 22, 2009	Time of Bid Opening: 1:00 P.M.	
Proposal Number: LT00723	Commodity Description: Web-based Construction Collaboration Services		Bid Opening Location: Ames, IA	
Contract to Begin: September 1, 2009	Date of Completion: August 31, 2012	Proposal Guaranty Amount: None	Liquidated Damages: As specified in proposal.	
Purchasing Agent to contact for additional info.: Renee R. Shirley		e-mail: renee.shirley@dot.iowa.gov	Phone: 515-239-1578	Fax: 515-239-1538
Company Name:			Federal Tax ID:	
Street Address:		City:	State:	Zip Code:
Individual preparing bid (type or print);	e-mail:	Phone:	Fax:	
Will you sell these items/services to political subdivisions within the State of Iowa under the same prices, terms and conditions as specified? <input type="checkbox"/> Yes <input type="checkbox"/> No		Are you an Iowa Targeted Small Business? <input type="checkbox"/> Yes <input type="checkbox"/> No		

**GENERAL INFORMATION**

This bid package includes the proposal, schedule of prices, standard terms and conditions, supplemental terms, specifications, mailing label and other information you need to prepare your bid. The pages of the document labeled “Bid response” must be typed or completed in ink, signed, and returned in a flat style envelope prior to the bid opening date and time. Please use the furnished mailing label, or indicate on your return bid by marking “Iowa Department of Transportation, proposal number & letting date” on the outside of the return envelope. The bidder may personally deliver, mail, or select a carrier that ensures timely delivery. **Faxed bids will not be accepted.**

If required, each bid must be accompanied by a proposal guaranty in an accepted form, in the sum indicated above. Refer to the Standard Terms and Conditions for the accepted forms in which the proposal guaranty requirement may be fulfilled. Bids lacking a required proposal guaranty will not be considered for award. If the contractor fails to enter into a formal contract within fifteen (15) days after award is made, the proposal guaranty may be retained by the State.

**PROPOSAL STATEMENT**

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to enter into a contract within fifteen (15) days after award or forfeit the proposal guaranty furnished herewith.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to

the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal. We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

Signed \_\_\_\_\_ Date \_\_\_\_\_

**Iowa Department of Transportation  
Schedule of Prices  
Proposal No.: LT00723  
Letting Date: July 22, 2009**

**Web-based Construction Collaboration Services**

Item	Description	Quantity	Role	Effort	Hourly Rate
1.	<b>Website Customization &amp; Development for 2 bridge projects</b> (See Section 3.1 for project schedule and duration)	Per Skill Set	Project Manager	____%	\$ _____
			Design Architect	____%	\$ _____
			DBA Architect	____%	\$ _____
			Developer	____%	\$ _____
			Tester	____%	\$ _____
<b>Projects</b>			<b>Estimated Customization Hours</b>		
	<b>1. US 6 Broadway Viaduct Bridge Replacement</b>		_____		
	<b>2. US 65 over Iowa River Arch Bridge Replacement</b>		_____		
2.	<b>Vendor hosted maintenance fee per project or total for both projects</b>		\$ _____/month		
Item	Description		Cost		
3.	<b>Awarded Vendor Travel Expenses to Iowa</b> (If applicable)	# of trips _____	\$ _____ per trip/per individual		

I hereby certify that this proposal meets or exceeds the minimum requirements including specifications and addendums.

Authorized  
Signature \_\_\_\_\_

Contact Person:

\_\_\_\_\_  
(Print Name)

Company \_\_\_\_\_

Federal Tax I.D. No. \_\_\_\_\_

Address \_\_\_\_\_  
(City) (State) (Zip Code)

Fax No. \_\_\_\_\_

Phone Number \_\_\_\_\_

E-Mail \_\_\_\_\_

I acknowledge receipt of addendum nos. \_\_\_\_\_

# Iowa Department of Transportation PURCHASING PROPOSAL Standard Terms and Conditions

**Contents of Contract:** The entire contents of this proposal shall become a part of the contract or purchase order. In case of a discrepancy between the contents of the contract documents, the following items listed by descending order shall prevail:

- Addendums
- Purchasing Proposal/Schedule of Prices
- Specifications, Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

For example, if there is a statement in the specifications that contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply.

**Preparation of Proposal:** All proposals must be completed in every respect and must clearly answer all questions contained in the proposal. Bids must be typed or completed in ink on the forms supplied by the department. **You must sign your bid and seal it in the envelope.** Bids must be received prior to the bid opening date and time. The bidder may personally deliver, mail, or select a carrier that ensures timely delivery

**Proposal Guaranty:** If required, a proposal guaranty, in the sum listed on the proposal form, can be supplied in one of the following ways: (1) A certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union, may be certified furnished with your bid. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the bidder. If payable to the bidder, the check or draft shall be endorsed, without qualifications, to the Iowa DOT by the bidder or his authorized agent. (2) An insurance or surety company may be retained to provide a bond in fulfillment of the proposal guaranty requirement. A properly completed and signed copy of the Proposal Guaranty (Form 131071) must accompany the bid. The Iowa DOT's Proposal Guaranty form must be used, no other forms or formats will be accepted.

**Bid Opening:** Bid Openings are public and conducted at the Ames complex unless otherwise specified. Proposals received after the time of the bid opening will be returned unopened.

**Debarment and Vendor Suspension:** By submitting a proposal, the contractor is certifying that it and its Principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.

**Communications:** Questions concerning this proposal should be directed to the Purchasing Agent listed on the Purchasing Proposal. Inquiries can be written, phoned, or faxed. In all cases, written communication will take precedence over verbal communication.

*Faxed bids will not be accepted.*

**Acceptance/Rejection:** The State of Iowa reserves the right to accept or reject any or all bids and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any vendor, in the judgment of the Iowa DOT. The Iowa DOT also reserves the right to accept that bid which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional bids including any ties to another bid or proposal or any reservations about accepting an award or entering into a contract, may result in rejection of the bid. Bids must remain available for award for thirty (30) days from date of bid opening.

**Method of Award:** Award shall be made to the lowest responsible, responsive bidder unless otherwise specified. By virtue of statutory authority preference will be given to products and provisions grown and coal produced within the State of Iowa.

**Award Protests:** Protests of award recommendations are to be addressed to the Director of Purchasing, and shall be made in accordance with paragraph 761--20.4(6)"e", Iowa Administrative Code.

**Bid Results & Disclosure:** A bid tabulation will be sent to all responsive bidders with an award recommendation indicated. At the conclusion of the selection process, the contents of all proposals will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal.

**Contracts:** Successful contractor(s) may be sent either a formal Contract or a Notification of Award as confirmation of acceptance and award. Contracts shall be for the term stated on the Proposal and may be extended for additional period(s) under the same terms and conditions upon mutual agreement. The contractor may not assign the contract to another party without written authorization from the Office of Procurement and Distribution.

**Pricing and Discount:** Unit prices shown on the bid/proposal shall be quoted as the price per unit (e.g., gal., case, each, etc.) as stated on the request. If there is a discrepancy between the unit bid prices, extension, or total amount of bid, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase. Discounts for early payment are allowed, but not considered in award of the contract.

**Taxes:** Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.

**Payment Terms:** The Iowa DOT will normally pay properly submitted vendor invoices within fifteen (15) days of receipt, providing goods and/or services have been delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT, must reference the purchase order number, and be submitted for processing.

**Quality:** All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.

**Year 2000 Compliant:** The supplier warrants that each hardware, software, and firmware product delivered under this contract shall be able to accurately process data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, including leap year calculations, when used in accordance with the product documentation provided by the supplier.

**Recycled Content:** The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. When bidding recycled items or alternatives, note on your bid the recycled content, if known.

**Infringement:** Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this bid.

**Default:** Failure of the contractor to adhere to specified delivery schedules or to promptly replace rejected materials shall render the contractor liable for all costs in excess of the contract price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of this contract.

**Ames Deliveries:** Materials delivered to the Distribution Center's Receiving Section, 800 Lincoln Way, Ames, IA shall be delivered between the hours of 7:30 a.m. and 3:30 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to locations other than the Distribution Center, the contractor may wish to contact the destination location for available times to deliver, as some Iowa DOT offices and locations work a non-standard work week.

**Delivery:** Deliveries shall be F.O.B. destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicated the vendor, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the bid price and paid by the contractor. No collect or C.O.D. deliveries will be accepted. When entering into a contract, the contractor shall notify the freight company that all freight and delivery charges are to be prepaid by the contractor. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from

this contract.

**Applicable Law:** The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct. Any legal action relating to the contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.

**Administrative Rules:** For Additional details on the rules governing the actions of the Office of Procurement and Distribution refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled "Procurement of Equipment, Materials, Supplies and Services".

**Equal Opportunity:** Firms submitting bids must be an "Equal Opportunity Employer" as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.

**Affirmative Action:** The contractor (and also subcontractor, vendor, or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of \$5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.

**Targeted Small Businesses:** The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-7357). Contractors shall take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of materials.

**Interest in Contract:** No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, See Code of Iowa 314.2.

**Records Audit:** The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of this contract.

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<b>Section 1    Introduction</b>
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### **1.1 Purpose**

The purpose of this Request for Proposal (RFP) is to solicit proposals from qualified web application developers who will work with the Iowa Department of Transportation (Iowa DOT) to design and develop a web-based construction collaboration website for Iowa DOT and other stakeholders. The website will allow customer access and management capabilities to bridge project documents, shop drawings, and other miscellaneous data.

### **1.2 General**

The Iowa Department of Transportation is currently entering into a phase of increased bridge construction and project complexity. Complex projects generate considerably more paperwork than is typically processed by the Iowa DOT. To assist all parties in the management of these bridge projects, the Iowa DOT is requesting the development, implementation and support of a vendor hosted, web-based solution, as part of a “Software as a Service” agreement to facilitate electronic collaboration between participants on select bridge projects.

This web-based collaboration solution will utilize a “project website” as a central location where information for projects can be stored. The primary function of the project website will be the management of shop drawing submittals and Requests For Information (RFIs). Other documents such as contract documents, progress reports, and meeting minutes will also be posted on the site. The website must efficiently manage the submission and management of all proposed documents.

<b>Section 2    Administrative Information</b>
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## **2.1    Issuing Officer**

The Issuing Officer is identified below. She is the sole point of contact regarding the RFP from the date of issuance until selection of the successful vendor.

Ms. Renee R. Shirley, Senior Purchasing Officer  
800 Lincoln Way, Ames, Iowa 50010  
Phone: 515-239-1578  
Fax: 515-239-1538  
E-Mail: renee.shirley@dot.iowa.gov

## **2.2    Restriction on Communication**

From the issue date of this RFP until announcement of the successful vendor, bidders may only contact the Issuing Officer regarding the procurement process. Questions related to the interpretation of this RFP must be submitted in writing to the Issuing Officer until 4:30 p.m., Central Standard Time (CST), **July 10, 2009**. Verbal questions related to the interpretation of this RFP will not be accepted. All vendor questions and Iowa DOT answers will be posted on the Iowa DOT website as indicated in the Procurement Timetable Section 2.4.

In NO CASE shall verbal communication override written communications. Only written communications are binding on the State.

The Iowa DOT assumes no responsibility for representations concerning conditions made by its officers or employees prior to the execution of a contract, unless such representations are specifically incorporated into this RFP.

Verbal discussions pertaining to modifications or clarifications of this RFP shall not be considered part of the RFP unless confirmed in writing. All such requests for clarification shall be submitted in writing. Any information provided by the vendor verbally shall not be considered part of that vendor's proposal. Only written communications between the vendor and the Iowa DOT shall be accepted.

With the exception of the written proposal, which must be submitted by vendors in accordance with Section 4, communications between the Issuing Officer and vendors may be conducted by regular prepaid US mail, courier service, e-mail or facsimile transmission.

## **2.3    Downloading RFP Addendums from the Internet**

The vendor is advised to check the Iowa DOT's home page periodically for addendums to this RFP, particularly if the vendor downloaded the RFP from the Internet, as the vendor may not automatically receive addendums. All addendums will be posted on the Iowa DOT home page at **[www.iowadotpurchasing.com](http://www.iowadotpurchasing.com)**.

If the vendor received this RFP as a result of a written request to the Iowa DOT, the vendor will automatically receive addendums.

**Note: If the RFP or addendums were downloaded from the Internet, the Fax Back Sheet found on the first page of the proposal download must be completed. This sheet informs the Issuing Officer of a downloaded version and, once received in the Iowa DOT, adds the vendor to the bidder's list to ensure notice of addendums.**

## 2.4 Procurement Timetable

The following dates are set forth for informational and planning purposes; however, the Iowa DOT reserves the right to change the dates.

RFP to prospective bidders	June 29, 2009
Vendor's final submitted written questions	July 10, 2009
Final DOT's reply to vendor questions posted on DOT website	July 17, 2009
Bid Opening Date	July 22, 2009
Review submitted vendor proposals	July 22-28, 2009
Vendor Presentations	August 10 and 12, 2009
Recommended award sent to vendors	August 13, 2009
Protest of Award	August 23, 2009
Completion of Contract Negotiations and Execution of the Contract	August 25, 2009
Contract begin date	September 1, 2009
Customization, set-up, testing and acceptance Completed	December 31, 2009

It is intended that proposals will be evaluated and a notice of intent to award will be issued within sixty (60) days of the deadline for receipt of proposals. Proposal prices, terms and conditions must be held firm from the date of the notice of intent to award the contract.

## 2.5 Questions, Requests for Clarification, and Suggested Changes to the Bid Proposal

Vendors are invited to submit written questions and requests for clarifications regarding the RFP. The questions, requests and clarifications can be received in writing by the Issuing Officer beginning, **June 29, 2009**. Oral questions will not be permitted. If the questions and/or requests for clarifications pertain to a specific section of the RFP, the page and section number(s) must be referenced. Written responses to vendor questions and/or requests for clarifications by the DOT, shall be posted on the Iowa DOT website by the close of business day (4:30pm Central Standard Time) **July 17, 2009** to vendors who received the RFP. The Iowa DOT's written responses will be considered part of the RFP.

The Iowa DOT assumes no responsibility for verbal representations made by its officers or employees unless such representations are confirmed in writing and incorporated into the RFP.

Bidders must inform themselves fully of the conditions relating to the proposal. Failure to do so will not relieve a successful bidder of his or her obligation to furnish all services required to carry out the provisions of this contract. The vendor, in carrying out the work, must employ such methods or means as will not cause any interruption of, or interference with, the work of any other vendor.

If a bidder discovers any significant ambiguity, error, conflict, discrepancy, omission, or other deficiency in this RFP, the bidder should immediately notify Renee R. Shirley in writing of such error and request modification or clarification of the RFP document.

## **2.6 Amendment to the RFP, Bid Proposal, and Withdrawal of Bid Proposal**

The Iowa DOT reserves the right to amend the RFP at any time. The vendor shall acknowledge receipt of an amendment in its proposal. If the amendment occurs after the closing date for receipt of bid proposals, the Iowa DOT may, in its sole discretion, allow vendors to amend their bid proposals in response to the Iowa DOT's amendment.

The vendor may amend its bid proposal. The amendment must be in writing, signed by the vendor and received by the time set for the receipt of proposals. **Electronic mail and faxed amendments will not be accepted.**

Vendors who submit proposals in advance of the deadline may withdraw, modify, and resubmit proposals at any time prior to the deadline for submitting proposals. Vendors must notify the Procurement Issuing Officer in writing if they wish to withdraw their proposals.

## **2.7 Submission of Bid Proposals**

The Iowa DOT must receive the bid proposal at the **Department of Transportation, Office of Procurement and Distribution**, 800 Lincoln Way, Ames, Iowa 50010 before **1:00 PM, Central Standard Time, July 22, 2009. This is a mandatory requirement and will not be waived by the Iowa DOT.**

***Any bid proposal received after this deadline will be rejected and returned unopened to the vendor.*** Vendors mailing bid proposals must allow ample mail delivery time to ensure timely receipt of their bid proposals. It is the vendor's responsibility to ensure that the bid proposal is received prior to the deadline. Postmarking by the due date will not substitute for actual receipt of the bid proposal. **Electronic mail and faxed bid proposals will not be accepted.**

Vendors must furnish all information necessary to evaluate the bid proposal. Bid proposals that fail to meet the mandatory requirements of the RFP will be disqualified. Verbal information provided by the vendor shall not be considered part of the vendor's proposal.

## **2.8 Bid Proposal Opening**

The Iowa DOT will open bid proposals at **1:00 PM, Central Standard Time, July 22, 2009.** The bid proposals will remain confidential until the Evaluation Committee has

reviewed all bid proposals submitted in response to this RFP and the Iowa DOT has announced a notice of intent to award a contract. See Iowa Code Section 72.3.

The names of the vendors who submit proposals within the time frame permitted will be supplied to any person who requests such information after 4:30 PM on the proposal due date. The announcement of names of vendors who submitted a proposal ***does not*** mean that an individual proposal has been deemed technically compliant or that it has been accepted for evaluation.

## **2.9 Costs of Preparing the Bid Proposal**

The costs of preparation and delivery of the bid proposal are solely the responsibility of the vendor.

No payments shall be made by the State to cover costs incurred by any vendor in the preparation of or the submission of this RFP or any other associated costs

## **2.10 Reasonable Accommodations**

The Iowa DOT will provide reasonable accommodations, including the provision of informational material in an alternative format, for qualified individuals with disabilities upon request. If accommodations are required at time of a bid opening, contact Renee R. Shirley, Purchasing, at 515-239-1578 (voice) or 515-239-1538 (fax) or renee.shirley@iowa.dot.gov (e-mail).

## **2.11 Rejection of Bid Proposals**

The Iowa DOT reserves the right to reject any or all bid proposals, in whole or in part, received in response to this RFP at any time prior to the execution of a written contract. Issuance of this RFP in no way constitutes a commitment by the Iowa DOT to award a contract. This RFP is designed to provide vendors with the information necessary to prepare a competitive bid proposal. This RFP process is for the Iowa DOT's benefit and is intended to provide the Iowa DOT with competitive information to assist in the selection of a vendor to provide services.

It is not intended to be comprehensive and each vendor is responsible for determining all factors necessary for submission of a comprehensive bid proposal.

The Iowa DOT reserves the right to negotiate the terms of the contract, including the award amount, with the selected bidder prior to entering into a contract. If contract negotiations cannot be concluded successfully with the highest scoring bidder, the Iowa DOT may negotiate a contract with the next highest scoring bidder.

## **2.12 Disqualification**

The Iowa DOT may reject outright and shall not evaluate proposals for any one of the following reasons:

**2.12.1** The vendor fails to deliver the bid proposal by the due date and time.

**2.12.2** The vendor states that a service requirement cannot be met.

- 2.12.3 The vendor's response materially changes a service requirement.
- 2.12.4 The vendor's response limits the rights of the Iowa DOT.
- 2.12.5 The vendor fails to include information necessary to substantiate that it will be able to meet a service requirement. Unless specifically asked if a system complies, a response of "will comply" or merely repeating the requirement is not sufficient. Responses must indicate present capability; representations that future developments will satisfy the requirement are not sufficient.
- 2.12.6 The vendor fails to respond to the Iowa DOT's request for information, documents, or references.
- 2.12.7 The vendor fails to include a Proposal Guaranty Form 131071 if required.
- 2.12.8 The vendor fails to include any signature, certification, authorization, stipulation, disclosure or guarantee requested in Section 4 of this RFP.
- 2.12.9 The vendor presents the information requested by this RFP in a format inconsistent with the instructions of the RFP.
- 2.12.10 The vendor initiates unauthorized contact regarding the RFP with state employees.
- 2.12.11 The vendor provides misleading or inaccurate responses.

## **2.13 Reference Checks**

The Iowa DOT reserves the right to contact any reference to assist in the evaluation of the bid proposal, to verify information contained in the bid proposal and to discuss the vendor's qualifications and the qualifications of any subcontractor identified in the bid proposal.

## **2.14 Information from Other Sources**

The Iowa DOT reserves the right to obtain and consider information from other sources concerning a vendor, such as the vendor's capability and performance under other contracts.

## **2.15 Verification of Bid Proposal Contents**

The content of a bid proposal submitted by a vendor is subject to verification. Misleading or inaccurate responses shall result in disqualification.

## **2.16 Criminal History and Background Investigation**

The Iowa DOT reserves the right to conduct criminal history and other background investigations of the vendor, its officers, directors, shareholders, partners and/or personnel retained by the vendor for the performance of the contract.

## **2.17 Bid Proposal Clarification Process**

The Iowa DOT reserves the right to contact a vendor after the submission of bid proposals for the purpose of clarifying a bid proposal to ensure mutual understanding. This contact may include written questions, interviews, site visits, a review of past

performance if the vendor has provided goods or services to the Iowa DOT or any other political subdivision wherever located, or requests for corrective pages in the vendor's bid proposal. The Iowa DOT will not consider information received if the information materially alters the content of the bid proposal or alters the type of goods and services the vendor is offering to the Iowa DOT. An individual authorized to legally bind the vendor shall sign responses to any request for clarification. Responses shall be submitted to the Iowa DOT within the time specified in the Iowa DOT's request. Failure to comply with requests for additional information may result in rejection of the bid proposal as non-compliant.

## **2.18 Disposition of Bid Proposals**

All proposals become the property of the Iowa DOT and shall not be returned to the vendor unless all bid proposals are rejected or the RFP is cancelled. In either event, vendors will be asked to send a prepaid shipping package to the Iowa DOT for return of the bid proposals submitted. In the event the Iowa DOT does not receive a shipping package, the Iowa DOT will destroy the bid proposals. Otherwise, at the conclusion of the selection process, the contents of all bid proposals will be in the public domain and be open to inspection by interested parties subject to exceptions provided in Iowa Code Chapter 22 or other applicable law.

## **2.19 Public Records and Requests for Confidential Treatment**

The Iowa DOT may treat all information submitted by a vendor as public information following the conclusion of the selection process unless the vendor properly requests that information be treated as confidential at the time of submitting the bid proposal. The Iowa DOT's release of information is governed by Iowa Code Chapter 22. Vendors are encouraged to familiarize themselves with Chapter 22 before submitting a proposal. The Iowa DOT will copy public records as required to comply with the public records laws.

Any request for confidential treatment of information must be included in the transmittal letter with the vendor's bid proposal. In addition, the vendor must enumerate the specific grounds in Iowa Code Chapter 22 or other applicable law that support treatment of the material as confidential and explain why disclosure is not in the best interest of the public.

The request for confidential treatment of information must also include the name, address, and telephone number of the person authorized by the vendor to respond to any inquiries by the Iowa DOT concerning the confidential status of the materials.

Any bid proposal submitted that contains confidential information must be conspicuously marked on the outside as containing confidential information, and each page upon which confidential information appears must be conspicuously marked as containing confidential information. Identification of the entire bid proposal as confidential may be deemed non-responsive and disqualify the vendor.

If the vendor designates any portion of the RFP as confidential, the vendor must submit one (1) copy of the bid proposal from which the confidential information has been excised. This excised copy is in addition to the number of copies requested in Section 4

of this RFP. The confidential material must be excised in such a way as to allow the public to determine the general nature of the material removed and to retain as much of the bid proposal as possible.

The Iowa DOT will treat the information marked confidential as confidential information to the extent such information is determined confidential under Iowa Code Chapter 22 or other applicable law by a court of competent jurisdiction.

In the event the Iowa DOT receives a request for information marked confidential, written notice shall be given to the vendor seven (7) calendar days prior to the release of the information to allow the vendor to seek injunctive relief pursuant to Section 22.8 of the Iowa Code.

The vendor's failure to request confidential treatment of material will be deemed by the Iowa DOT as a waiver of any right to confidentiality, which the vendor may have had.

## **2.20 Copyrights**

By submitting a bid proposal, the vendor agrees that the Iowa DOT may copy the bid proposal for purposes of facilitating the evaluation of the bid proposal or to respond to requests for public records.

The vendor consents to such copying by submitting a bid proposal and warrants that such copying will not violate the rights of any third party. The Iowa DOT shall have the right to use ideas or adaptations of ideas that are presented in the bid proposals.

## **2.21 Release of Claims**

By submitting a bid proposal, the vendor agrees that it will not bring any claim or cause of action against the Iowa DOT based on any misunderstanding concerning the information provided herein or concerning the Iowa DOT's failure, negligent or otherwise, to provide the vendor with pertinent information as intended by this RFP.

## **2.22 Vendor Presentations**

The Iowa DOT shall select vendors from compliant bid responses to advance to the presentation phase of the evaluation. This list is not limited by number and is at the sole discretion of the Iowa DOT evaluation team. These presentations shall consist of the vendor's work plan and website expertise, meeting the Iowa DOT RFP requirements as specified in Section 3. Vendor's failure to attend a scheduled presentation shall result in rejection of that bidder's proposal.

Presentations given in person at the Iowa DOT Ames, IA complex are preferred. Other options may be available such as video conferencing or the use of web hosted tools if pre-arranged by DOT. Presentation locations will be determined and scheduled with each vendor when contacted by Iowa DOT.

Presentations will be scored as one (1) criteria of the award matrix.

Once all presentations have been completed, the Iowa DOT reserves the right to make a

contract award without any further discussion with the potential vendors regarding the proposals received.

The Iowa DOT reserves the right to record the presentation on audio or videotape.

Any cost(s) incidental for the presentations shall be the sole responsibility of the vendor.

All vendors submitting proposals may not be asked to present their skills to the Iowa DOT evaluation committee.

### **2.23 Evaluation of Bid Proposals Submitted**

Bid proposals that are timely submitted and are not subject to disqualification will be reviewed in accordance with Section 5 of the RFP. The Iowa DOT will not necessarily award any contract resulting from this RFP to the vendor offering the lowest cost to the Iowa DOT. Instead, the Iowa DOT will award the contract to the compliant vendor whose proposal receives the most points in accordance with the evaluation criteria set forth in Section 5 of this RFP and subject to approval by the Iowa DOT Director.

The evaluation and selection of a vendor will be based on the information submitted in the proposal. Bidders shall respond to all requirements clearly and completely within three (3) days upon request.

Failure to respond completely may be the basis for the rejection of a proposal. Vendors may supply CD-ROMs or web site addresses to help demonstrate certain features of the proposal to help clarify the written response to the proposal.

Elaborate proposals (e.g. expensive artwork) beyond those that are sufficient to present a complete and effective proposal, are not necessary or desired.

### **2.24 Award Notice and Acceptance Period**

Notice of intent to award the contract will be sent to all vendors submitting a timely bid proposal. Negotiation and execution of the contract shall be completed no later than **August 17, 2009**. If the apparent successful vendor fails to negotiate and deliver an executed contract by **September 1, 2009**, the Iowa DOT may cancel the award and award the contract to the next highest ranked vendor.

After notification of the intent to award is made, and under the supervision of Iowa DOT staff, copies of proposals will be available for public inspection. Proposals will be available between the hours of 7:30 a.m. and 4:00 p.m. at the Office of Procurement and Distribution, Purchasing Section, 800 Lincoln Way, Ames, IA. Bidders are encouraged to make appointments to ensure that space is available for the review.

Proposals containing proprietary information must have the specific information considered proprietary clearly marked. All information included in the proposal not indicated as proprietary will be open for inspection. All proposals become property of the Iowa DOT.

*Bidders may request copies of the proposal with the agreement in writing to*

*the purchasing officer to reimburse the cost of .10 per black and white copy, and .60 per color page. If bidder desires all copies in black and white, this must be stated in request.*

The award shall be granted to the highest scoring responsive, responsible Bidder.

It is the intent of the Iowa DOT to award the contract to the responsible vendor whose bid conforms to the RFP and is the most advantageous to the Iowa DOT, cost and other factors considered. See Award Matrix, Section 5.

## **2.25 Definition of Contract**

The full execution of a written contract shall constitute the making of a contract for services and no vendor shall acquire any legal or equitable rights relative to the contract services until the contract has been fully executed by the successful vendor and the Iowa DOT.

## **2.26 Choice of Law and Forum**

This RFP and the resulting contract are to be governed by the laws of the State of Iowa. Changes in applicable laws and rules may affect the award process or the resulting contract. Vendors are responsible for ascertaining pertinent legal requirements and restrictions. Any and all litigation or actions commenced in connection with this RFP shall be brought in the appropriate Iowa forum.

*Iowa Code Chapter 307, and Chapter 20, Iowa Administrative Code [761], contain policies and procedures for State of Iowa procurement under which this Request for Proposal is issued. The terms and conditions of this RFP, the resulting contract(s) or activities based upon this RFP shall be construed in accordance with the laws of Iowa. Any and all litigation or actions commenced in connection with this RFP shall be brought in **Story County, Iowa**.*

## **2.27 Restrictions on Gifts and Activities**

Iowa Code Chapter 68B restricts gifts which may be given or received by state employees and requires certain individuals to disclose information concerning their activities with state government. Vendors are responsible to determine the applicability of this Chapter to their activities and to comply with the requirements. In addition, pursuant to Iowa Code section 722.1, it is a felony offense to bribe or attempt to bribe a public official.

*The laws of Iowa provide that it is a felony to offer, promise, or give anything of value or benefit to a state employee with the intent to influence that employee's acts, opinion, judgment or exercise of discretion with respect to that employee's duties. Evidence of violations of this statute will be submitted to the proper prosecuting attorney.*

## **2.28 Minimum Guaranteed**

The Iowa DOT anticipates that the selected vendor will provide goods and/or services as

requested by the Iowa DOT. The Iowa DOT will not guarantee any minimum compensation will be paid to the vendor or any minimum quantities or minimum usage of the vendor's services.

## **2.29 Conflicts Between Terms**

The Iowa DOT reserves the right to accept or reject any exception taken by the vendor to the terms and conditions contained in this RFP. Should the vendor take exception to the terms and conditions required by the Iowa DOT, the vendor's exceptions may be rejected and the entire proposal declared nonresponsive. The Iowa DOT may elect to negotiate with the vendor regarding contract terms that do not materially alter the substantive requirements of the request for proposals or the contents of the vendor's proposal.

## **2.30 Licenses, Permits and Inspections**

The vendor shall give all notices and comply with all codes, laws, ordinances, rules and regulations of any public authority having jurisdiction that bears on the performance of its work.

The vendor shall pay for all licenses, permits and inspection fees required for its work. The vendor must furnish copies of all approved inspection certificates and approvals from authorities having jurisdiction in a timely fashion upon completion of the work.

## **2.31 News Releases**

News releases or other materials made available to the media or the public, the vendor's clients or potential clients pertaining to this procurement or any part of the proposal shall not be made without the prior written approval of the Iowa DOT.

## Section 3 Project Specifications

### 3.1 Project Background

In order to effectively assist project participants in the management of the bridge projects specified in this proposal, the project website will need to be accessible to many levels of project participants. Project participants who will need to interface with the project website will include Iowa DOT personnel, contractors, subcontractors, consultants, and suppliers. Since many of the project participants will only need to occasionally access the website user-friendliness will be important.

The Iowa DOT is targeting implementation of this solution for the end of the summer 2009. It is anticipated that project websites will be implemented on two to four projects totaling \$36 to \$75 million in project construction costs. It is expected that there will be 30 users within the Iowa DOT and 20-30 external users per project. The first two projects targeted for implementation are:

1. US 6 Broadway Viaduct Bridge replacement in Council Bluffs. Estimated Construction Cost - \$24 million to be let January 2010. Estimated project duration is thirty (30) months.
2. US 65 over Iowa River Arch Bridge Replacement in Iowa Falls. Estimated Construction Cost - \$13 million to be let July 2010. Estimated project duration: is eighteen (18) months.

### 3.2 Scope of Work (SOW)

Vendor responses must address the following mandatory requirements and optional website features for the proposed project website. Information required will include but not be limited to, detailed, service/feature information, including how each requirement will be met.

#### 3.2.1 Web Site Features –mandatory requirements

The project website design must have the capacity to process the requested data in a timely manner. The site must be simple to use, yet powerful enough to satisfy the core user base.

##### **Website design features and functionality must include:**

1. Specific templates for Submittals, RFIs, Contract Documents, and Progress Reports and Meeting Minutes. (Details are below in 3.2.2).
2. Ability for originators of submittals and RFIs to directly upload documents to the site. **See Attachments A and B for workflows and terminology.**
3. Tracking of documents in the Submittal and RFI sections.
4. Website continuity for workflow of submittals and RFIs. It should also use current DOT terminology as part of the review process. **See Attachments A and B for details on typical workflows and terminology.**
5. A “dashboard” or “ball-in-court” feature to allow users to quickly track new and overdue items.
6. Ability to send external emails to users. Some instances which users may need to be notified of would be new, overdue, or items requiring the user’s attention.

7. User's ability to view history of each document.
8. Maintain version control of all documents.
9. Authorized user ability to link related documents.
10. Accessibility by all common browsers such as Internet Explorer, Safari, and Firefox.
11. Website shall meet Iowa DOT accessibility guidelines. Details can be found at: <http://www.iowadot.gov/accessibility.html>.
12. Accessibility through an Iowa DOT provided ".gov" web address (URL).
13. The ability to post a disclaimer on the website stating that users should only place non-confidential data on the website.
14. Administrative functions that let the Iowa DOT administer user accounts.
15. User authentication through an encrypted sign on to ensure password protection.

### **3.2.2 Optional Features**

Vendors may provide design details as to how these desired features could be implemented.

1. Website functionality to view, redline, and print documents within the project website without needing the native software application.
2. The ability to restrict comments on certain documents so only certain users could view them.
3. Reports that can be run on document activity.
4. Website compatibility with web enabled "smart" phones.
5. The ability to brand the website with the Iowa DOT logo.
6. The ability to create ad hoc workflows for documents as needed.
7. A content management system that would allow select Iowa DOT users to make minor changes to the site.
8. Access to data for archiving by Contractors

## **3.3 Website Content and Architecture**

The web site shall contain divisions, pages or tabs for organizing project information.

### **3.3.1 Contract Documents**

The contract documents are the bid documents provided by the DOT and potential plan revisions. All contract documents are in PDF format and consist of the following:

1. Proposal – one to five documents, sized 8.5x11, up to 2 MB<sup>1</sup> each
2. Plans – one to five documents, sized 11x17, up to 40 MB each
3. Addendums – zero to five documents, sized 8.5 x 11, up to 1 MB each
4. Special Provisions – zero to ten documents, sized 8.5 x 11, up to 10 MB each
5. Developmental Specifications - zero to ten documents, sized 8.5 x 11, up to 2 MB each
6. A hyperlink to the Iowa DOT Electronic Reference Library (ERL)<sup>2</sup>

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<sup>1</sup> Document sizes listed are maximums. Many documents are half that size or smaller.

<sup>2</sup> The Electronic Reference Library (ERL) contains the DOT standard specifications, standard plans, instructional memorandum and other relevant contract documents. <http://www.iowadot.gov/erl/index.html>

7. Plan revisions – one to five documents, sized 11x17, up to 4 MB each

Items one through six are loaded at the beginning of the project and static for the duration of the project. Item 7 plan revisions are added during the course of the project as necessary by the DOT.

### **3.3.2 Meeting Minutes and Project Reports**

Weekly or bi-weekly progress meeting minutes and any designated project reports shall be uploaded to the web site by the Iowa DOT for the duration of the project. Expected PDF file sizes are 8.5 x 11, up to 1 MB each.

### **3.3.3 Working Drawings/Shop Drawings**

The ease of uploading submittals consisting of working drawings and shop drawings to the web site electronic collaboration system is paramount to the success of the project. The system should be intuitive to contractors, sub-contractors, fabricators and suppliers so that minimal training or assistance is required. The system should also provide a transparent organization so that submittal status is easily ascertained. **See Attachment A.**

Electronic PDF submittals on a recent \$56 Million (construction cost) bridge project ranged from one to one hundred pages sized both 8.5x11 and 11x17 and sized up to 60 MB for an individual set. The final shop drawings consisted of nearly 100 sets of shop drawings with a total size of about 600 MB. Some shop drawings were processed in a single iteration while some drawings required multiple iterations of revision and re-submittal.

### **3.3.4 Requests for Information (RFI)**

RFI will be processed through the DOT Resident Construction Engineer (RCE) as a gatekeeper. Ease of routing RFI for technical review to single or multiple DOT engineers and potentially consulting engineers is a key to the project. The RCE will be responsible for assembling the final DOT response to RFI. **See Attachment B.**

RFI on a recent \$56 Million (construction cost) bridge project numbered over 100 RFI but less than 150. Most RFI were submitted either via email or in PDF attachments to emails. RFI with PDF attachments were typically sized 8.5x11 but occasionally included 11x17 drawings. Nearly all submitted RFI were less than 1 MB each.

## **3.4 Vendor Technical Requirements**

The vendor shall provide the following minimum requirements.  
**See also Section 4 - Personnel**

1. A list and short descriptions of successfully completed projects by the vendor similar in nature to the project website in the last three (3) years.
2. A list of any subcontractors involved in the project and those who would have access to the data.
3. A statement regarding the management of data security and website security.

### **3.5 Hosting Information**

Webhosting shall reside on a vendor server. Third party hosting is acceptable. Regardless of the hosting option, by vendor or third party provider, the physical location of the data must be disclosed. Upon the issuance of a contract, the vendor must agree to web inspection and security audits to be performed by the Iowa DOT or a third party acting on their behalf. Vendor proposals shall include their solution pricing structure.

### **3.6 Vendor Responsibilities**

Contract award will be dependent on the successful bidder's ability to provide and host a web-based construction collaboration system that meets the requested needs of the Iowa DOT, including but not limited to;

1. The selected vendor will be required to complete proposed customizations. Costs associated with each customization shall be broken down and included in the vendor's bid response.
2. Assist the Iowa DOT in the implementation of the project website as specified.
3. Maintain, update and support the website throughout the duration of the contract. **See Section 3.11**
4. Upon completion of project, archive the project and transfer data to the Iowa DOT in a predetermined format. PDF is preferred, other formats shall be reviewed. Vendor proposals shall detail how archived information will be transferred to the Iowa DOT. After the Iowa DOT has communicated that they have received the archived files in a usable condition the vendor will be required to completely remove all project information from their system as agreed upon.

### **3.7 Project Management**

A project manager will be assigned by the vendor for the duration of the contract. This project manager will work with the Iowa DOT project managers to customize and implement the web-based collaboration solution to ensure the website successfully meets the needs of its many users. Project managers will discuss all aspects of development to determine system performance measures and design modifications in a test environment before deployment.

Other project management requirements are, but not limited to:

1. Acceptance of reasonable website design modification requests from the Iowa DOT based on Iowa DOT staff requests or public feedback.
2. Submit a proposed project website customization and implementation schedule with the bid proposal. Upon award, this schedule may be updated prior to contract execution.
3. The Iowa DOT may require administrative, maintenance or modification responsibilities to the website beyond user account administration. Vendor staff will work with the Iowa DOT's Information Technology Division project manager to train Iowa DOT personnel to perform tasks as agreed.
4. Vendor staff must provide training for Iowa DOT personnel if Iowa DOT will be responsible for any maintenance or modification to the project system. The vendor will also be responsible for training the Iowa DOT project manager and primary project stakeholders on the use of project applications and tools.

### **3.8 System Access**

Project participants require uninterrupted access to the project website. The vendor shall clearly state a minimum percentage of time that the website shall be accessible by users. Vendor must notify the Iowa DOT project manager of any and all planned outages. System users may work evening and weekends, planned system outages should accommodate this work schedule.

### **3.9 Testing**

System testing will occur and be conducted in accordance with the terms of the contract to be negotiated between the Iowa DOT and the successful vendor.

### **3.10 Training**

The vendor shall propose training options and levels of training for system users and DOT administrators along with the associated costs.

### **3.11 Maintenance**

The vendor shall propose a monthly maintenance fee for project web site operation. An itemized fee structure and hourly rate is required and shall be provided in the Schedule of Prices. If additional work outside the scope of the project is required, the Schedule of Prices shall be referenced for rates.

Phone support and any other items included in the monthly maintenance shall be described.

### **3.12 Iowa DOT Responsibilities**

#### **3.12.1 Project Administration**

##### **3.12.1.1 Contract Administration**

Contract administration will be the responsibility of the Office of Procurement and Distribution, Purchasing Section, Renee R. Shirley, Issuing Officer.

##### **3.12.1.2 Points of Contact**

Two (2) Iowa DOT project managers will be assigned to this project.

*Office of Bridges and Structures – Jim Nelson*  
*Information Technology Division– Kim Powell*

#### **3.12.2 Monthly Status Meetings**

Monthly status meetings or conference calls between Iowa DOT Project Manager and/or Iowa DOT representative(s) and the vendor will be held. Meetings shall assess risk and review progress of work assignments.

The frequency of these meetings may, at the discretion of the Iowa DOT Project Manager and/or Iowa DOT representative(s) be changed.

### **3.12.3 Data Ownership**

The Iowa Department of Transportation shall retain ownership of the data on the website.

## Section 4 Format and Content of Bid Proposals

### 4.1 Instructions

These instructions prescribe the format and content of the vendor's submitted bid proposal. They are designed to facilitate a uniform review process. Failure to adhere to the proposal format may result in the disqualification of the bid proposal.

It is the request of the Iowa DOT that the following section headings be used in the bidder responses to this RFP and that they be arranged in the order as listed in the proposal. The bidder should provide a table of contents and should label divider tabs. Responses must be in sufficient detail to permit an understanding and comprehensive evaluation of the vendor's bid.

A minimum of one (1) original and five (5) copies of the bid, one (1) complete set of any referenced manuals, and any other pertinent documentation, and all its constituent parts will be furnished. Information should be sufficiently detailed to substantiate those products or services offered meet or exceed the proposal requirements. **The Iowa DOT also requires the proposal information to be submitted on CD or DVD in addition to the hard copy RFP submittal. . Please include any Financial or Confidential Information as a separate file within the electronic bid response.**

If the vendor designates any information in its proposal as confidential pursuant to Section 2, the vendor must clearly indicate any pages in the bid proposal that contain confidential information. The vendor must also submit one (1) copy of the bid proposal from which confidential information has been excised. The confidential material must be excised in such a way as to allow the public to determine the general nature of the material removed and to retain as much of the bid proposal as possible.

Vendor bid proposals shall not contain promotional or display materials.

### 4.2 Proposal-Document Submittal

The bid proposal shall be typewritten on 8.5" x 11" paper (one side only) bound securely. The following documents and responses shall be included in the bid proposal in the order given below.

#### 4.2.1 Cover Page

**Proposal No.: LT00723**

**RFP Title: Web-based Construction Collaboration Services**

**Iowa Department of Transportation**

**800 Lincoln Way**

**Ames, Iowa 50010**

**Submitted by: Vendor's Name and Address**

**Date:**

#### 4.2.2 Transmittal Letter

An individual authorized to legally bind the vendor shall sign the transmittal

letter. The letter shall include the vendor's mailing address, electronic mail address, fax number, and telephone number.

Any request for confidential treatment of information shall be included in the transmittal letter in addition to the specific statutory basis supporting the request and an explanation why disclosure of the information is not in the best interest of the public. The transmittal letter shall also contain the name, address and telephone number of the individual authorized to respond to the Iowa DOT about the confidential nature of the information.

#### **4.2.3 Table of Contents**

The vendor shall include a table of contents of its bid proposal.

#### **4.2.4 Schedule of Prices Document**

All cost information on the Schedule of Prices must be provided including vendor's proposed hourly rate and estimated total project hours and justification, travel expenses and any other information to justify the total proposed cost. Incomplete information on this form may result in rejection of bid.

#### **4.2.5 Executive Summary**

The vendor shall prepare an executive summary and overview of the services it is offering, including all of the following information:

**4.2.5.1** Statements that demonstrate that the vendor understands and agrees with the terms and conditions of the RFP and the proposed contract.

**4.2.5.2** A vision and mission statement for service as requested in the RFP.

**4.2.5.3** An overview of the vendor's plans for timely delivery of services (including project management approach).

**4.2.5.4** An overview of the vendor's knowledge of requirements and its proposed approach for delivering results.

#### **4.2.6 Work Plan**

The vendor shall address each deliverable and performance measure in Section 3 of the RFP. Proposals must be fully responsive to project requirements. Merely repeating the requirements will be considered non-responsive and may disqualify the vendor.

Proposals must identify any deviations from the requirements of this RFP or requirements the vendor cannot satisfy.

Any deviations from the requirements of the RFP or any requirement of the RFP that the vendor cannot satisfy may disqualify the vendor.

#### **4.2.7 Background Information**

The vendor shall provide the following general background information:

- 4.2.7.1** Name, address, telephone number, fax number and e-mail address of the vendor including all doing business as (d/b/a) assumed names or other operating names of the vendor.
- 4.2.7.2** Form of business entity, i.e., corporation, partnership, proprietorship, limited liability company.
- 4.2.7.3** State of incorporation, state of formation, or state of organization.
- 4.2.7.4** Identify and specify the location(s) and telephone numbers of the major offices and other facilities that relate to the vendor's performance under the terms of this RFP.
- 4.2.7.5** Local office address and phone number (if any).
- 4.2.7.6** Number of employees per each location.
- 4.2.7.7** Type of business.
- 4.2.7.8** Name, address and telephone number of the vendor's representative to contact regarding all contractual and technical matters concerning this proposal.
- 4.2.7.9** Name, address and telephone number of the vendor's representative to contact regarding scheduling and other arrangements.
- 4.2.7.10** Name and qualifications of any subcontractors who will be involved with this project.

The successful vendor will be required to register to conduct business in Iowa. If already registered, provide the date of the vendor's registration to conduct business in Iowa and the name of the vendor's registered agent.

#### **4.2.8 Company Experience**

The vendor must provide the following information regarding its experience:

- 4.2.8.1** Number of years in business.
- 4.2.8.2** Number of years experience with providing the types of services sought by the RFP.
- 4.2.8.3** Describe the level of technical experience in providing the types of services sought by the RFP.

**4.2.8.4** List all services similar to those sought by this RFP that the vendor has provided to other businesses or governmental entities within the last five years (include dates of service).

**4.2.9 References**

List contact references from three (3) previous clients knowledgeable of the vendor's performance in providing similar services. All referenced projects shall have been completed in the last three (3) years. Include a contact person, title, project responsibilities and telephone number for each reference.

**4.2.10 Personnel**

The vendor must provide resumes for all key personnel, as defined in Section 3, involved in providing the services discussed in this RFP. The following information must be included in the resumes:

**4.2.10.1** Full name.

**4.2.10.2** Education.

**4.2.10.3** Years of experience and employment history, particularly as it relates to the scope of services specified herein.

**4.2.11 Financial Information**

The successful vendor may be asked to provide the following financial information:

**4.2.11.1** Audited financial statements (annual reports) for the last two (2) years.

**4.2.11.2** A minimum of two (2) financial references.

**4.2.12 Terminations, Litigation, Debarment**

The vendor must provide the following information based on the last five (5) years.

**4.2.12.1** Has the vendor had a contract for services terminated for any reason? If so, provide full details related to the termination.

**4.2.12.2** Describe any damages or penalties of anything of value traded or given up by the vendor under any of its existing or past contracts as it relates to services performed that are similar to the services contemplated by this RFP and the resulting Contract. If so, indicate the reason for the penalty or exchange of property or services and the estimated account of the cost of that incident to the vendor.

**4.2.12.3** Describe any damages or penalties or anything of value traded or given up by vendor under any of its existing or past contracts as it relates to services performed that are similar to the services

contemplated by this RFP. If so, indicate the reason for the penalty or exchange of property or services and the estimated amount of the cost of that incident to the vendor.

**4.2.12.4** Describe any order, judgment or decree of any Federal or State authority barring, suspending or otherwise limiting the right of the vendor to engage in any business, practice or activity.

**4.2.12.5** List and summarize pending or threatened litigation, administrative or regulatory proceedings, or similar matters that could affect the ability of the vendor to perform the required services.

The vendor must also state whether it or any owners, officers, or primary partners have ever been convicted of a felony. Failure to disclose these matters may result in rejection of the bid proposal or in termination of any subsequent contract. This is a continuing disclosure requirement. Any such matter commencing after submission of a bid proposal, and with respect to the successful vendor after the execution of a contract, must be disclosed in a timely manner in a written statement to the Iowa DOT.

**4.2.13 Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions**

The vendor shall sign and submit with the bid proposal the document included as **Appendix A** in which the vendor shall certify that it is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal, department or agency and shall certify that the contents of the bid proposal are true and accurate.

**4.2.14 Certification of Independence and No Conflict of Interest**

The vendor shall sign and submit with the bid proposal the document included as **Appendix B** in which the vendor shall certify that it developed the bid proposal independently. The Iowa DOT reserves the right to reject a bid proposal or cancel the award if, in its sole discretion, any relationship exists that could interfere with fair competition or conflict with the interests of the Iowa DOT.

Each person signing this proposal certifies that the offer made by the submitted proposal, and any clarifications to that proposal, shall be signed by an officer of the offering entity or a designated agent empowered to bind the entity in a contract.

**4.2.15 Authorization to Release Information**

The vendor shall sign and submit with the bid proposal the document included as **Appendix C** in which the vendor authorizes the release of information to the Iowa DOT.

**4.2.16 Statement of Confidentiality and Non-disclosure**

See **Appendix D**

#### **4.2.17 Acceptance of Terms and Conditions**

The vendor shall sign and specifically agree that the bid proposal is predicated upon the acceptance of all terms and conditions stated in the RFP. If the vendor objects to any term or condition, the vendor must specifically refer to the RFP page, and section. Objections or responses that materially alter the RFP may be deemed non-responsive and disqualify the vendor.

**SECTION 5 AWARD MATRIX OF BID PROPOSALS**

**5.1 Introduction**

This section describes the evaluation process that will be used to determine which bid proposal provides the greatest benefits to the Iowa DOT. The evaluation process is designed to award the contract not necessarily to the vendor of least cost, but rather to the vendor with the best combination of attributes to perform the required services.

Proposals will be evaluated to ensure that they meet the minimum requirements described in the RFP. Proposals will be scored in accordance with the Evaluation Criteria, Award Matrix.

**5.2 Evaluation Criteria**

The proposal evaluation criteria shall be used by the Evaluation Committee for purpose of award. Items are not listed in any particular order of importance.

<b>Evaluation Criteria</b>
<p><b>Overall quality of content of submitted proposal information and responsiveness</b>  RFP Specifications  Proposal scope and schedule</p>
<p><b>Data Security</b>  Hosting  Site Access  Auditing  Archiving</p>
<p><b>Functionality</b>  Available functions: Mandatory and optional  Solution workflow  User interface</p>
<p><b>Vendor Presentation</b>  Scoring is based on the vendor’s presentation and responses to Iowa DOT questions.</p>
<p><b>Experience</b>  Previous projects  Qualification of subcontractors  Demonstrated ability to meet deadlines</p>
<b>Cost – See Schedule of Prices</b>

All proposals submitted will be given a point rating and total score based on the Evaluation Criteria in Table 5.2. 100 points are possible. Using the final ratings, a consensus score will be determined for each bidder. Weighting of evaluation categories is not available to the vendors prior to the bid opening on **July 22, 2009**.

### **5.3 In the Event of a Tie**

Bids which are equal in all respects and are tied in price shall be resolved among the tied bidders by giving first preference to an Iowa bidder and second preference to the bidder who satisfactorily performed a contract the previous year for the same item at the same location. If the tie involves bidders with equal standing, the award shall be determined by lot among these bidders. A tied bidder or the bidder's representative may witness the determination by lot. *Iowa Administrative Code Chapter 20.4(6) b.*

### **5.4 Evaluation Committee**

The Iowa DOT intends to conduct a comprehensive, fair and impartial evaluation of bid proposals received in response to this RFP. The Iowa DOT will use an Evaluation Committee to review and evaluate the proposals.

The Evaluation Committee shall consist of Iowa DOT members with special procurement and technical expertise. Vendors may not contact members of the Evaluation Committee except at the Iowa DOT's request.

### **5.5 Recommendation of the Evaluation Committee**

The final evaluation will be based on the criteria as listed in Section 5.2.

### **5.6 Protest of Award**

Protest of award shall be made in accordance with the Iowa Administrative Code 761-20.4(6)"e."

## Section 6 Contract Terms and Conditions

### 6.1 Contract Terms and Conditions

The contract that the Iowa DOT expects to award as a result of this RFP will be based upon the bid proposal submitted by the successful vendor and this solicitation. The contract between the Iowa DOT and the successful vendor shall be a combination of the specifications, terms and conditions of the RFP, the offer of the vendor contained in the technical and cost proposals, written clarifications or changes made in accordance with the provisions herein, and any other terms deemed necessary by the Iowa DOT. All costs associated with complying with these requirements should be included in the revenue proposal or any pricing quoted by the vendor.

**By submitting a proposal, each vendor acknowledges its acceptance of these specifications, terms and conditions without change except as otherwise expressly stated in its proposal. If a vendor takes exception to a provision, it must state the reason for the exception and set forth in its proposal the specific contract language it proposes to include in place of the provision. Exceptions that materially change these terms or the requirements of the RFP may be deemed non-responsive by the Iowa DOT, in its sole discretion, resulting in possible disqualification of the proposal.** The Iowa DOT reserves the right to either award a contract without further negotiation with the successful vendor or to negotiate contract terms with the selected vendor if the best interests of the Iowa DOT would be served.

### 6.2 Contract Period

The term of the contract will commence no earlier than **September 1, 2009**, and end no later than **August 31, 2012**.

### 6.3 Contract Extension

A contract extension may be offered to the awarded vendor for three (3) years in twelve month increments.

### 6.4 Vendor Qualification Requirement

Prior to execution of a contract with a vendor, the vendor must qualify to do business with the State of Iowa.

### 6.5 Scope of Services

The services to be performed pursuant to and as a result of this contract by the vendor are described in Project Specifications, Section 3, and made a part hereof by this reference.

The vendor shall prepare and deliver specifications to the Iowa DOT which will detail the design, technical and functional capabilities, and other attributes related to the project, all as more fully described in Section 3.

**Amendments to Scope of Services and Specifications.** The parties agree that the Scope of Services and the specifications may be revised, replaced, amended or deleted at any time during the term of this Contract to reflect changes in service or performance standards upon the mutual written consent of the parties.

**Industry Standards.** Services rendered pursuant to this Contract shall be performed in a

professional and workmanlike manner in accordance with the terms of this Contract and with generally acceptable industry standards of performance for similar tasks and projects. In the absence of a detailed specification for the performance of any portion of this Contract, the parties agree that the applicable specification shall be the generally accepted industry standard. As long as the Iowa DOT notifies the vendor promptly of any services performed in violation of this standard, the vendor will re-perform the services, at no cost to Iowa DOT, such that the services are rendered in the above-specified manner.

**Non-Exclusive Rights.** This Contract is not exclusive. The Iowa DOT reserves the right to select other vendors to provide services similar or identical to the Scope of Services described in this Contract during the term of this Contract.

## **6.6 Licenses**

The vendor shall be responsible for all software licenses and annual software maintenance fees required for its work that reside on the vendor's equipment.

## **6.7 Labor Regulations**

All vendors, before entering into a contract with the Iowa DOT, must be registered with the Division of Labor in the Workforce Development, 515-281-3606 according to chapter 91C, Code 1993.

## **6.8 Vendor's Insurance Requirements**

It shall be the vendor's responsibility to have liability insurance covering all of the project operations incident to contract completion and the successful vendor must have on file with the Iowa DOT a current "Certificate of Insurance" prior to contract.

The certificate shall identify the insurance company name and address, vendor name, policy period, type of policy, limits of coverage, and scope of work covered (single contract or statewide).

This requirement shall apply with equal force, whether the work is performed by persons employed directly by the vendor(s) including a subcontractor, persons employed by a subcontractor(s), or by an independent contractor(s).

**In addition to the above, the Iowa DOT shall be included as an insured party, or a separate owner's protective policy shall be filed showing the Contracting Authority as an insured party.**

The liability insurance shall be written by an insurance company (or companies) qualified to do business in Iowa. For all other contractors, subcontractors, independent contractors, and the Contracting Authority, the minimum coverage by such insurance shall be as follows:

- *Comprehensive General Liability* including Contractual Liability;
- Damage; Occurrence Basis Bodily Injury; Broad Form Personal Injury; Broad Form Property Damage.

## Bodily Injury

The contractor will purchase and maintain throughout the term of this contract the following minimum limits and coverage:

- Each person \$750,000
- Each accident/occurrence \$750,000
- Workers Compensation \$750,000
- Statutory Limits \$750,000
- Employer's liability \$750,000
- Pollution Liability \$750,000
- Occupation Disease \$750,000

## Operations

- Property Damage \$250,000 each occurrence

Failure on the part of the vendor(s) to comply with the requirements of this Article will be considered sufficient cause to suspend the work, withhold estimates, and to deny the vendor(s) any further contract awards, as provided in Article 1103.01.

The vendor(s) shall require all subcontractor(s) meet the above insurance requirements.

### **The Certificate of Insurance must include the following:**

- Iowa Department of Transportation must be listed as an additional insured
- Proposal Number
- Proposal Description
- Letting Date
- Contract Period

## **6.9 Contract Termination**

It is imperative that the vendor consistently provides high quality services. Below are procedures that will be utilized in the event that the contract must be terminated due to the vendor's lack of ability to produce required results:

### **6.9.1 Immediate Termination by the Iowa DOT**

The Iowa DOT may terminate this contract in writing for any of the following reasons effective immediately without advance notice:

- 6.9.1.1** In the event the vendor is required to be certified or licensed as a condition precedent to providing services, the revocation or loss of such license or certification will result in immediate termination of the Contract effective as of the date on which the license or certification is no longer in effect;
- 6.9.1.2** The Iowa DOT determines that the actions, or failure to act, of the vendor, its agents, employees or subcontractors have caused, or reasonably could cause, a client's life, health or safety to be jeopardized;

- 6.9.1.3** The vendor fails to comply with confidentiality laws or provisions;
- 6.9.1.4** The vendor furnished any statement, representation or certification in connection with this Contract or the RFP which is materially false, deceptive, incorrect or incomplete;

## **6.9.2 Termination for Cause**

The occurrence of any one or more of the following events shall constitute cause for the Iowa DOT to declare the vendor in default of its obligations under this Contract.

- 6.9.2.1** The vendor fails to perform to the Iowa DOT's satisfaction, per Section 3 Project Specification requirements.
- 6.9.2.2** The Iowa DOT determines that satisfactory performance of this Contract is substantially endangered or that a default is likely to occur.
- 6.9.2.3** The vendor fails to make substantial and timely progress toward performance and deliverables within the contract.
- 6.9.2.4** The vendor consistently misses deadlines agreed upon with the Iowa DOT project managers.
- 6.9.2.5** The vendor replaces key personnel with individuals who have less experience, knowledge and skills in the areas of their responsibilities.
- 6.9.2.6** The vendor staff's knowledge, skills, and experience are unacceptable to the Iowa DOT and do not reflect what the vendor represented the skill sets of their staff that would be assigned to this engagement.
- 6.9.2.7** The vendor's staff turnover is unacceptably high to Iowa DOT.
- 6.9.2.8** The vendor fails to effectively manage vendor staff time and/or assignments.
- 6.9.2.9** The vendor's quality of work is unacceptable to Iowa DOT (i.e., incorrect results, standards are not followed).
- 6.9.2.10** The vendor's quantity of work is unacceptable to Iowa DOT. The vendor fails to perform additional assignments as requested.
- 6.9.2.11** The vendor does not respond to critical issues and/or fails to participate in problem resolution when asked. This includes requests for support in the evenings and weekends.
- 6.9.2.12** The vendor's deliverable(s) cause a major outage to the Iowa DOT's IT infrastructure.

- 6.9.2.13** The vendor becomes subject to any bankruptcy or insolvency proceeding under federal or state law to the extent allowed by applicable federal or state law including bankruptcy laws; the vendor terminates or suspends its business; or the Iowa DOT reasonably believes that the vendor has become insolvent or unable to pay its obligations as they accrue consistent with applicable federal or state law.
- 6.9.2.14** The vendor has failed to comply with applicable federal, state and local laws, rules, ordinances, regulations and orders when performing within the scope of this Contract.
- 6.9.2.15** The vendor has engaged in conduct that has or may expose the Iowa DOT to liability, as determined in the Iowa DOT's sole discretion.
- 6.9.2.16** The vendor has infringed any patent, trademark, copyright, trade dress or any other intellectual property right.

**6.9.3 Notice of Default**

If there is a default event caused by the vendor, the Iowa DOT shall provide written notice to the vendor requesting that the breach or noncompliance be remedied within the period of time specified in the Iowa DOT's written notice to the vendor. If the breach or noncompliance is not remedied by the date in the written notice, the Iowa DOT may either:

- 6.10.3.1** Immediately terminate the contract without additional written notice.
- 6.10.3.2** Enforce the terms and conditions of the contract and seek any legal or equitable remedies.

**6.9.4 Termination Upon Notice**

Following 30 days written notice, the Iowa DOT may terminate this Contract in whole or in part without the payment of any penalty or incurring any further obligation to the vendor. Following termination upon notice, the vendor shall be entitled to compensation, upon submission of invoices and proper proof of claim, for services provided under this Contract to the Iowa DOT up to and including the date of Termination.

**6.9.5 Termination Due to Lack of Funds or Change in Law**

The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the vendor as a result of any of the following:

- 6.9.5.1** Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under this Contract.
- 6.9.5.2** Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the Iowa DOT's sole discretion, are insufficient for

any reason.

**6.9.5.3** The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.

**6.9.5.4** The Iowa DOT's duties are substantially modified.

#### **6.9.6 Remedies of the Vendor in Event of Termination by the Iowa DOT**

In the event of termination of this Contract for any reason by the Iowa DOT, the Iowa DOT shall pay only those amounts, if any, due and owing to the vendor for services actually rendered up to and including the date of termination of the contract and for which the Iowa DOT is obligated to pay pursuant to this Contract.

Payment will be made only upon submission of invoices and proper proof of the vendor's claim. This provision in no way limits the remedies available to the Iowa DOT under this Contract in the event of termination. However, the Iowa DOT shall not be liable for any of the following costs:

**6.9.6.1** The payment of unemployment compensation to the vendor's employees.

**6.9.6.2** The payment of workers' compensation claims, which occur during the contract or extend beyond the date on which the contract terminates.

**6.9.6.3** Any costs incurred by the vendor in its performance of the contract, including, but not limited to, startup costs, overhead or other costs associated with the performance of the contract.

**6.9.6.4** Any taxes that may be owed by the vendor in connection with the performance of this Contract, including, but not limited to, sales taxes, excise taxes, use taxes, income taxes or property taxes.

#### **6.9.7 Vendor Termination Duties**

The vendor, upon receipt of notice of termination or upon request of the Iowa DOT, shall:

**6.9.7.1** Cease work under this Contract and take all necessary and appropriate steps to limit disbursements and minimize costs, and furnish a report within thirty (30) days of the date of notice of termination, describing the status of all work under the contract, including, without limitation, results accomplished, conclusions resulting therein, any other matters the Iowa DOT may require.

**6.9.7.2** Immediately cease using and return to the Iowa DOT any personal property or materials provided by the Iowa DOT to the vendor.

**6.9.7.3** Comply with the Iowa DOT's instructions for the timely transfer of

any active files and work product produced by the vendor under this Contract.

**6.9.7.4** Cooperate in good faith with the Iowa DOT, its employees, agents and vendors during the transition period between the notification of termination and the substitution of any replacement vendor.

**6.9.7.5** Issue credit to the Iowa DOT for any payments made by the Iowa DOT for services that were inappropriately billed for services that were not rendered by the vendor.

## **6.9.8 Unacceptable Deliverables**

The vendor shall be required to perform the work for each deliverable in accordance with the terms, conditions, and representations of this Contract.

**6.9.8.1** The vendor shall submit completed deliverables to the Iowa DOT Project Manager for review, approval and final acceptance. The Iowa DOT Project Manager shall accept deliverables within five (5) business days or notify the vendor that deliverables are not acceptable. If the Iowa DOT Project Manager determines that any deliverable is not acceptable and the deficiencies are the responsibility of the vendor, the Iowa DOT Project Manager shall prepare a detailed written description of all deficiencies with an associated and reasonable time frame for correction, and shall deliver such notice to the vendor. The vendor shall correct all deficiencies at no cost to the Iowa DOT.

If the corrective work causes any project delays, the vendor will submit a plan for regaining the project schedule for remaining work under the contract, unless otherwise allowed by the Iowa DOT Project Manager. If the identified deficiencies have not been corrected within the specified timeline, the Iowa DOT may take these actions:

**6.9.8.2** Terminate this Contract immediately upon written notice without further payment or any further obligation or liability of any kind to the vendor.

**6.9.8.3** Require the vendor to correct the deficiencies within an identified time period, reserving the right to terminate at any time.

This provision does not limit any other rights or remedies the Iowa DOT may have for unacceptable work including the right to impose liquidated damages at the Iowa DOT's discretion.

## **6.9.9 Failure to Meet Deliverable Due Dates**

Should the vendor determine, during the course of performance under this Contract, that the estimated hours to complete the assignment is insufficient or the due date for deliverables cannot be met, the vendor's Project Manager shall notify the Iowa DOT Project Manager immediately, but not less than five days

prior to the due date. The vendor shall request an extension and include a written summary outlining the reason for the delay and a proposed revised delivery schedule.

At the sole discretion of the Iowa DOT Project Manager, the due date for deliverables may be extended. The vendor shall be notified in writing of such approval. Such approval shall not constitute a waiver on the part of the Iowa DOT of its right to enforce future delivery dates. It shall be the vendor's responsibility to ensure the project remains on schedule.

**6.9.9.1** If the deliverables are not delivered to the Iowa DOT Project Manager on or before the due date and the Iowa DOT Project Manager has not extended the due date, Iowa DOT may take the action of contract termination immediately upon written notice, without further payment of any further obligation or liability of any kind to the vendor; or, require the vendor to provide the deliverable on a revised date, reserving the same right to terminate the contract as stated above.

This provision does not limit any other right or remedy Iowa DOT may have for late deliverables, including imposition of liquidated damages, nor does it limit payment for work by the vendor submitted and accepted by Iowa DOT.

#### **6.9.10 Unacceptable Deliverable Estimates**

The Iowa DOT Project Manager shall review and accept or reject estimates within fifteen (15) days of receipt. If the Iowa DOT Project Manager deems estimates are invalid, the Iowa DOT Project Manager shall reject the estimates and shall provide the reason(s) it deems the estimates to be invalid, and, when applicable, shall provide specific requirements for additional data to support the estimates and provide the vendor a reasonable opportunity to review its estimates, and when appropriate, provide additional supporting information. Upon receipt of the revised estimate or additional supporting information, this process shall be repeated until the Iowa DOT Project Manager accepts the estimates.

#### **6.10 Force Majeure**

Neither the vendor nor the Iowa DOT shall be liable to the other for any delay or failure of performance of this Contract, and no delay or failure of performance shall constitute a default or give rise to any liability for damages if, and only to the extent that, such delay or failure is caused by a "force majeure."

As used in this Contract, "force majeure" includes acts of God, war, civil disturbance and any other causes which are beyond the control and anticipation of the party effected and which, by the exercise of reasonable diligence, the party was unable to anticipate or prevent.

Failure to perform by a subcontractor or an agent of the vendor shall not be considered a "force majeure" unless the subcontractor or supplier is prevented from timely performance by a "force majeure" as defined in this Contract.

"Force majeure" does not include: financial difficulties of the vendor or any parent, subsidiary, affiliated or associated company of the vendor; claims or court orders which restrict the vendor's ability to deliver the goods or services contemplated by this Contract.

If a "force majeure" delays or prevents the vendor's performance, the vendor shall immediately commence to use its best efforts to directly provide alternate, and to the extent possible, comparable performance.

Comparability of performance and the possibility of comparable performance shall be reasonably determined solely by the Iowa DOT.

During any such period, the vendor shall continue to be responsible for all costs and expenses related to alternative performance.

This Section shall not be construed as relieving the vendor of its responsibility for any obligation which is being performed by a subcontractor or supplier of services unless the subcontractor or supplier is prevented from timely performance by a "force majeure" as described here.

#### **6.11 Indemnification by Vendor**

The vendor agrees to defend, indemnify and hold the Iowa DOT, and the State of Iowa, its employees, agents, board members, appointed officials and elected officials, harmless from any and all demands, debts liabilities, damages, loss, claims, suits or actions, settlements, judgments, costs and expenses, including the reasonable value of time expended by the Attorney General's Office, and the costs and expenses and attorney fees of other counsel required to defend the Iowa DOT or the State of Iowa related to or arising from:

Any violation or breach of this Contract including without limitation any of the vendor's representations or warranties; or

Any acts or omissions, including, without limitation, negligent acts or omissions or willful misconduct of the vendor, its officers, employees, agents, board members, contractors, subcontractors, or counsel employed by the vendor in the performance of this Contract, or any other reason in connection with the goods and services provided under this Contract; or

Claims for any violation of any intellectual property right including but not limited to infringement of patents, trademarks, trade dress, trade secrets, or copyrights arising from the any of the goods or service performed in accordance with this Contract; or

The vendor's performance or attempted performance of this Contract; or

Any failure by the vendor to comply with all local, State and Federal laws and regulations; or

Any failure by the vendor to make all reports, payments and withholdings required by Federal and State law with respect to social security, employee income and other taxes, fees or costs required by the vendor to conduct business in the State of Iowa.

The vendor's duty to indemnify as set forth in this section shall survive the expiration or termination of this Contract and shall apply to all acts taken in the performance of this Contract regardless of the date any potential claim is made or discovered by the State.

#### **6.12 Indemnification by Department**

The State shall, only to the extent consistent with Article VII, Section 1 of the Iowa Constitution and Iowa Code Chapter 669, indemnify and hold harmless the vendor from and against any and all costs, expenses, losses, claims, damages and liabilities arising directly out of the negligence or wrongful acts or omissions of any employee of the Iowa DOT while acting within the scope of the employee's office of employment in connection with the performance of this Contract.

At the option of the Iowa DOT, the vendor shall be represented by the Attorney General of the State or special counsel retained by the Iowa DOT or the Attorney General of the State with respect to any litigation brought by or against the vendor or such persons with respect to any claims, damages, judgments, liabilities or causes of action to which such persons may be subject and to which they are entitled to be indemnified hereunder.

Indemnification under this Section shall survive the termination of this Contract and shall include reasonable fees and expenses of counsel and expenses of litigation. If the Iowa DOT shall have made any indemnity payments pursuant to this Section and the person to or on behalf of whom such payments are made thereafter shall collect any of such amounts from others, such person shall promptly repay such amounts to the Iowa DOT, without interest.

#### **6.13 Payment**

Payment for services will be determined and agreed upon by the vendor and Iowa DOT based on the information in the Schedule of Prices.

Payments on contract will be made monthly by means of state warrants to the extent of ninety-five percent (95%) of the value of work performed. Invoicing shall be based on the vendor's hours worked the previous month for customization. The Iowa DOT shall retain from each monthly payment five percent (5%) of the amount due. The state will pay retainage as early as thirty (30) days after the successful end of the engagement. The Iowa DOT will not pay any additional costs, altered from bid price, unless approved prior to the work performed.

#### **6.14 Travel Expenses**

If travel is required, actual travel expenses will be based on government per diems and must have prior approval by Iowa DOT project manager. Privately Owned Vehicle (POV) Mileage Reimbursement Rates will apply.

Receipts for actual incurred travel expenses are to be submitted with invoice. Reimbursements for travel expenses are not to exceed the maximum reimbursement allowances established by GSA per diem rates. These rates can be found at [www.GSA.gov](http://www.GSA.gov) website. Travel should be by most economic means.

### **6.15 Care of Property**

The vendor shall be responsible for the proper custody and care of any the State- owned tangible personal property furnished for the vendor's use in connection with the performance of the contract, and the vendor will reimburse the Iowa DOT for such property's loss or damage caused by the vendor, normal wear and tear excepted.

### **6.17 Public Contract Termination**

The Provisions of Iowa Law as contained in Chapter 573A of the Code of Iowa, an Act to provide for termination of contracts for the construction of public improvements when construction or work thereon is stopped because of national emergency shall apply to and be a part of this Contract, and shall be binding upon all parties hereto including subcontractors and sureties upon any bond given or filed in connection herewith.

**Appendix A**

**Proposal Certification and Certification Regarding Debarment, Suspension, and Eligibility,  
and Voluntary Exclusion**

Date:

Ms. Renee R. Shirley, Senior Purchasing Officer  
Iowa Department of Transportation  
Office of Procurement and Distribution  
Purchasing Division  
800 Lincoln Way  
Ames, Iowa 50010

Re: Request for Proposal Number **LT00723**  
Proposal Certification and Certification Regarding Debarment, Suspension, And Eligibility, And  
Voluntary Exclusion

Dear Ms. Shirley:

By submitting a proposal in response to Iowa Department of Transportation Request for Proposal Number **LT00723** for **Web-based Construction Collaboration Services** (RFP), the undersigned certifies the following:

1. I certify that the contents of the proposal submitted on behalf of the vendor listed below in response to Iowa Department of Transportation for Proposal Number LT00723, Web-based Construction Collaboration Services are true and accurate. I also certify that the Undersigned has not made any knowingly false statements in its proposal.
2. I certify that, to the best of my knowledge, the Undersigned and all of its principals: (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a Federal Department or Department; (b) have not within a three year period preceding this proposal been convicted of, or had a civil judgment rendered against them form commission of fraud, or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction, violation of antitrust statutes or commission of embezzlement, theft, forgery, falsification or destruction of records, making false statements, or receiving stolen property; (c) are not presently indicted for or other criminally or civilly charged by a government entity (federal, state, or local) with the commission of any of the offenses enumerated in (b) of this certification; and (d) have not within a three year period preceding this proposal had one or more public transactions (federal, state, or local) terminated for cause.
3. This certification is a material representation of fact upon which the Department has relied upon when this transaction was entered into. If it is later determined that the Undersigned knowingly rendered an erroneous certification, in addition to other remedies available, the Department may pursue available remedies including suspension, debarment, or termination of the contract.

Sincerely,

\_\_\_\_\_

Name and Title

\_\_\_\_\_

Date

\_\_\_\_\_

Company Name

**Appendix B**

**Certification of Independence and No Conflict Of Interest, Acknowledgement**

Date:

Ms. Renee R. Shirley, Senior Purchasing Officer  
Iowa Department of Transportation  
Office of Procurement and Distribution  
Purchasing Division  
800 Lincoln Way  
Ames, Iowa 50010

Re: Request for Proposal Number **LT00723**  
Certification of Independence and No Conflict Of Interest, Acknowledgement That Proposal Is  
Based On RFP and Firm Price Statement

Dear Ms. Shirley:

By submitting a proposal in response to Iowa Department of Transportation, Request for Proposal Number **LT00723 Web-based Construction Collaboration Services** (RFP), the undersigned certifies the following:

1. The proposal has been developed independently, without consultation, communication or agreement with any employee or consultant to the Department who has worked on the development of this RFP, or with any person serving as a member of the evaluation committee.
2. The proposal has been developed independently, without consultation, communication or agreement with any other vendor or parties for the purpose of restricting competition.
3. Unless otherwise required by law, the information found in the proposal has not been knowingly disclosed and will not be knowingly disclosed prior to the award of the contract, directly or indirectly, to any other vendor.
4. No attempt has been made or will be made by the undersigned to induce any other vendor to submit or not to submit a proposal for the purpose restricting competition.
5. No relationship exists or will exist during the contract period between the undersigned and the Department that interferes with fair competition or as a conflict of interest.
6. The vendor's proposal, including cost, is based solely on its own understanding of the requirements of the RFP based on the written contents of the RFP, and any written addenda and written clarifications provided to vendors during the procurement process by the purchasing officer.
7. The vendor acknowledges and agrees that the Department is not bound by any oral or written representations, statements, promises, agreements (formal or informal), or understandings (collectively Statements) which were made at any time prior to or during the procurement process by an elected official, officer, appointed official, employee, agent, representative or consultant which are NOT expressly incorporated into the RFP or included by written addenda or written clarifications during the procurement process and issued by the purchasing officer.

Sincerely,

---

Name and Title

---

Date

---

Company Name

**Appendix C**

**Authorization to Release Information**

Date:

Ms. Renee R. Shirley, Senior Purchasing Officer  
Iowa Department of Transportation  
Office of Procurement and Distribution  
Purchasing Division  
800 Lincoln Way  
Ames, Iowa 50010

Re: Request for Proposal Number **LT00723**  
Authorization to Release Information

Dear Ms. Shirley:

The undersigned hereby authorizes the Iowa Department of Transportation ("Department") to obtain information regarding its performance on other contracts, agreements or other business arrangements, its business reputation, and any other matter pertinent to evaluation and the selection of a successful vendor in response to Request for Proposal Number LT0723.

The vendor acknowledges that it may not agree with the information and opinions given by such person or entity in response to a reference request. The vendor acknowledges that the information and opinions given by such person or entity may hurt its chances to receive contract awards from the Department or may otherwise hurt its reputation or operations. The vendor is willing to take that risk.

The vendor hereby releases, acquits and forever discharges the State of Iowa, the Department, their officers, directors, employees and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the undersigned that it may have or ever claim to have relating to information, data, opinions, and references obtained by the Department in the evaluation and selection of a successful vendor in response to Request for Proposal Number LT00723.

The vendor authorizes representatives of the Department to contact any and all of the persons, entities, and references which are, directly or indirectly, listed, submitted, or referenced in the undersigned's proposal submitted in response to Request for Proposal Number LT00723.

The vendor further authorizes any and all persons, entities to provide information, data, and opinions with regard to the undersigned's performance under any contract, agreement, or other business arrangement, the undersigned's ability to perform, the undersigned's business reputation, and any other matter pertinent to the evaluation of the undersigned. The undersigned hereby releases, acquits and forever discharges any such person or entity and their officers, directors, employees and agents from any and all liability whatsoever, including all claims, demands and causes of action of every nature and kind affecting the undersigned that it may have or ever claim to have relating to information, data, opinions, and references supplied to the Department in the evaluation and selection of a successful vendor in response to Request for Proposal Number LT00723.

Sincerely,

\_\_\_\_\_

Name and Title

\_\_\_\_\_

Date

\_\_\_\_\_

Company Name

## Appendix D

### IOWA DEPARTMENT OF TRANSPORTATION CONFIDENTIAL INFORMATION & NON-DISCLOSURE AGREEMENT

THIS AGREEMENT is made on \_\_\_\_\_, 20\_\_\_\_ between the Iowa Department of Transportation (“Iowa DOT”) and

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(“Promissor”).

1. **Purpose.** The Iowa DOT and Promissor wish to explore a business possibility of mutual interest concerning contract application development and support assistance relating to the Iowa DOT’s proprietary Information Technology systems. In connection with this opportunity, certain trade and business information proprietary to Iowa DOT, hereafter referred to as the Iowa DOT and which the Iowa DOT considers Confidential Information may be provided to Promissor by Iowa DOT.

2. **Definition.** “Promissor” means each and every person or entity, including, but not limited to, a vendor and its representatives, contractors and sub-contractors.

“Confidential Information” means any proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customers, customer lists, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed to Promissor by Iowa DOT either directly or indirectly in writing, orally or by drawings or inspection of parts or equipment. Confidential Information does not include any of the foregoing items which (i) is known to Promissor at the time of disclosure to Promissor by Iowa DOT as evidenced by written records of the Promissor, (ii) has become publicly known and made generally available through no wrongful act of Promissor or (iii) has been rightfully received by Promissor from a third party who is authorized to make such disclosure.

3. **Nondisclosure of Confidential Information.** Promissor agrees not to use any Confidential Information disclosed to it by Iowa DOT for its use or for any purpose except to carry out discussions concerning, and the undertaking of, any business relationship between Promissor and Iowa DOT. Promissor will not disclose any Confidential Information of Iowa DOT to third parties or to employees of Promissor except employees who are required to have the information in order to carry out the discussions of the contemplated business.

Promissor will have or has had employees who have access to Confidential Information of Iowa DOT sign a nondisclosure agreement in content substantially similar to this Agreement and will promptly notify Iowa DOT in writing of the names of each such employee upon the request of Iowa DOT at any time.

Promissor agrees that it will take all reasonable measures to protect the secrecy of and avoid

disclosure or use of Confidential Information of Iowa DOT in order to prevent it from falling into the public domain or the possession of persons other than those persons authorized hereunder to have any such information, which measures shall include the highest degree of care that Promissor utilizes to protect its own Confidential Information of a similar nature. Promissor agrees to notify Iowa DOT promptly in writing of any misuse or misappropriation of Confidential Information of Iowa DOT which may come to Promissor's attention. Promissor also agrees that, without Iowa DOT prior written approval, Promissor shall not directly or indirectly disclose to anyone the existence of this Agreement or the fact that Promissor has this arrangement with Iowa DOT.

4. **Return of Materials.** Any materials or documents which have been furnished by Iowa DOT to Promissor will be promptly returned to Iowa DOT accompanied by all copies of such documentation, after the business possibility has been rejected or concludes, or at any time upon Iowa DOT request. No copies of Confidential Information may be made unless approved in writing by Iowa DOT.

5. **No License.** Nothing in this Agreement is intended to grant any rights to Promissor under any patent or copyright, nor shall this Agreement grant Promissor any rights in or to Iowa DOT Confidential Information, except the limited right to review such Confidential Information solely for the purposes of determining whether to enter into the proposed business relationship with Iowa DOT.

6. **Term.** The forgoing commitment of Promissor shall survive any termination of discussions between the parties and shall continue in perpetuity.

7. **Miscellaneous.** This Agreement shall be binding upon and for the benefit of the undersigned parties, their successors and assigns, provided that Confidential Information of Iowa DOT may not be assigned without the prior written consent of Iowa DOT. Failure to enforce any provision of this Agreement shall not constitute a waiver of any term hereof.

8. **Governing Law.** This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Iowa. The federal and state courts within the State of Iowa shall have exclusive jurisdiction to adjudicate any dispute arising out of this agreement or any disclosure by Iowa DOT of its Confidential Information to Promissor.

9. **Remedies.** Promissor agrees that the obligations of Promissor provided herein are necessary and reasonable in order to protect Iowa DOT and its business, and Promissor expressly agrees that monetary damages would be inadequate to compensate Iowa DOT for any breach by Promissor of its covenants and agreements set forth herein. Accordingly, Promissor agrees and acknowledges that any such violation or threatened violation will cause irreparable injury to Iowa DOT and that, in addition to any other remedies that may be available, in law, in equity or otherwise, Iowa DOT shall be entitled to obtain injunctive relief against the threatened breach of this Agreement of the continuation of any such breach by Promissor, without the necessity of proving actual damages.

10. **Entire Agreement.** This document contains the entire agreement between the parties with respect to the subject matter contained herein and supersedes any previous understandings, commitments or agreements, oral or written.

Dated: \_\_\_\_\_

\_\_\_\_\_  
*(Promissor)*

Iowa Department of Transportation  
Operations & Finance Division  
*(Agency)*

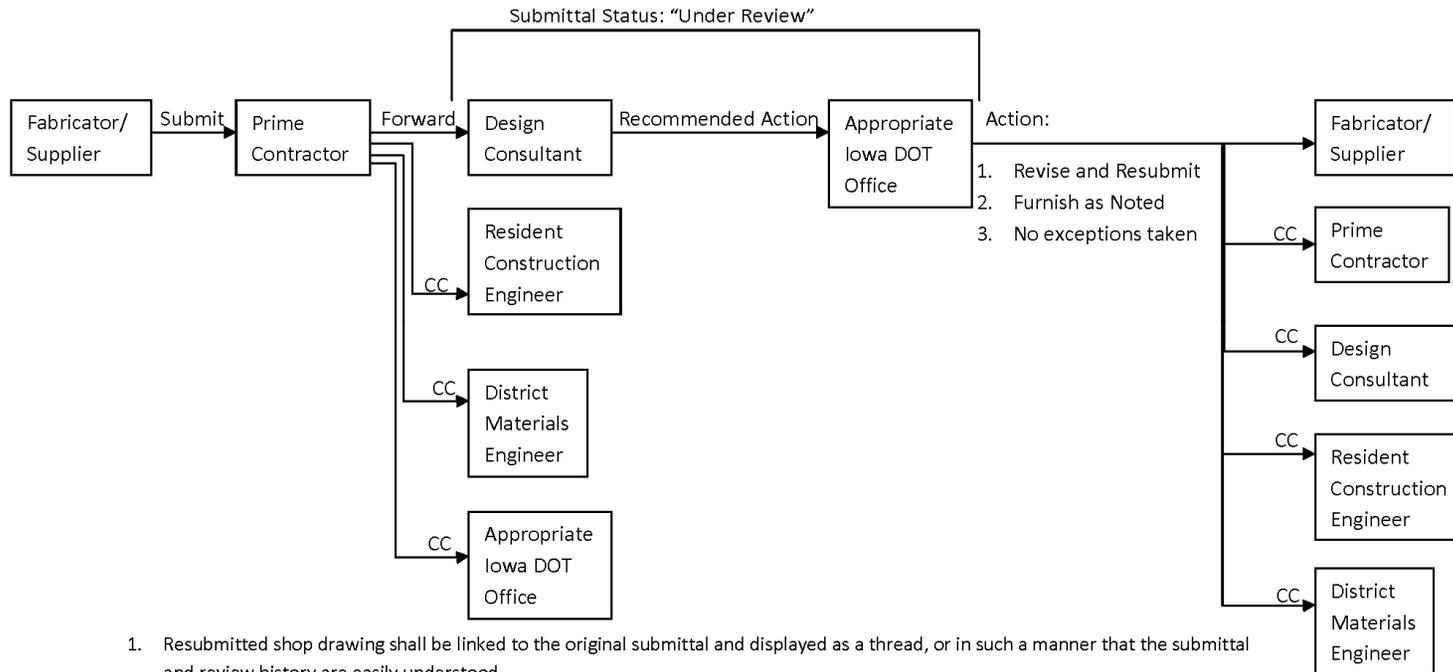
By \_\_\_\_\_  
*(Signature)*

By \_\_\_\_\_  
Patricia Harmeyer, Director of Purchasing

\_\_\_\_\_  
*(Type or Print Name)*

**Attachment A:**

Electronic Shop Drawing Review Process (Consultant Design):

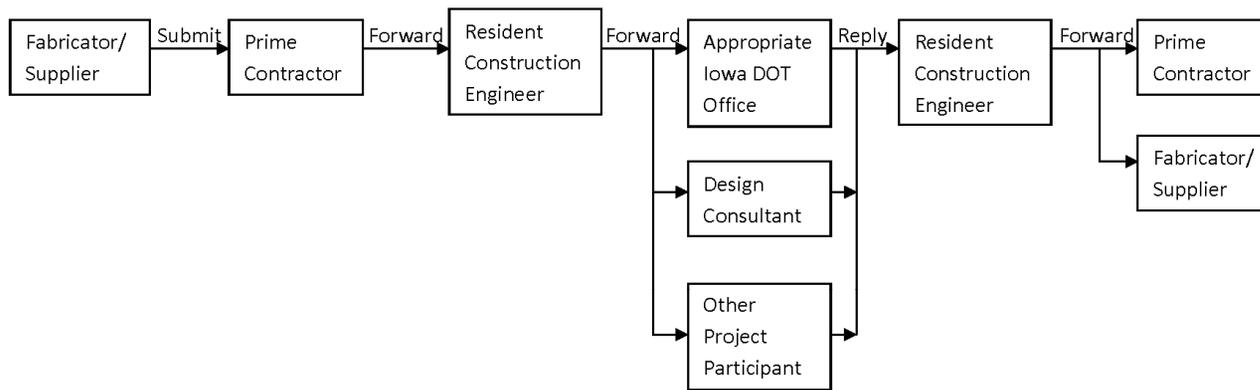


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1. Resubmitted shop drawing shall be linked to the original submittal and displayed as a thread, or in such a manner that the submittal and review history are easily understood.
2. Appropriate Iowa DOT office for submittals is outlined in Specification Section 1105.03
3. User Permissions shall be designed to require subcontractors and suppliers to upload and submit shop drawings to the prime contractor. Only the prime contractor will have the user permissions to submit shop drawing to the design consultants or Iowa DOT.
4. All arrows in the flow chart will have an associated email notifying the party that is receiving the information as to alert them without having to directly access the project website.

**Attachment B:**

Electronic Request For Information (RFI) Review Process:



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1. RFIs shall be linked to any applicable documents such as contract documents or shop drawings residing on the project website.
2. For all RFI's the Resident Construction Engineer (RCE) shall act a gatekeeper controlling the transmittal of information between contractors and designers. The RCE will have discretion determining the most appropriate party to forward the RFI to.
3. User Permissions shall be designed to require subcontractors and suppliers to upload and submit shop drawings to the prime contractor. Only the prime contractor will have the user permissions to submit RFI's to the RCE.
4. All arrows in the flow chart will have an associated email notifying the party that is receiving the information as to alert them without having to directly access the project website.

**Bidder** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

***SEALED BID***

**PROPOSAL NO:** \_\_\_\_\_

**PROPOSAL  
DESCRIPTION:** \_\_\_\_\_

**LETTING DATE:** \_\_\_\_\_

**Iowa Department of Transportation  
PURCHASING – SEALED BID PROPOSAL  
800 Lincoln Way  
Ames, Iowa 50010**



**APPENDIX F. DRAFT SPECIAL CONTRACT PROVISION**

SP-090XXX  
(New)



**Iowa Department of Transportation**

**SPECIAL PROVISIONS  
FOR  
ELECTRONIC SUBMITTALS**

Pottawattamie County

**Project No.**  
BRF-006-1(113)--38-78

**Effective Date**  
January 1, 2010

**THE STANDARD SPECIFICATION, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

**090XXX.01 GENERAL**

**1.01 Summary:** This special provision covers the submittal of electronic shop drawings, working drawings, other submittals as required by the contract documents, and requests for information (RFI).

In order to assist participants in the management of documents and also to improve communication, transparency, accountability, and the review time of the aforementioned documents, a document management website will be used for this project. This website will handle the submission, management, and approval of submittals and RFIs.

The website will require that participants have an Internet browser and an email account. For optimum use, a broadband Internet connection is recommended. The Iowa DOT will provide and maintain the project website. The Contractors will be responsible for accessing the website to comply with the special provision. It is anticipated that little to no formal training will be

required for users. A brief introduction to the website and its primary functions will be conducted at the project preconstruction meeting. Additional information regarding website support, training, and operation will be provided at that time.

## **090XXX.02 MATERIALS, EQUIPMENT, AND CONSTRUCTION**

**2.01 Description:** The primary purpose of the project website is to facilitate the electronic submittal process. Additionally the project website will manage RFIs, contract documents, and meeting minutes. The functionality of the website will allow project participants to upload submittals to the website for review. Review of documents will occur on the website and project participants will be notified of the results of the review via the website or an email from the website. The capabilities of the website will allow participants to track the progress of submittals and view their history until performance of the Contract is complete. Additional functions of the website may be used at the Contracting Authority's discretion.

**2.02 Construction:** A website URL will be supplied to the contractor at the preconstruction conference for the electronic submittals. The Contractor may request the URL from the Engineer prior to the preconstruction conference. Shop drawings, working drawings, other submittals as required by the contract documents, and RFIs must be submitted, reviewed, and distributed through this website. Exceptions may be made on a case by case basis by the Engineer. In the case of an emergency where the timeframe of a review does not allow it to be processed through the project website the creator of the document will be required to retroactively document the submission and approval process on the project website. Participants are expected to interface with the website on a regular basis to ensure they are aware of current information thereon.

Submittals are to be submitted in Adobe Acrobat PDF format sized to print 11"x17" or 8.5" x 11". It is the responsibility of the party uploading each submittal to ensure that it is legible. A minimum resolution of 300 dpi is recommended. Shop drawings submittals requiring the Engineer's review stamp must contain white spaced sized 3" horizontally by 2" vertically for the stamp and shall be located in the same spot on the page in each group of submittals.

Submittal schedule and review period shall follow Section 1105.03 of the Standard Specifications (verify spec section when 2009 book comes out in July). Submittals without a defined review period in the Standard Specifications shall be 21 calendar days.

All information residing on the website will be the property of the Iowa DOT. The Iowa DOT reserves the right to revoke access to the website for unauthorized or inappropriate use and dissemination of user passwords.

## **090XXX.03 METHOD OF MEASUREMENT AND BASIS OF PAYMENT**

All costs for complying with this special provision shall be considered incidental to the project. No separate payment will be made.