JOINT COMMITTEES

STANDING COMMITTEES: Natural Resources & Energy, Chair Transportation & Veterans Affairs

ROBERT L. COWLES

Audit Committee, Co-Chair Information Policy and Technology

Wisconsin State Senator 2nd Senate District

Assembly Committee on Transportation Assembly Bill 142 Senator Cowles Testimony

Chairman Ripp and committee members, thank you for having a hearing today on Assembly Bill 142 that is a result of the findings in Audit Report 17-2 on the State Highway Program and was introduced by the Joint Legislative Audit Committee. As Co-chair of the Joint Legislative Audit Committee, I and the other audit committee members try to ensure state programs are being run efficiently. In the case of the State Highway Program, historically, it has not been.

I want to thank the State Auditor Joe Chrisman, Dean Swenson, the team leader, and the Legislative Audit Bureau (LAB) for their diligent and thorough work on this audit. The audit identified 23 recommendations that will help the Department of Transportation (DOT) administer the State Highway Program more effectively and efficiently. These 23 items are not what is in Assembly Bill 142. In addition to providing recommendations to the department, the Legislative Audit Bureau provided the Legislature with potential items for our consideration to make statutory changes. This bill is about maintaining accountability and transparency within the State Highway Program.

The bill is comprised of the 5 items for legislative consideration included in Audit Report 17-2. The lion's share of this legislation is focused on providing better information to the Legislature regarding the ongoing costs of highway projects and ensuring that full cost of projects are being provided to the Legislature and the public.

In this audit, LAB reviewed 35 ongoing and completed major highway projects. For the 19 completed projects reviewed, expenditures exceeded original estimates by nearly 111% or \$772.5m. Among the 16 ongoing projects reviewed, estimated costs exceeded original estimates by \$3.1 billion. In both circumstances, this is more than double original estimates provided to the Legislature at the time of enumeration. Unacceptable. Wisconsin's taxpayers deserve accurate and complete estimates for their transportation projects.

The audit found that statutes don't specify how DOT determine the cost estimates of potential major highway projects that are provided to the Governor and the Legislature, nor do statutes require DOT to report ongoing project costs to the Legislature. These findings can be found on pages 44 and 45 of the audit. Under the bill, when DOT would provide a full project cost estimate under this requirement, the estimate must include all costs associated with the project, including all costs before enumeration, design and construction engineering costs, the costs of environmental studies, and costs of the project that are paid by another program of the department. A Full Project Cost Estimate must also include the expected date of completion and an estimate of the effects of construction cost inflation and unexpected expenditures on the cost of the project.

Furthermore, the bill would create an opportunity for the legislature to be regularly updated on ongoing project costs. Annually, the Joint Finance Committee, the Joint Legislative Audit Committee and the standing transportation committees would receive the following information from DOT:

- 1. The full project cost estimate of the project as of the date of enumeration.
- 2. The year in which the department expects to complete the project as of the date of enumeration.
- 3. The costs incurred as of the date of preparation of the report.
- 4. The full project cost estimate as of the date of preparation of the report.
- 5. The year in which the department expects to complete the project as of the date of preparation of the report.
- 6. An explanation of any difference between the full project cost estimates under items 1. and 4.
- 7. The opinion of the department as to whether the project will be completed as originally scheduled without the allocation of additional funds.

In addition to the Legislature receiving this information, LAB also highlighted that statutes don't require the semiannual report to the Transportation Projects Commission (TPC) to include the cost estimates that were provided at the time of enumeration of the project. Including this information in those reports would make tracking the extent to which project costs have changed after enumeration much easier. The bill requires the Department to provide any studies and cost estimates made on a project to be made available to the Commission that are necessary to consider the project. Also, under the bill, DOT is required to include the "Full Project Cost Estimate" (as previously explained) in its report to the Commission.

The bill also requires that the department consider and document the results of cost-benefit analysis before the determination of whether to undertake the proposed project.

Additionally included in the audit, LAB put forward a consideration to allow DOT to use a Construction Manager-General Contractor method to complete a limited number of projects. Under this method, DOT would be authorized, for no more than three highway improvement projects, to enter into contracts using a construction manager-general contractor process. Under this process, the department contracts with a provider of construction services to supervise the design work for the project and, subject to an acceptable proposal, contracts with the provider of construction services for construction of the project. This bill authorizes DOT to enter into no more than three design contracts utilizing the construction manager-general contractor process no later than July 1, 2021.

Thank you again for hearing this legislation.



Chairman Ripp and Transportation Committee Members -

Thank you for hearing Assembly Bill 142 today. It is through the hard work of the Legislative Audit Bureau and the oversight of the Joint Legislative Audit Committee that we came forward with this bill. We hope the bill's provisions will redefine the culture of the Department, and in the long run save taxpayer dollars and improve the quality of our transportation system.

During the extensive audit of the Department of Transportation we found significant inefficiencies of leadership and management at the Department. I believe that our Governor has already taken initiative by appointing Secretary Dave Ross and reevaluating how things are done in the Department.

I believe that the Audit Bureau has also been forward thinking in their suggestions to the Department. We have heard open communication with Secretary Ross that these suggestions are welcome to the new culture being curated at the Department.

I am most encouraged about the element of the bill which will require communication on changes to costs of projects. We as legislators can simply not know how to plan for the future of our road system without sufficient information of the status our current projects.

In the same vein, there is a provision in the bill which will require the Department to conduct cost benefit analyses for projects. As Senator Cowles can attest, our area was affected negatively by not understanding the true costs of a project. A piece of highway reconstruction was supposed to go through the heart of our districts. The project, as proposed, seemed over-bloated and on a timeline flirting with absurdity. After months of talking with the department we finally got to a solution, but we shouldn't have had to use so much time and effort to get to a resolution that was so obvious to our constituents. I believe this provision would systematize common sense solutions.

I want to thank you once again, Mr. Chairman, for holding this hearing on Assembly Bill 142, and I urge you and the rest of the committee to vote for recommendation of passage.

Wisconsin Assembly Hearing on AB 142

By Glen R. Schwalbach, P.E.

March 28, 2017

My name is Glen R. Schwalbach. I reside at 1090 Moonriver Drive in the Town of Rockland in Brown County. I am a Professional Engineer (P.E.) registered in Wisconsin.

I support AB 142 in general with some suggestions.

In the provision for pre-enumeration project cost estimates, it appears some DOT operating costs and overhead components would have to be assigned to the overall project costs. The DOT should answer whether this is true and, if so, determine how to avoid duplication of DOT expenditures between operating budgets and project budgets. Otherwise, the legislature will have an incomplete picture.

In the provision for annual reports to the legislative committees, you might want to add an eighth piece of information. If the completion date changes from the original date, it would be helpful to have an explanation of the reasons for the change.

For the "pilot" using a construction manager/general contractor process, the LRB states the bill authorizes the DOT to contract with a provider of construction services to supervise the design work. The words "supervise" is inappropriate and risky. DOT's Professional Engineers or their P.E. designates need to supervise the design work. The P.E.'s have the expertise and the legal responsibility for public health and safety. The bill's language use "supervise" as the LRB states but it should clarify the ultimate responsibility of DOT oversight. The audit report describes the process correctly on page 90 if the DOT is doing the engineering design. The DOT would hire a construction manager to review the design and offer suggestions as to constructability, price impacts and construction risks. DOT P.E.'s would then decide whether the suggestions should be incorporated into the final design.

The bill appropriately states that the selection of the construction manager shall be based upon qualifications. The construction phase would still be handled with a bidding process.

The construction manager/general contractor option has to be carefully designed and managed. It can result in a few winners and many losers among contractors. This can reduce competition.

I have a few additional comments since this bill focuses on some of the audit recommendations to get better estimates and reduce costs.

The audit report cited the number of projects which had only one bidder. This fact should prompt a study of the market as to whether the construction contractors have set the stage for these situations inadvertently or otherwise.

Also, it would be interesting to study the fact that a few contractors have bought a large number of sand/stone quarries in Wisconsin. This may have disadvantaged contractors without quarries and resulted in fewer bids and higher bids.

It has been pointed out that the statutes do not specify components of cost estimates. This is why AB 142 is so important. As an outsider, the question is why wasn't this required decades ago when the reasons for past project cost overruns were explained as inflation and allocation of certain costs. I also

understand that in some years the Transportation Projects Commission (TPC) had not met. The guru of process improvement analysis, Dr. Deming, pointed out that, in general, ninety percent of poor quality of products and services are caused by management, not those working in the processes. In the state highway program, management includes the DOT Secretary and DOT managers, the governor, the TPC, and the state legislature. It is management who are to provide objectives/standards/measures (OSM), training, tools, understanding of process outputs, effective communication and funding.

Of all these management deliverables, it appears that the former DOT Secretary and managers were making good progress with changes to the cost estimate process in 2011, the establishment of improved OSM's, and improvements in efficiency of DOT processes. But the other members of this management team who should have understood the process outputs to authorize funding were not doing their job. For example, understanding process outputs in the state highway program includes understanding the cost estimates components. In many sectors, project cost estimates can justifiably ignore inflation, sunk costs such as preliminary engineering, overheads that will occur with or without the project, etc. But, everyone needs to understand the criteria used. That said, AB 142 goes a long way to setting a standard for cost estimates which will improve understanding and communication. Also, for highway projects which have such long duration of spending, it is important to include inflation for legislative funding purposes as AB 142 proposes.

I would also like to comment on the suggestions in the audit report that performance goals and measures were often not met or used for improvement. Goals and performance measures are useful to communicate objectives so that people in the processes understand their roles and focus. But only in stable processes can it be expected that the goals and measures will be met. An example of a stable process is a manufacturing process in which the inputs, i.e. raw materials, are of consistent quality, machine tools are in good shape, operators are well-trained and processes are measured. But construction projects in an outdoor environment are never stable processes. Soil conditions, weather, underground obstacles, environmentally-sensitive areas, changes in Federal requirements, proximity of vehicular traffic and accommodations of citizens near the job sites, etc. mean that planning and construction processes must be flexible. It also means that, if efforts focus on always meeting the goals and measures under these unstable conditions, then costs most likely would increase, not decrease. Goals and measures should be reasonable but not rigid. When they are not met, follow-up explanations for deviations are important to analyze for improvement of processes, not for bashing of people.

One last note: I tried to determine whether other agencies use inflation in cost estimates. I checked the budgeting process for state buildings. I could not tell for sure. The state does have a life-cycle costing computer program for all agencies to use internally to evaluate the multiple alternatives for projects. The discount rate used in those calculations includes time value of money (interest rates) and an inflation adjustment. But that does not necessarily translate into a budget number with inflation included. The Audit Committee or the Joint Finance Committee may wish to investigate how to link these.

Thank you for consideration.

Glen R. Schwalbach, P.E.

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To:

Members, Assembly Transportation Committee

From:

James Hoffman, President/Owner, Hoffman Construction Co.

Date:

March 28, 2107

Re:

Assembly Bill 142 – Use of Construction Manager-General Contractor for highway project contracting, major highway project reports, and cost-benefit analyses of certain services related to transportation

Mr. Chairman, Members of the Committee, my name is James Hoffman, Owner/President of Hoffman Construction Co. based in Black River Falls. Hoffman Construction is a family-owned company which began in 1916 and now is in its fourth generation of ownership. Hoffman Construction manages 20-30 major highway and site development projects each year with our fleets of scrapers, dozers, off-road trucks, backhoes, and dump trucks. I'm sure our company has done many road projects in your districts over the years.

Thank you for the opportunity to testify on Assembly Bill 142. I am testifying today for informational purposes only, and would like to discuss the proposed language allowing Construction Manager-General Contractor (CM-GC) for three pilot projects, as well as propose that this Committee consider other contracting methods in legislation separate from Assembly Bill 142.

Under current law, Wisconsin only has one contract delivery method known as Design-Bid-Build. The most recent audit by the Legislative Audit Bureau has identified advantages of alternative delivery methods, specifically Construction Manager-General Contractor. Assembly Bill 142 is obviously a response to the audit's findings.

I applaud the Legislature for introducing legislation to explore additional contract delivery methods for highway projects. In fact, the State could, and should, go even further by adopting another contract delivery method known as Design-Build, which I will explain in greater detail.

Differences between Construction Manager-General Contractor and Design-Build Under the proposed contract delivery method under Assembly Bill 142 known as CM-GC, the DOT would select the designer and then they jointly would select a construction manager-general contractor to work together with DOT to finalize design and construction.

The process is as follows:

- Bidders submit their qualifications in a 10-12 page resume;
- The DOT selects the Contractor based on their qualifications;
- The DOT and contractor negotiate a fixed fee to develop plans and collaborate on the design;

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- The Contractor is awarded the project if their cost estimate is within 10% of the DOT's independent estimator;
- If not, the DOT can bid the project out normally to other bidders.

CM-GC allows DOT to control the design process, as well as direct the design staff and contractor in the final design.

I believe the State has an opportunity to go even further by becoming the 46th state¹ to adopt Design-Build as an additional contract delivery method. (See attachment). Under Design-Build, DOT would enumerate certain projects and take responsibility for early design work. Contractors would then team up with designers and submit a statement of qualifications listing their abilities to meet the project requirements. The DOT would then select three to five contractor-designer teams based on merit to submit a proposal. The proposal would include a technical proposal on how the contractor-design team would meet the project requirements and lump sum cost. The award of the contract would be based on either the lump sum costs or a ratio of the lump sum cost divided by the technical score of the proposal.

While Design-Build contracting is not conducive for all projects, it would provide the State significant savings on many large projects. For example, as previously mentioned, bids under Design-Build are lump sum, transferring the risk of cost overruns to the bidders instead of the State. Also, the design and construction often overlap because both responsibilities fall under the contractor-designer teams. This would result in significant time savings from programming to construction. Design-Build's efficiency can reduce overall time by four to five months, allowing large jobs to be completed up to one construction season sooner.

Under Design-Build, DOT could also maintain a robust pipeline of "shovel ready" projects, which can quickly be accelerated if additional Federal funding is made available, placing Wisconsin in a more favorable position to utilize Federal funding compared to other states.

Design-Build also allows for multiple cost saving design changes by bidders before the final bid, utilizing what are known as "Alternative Technical Concepts" (ATCs). ATCs are equal or better technical design solutions that achieve the same level of quality at a lower construction cost. Minnesota has seen an average 5% savings from Design-Build bids utilizing ATCs on certain projects.

Conclusion

I fully support this Committee's and the Legislature's efforts in exploring additional contract delivery methods. I believe the Legislature should also adopt Design-Build as an additional contract delivery option to help achieve further cost savings for Wisconsin taxpayers.

¹ http://www.dbia.org/advocacy/state/Documents/design_build_maps.pdf.

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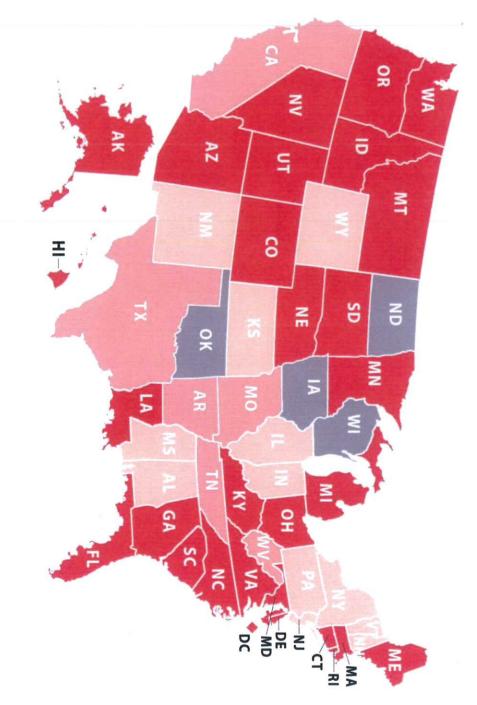
Attachment A

2017 States with Design-Build Authorization for Transportation Projects

2017

Design-Build Authorization for Transportation





- Design-build is not specifically authorized
- Design-build is authorized with certain limitations

- Design-build is widely permitted
- Design-build is fully authorized