

Intro: This is *The Advancing Communities Show* hosted by OHM Advisors. Each week we bring you ideas, information and inspiration to make our world a better place through, architecture, engineering, planning, innovation and collaboration.

Vicki Putala (OHM Advisors): Hello, I'd like to welcome you to *The Advancing Communities Show*, where today we'll be talking about the 21st century infrastructure. My name is Vicki Putala and I will be the moderator. I am also the director of the Environmental Water Resources Department at OHM Advisors. Today our special guest is our infrastructure-funding specialist. His name is Greg Kacvinsky. Now, I'll let him introduce himself.

Greg Kacvinsky (OHM Advisors): Thanks Vicki. I'm Greg Kacvinsky. I'm a senior project manager and partner at OHM Advisors and most of the work that I do involves stormwater and wastewater infrastructure, essentially helping communities keep that infrastructure in working order and helping them find ways to fund it.

Vicki: So, let's get started with a very basic question. What exactly is infrastructure? We want our listeners to know what we mean when we talk about infrastructure.

Greg: Infrastructure is what most people think of above ground, it's the roads, the bridges, and the electrical lines. It's what they can see but it's effectively anything that benefits us, that makes our quality of life better. So, it can be access to clean water for drinking and taking showers, access to sanitation when we flush our toilets knowing that the water goes somewhere. It's waste disposal, when you leave it at the curb you know it's going to be taking care of. It's your drive to work. You know, is it a safe drive, are there potholes on the road? It's everything that allows us to live healthy and to be happy and thrive.

Vicki: Can you tell our listeners what exactly has failed and what needs to be done to correct the situation?

Greg: We typically see failures on the news for things that are visible. So when the I-35 Bridge collapsed in Minneapolis a few years ago, that's very visible. It's a tragic event when a bridge collapses. Many of the failures that we've seen are very slow failures, like the Flint water crisis, where people started getting sick but it played out over several years. Those are the really dangerous ones, because the problems are there, and you don't know it until it's too late and thousands or hundreds of thousands have been impacted.

So the problem is that so much of what is failing is invisible to people. They don't see it, we may not even know about it, but look at the example of the sinkhole in Macomb County, you know, this was a problem that developed probably years ago, but nobody knew about it because it was invisible. All of a sudden, you have homes that are sinking into the ground and people can't live there anymore. So those are slow moving tragedies that don't get as much press. Because the disaster doesn't have the sex appeal that the cable news networks want to see, like a bridge collapse.

Vicki: So when we have this failing infrastructure that definitely needs attention. It needs to be upgraded and the speculators, the developers who built it originally are long gone. How do you see funding the improvements for this infrastructure happening in the future?

Greg: Most communities use taxes and user fees to pay for that infrastructure. Many elected officials have been trying to raise those fees to cover the additional cost of maintaining it. The key problem is that in the 1970s and 1980s cities had a lot of federal money to pay for that infrastructure stemming from the Clean Water Act mostly.

There are a lot of federal grants to build and maintain water mains and cemetery sewers. That money started disappearing in the 1980s. The grant programs went away. Now, there are loan programs available. But the reality is people have gotten used to subsidized infrastructures. So you pay a water main bill that might be \$15 or \$20 a month. The problem is that the money you're paying is reflective of a water main that was built with developer in federal dollars, right?

So if you need to replace it and pay for it, the cost is going to go way up. Elected officials can't stomach that, the increase, that's necessary to make it happen. So that's a dilemma that we have. We can't raise fees fast enough to get us to the point where we can really adequately maintain it.

Vicki: We've heard in the news that the new administration is talking about an infrastructure stimulus. Can you tell our listeners what exactly is being proposed, and what you see as the pros or cons or the approach?

Greg: There's been a lot of attention and interest in the Trump administration's infrastructure plan. He has said that he wants to spend a \$100 billion a year extra in infrastructure funding. The policy statements that had been out so far have described a tendency towards putting the funding into public/private partnerships, another way to refer to that is P3s. P3s have been

around a while, and people are interested in them because it's a way to get private money to fund infrastructure. Communities see that as a different and better way to fund it.

The problem with private investment, especially for public utilities, is that they require a pretty high return. And when you have to invest millions of dollars in a local water main system, there's no guarantee of a high return. The only way that that can work is if the private investors can own the assets on the backend, and get the return on all the revenue for the user fees. That backfires because the community loses control of their assets, now it's a private corporation that owns it and now it's the private corporation making the decisions, and not necessarily always in the best interest of the users.

Vicki: We've heard quite a bit about asset management planning on the community level. What exactly is asset management and how does that relate to having an effective and sustainable infrastructure?

Greg: Asset management planning is essentially creating a business plan for your infrastructure. So you treat your infrastructure systems like a business or like separate businesses. So your water system is a business, your waste water system is a business, and your, let's say your road ways are a business. What you need to do with any business, and any business owner realizes this, you have to match your revenues in expenses and have a balance.

Most communities have been doing a pretty good job managing cost in their expenses. The problem is that the revenues haven't been able to keep up and one of the reasons for that is that they haven't been able to demonstrate the need for those revenues. They haven't been getting underground and showing people the condition of the system. And that's why when you take a business approach it's easier to convince people, elected officials and the population that there's a problem and that allows you to run your business more effectively.

Vicki: So, a lot of the infrastructure that we're talking about with water and sewer is buried and it's underground. What are some of the tools the community can use to educate their residents on the value of that underground and buried infrastructure?

Greg: To get underground you have to take cameras and pull them through pipes. So you have to physically get down there and put cameras in your sewer systems, and show people what happens when a sewer fails, showing pictures of flooding. You know, one of the problems we have is that a lot of communities have areas of town where the flooding is pretty bad. But a lot of people don't see it because it often happens overnight or during times when people aren't driving through there.

Vicki: So connecting the dots between a flooding event and the fact that infrastructure was insufficient.

Greg: Exactly. Showing water in a basement, you know, covering couches and belongings and priced possessions is a good way to get that emotional reaction out there.

Vicki: I want to take this down to the homeowner level. What actions do you think a single person, a homeowner can do to help improve the infrastructure situation?

Greg: I mean, obviously there are things that they can do on individual level to conserve maybe use less water that allows us to get more life out of our systems. But to be educated on what happens when a system isn't working and a lot of that comes back to, you know, public works departments in getting the right message. But people if they're concerned they need to get to their elected official and they need to talk to their elected officials about why their quality of life depends on this infrastructure and why it's important to them. If they have flooding problems or if there's water in their basement they need to be banging down the doors of the elected officials to do something about it.

Vicki: So communication is very key in moving this forward.

Greg: Absolutely. In many communities, we've seen people just beaten down when things happen to their homes over and over again. They get to the point where they just, they lose faith and they just give up. And they need to keep fighting.

Vicki: So our time is getting a little short and we need to wrap up for our listeners. We've come a long way, we know where we are, and it's not always the best position because there's quite a few needs. Can you share your thoughts on where we need to go from here?

Greg: If you look at the big picture in the United States and where we've been in the last 40 years or 50 years, really looking back to even World War II, we have shifted our priorities. Our priorities were infrastructure in the 1950s, '60s, and '70s even into the 1980s. As our baby boomers are retiring, we are shifting our federal priorities away from infrastructure and to the health of our retiring people. So Medicare, Medicaid, social security, all of that is eating up our

federal budget. And, what we know is that congress is not in a position to want to spend a lot more money. We don't see that happening. So we as communities have to be willing to lift ourselves up and pay for this stuff ourselves.

We know that the money isn't going to come from the federal government because the priorities have simply shifted. It's going away from infrastructure and it's going to human resources, so keeping people healthy in retirement. That's absolutely important but that means that communities have to spend money on their own.

In 1977, the federal share of water and wastewater spending was 77 percent for like a local system. Today, it's less than 17 percent and the communities have to pay for it mostly themselves. And the other thing we have to do is we have to develop smarter. That is if we're going to grow we have to find ways that we don't grow our infrastructure fast in our population. In Michigan, in the last 25 to 35 years, we have grown our population by about 8 percent, right? Our infrastructure footprint has gone up by 50 percent so every one of us is paying a lot more for every mile of road, for every mile of pipe. We can't do them anymore, we have to build inside our communities and redevelop what we've already built.

The City of Detroit has a great opportunity. We have all these infrastructure, everything is there, why not build where we already have invested in that infrastructure. If we continue to push out we will choke ourselves and that will be a death sparrow for all of our communities.

Vicki: We need to really think about the sustainability of our infrastructure going forward in our plans and where we need to invest. In closing, I'd like you to mention one takeaway that our listeners need to know on the infrastructure front as we had into the 21st century.

Greg: I think it does come down to, and it's been a theme of the discussion so far, it comes down to local problems, solving them locally, funding them locally and being active in your communities to talk to your elected officials about the importance of your infrastructure. And my parting thought is that a healthy community and a healthy economy depend first on having the basic amenities. So no business is going to want to move to your community if your roads are pothole ridden and you've got sanitary sewer backups and basement flooding. That scares people away.

Communities that aren't taking care of their infrastructure will die. They will die slowly and people will move to those communities that are investing in their infrastructure, and so elected officials need to know that.



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Vicki: Thank you Greg. This concludes our podcast on 21st century infrastructure. I hope our listeners have some valuable takeaways and we thank you for listening.

Outro: Thank you for listening to the Advancing Communities Show brought to you by OHM Advisors.

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