

Pavement Management System	
Agency Requesting The Project:	
Transportation Department	
Business Unit Requesting The Project:	
TSM&O	
Sponsor Of the Project:	
Lonnie Hendrix	
Sponsor Title:	
Sponsor Phone Number:	Extension:
(602) 712-7972	
Sponsor Email Address:	
lhendrix@azdot.gov	

Has a Project Request been completed for this PIJ?	Y
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What is the operational issue or business need that the Agency is trying to solve?	
<p>The Pavement Management Section lacks the ability to support the Materials Group's new Mechanistic-Empirical Pavement Design Guide. Designers are unable to access critical information concerning pavement condition, including the extent of traffic exposure, and the type and extent of cracking. In addition, there is no existing provision that facilitates updating and distribution of critical data to the Engineering Districts. This research is expected to recommend and provide some type of software that will provide real time access to pavement condition and design data on a statewide basis, in a manner that can be readily used by Highway Development and Engineering District personnel. Implementation will result in lower costs to develop highway design strategies. Even more importantly, it will result in lower costs for the construction and maintenance of the state's highways throughout their lifecycle.</p>	

How will solving this issue or addressing this need benefit the State or the Agency?	
<p>ADOT proposes to purchase a commercial off the shelf (COTS) application solution that will be configured to comply with Pavement Management's requirements. Additionally, the agency will purchase maintenance and support through the vendor. This approach will ensure the agency has access to the most recent system upgrades and/or new features to the application, thus improving Pavement Management analysis and forecasting.</p>	

Describe the proposed solution to this business need:

Based on the results of an RFP submitted, ADOT selected a system that meets all business/technology requirements. The evaluation committee chose this vendor based on overall requirements, cost, and ability to be integrated with the agency's current systems.

Has the existing technology environment, into which the proposed solution will be implemented, been documented? Y

Indicate where that documentation can be found, or provide the information under separate cover before the meeting, otherwise describe below:

The existing environment can be found in the Request For Proposal (RFP).

Have the business requirements been gathered, along with any technology requirements that have been identified? Y

Are you submitting this as a Pre-PIJ in order to issue a Request for Proposal (RFP) to evaluate options and select a solution that meets the project requirements? N

Will you be completing an assessment phase, i.e., an evaluation by a vendor, third party or your agency, of the current state, needs, and desired future state, in order to determine the cost, effort, approach (RFP or otherwise) and/or feasibility of a project before submitting the full PIJ? N

Does the project fall into one of the following categories:
- hardware technology refresh/expansion, e.g., replacement/more laptops, radios, peripherals, etc.?
- software version refresh/additional licenses, e.g., MS Office 2013 replacing 2010, extra software licenses needed for additional PCs? N

Is the proposed procurement the result of an RFP solicitation process? Y

Is this project referenced in your agency's Strategic IT Plan? N

Does your agency have a formal project methodology in place? Y

Describe the make-up and roles/responsibilities of the project team, e.g. participants, sponsors, stakeholders, etc. below:

TSM&O is providing the Project Budget, Business Requirements and Subject Matter resources.

ITG is providing Project Management and Development Resources to assist the Vendor in implementing the project.

Will a PM be assigned to manage the project, regardless of whether internal or vendor provided? Y

Is a project plan available that reflects the estimated start date and end date of the project, and the supporting milestones for the project?

Y

Has a test/pilot phase been incorporated?

N

Have steps needed to roll-out to all impacted parties been incorporated, e.g. communications, planned outages, deployment plan?

Y

Will the implementation require any physical infrastructure improvements, e.g., building reconstruction, major re-wiring, etc.?

N

Are there any known resource availability conflicts that could impact the project?

N

Does your schedule have dependencies on any other projects or procurements?

N

Will the implementation involve major end user view or functionality changes?

Y

Will the proposed solution result in a change to a public-facing application or system?

N

Is a detailed project budget reflecting all of the up-front/startup costs to implement the project available, e.g., hardware, initial software licenses, training, taxes, P&OS, etc.?

Y

Have the ongoing support costs for sustaining the proposed solution over a 5-year lifecycle, once the project is complete, been determined, e.g., ongoing vendor hosting costs, annual maintenance and support not acquired upfront, etc.?

Y

Have all required funding sources for the project and ongoing support costs been identified?

Y

Will the funding for this project expire on a specific date, regardless of project timelines?

N

Will the funding allocated for this project include any contingency, in the event of cost over-runs or potential changes in scope?

Y

Please indicate whether a statewide enterprise solution will be used or select the primary reason for not choosing an enterprise solution:

Statewide Enterprise Solution

Will the technology and all required services be acquired off existing State contract(s)?

N

Will any software be acquired through the current State value-added reseller contract?

N

Does the project involve any technology that is new and/or unfamiliar to your agency, e.g., software tool never used before, virtualized server environment?

Y

Does your agency have experience with the vendor (if known)?

N

Does the vendor (if known) have professional experience with similar projects?

Y

Does the project involve any coordination across multiple vendors?

Y

Does this project require multiple system interfaces, e.g., APIs, data exchange with other external application systems/agencies or other internal systems/divisions?

Y

Have any compatibility issues been identified between the proposed solution and the existing environment, e.g., upgrade to server needed before new COTS solution can be installed?

N

Will a migration/conversion step be required, i.e., data extract, transformation and load?

Y

Is this replacing an existing solution?

Y

Indicate below when the solution being replaced was originally acquired?

The Highway Pavement Management Application (HPMA), a pavement management system was acquired from StanTec in 2004.

Describe the planned disposition of the existing technology below, e.g., surplus, retired, used as backup, used for another purpose:

The current application will be decommissioned.

Describe how the agency determined the quantities reflected in the PIJ, e.g., number of hours of P&OS, disk capacity required, etc. for the proposed solution?

The quantities were based on the Vendor's proposal.

Does the proposed solution and associated costs reflect any assumptions regarding projected growth, e.g., more users over time, increases in the amount of data to be stored over 5 years?

Y

Does the proposed solution and associated costs include failover and disaster recovery contingencies?

Y

Will the vendor need to configure the proposed solution for use by your agency?

Y

Are the costs associated with that configuration included in the PIJ financials?

Y

Will any application development or customization of the proposed solution be required for the agency to use the product in the current/planned technology environment, e.g., a COTS application that will require custom programming, an agency application that will be entirely custom developed?

N

Have you determined that this project is in compliance with all applicable statutes, regulations, policies, standards, and procedures, including those for network, security, platform, software/application, and/or data/information found at <https://aset.az.gov/resources/psp>?

Y

Are there other high risk project items not identified?

N

Will the proposed solution be vendor-hosted?

N

Will the proposed solution be hosted on-premise in a state agency?

Y

Please select from the following in-house options:
Agency's Data Center

Describe the rationale for selecting an in-house option below:
An In House option was selected due to the DBMS (SQL) and the application's interface with the Roads and Highways system.

Will any data be transmitted into or out of the agency's in-house environment or the State Data Center?

N

Will any PII, PHI, or other Protected Information as defined in the 8110 Statewide Data Classification Policy be transmitted, stored, or processed with this project?

N

Summary of PIJ Financials

Total of Development Cost:	\$	949,130
Total of Operational Cost:	\$	256,900
Total Costs:	\$	1,206,030

Project Cost - Itemized

Item	Description	Category	Development (Implementation) or Operational (Ongoing)	Fiscal Year Spend	Qty or Hours	Unit Cost	Extended Cost	Enter Tax Rate if Applicable (Generally 8.3% for PHX)	Tax	Total Cost
1	Vendor supplied Resources	Prof & Outside Services	Development	1	1	\$568,630	\$568,630		\$0	\$568,630
2	SQL Server License	Software	Development	1	1	\$115,000	\$115,000		\$0	\$115,000
3	User Licensing	Software	Development	1	50	\$5,310	\$265,500		\$0	\$265,500
4	Annual Maintenance	License & Maint Fees	Operational	3	1	\$83,100	\$83,100		\$0	\$83,100
5	Annual Maintenance	License & Maint Fees	Operational	4	1	\$85,600	\$85,600		\$0	\$85,600
6	Annual Maintenance	License & Maint Fees	Operational	5	1	\$88,200	\$88,200		\$0	\$88,200
7		[-Select-]	[-Select-]	[-Select-]						
8		[-Select-]	[-Select-]	[-Select-]						
9		[-Select-]	[-Select-]	[-Select-]						
10		[-Select-]	[-Select-]	[-Select-]						
11		[-Select-]	[-Select-]	[-Select-]						
12		[-Select-]	[-Select-]	[-Select-]						
13		[-Select-]	[-Select-]	[-Select-]						
14		[-Select-]	[-Select-]	[-Select-]						
15		[-Select-]	[-Select-]	[-Select-]						
16		[-Select-]	[-Select-]	[-Select-]						
17		[-Select-]	[-Select-]	[-Select-]						
Total Development Cost										\$949,130
Total Operational Cost										\$256,900
Total Itemization of Costs:										\$1,206,030

Summary of Funding Sources			
Fund Type	% of Project	\$ of Project (Available)	\$ of Project (To Be Requested)
Base Budget			
APF			
Other Appropriated	17.08%		\$206,030.00
Federal	82.92%	\$1,000,000.00	
Other Non-Appropriated			

Total costs available to distribute between funding sources
\$0.00

PIJ Development & Operational Cost Summary

Description	Type	Year 1	Year 2	Year 3	Year 4	Year 5	Extended Cost
Professional & Outside Services	Development	\$568,630	\$0	\$0	\$0	\$0	\$568,630
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Hardware	Development	\$0	\$0	\$0	\$0	\$0	\$0
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Software	Development	\$380,500	\$0	\$0	\$0	\$0	\$380,500
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Communications	Development	\$0	\$0	\$0	\$0	\$0	\$0
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Facilities	Development	\$0	\$0	\$0	\$0	\$0	\$0
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Licensing & Maintenance Fees	Development	\$0	\$0	\$0	\$0	\$0	\$0
	Operational	\$0	\$0	\$83,100	\$85,600	\$88,200	\$256,900
Other	Development	\$0	\$0	\$0	\$0	\$0	\$0
	Operational	\$0	\$0	\$0	\$0	\$0	\$0
Development Cost:		\$949,130	\$0	\$0	\$0	\$0	\$949,130
Operational Cost:		\$0	\$0	\$83,100	\$85,600	\$88,200	\$256,900
Total Cost:							\$1,206,030

Areas of Impact

1 Application Systems

- Application Enhancements
- Internal Use Web Application
- Mobile Application Development
- Arizona Enterprise Solution Platform (AESP) based Application
- New Application Development
- az.gov Web Portal Application
- Other: (Please specify below)

2 Database Systems

- Data Warehouse/Mart
- Database Consolidation/Migration/Extract Transform and Load Data
- Database Products and Tools:
 - Oracle
 - MySQL
 - DB2
 - MS SQL Server
- Other: (Please specify below)

3 Software

- COTS Application Customization
- COTS Application Acquisition
- Mainframe Systems Software
- Open Source
- PC/LAN Systems Software
- Virtualization
- Other: (Please specify below)

4 Hardware

- LAN/WAN Infrastructure
- Mainframe Infrastructure
- Storage Area Network Devices
- Public Safety Radios, Systems
- PC Purchases, Peripherals
- Tape Libraries/Silos
- UPS Devices
- Other: (Please specify below)

5 Hosted Solution (Cloud Implementation)

- State Data Center
- Commercially Hosted:
 - Amazon (AWS) GovCloud
 - Century Link - I/O Data Center
 - AWS (non-government) cloud
 - Microsoft Azure
- Vendor Hosted
- Other: (Please explain below)

6 Security

- Encryption
- Security Appliances:
 - Firewall
 - Intrusion Detection System (IDS)
 - Intrusion Prevention System (IPS)
- SecurityControls/Systems - Other: (Please specify below)
- Physical Controls (Badging Systems, Iris Scanners, Other: (Please specify below)
- Other: (Please specify below)

7 Telecommunications

- Network Communications Infrastructure
- Telephone Upgrade-Business-Specific
- Cabling
- Wireless Access Points
- Telephony Upgrade-EIC Solution
- Trenching
- Videoconferencing
- Other: (Please specify below)

8 Enterprise Solutions

- Business Intelligence System
- E-Signatures
- Geographic Information Systems
- Other Imaging - Photos, Fingerprints, etc.
- Document Management/Imaging
- eLicensing
- Management Systems - Financial, Grants, Asset
- Disaster Recovery/Business Continuity
- Other: (Please specify below)

X **9 Contract Services/Procurement**

- Contracted Project Management
- Contractor Support Services
- Install/Configuration Contract Services
- State Contract
- Vendor provided
- Procurement (RFP, IFB, DPR, etc.)
- Other: (Please specify below)

Meeting Invite Checklist

Role	Name	Email Address	Date Reviewed
Agency Project Sponsor*	Lonnie Hendrix	lhendrix@azdot.gov	10/21/16
Agency Chief Information Officer (CIO) (or designee)*	Steve West	swest@azdot.gov	10/23/16
Agency Information Security Officer (ISO) (or designee)*	Thomas Branham	rbranham@azdot.gov	10/18/16
Joint Legislative Budget Committee (JLBC) representative	N/A		
Office of Strategic Planning & Budgeting (OSPB) representative	N/A		
ADOA-ASET Strategic Program Manager *	John Wagner	john.wagner@azdoa.gov	11/21/16
ADOA-ASET Security, Privacy & Risk (ASET-SPR) representative*			
Agency CPO or State Procurement Office (SPO) representative	Valarie Erwin	verwin@azdot.gov	10/21/16
Agency CFO or Finance representative (if different from CPO)	N/A		
Others to Invite (if applicable):			
ITG Project Sponsor	Ian Kaufman	ikaufman@azdot.gov	10/21/16

* Required Attendee

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x	Has the value of the IT project to the public and the State been identified?
x	Does the proposed solution address the stated problem or situation?
x	Has the budget unit demonstrated competency to carry out the project successfully?
x	Have all applicable questions in the PIJ been addressed?
x	Have the Areas of Impact associated with the project been identified?
x	Is sufficient sponsorship and support by budget unit leadership evidenced in the meeting?
x	Has the compatibility of the proposed solution with other budget unit solutions been addressed?
x	Has a reasonable Project Plan been provided?
x	Has the compliance of the proposed solution with all applicable statewide standards been confirmed?
x	Have any potential risks or issues associated with the project or the proposed solution been identified and appropriately addressed to minimize unintended consequences?
x	Have the cost estimates for the project been vetted for accuracy?
x	Have the PIJ Financials been completed?
x	Have any/all of the following startup costs to implement the project been included under Development in the financial tables, if applicable - tax; shipping; upfront maintenance and support; professional services (P&OS); ancillary software to run on equipment; ancillary hardware to install equipment, e.g., cables; other associated costs, e.g., training, travel, documentation, etc.?
x	Have any/all of the following ongoing/5-year support costs, once the project is implemented, been included under Operational in the financial tables, if applicable - ongoing vendor hosting costs, including any projected increase over time; annual maintenance and support not acquired upfront; extended costs after warranty expiration; P&OS commitments beyond implementation?
x	Have you confirmed that no Full Time Employee (FTE) related costs have been included in the project costs?
x	Have quotes been provided for all itemized costs in the PIJ, e.g., professional services, hardware, software, licensing, etc.?
x	Do the quotes match the itemized list and only reflect those items and costs (within 5%) associated with this project?
	If not, describe below how the costs in the PIJ differ from the quotes, e.g., if quantities are different, costs are comprised of portions of multiple quotes provided, etc.:

If any of the above are not complete, the PIJ cannot be approved at this time.....

PIJ Disposition

<input checked="" type="checkbox"/>	Approved
<input type="checkbox"/>	Approved with conditions
<input type="checkbox"/>	Not Approved

Strategic Program Manager Analysis

The Arizona Department of Transportation (ADOT) will implement a Pavement Management System in order to support the Materials Group's Mechanistic-Empirical Pavement Design Guide, access critical information concerning pavement conditions and, update/distribute critical data to Engineering Districts. Non-appropriated and Federal funding sources will be used for this project. There is currently no enterprise level solution available that would satisfy the specific needs of this project. This project has been reviewed by ADOA ASET and is approved to move forward with implementation. There are no outstanding issues or concerns regarding approval of this project. Approval is via delegated authority.

Authorized Approver:	John Wagner	Approval Date:	11/21/2016
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Condition (If Applicable)
