

InfrastructureUSA

Guest on THE INFRA BLOG

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2011-2012 Civil Engineer of the Year**

Conversation with Steve Anderson, Managing Director, InfrastructureUSA

Christian Steinbrecher

Engineers Must Lead

That is one of the missions that I'm bringing forward for the Oregon section of the American Society of Civil Engineers, to begin to work hard to regain the role I think we should be playing in the future. We need to take a leadership role. We need to educate our young engineers to take leadership roles, to "remain engineers" if you will, and take leadership roles as engineers. To be able to take on some public controversy and put the knowledge that we've gained, both through experience and academic education, to work for the general public. We are the people that are able to take the science and the physics and the mathematics and bend it to what the infrastructure requires.

The Story of Conde McCullough

The story that I like to come out with is the story of a guy named Conde McCullough. Conde McCullough was the bridge engineer who built all these famous bridges up and down the Oregon coast, and he actually was a farm hand in Iowa, and at the age of 35 he decided to go back to college and he got himself an engineering degree. In 1912, I think, he took the entire graduating class--all four of them--and went to start the Oregon Department of Transportation's Bridge Department. These four guys built 200 bridges in the next 15 years. Can you imagine that? Four guys building 200 bridges. Their environmental sensibility was quite different than ours. When they left, their footprints were quickly covered by the forest. We don't do that anymore. We have a different environmental sensibility. And I think the new generation of engineers understands that and they need to take leadership in that role, particularly the civil engineers.

Changing Infrastructure

We're in a time of flux right now and the reason we're in a time of flux is because the infrastructure that we are all living in, or working on, is built in a time period from 1945 to 1975. And for this state, that method and economic criteria of that time, which was basically a natural resource extraction industry, we're not that anymore. We don't cut the trees anymore; we don't fish the fish anymore. We're changing, and what we're changing into is still to be seen. It's a work in progress. The questions really are: "What is the infrastructure that we want for this state?",

“What is the infrastructure that we need for this state?”, “What’s it going to look like for the young people when they get to be my age?” And I think we’re stumbling on that. I don’t think we’ve had a good vision in terms of where we want to go. So many of the influences that built this state are still very much here; people are very comfortable with that and, of course, change is uncomfortable, so people are not sure what’s to come.

Public-Private Partnerships

I think public-private partnerships have a place in the infrastructure strategy. I think the dilemma with public private partnerships right now with regards to water public-private partnerships is that there have been recently a number of less than spectacular successes wherein folks have taken the risk and then not had it pay out. So the dilemma of public-private partnerships is how to provide the certainty that private investors need to make it happen. They’ve been burned a few times. The permitting process for a public -private partnership is long and arduous. Does a private investor have the wherewithal to manage all of that? Is the buyout, in other words the product that people want to produce, ready for purchase at the end of that? So I think there’s opportunity in the surface transportation area. There’s ample opportunity there. The challenge in that is, quite frankly, the challenge of tolls, because we have to develop an income stream to pay off the investment and that income stream is generally from tolls. And I think that some people have suggested that the gas tax revenues could be used to fund the payoff of the infrastructure, but I think there are so many other taps on the gas tax revenue and the projected decline of that, will not work. In this particular state, tolls haven’t been used in the past; in fact that very first road, the Barlow Road, was a toll road, which is what brought the pioneers across the cascades. So I think there’s room for it to be tailored for the particular element of infrastructure we’re talking about.

Infrastructure’s Generational Importance

The average citizen these days has come to rely too heavily on the infrastructure that is built. Now if you were to talk to your grandparents, they would recognize it and they would appreciate it a lot more because they were there before the infrastructure was there, before the roads got you from city to city at 65 miles an hour, before the sewers actually worked, before the power was reliable, before the water system was clean and safe. So they remember that. The generation between 1945 and the millennium, they grew up with that, so of course they take it for granted. And it’s very difficult to take people who have taken this for granted, to get up in arms about this issue. So what I believe is going to happen, is that we’re going to have some hiccups, and the occasional hiccups do arise. You know, for example the bridges that are overloaded and collapse and all of a sudden people sit up and say, Gosh, this stuff does wear out. It’s unfortunate that it takes an event like that with some fatalities in those cases, to get that kind of attention, but I think those are some of the illustrations that you see where

infrastructure is wearing out. We occasionally have sinkholes in this town because the water lines are so old, and they basically cause the roads to be undermined. And every now and then there's a picture of a truck or a bus sitting in a big hole and you kind of see that nationwide. But that is here and there; it's very isolated. By and large our challenge will be to continue to convince people that structures, facilities, man-built elements, have very finite lives and they must be replaced.

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