

Guidehouse Efficiency Review Recommendations Expenditures

ARDOT Response

August 19, 2020

Guidehouse Recommendation 7:

7. Implement project and portfolio planning frameworks.

ARDOT's pre-construction, construction and maintenance Project Portfolio Management (PPM) systems vary in maturity. Enhancing these systems may allow ARDOT to more effectively budget, plan, execute, and communicate on its construction and maintenance projects.

ARDOT Response:

We appreciate that Guidehouse has acknowledged that ARDOT is consistently able to execute on its project development, construction, and maintenance functions. We agree that the systems used to assist with these functions vary in maturity and that a more mature project management framework may provide enhanced efficiencies.

Since ARDOT is currently able to consistently accomplish these activities, the establishment of a new Project Management Office (PMO) may not be needed. By providing more mature enterprise project management systems and increasing staffing levels where needed within our existing offices, we may be able to accomplish this recommendation at a lower cost. However, if Issue 1 is approved in November and our annual construction program increases, the establishment of a PMO will be easily justified.

With regard to maintenance activities, efforts are in-flight for ARDOT to implement the Maintenance Management System (MMS). The MMS will provide us with the capability to proficiently plan, schedule, control, manage and report the status of our maintenance activities with real time views of ongoing work. The proposed system will interface with other ARDOT systems to convey and receive needed data that will present a complete picture of our maintenance activities. The information provided by the MMS will facilitate the implementation of setting Level of Service targets for highway maintenance performance.

As Guidehouse reported, this a Department-wide initiative that should be approached in phases. The plan forward will include investigating the leading practices identified by Guidehouse, possibly 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.

Expenditures

Guidehouse Recommendation 8:

8. Implement leading practices in construction project design.

While ARDOT implements these leading project design practices, they lack formal frameworks to ensure their consistent use. By adopting such procedures, ARDOT may strengthen institutional knowledge, reduce project costs, and improve achievement of system targets.

ARDOT Response:

We agree that the use of practical design has provided cost savings in the past and we acknowledge the benefit of using it in the future on certain projects.

ARDOT began the use of practical design in 1989 by working with the Federal Highway Administration (FHWA) to develop and implement practical design standards for some projects. These design standards provide ARDOT with the ability to reduce standard design requirements which reduces the cost of projects.

Since the implementation of practical design standards, they have been used on appropriate projects and have resulted in significant savings. We have also gained extensive experience in how to identify the projects that will benefit the most from use of practical design.

Our practical design process has changed over time due to concern by some, including FHWA, that it places too much emphasis on short-term cost savings without taking into account the long-term cost. This is another aspect that must be taken into account in deciding when and how to apply practical design.

We also agree that the use of Value Engineering (VE) has provided cost savings in the past and we acknowledge the benefit of using it in the future. ARDOT incorporates VE into our projects both internally and externally.

Internally, our design staff has been trained to produce the most economical design without compromising the integrity of the final product throughout the life of project development. Plans are vetted for the most economical design possible at 10%, 30%, 60% and 90%. If the project falls within certain parameters requiring an "official" VE study by the Federal Highway Administration, the plans yield very few changes that can be implemented since any changes that could be made to reduce impacts and costs have already been considered and made if possible.

Externally, we allow the contractor the opportunity to recommend changes to a project's design that usually highlight their strengths. These recommendations are evaluated and, if approved, change ordered into the project.

Incorporation of change orders into a project usually involve coordination between multiple divisions of ARDOT. This allows for a continual review process of change orders throughout the life of the project. We agree that a more formal framework for the analysis of change orders could produce cost savings on future projects.

In summary, ARDOT has many processes in place to ensure that project design and change orders meets the purpose and need for the project within the framework of minimizing cost and impacts as much as practical. However, ARDOT does not formally track cost savings and changes throughout the life of the project to aid in trend analysis, knowledge management and reporting efficiencies and progress to the public and administration.

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. The plan will include investigating the leading practices identified by Guidehouse and possibility hiring additional employees. The plan will be contingent upon funding availability and legislative approval of additional employee titles within ARDOT's appropriation budget request.