The challenge facing engineers today is the transportation quandary. I call this the transportation quandary because engineers are put in a tough position. In the 1950s and the 60s, our charge was: build the Interstate system, build it now, build it cheap, build it efficiently. Get it done. One of the great interstates was called the downtown Boston Central Artery and now we are currently spending 17 billion dollars to fix that decision. Another example is the 2.4 billion dollar project in Louisville where we put three interstates between downtown and the Ohio River. What I'm trying to do is defend some of the decisions we took in that era. The tools that we traditionally used were: optimum criteria, rules, and standards. Other considerations were determined afterwards.

One of the keys to this dilemma is to recognize the flexibility we have. Decisions, particularly related to transportation processes are really value judgments. It is interesting to learn that nowhere in the statute of Kentucky, nowhere is safety the first consideration. This does not imply that we need to compromise safety. But we need to recognize that there are trade-offs and that you can balance factors if you realize that these are really value judgments. It is necessary to recognize that the standards/criteria have a great deal more flexibility associated with them than some transportation professionals are currently willing to acknowledge or accept.

The real key is that if we do not become emotionally and intellectually vested in doing the right thing and understanding what the community wants and what the transportation issues are in the community, we don't have a chance of making a good decision, let alone a value judgment. It is not our position to mandate the community to accept increased capacity on thoroughfare. In Kentucky, the team that is put together to address the project issues, decides the context. The group consists of historians, community activists, environmental professionals, transportation planners and engineers. This is the real key to the process.

For example, the document most often used, as a standard in highway policy design is the AASHTO Green Book, A Policy on Geometric Design of Highway and Streets. Although often viewed as a set of standards, this book is actually a series of guidelines within which the designer has a range of flexibility. I've been doing highway design for 36 years and for the first 25, I didn't know that this was in front of the book "The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. Sufficient flexibility is permitted to encourage independent designs tailored to particular solutions." The Green Book is not a design manual; it is not a set of standards; it is a set of guidelines.

It is common for this flexibility to be used to evaluate safety versus construction cost. So why not use community and environmental costs to influence decisions? These considerations too are of equal importance. In all projects, one of our goals should be to minimize social and environmental impacts. It is absolutely legitimate to alter your highway characteristics because of adjacent effects like impact of wetlands, historic properties, etc. Transportation decisions are value laden; it cannot be a mechanical process. Transportation decisions affect a lot of things. If you look at models of society, of culture, transportation is a key element in each of those.
In Kentucky, we are addressing this quandary by changing how we approach transportation projects. We have to define our context before. And we have to pursue a different goal. People who use the facility and live adjacent to it make the most important value judgment about whether it is a good project, not the contractors and the designers. Projects that work, the fit, that look good are successful projects. The key to this is effective leadership, changing our processes and training.

The leadership in the Cabinet promotes, encourages, and requires environmental stewardship, public involvement, and a decision making process that is more encompassing than just engineering analysis. We are blessed with [Kentucky Transportation Cabinet Secretary James C. Codell], who is willing to make needed commitments, make presentations, participate in workshops, and to overtly demonstrate his enthusiasm for this transformation.

Through changing our processes, our documents and manuals, our culture, we reflect our commitment to doing the right thing, what is right for the community, what is right for the environment, what is right for the transportation system, what is right for the people of the Commonwealth of Kentucky.

We have conducted a one-day seminar "the Kentucky Environmental Leadership Seminar (ELS)" at different locations across the state and have reached more than 200 people in the process. A two-day workshop in Context Sensitive Design has been conducted more than twenty times in Kentucky and several times in other states. More than a thousand people have taken this workshop. In Kentucky, if you are a project manager or a consultant, you have to take CSD training or you don’t qualify for the project. We also have a new workshop: Context Sensitive Construction Workshop that has been presented only seven times so far. We also have a program called Communicating All Promises to capture and fulfill all commitments made through the project development process.

Coming from a highway design background, let me close with this final thought. The transportation professional’s job is not to define the correct choice but to articulate the tradeoff, ensure the facts are respected, and to facilitate an informed public decision process.