UMTRI-2009-10 APRIL 2009

MICHIGAN DEPARTMENT OF TRANSPORTATION STATEWIDE ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS) PROCUREMENT EVALUATION

PHASE I: SOFTWARE PROCUREMENT

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Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
UMTRI-2009-xx		

4. Title and Subtitle	5. Report Date
Michigan Department of Transportation Statewide Advanced Traffic Management System (ATMS) Procurement Evaluation – Phase I: Software Procurement	April 2009
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Dion, Francois (UMTRI) and Bowcott, Syd (URS).	UMTRI-2009-10

9. Performing Organization Name and Address	10. Work Unit no. (TRAIS)
The University of Michigan **Transportation Research Institute** **2901 Baxter Road** **Ann Arbor, Michigan 48109-2150 U.S.A.**	11. Contract or Grant No.

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Michigan Department of Transportation 425 West Ottawa Street Lansing, MI 48933	14. Sponsoring Agency Code

15. Supplementary Notes

Project executed with URS Corporation as sub-contractor

16. Abstract

This project evaluates the process that was followed by MDOT and other stakeholders for the acquisition of new Advanced Traffic Management System (ATMS) software aiming to integrate and facilitate the management of various Intelligent Transportation System (ITS) components across Michigan. The reported evaluation is based on a review of various documents associated with the procurement project and interviews with key individuals involved in the procurement. This includes individuals from the Michigan Department of Transportation (MDOT), the Michigan Department of Information Technology (MDIT), the Michigan Department of Management and Budget (DMB), Kimley-Horn of Michigan, which was commissioned under a separate contract to draft user needs and requirements for the procurement, and consulting firms responding to the procurement's Request for Proposal (RFP).

Positive experiences from the procurement include involvement of the entity that would be ultimately be responsible for ongoing system support; use of vendor demonstrations prior to drafting the RFP to help build a better understanding of what was available and feasible; use of technical requirements to steer submitted solutions towards what exactly was being sought; appropriate consideration of the State's long-term needs; use of an evaluation committee covering various fields of expertise; and use of an external consulting firm to draft the system requirements.

Negative experiences include the late involvement of MDIT; a potential loss of impetus due to the long interval between the draft and final RFP; a lack of continuity caused by the fact that few people were continuous throughout the project; a lack of involvement of operational staff; too much reliance on an external firm to draft the system needs, and the need to devote significant time to answer and review the high number of requirements attached to the RFP. Many of these negative experiences can directly be linked to the delays that resulted from transferring the project lead to MDIT and establishing for the first time an effective collaboration between these two agencies. A repetition of a similar process would consequently likely go more smoothly and quickly.

17. Key Words	18. Distribution Statement
Procurement, Evaluation, Advanced Traffic Management System	Unlimited

19. Security Classification (of this report)	20. Security Classification (of this page)	21. No. of Pages	22. Price
None	None	53	

SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
		AREA		
in^2	square inches	645.2	square millimeters	mm^2
ft^2	square feet	0.093	square meters	m^2
yd^2	square yard	0.836	square meters	m^2
ac	acres	0.405	hectares	ha
mi^2	square miles	2.59	square kilometers	km^2
		VOLUME		
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft^3	cubic feet	0.028	cubic meters	m^3
yd^3	cubic yards	0.765	cubic meters	m^3
	NOTE: volumes greater than 1000 L shall be shown in m^3			
		MASS		
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
		TEMPERATURE (exact degrees)		
^oF	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	^oC
		ILLUMINATION		
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	$candela/m^2$	cd/m^2
		FORCE and PRESSURE or STRESS		
lbf	poundforce	4.45	newtons	N
lbf/in^2	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
		LENGTH		
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
		AREA		
mm^2	square millimeters	0.0016	square inches	in^2
m^2	square meters	10.764	square feet	ft^2
m^2	square meters	1.195	square yards	yd^2
ha	hectares	2.47	acres	ac
km^2	square kilometers	0.386	square miles	mi^2
		VOLUME		
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m^3	cubic meters	35.314	cubic feet	ft^3
m^3	cubic meters	1.307	cubic yards	yd^3
		MASS		
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
		TEMPERATURE (exact degrees)		
^oC	Celsius	1.8C+32	Fahrenheit	^oF
		ILLUMINATION		
lx	lux	0.0929	foot-candles	fc
cd/m^2	$candela/m^2$	0.2919	foot-Lamberts	fl
		FORCE and PRESSURE or STRESS		
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in^2

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised March 2003)

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Executive Summary

The Michigan Department of Transportation (MDOT) Statewide Advanced Traffic Management System (ATMS) Procurement Evaluation Project conducted an evaluation of the process that was followed for the acquisition of new software aiming to integrate and facilitate the management of various Intelligent Transportation System (ITS) components across Michigan. The procurement process lasted approximately 2 years. This project resulted from a need to comply with requirements attached to the federal funds obtained in support of the procurement. An opportunity was further taken for determining if there were lessons to be learned from the procurement which could be applied to future procurement processes.

The evaluation methodology that was followed primarily involved a review of various documents associated with the procurement and interviews with key individuals involved with the procurement. This included interviews with individuals from the following entities:

- Michigan Department of Transportation (MDOT).
- Michigan Department of Information Technology (MDIT).
- Michigan Department of Management and Budget (DMB).
- Federal Highway Administration (FHWA).
- Kimley-Horn of Michigan, which was commissioned under a separate contract to draft user needs and requirements for the proposed system.
- Consulting firms responding to the procurement's Request for Proposal (RFP).

The procurement process started with preparatory activities for the release of a RFP. These activities primarily consisted of needs analyses conducted among the various stakeholders that would eventually be involved with the operation and maintenance of the final system. This included representatives from MDOT, MDIT, and local stakeholders from various cities and counties. Following the development of a draft set of requirements and the issuance of a Request for Information (RFI), several firms with ATMS products were invited to provide demonstrations. These demonstrations were held to test the draft requirements and to confirm proposed system functionalities against technologies that were then commercially available. Information obtained from these demonstrations subsequently led to the development of a final set of specifications for the procurement's RFP.

On February 25, 2008, the State of Michigan (the State), through MDIT, and with the assistance of DMB, issued an RFP on behalf of MDOT for the purpose of obtaining proposals from qualified firms to provide an ATMS solution for the identified statewide freeway management needs. The objective of the procurement was to develop software to integrate and manage ATMS components on freeways, including changeable message signs (CMS), closed-circuit television (CCTV) cameras, vehicle detectors, and other specific ITS devices. The project was to include project management, design, development, implementation, software, hardware, and ongoing support and maintenance for the resulting ATMS solution.

Four consulting firms submitted responses to the RFP by the proposal submission date of April 17, 2008. These responses were scored by a Joint Evaluation Committee (JEC) consisting of seven individuals from DMB, MDIT, and MDOT. The following evaluation criteria, with their

respective weighting on the overall evaluation, were used to assess the adequacy of the submitted solutions:

1. Bidder qualifications and experience (20 %)
2. Qualifications of assigned personnel (20 %)
3. Technical solution and approach (25 %)
4. Adherence to solution requirements (25 %)
5. Project management and organization (10 %)

Where needed, clarifications were requested from the bidding firms on their proposals. During this process, firms were not allowed to change their proposals.

Following the scoring of proposals, the JEC only considered for award the proposals that had received a score of 80 points or more out of the total maximum possible score. Price proposals were then opened for the remaining candidates. Two of the submitting firms were subsequently invited to an interview. Following these interviews, the JEC made a recommendation on which firm appeared to offer the best value to the State of Michigan. This recommendation was then accepted by the State and contract negotiations were initiated with the selected firm, Delcan Corporation. A contract with the selected firm was executed on October 1, 2008.

Positive experiences gathered from the evaluation include:

- Involvement of the entity (MDIT) that would be ultimately be responsible for ongoing support.
- Use of vendor demonstrations prior to drafting the RFP to help build a better understanding of what was available and feasible.
- Use of technical requirements to steer submitted solutions towards what exactly was being sought.
- The evaluation of submitted solutions against the State's long term needs resulted in the selection of a cutting edge solution that may present more implementation risks but that may remain in use for a longer period.
- Use of an evaluation committee with individuals with various fields of expertise allowed for a more comprehensive review of submitted solutions.
- Use of an external consulting firm to draft the system requirements likely allowed for a much better consideration of out-of-state practice.

Negative experiences expressed by various project stakeholders include:

- MDIT should have been involved earlier to allow its expertise to be considered sooner and avoid some of the delays that resulted from the change in project lead.
- Because of the long interval between the draft RFP and the final RFP, there was a potential loss of impetus by all parties (owner, consultant, vendors).
- Few people were continuous throughout the project, which at times provided a lack of continuity.
- More efforts should have been devoted during the needs assessment to involve MDOT operations staff.
- The high number of requirements resulted in a great deal of time being spent by the State and the consultants in responding to and reviewing proposals. It also resulted in

individuals evaluating proposals to only focus on requirements close to their respective areas of expertise.

Many of the negative experiences can be directly linked to the novelty of the collaboration between MDOT and MDIT and the delays that resulted from transferring the project lead to MDIT and establishing an effective collaboration between the two agencies. A repetition of a similar process would consequently be expected to go more smoothly and involve much less delay.

Specific lessons learned for future procurements include:

1. Interdepartmental procurements can be made to work.
2. Inclusion of government agencies having specific expertise related to the needs of a project can lead to more robust final solutions.
3. There are significant advantages in identifying as early as possible all relevant project stakeholders.
4. When multiple agencies are involved in procurement, there may be advantages to put in the lead the agency having the greatest technical expertise in the type of solution sought.
5. Continuity of staff is important, particularly when the process is long and involved.
6. The procurement process should be no longer than it has to be and as short as possible.
7. The number of technical requirements should be sufficient to define the system and steer respondents to an RFP toward the type of solution being sought.
8. If a large number of requirement is attached to an RFP, elements critical to the system and which should have more importance in the selection of a solution need to be noted.
9. When evaluating solutions, it is important to keep in mind the State's long term goals.
10. While there may be more risks associated with the selection of cutting edge solutions, such solutions may remain viable and in use longer than solutions based on established technologies. Careful evaluation must therefore be put to assess the pros and cons of each approach. (This will be confirmed during the implementation evaluation)
11. Evaluation criteria differentiating between experience, technological capability and user needs can effectively be used for the selection of a preferred contractor.
12. Knowledge of the internal process and requirements of a State is essential to a successful, smooth procurement.
13. Communications between departments and to the vendors is essential to keep everyone informed.

1. Introduction

The Statewide Advanced Traffic Management System (ATMS) project was initiated by the Michigan Department of Transportation (MDOT) in response to changing freeway management operational needs. The objective of the project was to develop software to integrate and efficiently manage various statewide Intelligent Transportation System (ITS) components. Its aim was to replace existing ATMS platforms in use at various Traffic Management Centers (TMCs) and allow the new platform to be implemented at TMCs planned to be built across the state over the next few years.

The MDOT Statewide ATMS Procurement Evaluation Project documented in this report resulted more specifically from a need to comply with requirements attached to the federal funds obtained in support of the procurement. The specific goals of this project are to assess the process that was followed for the ATMS software procurement and to use these assessments to determine whether there were lessons to be learned that could be applied to future procurements.

Background information relevant to the procurement process being evaluated is presented in the remainder of this section. This includes a review of MDOT's statewide ATMS operations, a description of the status of existing ATMS software at the time the procurement was initiated, a description of the procurement process that was followed, and an overview of planned implementation activities that are to follow and that will be the subject of a future evaluation report.

1.1 Status of MDOT's ATMS Freeway Management Operations

Within Michigan, ITS devices operated by MDOT are located primarily along interstate highways and major state highways. These devices include elements such as changeable message signs (CMS), closed-circuit television (CCTV) cameras, vehicle detectors, and other specific ITS devices.

Prior to the start of the procurement, the state ITS architecture called for data collected by the various ITS devices to be sent to one of three TMCs. The first data reception center was the Michigan Intelligent Transportation Systems Center (MITSC) in the Detroit Metro Region. This center, which had been in operation for more than a decade, was responsible for managing highway traffic around the metropolitan Detroit area (Wayne, Oakland, and Macomb counties). The second center was the MDOT West Michigan TMC in Grand Rapids. This center, which was only opened in April 2006, was responsible for managing traffic for the Grand Rapids metro area. The third center was the Blue Water Bridge Operations Center, in Port Huron. This center, slated to become operational in 2009, will be responsible for managing traffic crossing the bridge linking Michigan to Ontario, Canada.

In addition to these three centers, plans were also under consideration to build additional TMCs across the state. Each of these TMCs would be tasked with managing traffic and various ITS devices within an assigned geographical area. In particular, plans were made for some administrative regions to have more than one TMC. To allow improved monitoring and

management of roadways across the State and within regions, it was therefore proposed to link the various TMCs. These links were to facilitate data sharing among TMCs and traffic management decisions across the State and within jurisdictional areas having more than one TMC.

1.2 Status of Existing ATMS Freeway Management Software

When the procurement was initiated, each existing TMC had its own set of software for managing the various ITS devices within its control area. Existing production software at each TMC had been either a custom development or an amalgamation of device management software provided by various ITS device vendors. The former was representative of what was in use at the MITSC, while the latter was representative of what was in use at the Grand Region TMC and projected to be used at the new Blue Water Bridge TMC.

A particular limitation of the existing software (whether it was custom or device software) is that it did not allow any interaction with ITS devices at any other TMC. For instance, MITSC was not able to manage ITS devices in Grand Region, and vice versa. This significantly limited the ability of existing TMCs to share information and control when needed. The envisioned establishment of a linkage between the TMCs not only created a need for developing an ATMS platform with suitable data sharing functionalities at each TMC but also the need for developing a robust and scalable communication network between the TMCs.

Software in use at the MITSC, the oldest of the three management centers, was also antiquated. When the procurement was initiated, the MITSC software was already more than 10 years old. As a result of its age, the MITSC system required costly and time-consuming software and hardware maintenance to allow continued management of the ITS devices under its control. The software was also unable to easily accommodate the addition of more modern devices and interfaces, which created significant impediments for upgrading center operations to accommodate growing traffic management needs.

In addition to software issues, the majority of the devices in place in the field at the time of the procurement were older analog-based and serial-based devices, particularly in the Detroit Metro region. Plans were already under way to upgrade these devices with newer equipment. This led to some compatibility issues in the ability of the existing ATMS platforms to communicate with newer devices. In particular, it was expected that most, if not all, devices to be installed in the future would be digital equipment with Internet Protocol (IP) communication capability. To ensure that new devices could be efficiently operated for many years, it was determined that new data communication and management approaches were needed for the new ATMS management platform.

1.3 ATMS Software Procurement Process

A typical procurement process for the State of Michigan (the State) requires interested vendors to submit a proposal in response to a Request for Proposals (RFP) issued by the State. The State would then conduct an internal review of the proposals submitted by interested vendors and from

this group, select a winning vendor. The State would then negotiate the final terms and costs of a contract with the vendor proposing the retained solution.

The challenges of the MDOT Statewide ATMS Project required a slightly different procurement approach to ensure that the envisioned project would be a success. As indicated, the objective was to provide software to integrate and manage various ITS components on interstate and major highways across the state. The procurement team realized early on that there would be a certain amount of software development needed to meet the requirements of the project. Because of the elaborate and sophisticated nature of the envisioned application, it was realized that use of "off-the-shelf" products alone would not be sufficient.. This resulted in a procurement focusing on the acquisition of an off-the-shelf product with some custom development. This required a vendor selection process that would involve not just a review of each vendor's qualifications but also a review of their product and of the amount of changes required to each product to meet the specific needs of the State.

While MDOT initiated the procurement for the ATMS software platform, the procurement eventually relied on the participation of various government departments and external firms:

- MDOT – Department commissioning the ATMS software and end user.
- Michigan Department of Information Technology (MDIT) – Department managing the software development process and that will eventually host and maintain a data center containing the ATMS software; co-lead of the implementation process.
- Michigan Department of Management and Budget (DMB) – Agency responsible for administering the ATMS procurement process.
- Kimley-Horn of Michigan – Consultant used to assist the State in developing user needs and functional requirements for the ATMS software.
- Federal Highway Administration (FHWA) – Primary funding agency.

The procurement started in mid 2006 with Kimley-Horn conducting various workshops to determine the user needs for the proposed ATMS platform. These needs were then developed into draft system requirements. This led to the release of a Request for Information, with potential vendors subsequently invited to give a two-hour demonstration of their ATMS products in February 2007. This created opportunities for exchanges of information between the State and vendors about available systems and how these systems could fulfill the needs of the State.

Following the demonstrations, activities for the remainder of 2007 focused on the development of an RFP for the ATMS procurement. An RFP was released in February 2008, a year after the demonstrations. For reference, the table of the contents for the technical portion of the RFP is shown in Appendix A. A listing of categories of software requirements that were attached to the RFP is shown in Appendix B. The full RFP is not shown at it was a voluminous document (88 pages, plus about 250 pages of attachments) of legal and technical requirements. In response to the RFP, vendors were to submit both a technical and a cost proposal. Additional information on schedule, qualifications and staffing was also to be submitted.

As indicated, MDOT was the lead agency in the early stages of the procurement. However, it was gradually determined in the activities leading to the development of the RFP that MDIT

would be a more suitable choice as lead procurement agency. This reasoning was based on the following elements:

- The hardware being provided would be primarily computer based (servers, workstations, operating systems, etc.) and MDIT was the acknowledged leader in this area among state agencies.
- The hardware and software being provided would need to meet state standards, which are typically set by MDIT.
- The ATMS solution would utilize a statewide communications network that was already being managed and expanded by MDIT.
- MDIT would continue to be responsible for the management and maintenance of the ATMS computer hardware and software following system acceptance.

This resulted in MDIT being the overall lead agency upon the release of the RFP, with the Office of Acquisition Services of the Michigan Department of Management & Budget (DMB) leading activities related to the selection and contracting of a vendor.

Following release of the RFP on February 25, 2008, the following process was followed:

- Non-mandatory pre-bid meeting on March 7, 2008.
- Provision of three rounds of formal questions and answers.
- Implementation of changes to the RFP as a result of questions being asked or clarifications needed through the posting of addendums on the State's website.
- Submission of proposals by April 17, 2008.
- Evaluation of submitted proposals by a Joint Evaluation Committee (JEC) chaired by DMB's Office of Acquisition Services.
- Oral presentations during the week of May 19, 2008 from leading vendors who passed the minimum scoring requirements.

Proposals were received from the following vendors:

- Delcan Corporation.
- IBI Group.
- Transcore Corporation.
- Open Roads Corporation.

Each of the submitted proposals was evaluated by the JEC following a pre-determined set of scoring criteria. The criteria used for the evaluation, with their respective weighting, were:

1. Bidder qualifications and experience (20 %)
2. Qualifications of assigned personnel (20 %)
3. Technical Solution and Approach (25 %)
4. Adherence to solution requirements (25 %)
5. Project Management and Organization (10 %)

For the evaluation, each scoring member of the JEC had to complete an evaluation form for each proposal. The evaluators were instructed to comment on the strengths and weaknesses of each proposal with respect to the most critical requirements from the RFP. They were further

instructed to be specific with their comments and to clearly identify, whenever possible, the section and/or page number in the bidder's proposal that corresponded with the comments they were making. These comments were required to justify the evaluator's score for the corresponding evaluation criteria. In particular, the evaluators were instructed to provide extensive information in the weakness category when a vendor was scored particularly low and to ensure that all comments made could be tied back to actual requirements in the RFP.

After the initial review of proposals, it was determined to be in the best interest of the State to request clarifications from the bidders. Where needed, the State documented in writing the clarifications being requested and forwarded these requests to the affected bidders. This process did not allow for changes to be made to the submitted proposals. It only provided an opportunity for bidders to clarify the proposal they had submitted.

The JEC continued with the selection process by short-listing only the proposals receiving a score of 80 points or more. Price proposals for the candidate solutions meeting the minimum point threshold were then opened and reviewed. Price proposals for the solutions not meeting the point threshold were not opened.

At this point, it was further determined to be in the State's best interest to enter into negotiations on price clarifications with the remaining bidders. During these negotiations, no modifications to the RFP solution requirements or specifications were again allowed.

Following the initial review of proposals, the State required the two bidders leading in the evaluation to give an oral presentation detailing the content of their respective proposals. The bidder's project manager and all key personnel listed in the proposal submitted by each bidder were required to attend and conduct these oral presentations.

Following the oral presentations, the two remaining proposals were re-scored using the same evaluation criteria as the initial scoring. After further discussions were held within the JEC, it was determined that the award recommendation should be made to the responsive and responsible vendor who offered the best value to the State of Michigan. In this case, the best value was determined to be the vendor meeting the minimum point threshold detailed earlier and offering the best combination of evaluation criteria score and price. Since all the remaining solutions fell within a relatively narrow price range, this meant that the evaluation scores remained the dominant selection factor.

Using the above approach, the JEC recommended that Delcan Corporation be the ATMS solution provider. This was confirmed by management and an award was subsequently made to this vendor. Negotiations then commenced on finalizing the scope and price of the project.

1.4 Projected ATMS Solution Implementation Timeline

Shortly after being awarded the software procurement contract, Delcan Corporation initiated work on implementing the software solution. Activities related to this implementation will be the subject of the second phase of the ATMS Procurement Evaluation Project.

Currently planned implementation phases for the ATMS solution were developed by considering the needs for various major upgrades or expansions that were already planned or underway at both the MITSC and the Grand Region TMC. This includes, among other things, the provision of a new TMC at MITSC, the addition of new field equipment, the conversion of existing field equipment to more modern technologies, and the provision of new and expanded communications networks.

As a result of the proposed major upgrades noted above, the ATMS solution will be implemented in two phases. Phase 1 (limited feature set release) will focus on the implementation of a core set of features that could be deployed with a minimum amount of custom software development. Phase 2 (full feature set release) will then include implementation of the balance of the planned system features and, where necessary, upgrades for the Phase 1 implementations.

In addition to the phasing of software features, the ATMS solution will be implemented in stages across all planned locations. However, to reduce scheduling complexity the Blue Water Bridge Operations Center and the MITSC will both be implemented in a single stage.

According to current contract documents, Delcan Corporation is scheduled to provide final documentation of the implemented solution on December 2010. The firm will then provide maintenance support and software enhancements until the end of October 2011.

2. Project Objectives

The objective of the MDOT Statewide ATMS Procurement Evaluation Project documented in this report was to evaluate the process that was followed for the procurement of new ATMS software for MDOT. This evaluation was to focus on identifying the issues and challenges that were faced by the various participants in the procurement process and documenting how these difficulties were addressed. This evaluation was required by SAFETEA-LU regulations governing the use of federal funds that were used for the ATMS procurement.

The primary goal of the Evaluation Project was to conduct a high-level assessment of the procurement process. This meant conducting evaluation focusing only on general issues. Examples of elements to be considered included:

- Procurement process being followed:
    - Reliance on various governmental agencies and external contractors.
    - Development of users needs.
    - Criteria for selecting software developer.
    - Efficiency of collaboration among stakeholders.
    - Ability to satisfy desired needs.
- Challenges associated with system specifications:
    - Need to interface with a range of ITS devices, including various legacy systems.
    - Need to facilitate data sharing among multiple agencies and third parties in a secure environment.
    - Need to support various traffic management and safety applications.
    - Need to provide a scalable system to meet the needs of future users and to accommodate future uses.
    - Impacts of changes in system specifications due to changes in anticipated system needs.
- Challenges imposed by the need to follow established standards:
    - Need to conform to the Statewide ITS architecture.
    - Need to conform to prevailing information technology industry standards.

The end goal was to produce a series of “lessons learned” dealing with ATMS software procurement. The intent behind the development of these lessons learned was to highlight key elements to follow, or avoid, in future similar procurements.

3. Evaluation Methodology

The evaluation was conducted after completion of the ATMS software procurement based on:

1. Interviews with individuals directly involved in the procurement process.
2. Review of relevant project documents pertaining to the procurement.
3. High-level comparisons between the stated functionalities of the procured software and functionality requirements initially provided to the software developer.
4. Review of relevant lessons learned from other sources, particularly the Federal Highway Administration (FHWA) website.

The following details the identified stakeholders, the interview process, the questions asked of each person being interviewed, and elements related to the review of relevant documentation.

3.1 Stakeholders

Stakeholder interviews were conducted between January and April 2009, beginning two months after completion of the procurement process (November 2008). Individuals from the following government departments and external consulting firms were interviewed based on their role in the procurement process:

- Government agencies:
    - MDOT – Department commissioning the ATMS software and end user; co-lead of the implementation process.
    - MDIT – Department leading the procurement process and that will eventually maintain a data center hosting the ATMS software; co-lead of the implementation process.
    - DMB – Department responsible for administering the ATMS procurement process.
    - FHWA – Primary funding agency.
- Consulting firms:
    - Kimley-Horn of Michigan – Firm in charge of development of the user needs and the functional requirements for the RFP.
    - Delcan Corporation – Firm selected to provide the ATMS software.
    - IBI Group – Runner-up firm to Delcan Corporation in the selection of the ATMS software firm.

The above list resulted in a total of 23 individuals to be interviewed. A list of these individuals is provided in Appendix C.

3.2 Interview Process

Project stakeholders were interviewed individually. The preferred method was to conduct a face-to-face meeting so as to be able to better assess the comments being made. The desire was to

conduct at least one face-to-face meeting with each person, with the possibility of conducting subsequent meetings over the phone or through email exchanges if needed.

Individual face-to-face meetings could be arranged for 16 of the 23 identified stakeholders. Phone interviews were further conducted for five individuals, while comments from two individual were collected through a simple mail-in of the questionnaire. Four of the 23 individuals were interviewed in groups of two for convenience. For these cases, the collected comments and scores were considered as coming from a single individual, as comments made by one individual may have affected the comments made by the other individual. This resulted in a total of 21 unique evaluations of the procurement process.

3.3 Interview Questions

To facilitate the interview process and to better capture individual comments, a questionnaire with 18 pre-defined questions was sent to each person a few days before the interview. A summary listing of the questions contained in the questionnaire is shown below, while a complete copy of the questionnaire is shown in Appendix D:

1. What was your understanding of the steps involved in the procurement process?
2. Were the needs and objectives of the project communicated to you? What do you consider the needs and objectives of this project?
3. What is your understanding as to why MDIT is the contracting agency?
4. What was your involvement in the procurement process?
5. What MDOT/MDIT staff did you feel were most involved?
6. Did you feel that everyone was involved who should have been involved in the procurement process? If not, who should have been more involved or played a larger role?
7. Did you feel you were kept informed of the progress/process?
8. Did you feel the procurement process went smoothly?
9. How would you improve the process?
10. Did you feel your input to the procurement process was used by others?
11. If you asked questions during the process, did you feel they were adequately addressed?
12. Did you feel the process was too short, too long or just right?
13. Are you aware of what evaluation criteria were used? If so, were the evaluation criteria used sufficient to differentiate between the various vendors?
14. Are there different evaluation criteria you would use if you had to do it over again?
15. Were the specifications too functional, too technical, not sufficiently performance based?
16. Do you feel the specifications excluded vendors who would have otherwise submitted?
17. Were clarifications requested from individual bidders?
18. What do you consider as being the lessons learned in this process?

For most questions, the interviewees were asked to provide an assessment of the corresponding topic on a scale of 1 to 10. Space was also provided to allow specific comments. The use of a 1-to-10 scale was adopted to capture variations in the degree to which individuals agree or disagree with the associated statement. This scale also facilitated the ranking of individual answers by removing the need to interpret the intent behind the comments provided.

In addition to the 18 questions listed above, individuals were also asked supplemental questions related to their specific role in the procurement process. Other individual-specific questions were also developed based on the responses to the questions shown on the questionnaire.

3.4 Review of Relevant Documentation

Documents related to the procurement of the MDOT Statewide ATMS that were reviewed include:

- Request for proposals issued for the MDOT Statewide ATMS Procurement Project.
- Technical portions of the Delcan Corporation contract with the State.
- Synopsis of bid evaluation results prepared by DMB.

4. Evaluation Results

This section summarizes the comments that were collected through the interviews and the review of relevant project documents. The intent of this section is to present a point-by-point summary of the various elements that were considered in the evaluation. The general conclusions and lessons learned that can be drawn from the evaluation are provided in later sections.

4.1. Evaluation Summary

Table 1 provides the average scores that were tabulated for the questions for which such scoring was requested. To simplify the presentation, only a short descriptive label is provided for each item. The reader can review the full question that was asked by matching the question number shown on the left hand side of the Table 1 with the question number listed in the questionnaire shown in Appendix D.

Table 1 – Average Questionnaire Evaluation Scores

Question Number	Item	Average score
1	Understanding of steps involved in the procurement process (1: Not familiar → 10: Very familiar)	8.0
2	Communicating needs and objectives (1: Needs not communicated → 10: Needs fully communicated)	9.0
3	Understanding as to why MDIT is the contracting agency (1: Does not know → 10: Fully understands why)	8.8
4	Involvement of individual stakeholders in the procurement process (1: Low involvement → 10: High involvement)	7.9
7	Effectiveness of project status/progress communication (1: Not informed → 10: Fully informed)	7.1
8	Smoothness of procurement process (1: Not smooth → 10: Very smooth)	7.8
10	Consideration of inputs by others (1: Input not used → 10: Input very useful)	8.3
11	Questions being asked adequately addressed (1: Responses not adequate → 10: Responses adequate)	8.3
12	Length of process (1: Too short → 10: Too long)	7.9
13	Quality of evaluation criteria used (1: Poor → 10: Excellent)	8.4
15	Level of technicality of requirements in Request for Proposal (1: Too functional → 10: Too technical)	7.4
16	Specifications excluding vendors who would have otherwise submitted (1: Yes → 10: Not)	6.9

For each item, the average of the evaluation scores provided by all interviewees is provided. As can be observed, there appears to be a generally good level of understanding and satisfaction with the procurement process as no item has received an average score of less than 7.

A more detailed summary is presented for each of the evaluation items in the following subsections. Similarly to Table 1, a reference to the corresponding question number is provided in the heading of each section for ease of correspondence with elements in the survey questionnaire. For convenience, results from multiple questions addressing similar topics are also merged in some of the sections.

4.2. Understanding of steps involved in procurement (Question 1)

Most of the persons involved in the procurement process generally understood the procedural steps involved. A majority of interviewees identified the steps in the procurement as being:

1. Development of user needs by Kimley-Horn.
2. Issuance of a Request for Information (RFI), followed by vendor demonstrations to obtain information about which technologies were available and assess what might be feasible.
3. Development of a RFP based on information collected from the RFI and vendor demos.
4. Evaluation of submitted proposals.
5. Short-listing of project candidates to two vendors.
6. Interviews with shortlisted vendors.
7. Final vendor selection
8. Final contract negotiation.

When asked to rank their understanding of the procurement process on a scale of 1 to 10, with 10 being a perfect understanding, 17 of the 21 individual respondents provided a ranking of 7 or above. As can be expected in such a process, the degree of understanding of the steps involved varied by which organization each respondent represented, the specific role that each person played during the procurement, and the time at which each individual became involved in the project.

Since the interviews were conducted after completion of the procurement, it is possible that some individuals may now have a better understanding of the process that was followed than what they initially had. In particular, this may be true for persons who did not need to be involved in all steps. Partial evidence of this is an observation that lower understanding rankings were issued by individuals who primarily only participated as stakeholders in early need assessment activities. However, such a potential change in understanding is difficult to formally assess without direct supportive information on how the procurement process was being perceived by individual stakeholders at its beginning. To assess this aspect of the procurement would have required conducting interviews or collecting comments from stakeholders at various times during the execution of the procurement. This is what is planned to be done for the evaluation of the software implementation in the second phase of the project.

4.3. Communicating needs and objectives of the project (Question 2)

Project stakeholders generally indicated that they had a very good understanding as to why the project was being pursued. All the respondents provided a ranking of 8 or above 10 on this issue. The reasons typically put forward for the software procurement centered on the need to replace antiquated ATMS components that were difficult to maintain and did not allow for easy interoperability due to the use of a patchwork of software programs at existing TMCs. Many further recognized the opportunity provided to develop a new ATMS platform that could be applied to all existing and planned TMCs and that would provide additional functionality, improved interoperability, and facilitate communications between TMCs.

4.4. Involvement of MDIT as the contracting agency (Question 3)

Project stakeholders working for governmental departments generally indicated that they had a good understanding of why MDIT was the contracting department. Ratings of understanding of at least 8 out of 10 were provided by all government department stakeholders on this topic. The primary reasons stated for MDIT's involvement were:

- Execution of a project involving computers, communication networks and software, which are areas in which MDIT has technical expertise.
- Understanding that MDIT is typically the department in charge of supporting and maintaining computer and communication systems used by governmental departments. In that perspective, it made perfect sense that MDIT would be the lead procurement agency if they would eventually have to assume the support and management of the new ATMS software and hardware.

Interviewees from MDIT indicated that at the time of the procurement the State of Michigan had been pursuing a course of consolidating Information Technology (IT) purchase and maintenance entities. However, the purchase and maintenance of ITS components had largely remained outside of this consolidation trend. This led to conscious efforts to try to bring ITS activities in line with other IT activities within the State, which provided strong support for MDIT's involvement in the ATMS software procurement as the contracting agency.

Consulting firms that bid on the procurement project typically had a lower level of understanding of MDIT's involvement. Such lower ratings are explained by the fact that the consulting firms were not accustomed to bidding on projects for MDOT that would be contracted by an agency that would not eventually be the end user of the delivered solution. MDIT's involvement as the procurement department for an MDOT project was a first in the State of Michigan. There was also a general view that such an arrangement is not typical in other states, which could easily explain the perceived initial confusion regarding MDIT's role.

In the various discussions with stakeholders, it was indicated a number of times that MDIT was not initially viewed as the desired procurement department. However, many persons indicated that this view gradually changed as the need for having a procurement lead with technical expertise in computer and communication systems was fully realized.

4.5. Involvement of relevant stakeholders (Questions 4-6)

Respondents to the questionnaire generally indicated that they felt that most everyone who should have been involved in the procurement were involved. Most of the respondents indicated that they personally had a fairly high level of involvement, with the only exceptions being individuals whose involvement did not go further than the initial needs assessment stages or only became involved later in the procurement process.

Positive comments were also made regarding the use of Kimley-Horn for the development of project requirements rather than simply relying on MDOT's internal expertise. These positive comments were primarily supported by the perception that the involvement of a firm doing business in many states allowed for a better representation of best practices around the country and thus, for a better assessment of capabilities and needs. However, some dissenting comments were also made on this topic. For some individuals, it would have remained preferable to have the agency that would ultimately be using the delivered product be the one in charge of the developing the requirements.

Six of the respondents indicated that individuals in charge of traffic control operations should probably have been engaged more actively, particularly during the development of requirements, as these individuals would be the ones who would ultimately have to work with the new ATMS platform. One of the arguments made justifying the low level of participation of operators was that these individuals may not be receptive to software changes and could potentially bias project designs against solutions that would significantly differ from existing systems.

4.6. Effectiveness of project status communications (Question 7)

Responses regarding the degree to which individuals were kept informed of the progress of the procurement process varied significantly:

- Individuals from MDOT and Kimley-Horn generally were heavily involved in the project and indicated a high degree of information, with rankings of at least 8 out of 10. This is a result that was fairly expected.
- MDOT personnel primarily involved in early needs assessment generally provided lower evaluation ratings. This can partly be explained by the fact that their involvement would often draw down following completion of the needs assessment phase. This would normally lead to a lesser need for communicating with these individuals thereafter.
- A number of respondents made negative comments regarding the long interval during which nothing seemed to happen. Many references were specifically made to the almost one year that elapsed between the vendor demonstrations and the release of the RFP. This interval corresponds to the period during which MDIT became the lead contracting agency and is the result of complications that arose in initiating effective collaboration between MDIT and MDOT. Most of the individuals who commented on this long lapse of time did not seem aware of the process that MDOT and MDIT had to go through to establish effective collaboration. It was also during this period that the project requirements were revised to better reflect state policies and computer practices.

- Some individuals further indicated that there was no formal process for keeping persons up-to-date, with some dissatisfaction in having to rely too often on Kimley-Horn to obtain project status information.

4.7. Smoothness and duration of procurement process (Questions 8, 9 and 12)

The respondents generally felt that the procurement process went fairly smooth given the involvement of three government agencies and the complexity of the software solution sought. When asked about the overall smoothness of the project, 11 of the 21 individual respondents provided a rating of at least 8 out of 10.

Individuals who provided lower scores generally indicated that the process took too long. Twelve respondents scored the duration of the procurement with a ranking of 7 or above, indicating a process perceived as too long. Once again, delays were generally attributed to the year that elapsed between the vendor demonstrations and the release of the RFP. This is when it was determined that MDIT should become more involved in the procurement because of its technical expertise and when an effective collaboration approach between MDIT and MDOT was being developed. This delay was not planned. It arose because of the novelty of the collaboration between MDIT and MDOT on a project of this type. While expressing dissatisfaction at the time it took to establish the collaboration, many of the high level project staff indicated that they believe the resulting delay was beneficial, especially considering the likely prospect of future collaborations between the two agencies. Based on these observations, it can be expected that similar procurements between the same two agencies should experience much less difficulties in the future.

One individual indicated that the use of external consultants for drafting the software requirements led to some complications as the firm retained for the project may not have started work on the project with a full understanding of state issues and processes. Some individuals also expressed a perception that the use of an external consultant may have opened the door for drafting requirements that may be biased towards the firm's own experience.

4.8. Consideration of stakeholder inputs (Question 10)

Most of the persons involved in the procurement from State departments felt that their inputs into the process were adequately considered by other stakeholders within the caveat that decisions had to be made in the best interest of the State.

While not specifically asked in the questionnaire, a number of positive comments were made regarding the request for vendor demonstrations early in the needs assessment portion of the procurement. These comments were primarily made by MDOT employees, who credited the demonstrations in allowing them to develop a much better understanding of what technologies were available and what could realistically be procured.

4.9. Questions being adequately addressed (Questions 11)

Questions were asked by vendors receiving the RFP. After submission of the proposals, clarifications were further asked to the agencies having submitted a proposal by members of the evaluation committee. All felt their questions were adequately addressed. It was particularly noted that DMB did a good job of ensuring the questions asked were relevant and to the point while not suggesting what answer the State was looking for.

4.10. Awareness of evaluation criteria (Questions 13 and 14)

Respondents generally indicated that the evaluation criteria were clearly stated in the RFP. There is a general consensus that the criteria were adequate to differentiate between experience, technological capability and user needs. Thirteen respondents assessed their understanding of the criteria with a score of 8 out of 10 or above. One individual indicated that the scoring performed during the process was one of the fairest of those he had participated in. Ten of the respondents further indicated that they would use the same criteria should they have to go through a similar procurement process again.

One issue that arose during the selection process is the need to satisfy State needs. This led the evaluation committee to pay particular attention to scoring related to the proposed technical solutions and how these solutions adhered to requested requirements. This resulted in a shift during the evaluation from initially favoring systems that were already established and proven but may only satisfy State needs for a few years towards more leading edge systems that could sustain State needs for a much longer period. According to the comments received, this change was adequately captured by the evaluation criteria used.

One individual indicated that pricing should be an evaluation factor and that it was unclear how this parameter was considered as it was not listed as a separate criterion. According to comments made by some respondents, pricing information was available to the reviewers and was selectively used in the evaluations. Since there was only a small variance in total price from all bidders, pricing ended up playing only a minor role in the evaluations. The small variance allowed the evaluation committee to primarily focus on solutions and firm capabilities in a manner consistent with the evaluation criteria published in the RFP.

One individual mentioned that the evaluation criteria used during the oral presentations following the short-listing of candidate bidders were not as clear as in the RFP. However, there is no indication that this potential lack of clarity had any impacts on the selection process.

4.11. Specifications in Request for Proposals (Questions 15 and 16)

A general consensus from the respondents to the questionnaire is that the technical specifications were too numerous and too detailed for the evaluation of bids. Opinion further differed as to whether to requirements were too technical or too functional. One frequent argument made by individuals expressing dissatisfaction with the specifications is that it is very difficult to adequately assess how proposed solutions may satisfy 1300 or so requirements. This may have led many reviewers to simply focus on requirements close to their area of expertise.

The above arguments are however counterbalanced by a number of individuals indicating that the number and level of technicality of requirements was just right. This opinion was expressed by four individuals. To them, the number of specifications and their level of detail was justified by the need to ensure that the proposed solution adequately responded to what was needed. They also felt that having a high level of technicality would aid in the implementation process as the desired system would already be explicitly defined.

On whether the specifications may have excluded vendors, respondents generally indicated that they did not believe that the requirements did not overly do so. While three individuals indicated that the number of requirements listed in the RFP may have led some vendors to not respond to the RFP, there was a general belief that qualified vendors for the project were not excluded from bidding, even though only four proposals were received.

4.12. Suggested improvements to the procurement process (Question 18)

Reflecting some of the observations made earlier, five respondents explicitly indicated that the procurement process could have been improved if the time from its initiation to end would have been shorter. Once again, these observations should be weighed against the need that arose after the start of the procurement to include MDIT as the procurement's lead agency. This led to unanticipated changes in the process and the subsequent need of establishing an effective collaboration between MDIT and MDOT. Since these two agencies had not worked together before in a major procurement, this resulted in significant delays in sorting out how to best implement the collaboration. Should MDIT had been involved from the start, it can be expected that the procurement would have been executed with fewer difficulties and delays.

Several respondents further indicated that the number of requirements could probably have been reduced. Comments were made indicating that the inclusion of 1300 requirements in the RFP significantly slowed the drafting of the document, in addition to making it harder to focus on crucial elements of individual solutions during their evaluation. However, this point is counterbalanced by arguments indicating that the large number of requirements was justified to ensure that bidders provided appropriate solutions to the software procurement from the start.

Finally, various suggestions were made regarding the involvement of stakeholders. A number of respondents indicated that MDOT should have been more involved in the drafting the requirements rather than delegating work to a consultant and that there should have been a better coordination of the work done by outside vendors. Some comments were also made on the need to improve communications among the various stakeholders, particularly during periods of apparent inactivity.

5. Conclusions

The process that was followed for the MDOT Statewide ATMS Software Procurement project had a significant novelty attached to it as it involved the lead by an information technology governmental agency (in this case MDIT). The traditional approach to projects of this nature has been to have a state department of transportation lead the procurement as this agency would normally be the end user.

While the use of MDIT as the lead agency was not initially considered, the need for such a lead became more apparent as it was realized that the requested solution would heavily depend on the use of current and emerging communication technologies and on a variety of hardware and software platforms, which were not areas of expertise of MDOT. MDIT is the agency responsible for managing computer networks and setting many of the standards that needed to be used. The switch from a MDOT to an MDIT lead created some initial frictions that gradually subsided as an effective collaboration framework was developed between the two agencies. The time spent developing the collaboration further explains a good portion of the delays that were incurred during the procurement.

A summary of positive experiences that can be gathered from the evaluation of the procurement process include:

- Involvement of the entity that would eventually be responsible for ongoing system support has generated many commendations.
- Use of vendor demonstrations prior to drafting the RFP helped individuals involved in the project build a better understanding of what was available and feasible, which then led to a better crafted RFP.
- Use of technical requirements to help steer proposed solutions towards what the State wanted.
- The consideration of long-term needs was an important factor in the evaluation of submitted solutions. This led the evaluation committee to pay particular attention to scoring related to the proposed technical solutions and how these solutions adhered to the requested requirements. The end result was the selection of a cutting-edge solution that presented some additional implementation risks but for which there was a perception it would likely remain viable and in use for a longer period than a solution based on an established and more proven technology.
- Use of an evaluation committee with individuals with various fields of expertise allowed for a more comprehensive review of submitted solutions.
- Use of an external consulting firm to draft the system requirements allowed for a much better consideration of out-of-state practice than if the requirements would have been drafted by MDOT.

Negative experiences expressed by various project stakeholders include:

- MDIT should have been involved earlier to avoid some of the delays and to provide for their expertise.
- The time from the release of the draft RFP to the final RFP was approximately one year, which was felt by many to be too long. Because of this long delay, there was a potential loss of impetus on the owner side and the consultant side.
- Few people were continuous throughout the project, which at times provided a lack of continuity.
- MDOT operations staff, as the end users, should have been more involved in the procurement process. The same could be said of MDOT staff in general.
- Many felt the number of requirements was high, which resulted in a great deal of time being spent by the State and the consultants in responding to and reviewing proposals. Another consequence of the high number of requirements is that individuals in charge of reviewing proposals may tend to focus only on requirements that are closer to their field of expertise and ignoring others.
- It is necessary to know what you want in the way of a system and if that changes during the procurement phase, all parties need to be made aware of a change in direction

The first three negative experiences can be directly linked to the novelty of the collaboration between MDOT and MDIT and the delays that resulted from transferring the project lead to MDIT and establishing an effective collaboration between the two agencies. A repetition of a similar process would consequently likely involve much less delay.

It can also be noted that the high number of requirements appears both as a positive and negative elements. This dual perception heavily depends on the role played by specific individuals. While persons in charge of reviewing proposals often had a tendency to see the large number of requirements as a burden, individuals more focused with the end results tended to view these in a more positive light for their ability to quickly steer a solution towards what was desired.

6. Lessons Learned

Lessons learned for the future from the procurement process evaluated in this report include:

1. Interdepartmental procurements can be made to work.
2. Inclusion of government agencies having specific expertise related to the needs of a project can lead to more robust final solutions.
3. There are significant advantages in identifying as early as possible all relevant project stakeholders.
4. When multiple agencies are involved in procurement, there may be advantages to put in the lead the agency having the greatest technical expertise in the type of solution sought.
5. Continuity of staff is important, particularly when the process is long and involved.
6. The procurement process should be no longer than it has to be and as short as possible.
7. The number of technical requirements should be sufficient to define the system and steer respondents to an RFP toward the type of solution being sought.
8. If a large number of requirement is attached to an RFP, elements critical to the system and which should have more importance in the selection of a solution need to be noted.
9. When evaluating solutions, it is important to keep in mind the State's long term goals.
10. While there may be more risks associated with the selection of cutting edge solutions, such solutions may remain viable and in use longer than solutions based on established technologies. Careful evaluation must therefore be put to assess the pros and cons of each approach. (This will be confirmed during the implementation evaluation)
11. Evaluation criteria differentiating between experience, technological capability and user needs can effectively be used for the selection of a preferred contractor.
12. Knowledge of the internal process and requirements of a State is essential to a successful, smooth procurement.
13. Communications between departments and to the vendors is essential to keep everyone informed.

Appendix A – Table of Contents of RFP Issued February 28, 2008

Table of Contents of RFP Issued February 28, 2008

Appendix B – Software Requirements Overview as Attached to RFP

Software Requirements Overview as Attached to RFP

1. General Requirements

1.1 Functionality
- 1.1.1 System Error Logging
- 1.1.2 Remote Access
- 1.1.3 Security
- 1.1.4 System Clock
- 1.1.5 System Log
- 1.1.6 Archival of Data

1.2 Usability
- 1.2.1 System Map Requirements
- 1.2.2 Selection of Items
- 1.2.3 Look and Feel
- 1.2.4 Data Validation

1.3 Reliability
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- 1.3.3 Watchdog

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- 1.4.2 User Types
- 1.4.3 Response Time

1.5 Supportability
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- 1.6.3 Hardware Limitations
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- 1.6.5 Database Restrictions
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- 1.6.8 Restrictions on Applications
- 1.6.9 Required Applications
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- 1.6.11 Programming Language
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1.7 Documentation
- 1.7.1 General Documentation Requirements
- 1.7.2 Concept of Operations

2.3.2 Distribute Video Images
2.3.3 Provide System Reports
2.3.4 Publish Detailed Road-Weather Condition Information
2.3.5 Publish Detailed Traffic Condition Information
2.3.6 Publish DMS Messages
2.3.7 Publish Event Information
2.3.8 Publish Speed Limits
2.3.9 Publish Toll Information
2.3.10 Publish Travel Times

2.4 Manage Infrastructure
2.4.1 Manage Infrastructure Administration
2.4.2 Operate Infrastructure

Appendix C – List of Stakeholders Interviewed

Stakeholders Interviewed

Michigan Department of Transportation (MDOT)

- Greg Krueger (Project Manager)
- Mia Silver (ex MITSC Operations Engineer)
- Michele Mueller (Metro Region Transportation Engineer)
- Mark Geib (MITSC, ITS Operations Engineer)
- Sarah Gill (Mark's assistant, ex MITSC Operations Manager)
- Lee Nederveld (Greg Krueger's Assistant)
- Suzette Peplinski (Grand Rapids Office, ITS Operations Engineer)
- Matt Smith (Metro Region, Traffic and Safety Engineer)
- Dawn Gustafson (Superior Region, Traffic and Safety Engineer)

Michigan Department of Information Technology (MDIT)

- Monica Coulter (MITSC MDIT onsite)
- Mark Burrows (MITSC supervisor – Current project manager for MDIT on this project)
- Jan Miller (MDIT, Testing Lead)
- Gary Baron (former Project Manager for MDIT on this project)
- Cindy Turben (MDIT Contracts)

Office of Acquisition Services, Michigan Department of Management & Budget (DMB)

- Steve Motz (Purchasing Operations Buyer)

Federal Highway Administration (FHWA)

- Maurie Hoevel (Michigan Division Office)

Delcan Corporation

- Joseph Brahm (Project Manager)
- Scott Lee (Deputy Project Manager)
- Dan Lucasik (Technical Lead)

IBI Group

- Derek Sims (Project Manager)
- Mara Bullock (Technical Specialist)

Kimley-Horn of Michigan, Inc.

- Mark Dunzo (Project Manager)
- Alan Toppen (Deputy PM)

Appendix D – Stakeholder Questionnaire

1/22/09

MDOT ATMS PROCUREMENT EVALUATION

Date: _____

Interviewee:_____ Organization:_____

Interviewer: _____

No.	Question	Ranking	Comments
1	What was your understanding of the steps involved in the procurement process? How would your rate your understanding on a scale of 1 to 10 with 10 being very familiar?	1 2 3 4 5 6 7 8 9 10	
2	Were the needs and objectives of the project communicated to you? On a scale of 1 to 10 with 10 being fully communicated, how would you rank your degree of understanding of the needs and objectives? What do you consider the needs and objectives of this project?	1 2 3 4 5 6 7 8 9 10	
3	What is your understanding as to why MDIT is the contracting agency? How would your rate your understanding on a scale of 1 to 10 with 10 being very familiar?	1 2 3 4 5 6 7 8 9 10	
4	What was your involvement in the procurement process? (did they read the submittals, did they see the demonstrations, were they asked for their recommendation, did you have a role in the oral presentations, site visits, etc.). Using a scale of 1 to 10, with 10 the highest, how would you rate your degree of involvement?	1 2 3 4 5 6 7 8 9 10	

5	What MDOT/MDIT staff did you feel were most involved?		
6	Did you feel that everyone was involved who should have been involved in the procurement process? If not, who should have been more involved or played a larger role?		
7	Did you feel you were kept informed of the progress/process? Using a scale of 1 to 10, with 10 the highest, how would you rate your degree of being informed?	1 2 3 4 5 6 7 8 9 10	
8	Did you feel the procurement process went smoothly? Using a scale of 1 to 10, with 10 the highest, how would you rate the smoothness of the process?	1 2 3 4 5 6 7 8 9 10	
9	How would you improve the process?		
10	Did you feel your input to the procurement process was used by others? Using a scale of 1 to 10, with 10 very useful, how would you rate how your input was used?	1 2 3 4 5 6 7 8 9 10	
11	if you asked questions during the process, did you feel they were adequately addressed? Using a scale of 1 to 10, with 10 being fully addressed, how would you rate the responses to your questions?	1 2 3 4 5 6 7 8 9 10	
12	Did you feel the process was too short, too long or just right? On a scale of 1 to 10 with 10 being too long, how would you rate the length of the process?	1 2 3 4 5 6 7 8 9 10	
13	Are you aware of what evaluation criteria were used: • If so, were the evaluation criteria used sufficient to differentiate between the various vendors? How would you rate the evaluation criteria with 10 being excellent?	1 2 3 4 5 6 7 8 9 10	
14	Are there different evaluation criteria you would use if you had to do it over again?		

15	Were the specifications too functional, too technical, not sufficiently performance based? Based on a scale of 1 to 10 with 10 being highly technical, how would you rate the specifications?	1 2 3 4 5 6 7 8 9 10	
16	Do you feel the specifications excluded vendors who would have otherwise submitted? Based on a scale of 1 to 10 with 10 being completely open, how would you rate the openness of the specifications?	1 2 3 4 5 6 7 8 9 10	
17	Were clarifications requested from individual bidders?		
18	What do you consider as being the lessons learned in this process?		