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Design-Build: A recipe for failure

Right now in the General Assembly there is a bill that, if passed, would have a disastrous impact on the way major transportation construction projects are managed in the State of Connecticut. **S.B. 33 - An Act Concerning Department of Transportation Project Delivery**, would allow the Commissioner of Transportation to enter into what are called "Design-Build Contracts." The "Design-Build" concept is a controversial, risky approach to construction.

Why is "Design-Build" a mistake?

- The inherent lack of accountability in the "Design-Build" approach commonly leads to reduced quality and, most troubling, safety problems. When the state places its trust entirely in one company to perform the designing, building, managing, and inspecting of a project, it is difficult, if not impossible to hold them accountable for the cost, the quality, and even the safety of their work.
- "Design-Build" projects are more expensive because competition is severely curtailed. The bidding process is only open to the few, large firms that have the ability to perform every phase of a project. Not only does this leave many smaller Connecticut firms in the cold, but the lack of competition leads to higher price tags.
- The ambiguity of "Design-Build" lends itself to increased costs. In essence, the state is asking companies to provide a firm price-tag for a project that hasn't even been designed yet. The result of this ambiguous, on-the-fly approach is design delays, change orders and, in the end, costs that are dramatically higher than the original bid.

How about some examples?

- ✓ In Indiana, the "Design-Build" approach was utilized to construct a new I-465 connecting ramp that was supposed to allow for more traffic at higher speeds while reducing the number of accidents. The result? More accidents. The entire \$70 million project was outsourced to a "Design-Build" partnership of Walsh Construction and Janssen and Spars Engineering. The two firms ended up in litigation with both claiming the other was at fault.
- ✓ In Boston, the Central Artery Tunnel project commonly known as the "Big Dig" is a dramatic example of what can go wrong when the state grants complete control to private companies. The "Big Dig" is notorious for its escalating costs, scheduling overruns, leaks, design flaws, charges of poor execution and use of substandard materials. There were also criminal arrests and four deaths. The project was scheduled to be completed in 1998 at an estimated cost of \$2.8 billion. Instead, it was completed in 2007 and it has been estimated that the project will ultimately cost \$22 billion.

- ✓ The Los Angeles Unified School District used “Design-Build” to construct a state-of-the-art learning center. The “Design-Build” approach led to massive cost overruns and disastrous environmental impact. When the District Attorney was called in to investigate the scandal, he concluded that “Design-Build” was largely to blame. He noted that “Design-Build” does not make use of competitive bidding where prospective firms bid on the same design and that the criteria to select a contractor is subjective and difficult to evaluate/justify later.

What is the answer?

- ❖ The supporters of “Design-Build” ignore the inherent flaws in the approach and blindly embrace the few alleged advantages. What they fail to see is that these alleged advantages can be achieved through other, wiser approaches.
- ❖ The traditional “Design-Bid-Build” approach is currently under fire because it does not allow for “fast-track” contracting and, in some ways, fails to encourage design creativity. However, the recently developed “Design-Sequence-Build” approach provides these benefits while maintaining accountability and allowing the state to effectively use its existing workforce.
- ❖ With “Design-Sequencing,” design activities are scheduled to allow each phase of construction to begin when the design for that phase of the work has been completed, instead of requiring that the design for the entire project be finalized before construction can begin. Under this system, a contract can be awarded for an entire project with plans that are as little as 30% complete. This allows the contractor to work with state engineers to incorporate innovative design/construction methods to speed up project delivery and save money.
- ❖ “Design-Sequencing” has been utilized in the State of California, where it has delivered projects ahead of schedule and under budget.
- ❖ In “Design-Sequencing,” projects are competitively bid, ensuring that the taxpayers receive the best price on infrastructure.
- ❖ “Design-Sequencing” provides for state engineers to design and inspect projects, ensuring that the public safety and the public interest are protected.