

Guidehouse Efficiency Review Recommendations Procurement

ARDOT Response

September 16, 2020

Procurement

Guidehouse Recommendation 5:

5. Implement efficiencies in procurement and purchasing

ARDOT prioritizes cost savings, but lacks the data to demonstrate what works and when. By optimizing and standardizing procurement and purchasing procedures, ArDOT may more effectively use resources and maximize costs savings including and beyond construction.

ARDOT Response:

With regard to optimizing and standardizing procurement and purchasing procedures, we choose to align with Arkansas State Procurement Law. These policies and procedures are clearly documented as part of our Accounting Manual. Additionally, based on years of experience, we maintain rigid specifications for the products and services we procure. By following established policies and procedures to procure products and services from the lowest bidder that meets or exceeds the rigid specifications, we are able to optimize cost savings and meet the needs of the Department.

It is important to note that we have designated the Division Head of Equipment and Procurement (E&P) to carry out purchasing policies and procedures for the Department. Designated Division and District personnel are assigned the responsibility of performing allowable purchasing functions as documented in our Accounting Manual, but the Department monitors all purchases for adherence to our policies and procedures. All competitive non-construction bids are required to be administered by the E&P Division. All purchase orders, including small orders less than \$20,000, are required to be submitted to the E&P Division for review of compliance with purchasing policies and procedures.

Trends are monitored, taking into consideration the diverse nature of work being performed by the Department. Stock supplies and their movement are monitored utilizing "18 Month Non-Active Stock" reporting devised to maintain a fluid stock movement, with the least amount of delay possible. Also, we utilize Fiscal Services reporting and data to monitor and track purchasing activity by object codes, which define/describe what has been purchased.

We have been working to implement the Oracle Fusion Procurement Cloud Service application. This application will provide benefits in many areas of our operations since it is a Department wide fiscal application. One of the specific areas that will benefit from the modernization this application provides is our procurement of products and services. Through the use of this application we will capture more and improved data that will lead to better decisions. We will also be able to use analytical tools to evaluate bidding trends and determine if and how we can improve our current procurement procedures. This will allow us to implement data-driven approaches like spend analysis and lifecycle costing to inform procurement and purchasing decisions. This will also allow us to create policies and procedures at the District level that are consistent. The first phase of this application is scheduled to be implemented next month.

The management of our vehicle and equipment fleet is guided by an Equipment Management System (EMS), which calculates Total Cost of Ownership, and will be enhanced by the integration with the Oracle Maintenance Management module.

Our Alternative Delivery Office is relatively new. However, we have successfully placed under contract both a Design Build and a Construction Manager General Contractor project. We are well on the way to creating a solid base for standardizing project acceleration techniques and procurement methods that will be expanded and enhanced as we gain more and more experience.

With regard to change orders, we can use the results of the formal framework for the evaluation of change orders for cost savings, trends and insights that will be prepared in response to Expenditures Recommendation 8 – Implement leading practices in construction project design. We will begin to devise a plan to implement a formal framework for practical design, value engineering, and for the evaluation of change orders for cost savings, trends and insights.

We will continue the efforts noted above and will also investigate opportunities to The continuation of progress may require obtaining the services of a consultant and hiring additional employees. The plan will be contingent upon funding availability and legislative approval of additional employee titles within ARDOT's appropriation budget request.

Procurement

Guidehouse Recommendation 6:

6. Implement construction contractor performance measurement.

ARDOT lacks a comprehensive tool to screen for contractor quality during procurement. By implementing performance-based prequalification, ARDOT may improve project delivery; reward high-performing contractors; and encourage low-performers to improve.

ARDOT Response:

The Arkansas Highway Commission and the Arkansas Department of Transportation (ARDOT) have determined that creation of a Performance-Based Prequalification System will not increase efficiency or enhance quality in construction. If implemented, it is our opinion that the result would be the unintended consequence of a substantial decrease in efficiency. Therefore, we respectfully decline implementing this recommendation.

The reasons for this determination are as follows.

A. Guidehouse Leading Practice:

- Guidehouse identified Federal Highway Administration's Research Study – *Performance-Based Contractor Prequalification as an Alternative to Performance Bonds* – as a leading practice.
 - The focus of this study was to investigate replacing the requirement for Performance and Payment Bonds with a Performance-Based Prequalification System such as the one modeled in the study. The study concludes that there would be cost savings if Performance and Payment Bond requirements were eliminated or reduced. This in effect would make ARDOT the surety company to protect the taxpayer's investment. Since ARDOT is wholly funded with tax dollars, taxpayers would be taking on the risk of possible default.
 - If the goal is to keep the requirement for Performance and Payment Bonds, the addition of another layer of complexity in implementing a Performance-Based Prequalification System is considered redundant and inefficient.
 - The study's Contractor Performance Evaluation System Model was developed by combining elements of the processes, concepts and terminology used by the Florida Department of Transportation, the Ohio Department of Transportation, and the Ontario Transportation Ministry.

B. Cost to Implement:

ARDOT lets to contract approximately 240 contracts each year. There are 290 contractors that are prequalified to purchase for-bid proposals. The amount of staff time and resources that would be required to develop and maintain a system that graded performance on every contractor on every contract, track that performance and its details, and defend the performance grade assigned to each project would be extensive. The study states *"The major cost associated with implementing Performance-Based Prequalification is the cost of State transportation department staff to administer the program."*

Since ARDOT staff is already at workload capacity, it would be necessary to hire at least 31 new full time employees that are experienced in construction to implement this recommendation in the field. Additional staff would be needed in the Construction Division to review, validate and approve the ratings for each contractor. New software would be needed along with the need for staff to implement and maintain the software. At least one additional lawyer would be needed in our Legal Division to defend the claims from contractors that disagree with their ratings. The burden to oversee this change to our current contracting procedures would add increased burden to management, who are already at workload capacity. This would also have to be addressed.

C. Construction Project Variables:

No project is the same. No contractor is the same. No ARDOT inspector is the same. There are many challenges associated with rating contractors that include the numerous variables in job construction. There may be personality conflicts between the contractor's superintendents and ARDOT's inspectors, unforeseen site conditions, plan errors to be remedied, construction mistakes that will need to be corrected, subcontractor problems, material supplier problems, etc. To be able to quantify performance in a meaningful way given these variables would be very difficult to standardize and implement in a fair and unbiased manner. It is very difficult to imagine an objective process that keeps the playing field level and the treatment and rating of all contractors the same.

D. Competition Reduction / Cost Increase:

The study states *"The program includes a quantitative method of modifying the contractor bidding capacity, based on the results of performance ratings"*.

A performance-based prequalification system could result in the unintended consequence of reduced competition. If a contractor is given a poor rating, they will be limited in their ability to bid on projects and compete. Reduced competition results in higher prices. Do Arkansans want to reduce the ability of Arkansas' medium and smaller contractors to bid on jobs? This recommendation could possibly result in more projects being awarded to the big mega contractors that will have a distinct advantage in any rating system.

E. ARDOT's Current Practice:

ARDOT's current practice for the traditional design/bid/build project delivery method ensures that qualified contractors are selected in an objective manner to perform quality work in a timely manner at the lowest cost to the taxpayer. These practices include:

- Administrative Prequalification of Contractors
- Bid and Performance Bond Requirement
 - Private sector bonding companies establish contractor standards and guarantee that the work will be done per ARDOT's specifications. With bonds, the burden of construction risk shifts from the owner (taxpayer) to the surety company, protecting the owner's investment.
- Contractor License Requirement

In addition, ARDOT has implemented several practices over the years to expedite project delivery, ensure quality, and reward high-performing contractors and encourage low-performers to improve. These practices are identified as follows:

- Cost Plus Time Bidding
- Flexible Start Date
- Requirement of Critical Path Method Schedules on Major Projects
- Incentives and Disincentives on Overall Contract Time
- Industry Certifications Required for Certain Work Items
 - Steel Erection
 - Demolition with Explosives
 - Traffic Control
 - Nuclear Density Gauge Testing
- Extensive Material Testing
 - Contractors and our construction staff perform quality control testing in the field.
 - Material testing training and certification is required for ARDOT employees and contractor personnel.
 - An entire ARDOT Division is dedicated to quality assurance and validation of the field testing.
 - ARDOT's Qualified Products List

- Liquidated Damages
 - Contractors in Liquidated Damages are not allowed to purchase a for-bid proposal (see attached charts that show the improvement in on-time project delivery made since implementation).

- 2014 Standard Specifications for Highway Construction
 - All Work Item Specifications Ensure Quality
 - Adherence to the Specifications is strictly monitored by trained and dedicated project inspectors.
 - Mix Design Specification
 - Contractors develop specific mix designs based on the materials available to them in the area. The mix designs must meet the Specifications criteria and are evaluated for compliance throughout the construction of the project. Payment is contingent on the contractor meeting the Specifications.
 - Ride Quality Specification
 - Applies to Concrete and Asphalt

Conclusion:

Each State Department of Transportation is unique. Each has a different organizational structure and processes, different contracting community, different surety companies, different laws and regulations pertaining to contract awards and contractor claims.

In Arkansas, the culture at the Department has always been to maintain the “Integrity of the Bid Process”. Our procedures and specifications have evolved over time to address work quality and project delivery concerns as discussed above, while remaining objective and fair at all times. ARDOT has relied on the performance and payment bond requirement on each project to protect us and the taxpayers from contractors that cannot adequately perform the work. It is to our benefit and the benefit of the taxpayer to allow the bonding companies to measure each contractor’s ability to perform the work and any possible risk. It is said best by Guidehouse in the Current State Assessment Report dated March 13, 2020 that summarized their interviews with staff:

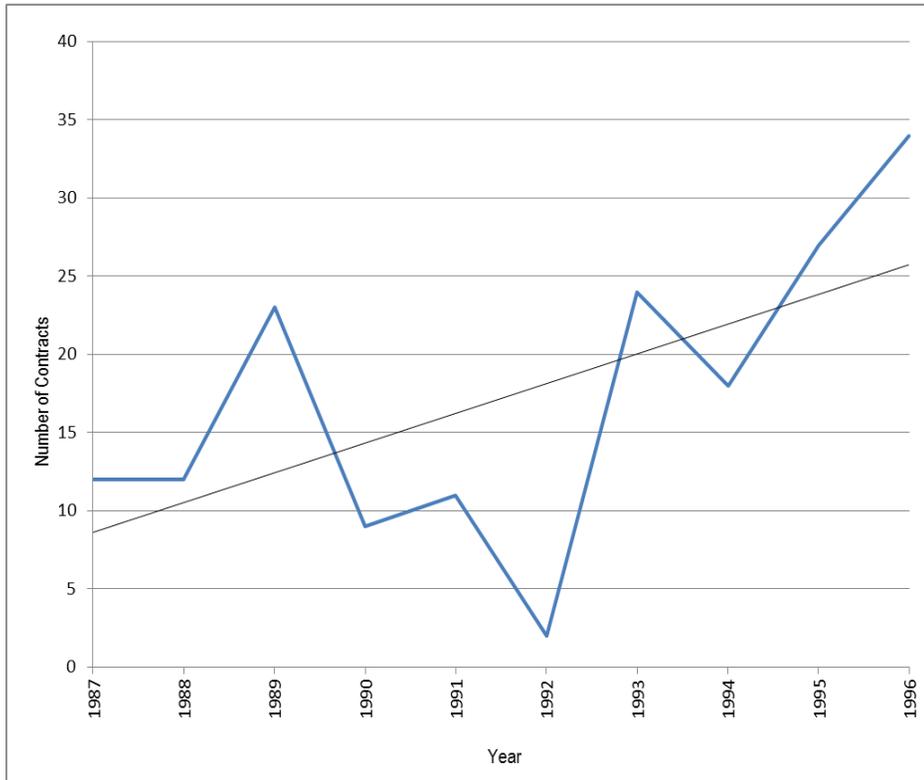
Staff shared concerns that strategies that give preference based on other criteria, such as vendor past performance, would be subjective and, therefore, unreliable.

For construction, staff pointed to the pre-qualification process, bonding requirements, and the Standard Specifications for Highway Construction as existing criteria that fulfill a comparable function as qualifications-based procurement strategies.

Number of Uncompleted Contracts

Before Implementation of
Limitation on Bidding if Contractor is in
Liquidated Damages

July 1987 – June 1996



After Implementation of
Limitation on Bidding if Contractor is in
Liquidated Damages

June 1996 – June 2005

