

Welcome to move the podcast, I'm your host, Jeannie Acutanza. We know mobile source emissions from trains, boats, planes, cars and trucks accounts for the largest sources of greenhouse gas emissions. Electrification of those modes can help slow climate change, but what about the infrastructure underneath. Does it encourage walking? Is it respectful of the environment? Does it minimize waste? Join me as I interview Dr. Jeralee Anderson. She's the Director of Greenroads. Jeralee launched Greenroads, a nonprofit organization that scores projects to help us not only certify if infrastructure meets sustainability criteria, but also helps us to make decisions to create a more sustainable future.

JEANNE: My guest today is Dr. Jeralee Anderson. Jeralee received her PhD in Sustainability and Civil Engineering along with a Certificate of Business Administration at the University of Washington before she started Greenroads with a colleague. Greenroads is a nonprofit organization advancing sustainability, education and initiatives for transportation infrastructure. In 2013 President Barack Obama recognized Dr. Anderson and her domestic and international work at Greenroads Foundation as a champion of change for transportation technology in the 21st century. You can find out more about Greenroads at Greenroads.org or follow them on Twitter @Greenroads. Welcome Jeralee!

JERALEE: Thank you, Jeannie. I'm pleased to be here.

JEANNE: And I should say we know each other because we worked together.

JERALEE: Yes, we did. It was a long time ago.

JEANNE: And you are also a city council member for the city of Redmond.

JERALEE: That's correct. Currently council Vice President at the City of Redmond, Washington.

JEANNE: Excellent. And you are wearing green because...

JERALEE: I always wear green. The green dress is my thing. It's been my thing for a while. I'm wearing a green dress today because I was at a virtual conference. And I actually did not get to show anybody my green dress because it was a video conference. But today was the Engineering News Record's recognition for the 2021 Top 20 under 40 AEC Young Professionals. So, that was a little bit of recognition that I got today, and I am very honored to have received that through ENR.

JEANNE: And ENR is Engineering News Record.

JERALEE: That is correct, yes.

JEANNE: That's very, very impressive. Our audience today are often not as technical as you and I are, so they won't get that. So how did you come up with the idea for Greenroads?

JERALEE: So Greenroads was not my idea, but I can tell you the story. So, the Greenroads story happened at the University of Washington. A woman named Martina Soderlund came over as a graduate student, as a Valet Scholar, to the College of the Built Environment. She was originally a lighting and acoustics engineer, and Martina was looking for a way to complete her master's thesis and somehow wandered her way over into the Heavy Civil and Construction Engineering program. Martina's background before she came to grad school included some professional work with the LEED rating system which is the Leadership, Energy and Environmental Design for green buildings. So, she came to the engineering program and said "Well if green

buildings, why not green roads?" So, a lot of her original research, basically launched into this program, her master's thesis was unfunded work, with the exception of the scholarship program, and after she published, what was originally version 0.5 of Greenroads as a Wiki, it started to pick up some speed in the research arena. And we had some initial funding through what is now called Pactrans but at the time, was called Transportation Northwest, which is the University of Transportation Research Center at the University of Washington, and up here in the northwest. And then additional funding from the State Technology Consortium which is Washington Department of Transportation, California Department of Transportation Texas DOT and Minnesota DOT with sometimes Florida as well. We had some initial funding a few years after that and it just kind of started to pile up through the Federal Highway Administration, Western Federal Lands, Coordinated Technology Implementation Program, CTIP. So, a lot of initial research funding helped us build the version 1.5 Greenroads rating system which was launched in about 2011 officially for projects. In the meantime, I showed up into the program in about 2008, right after Martina had graduated and this thing was already there, so I had personal experience working with the LEED rating system and had been working as a professional structural engineer and geotechnical engineer for several years prior to coming back to graduate school. So, I ended up working with what they started with Martina and Steve Muench, our co-founder, and we developed it into something that we thought would be practically useful. Our program took about three or four years and one of the cool parts of a PhD program at the Civil Engineering Program at the University of Washington was that they had this opportunity for Business Administration, which is a 20-unit class in the middle of the summer. And it's really hard, you have to get 72 units to get your PhD and 20 in one quarter was an amazing thing to get done. So, we ended up at the graduate program with about 14 people and the groups get together and you had to pitch an idea to the faculty at the Foster School of Business at the University of Washington. And so, our group had myself, Russ Torgersen, who is a Navy officer in the construction Battalion, and Joyce Demesca, who at the time wanted to start her own professional practice in gynecology, so that's our human health impact in connection there. And together we wrote the business plan for Greenroads. And at the end of the quarter, we presented to the faculty, and they said Greenroads, of all these groups, has the most opportunity to be successful. And so that sat with me for about four days and then I filed the paperwork, and then we became a nonprofit, August 27, 2010. So, we just celebrated our 10th anniversary, which is pretty amazing how we can look back and kind of see that story there and really have been rolling through working with projects all over the world since that time. I might have gotten away from your original question, Jeannie but where did I come up with the idea. It feels like it came from a lot of different places, probably over 20,000 person hours went into the original development and the original research of the rating system itself. Half a million dollars of research funding before we launched, and I think last year, officially made our 2 millionth dollar as an organization as a nonprofit and working with about \$44 billion as of today, in capital project value around the world. So not something I could tell you what's going to happen 10 years ago for sure very humbling overall.

JEANNE: That's a really amazing story. And you mentioned your international projects. Tell us how people find out about Greenroads around the country? How is it advertised? How do people get involved and engaged in Greenroads? I know you've even had people on your board that we're international is that correct?

JERALEE: So, we currently have one board member in New Zealand. We had two and they rotate pretty regularly. We've also had members from Canada, and we have a technical advisory council that includes a gentleman from Spain, as well as New Zealand. To answer your question, I don't know where people come from or how they find out about Greenroads specifically, but generally word of mouth is probably about right. A lot of folks do have a following in academic research, we're still very heavily involved in the National Academy of Sciences Transportation Research Board committees and Sustainability Committee. And those are generally those connections we have right now. And so, a lot of people read about Green Roads peer review journals or something like that. We do have social media as well. So, in the last 10 years, I guarantee

it shifted from the research section to actually general public. And of course, if there's a project locally, positive press comes out of a certification. So, I'd say Washington is more likely to be heard about. And also, I do a lot of technical presentations through The American Society of Civil Engineers, America Public Works Association, and also Association of General Contractors, and a lot of really good breadth and depth across the way, I do guest speaking that sort of thing. There's a lot of different ways you can hear about Greenroads. Probably the most common is you've read something about us in the paper at this point.

JEANNE: I remember seeing a poster session. I think it APWA and it was a great session of a Greenroads project, so that was pretty exciting.

JERALEE: There's only one of me, so if it's not coming from me directly, it's likely be coming from our board or volunteers in the organization at this point. There's 43 people we're currently working with, that's good.

JEANNE: Well, it could be better.

JERALEE: I could be bigger.

JEANNE: It could be bigger. So, tell us what is Greenroads, how does it make the environment better how does it improve the climate?

JERALEE: My TED Talk. You can also see a TED talk that gives a couple of really cool short stories on that so that's helpful.

JEANNE: Yes, we'll link to this is in the show notes.

JERALEE: Thank you. So, our rating system is a way to understand how to measure and manage sustainability on transportation projects, and that is including decisions that are made in early planning. So, what environmental context it will be, what's the social context, and how much money does the project costs, So overall sustainability, how does that get reflected in the planning phase? Those decisions get put into a design once you decided to build the road. We would like to be working with teams that are going through that early process, so we can help influence some of those decisions, so we end up getting a more environmentally friendly, lower impact, healthy, safe facility for people, as well as something that's low cost or going to be lasting us a long time as a public asset, so that in general is the principle behind the tool. So, the rating system is a collection of practices or things that we can do to measure sustainability. A good analogy that I like to use is that we use points that are associated with things called credits. So, there's 72 credits in version three of a rating system which is out and available if you're interested in what that looks like. 72 different things in a project can do, and document to show that they have completed these activities that are measurably more sustainable than the average project. And there's 12 of them that are required, and then beyond that, there are one to five points for other activities that are voluntary that you can pursue so it's kind of like a game and points are essentially like the currency of sustainability. So, it allows us to say if you're doing habitat conservation, and it's one to five points, then it's on the same scale or measure as pedestrian access and bicycle access on a project. So, it kind of collects them all together, almost like Pokémon, you've got to catch them all. But you really don't, you really need to get a certain number of points to get what we call certification, which is recognition for doing all of those things, and documenting those things that go above and beyond. Environmental, social and economic compliance essentially. So, you get some recognition out of it. The game is to essentially get to that goal. So, you can say we're going to be making sure that we're building a Greenroads Silver project in every community. And those are the signature corridors for the city. I'll give you an example, in the city of Seattle, the Mercer Corridor project is a..... and Jeanne you probably worked on that project. It is a large corridor, and it was a very complex project, and it has actually several different streets in it, that are certified by Greenroads

Foundation because the team spent the time to carefully plan and design and document those activities that shows that they are going above an environmental regulation of some kind or that they took the opportunity to consider human environment and how that impacts and influences the outcomes. Mercer Corridor is everybody's favorite project, and also not everybody's favorite project so there's some pluses and minuses with transportation projects in general but overall, we can certainly share with you a couple of things like 88% of the water that flows on that project will be treated before it flows into Lake Union. So, there's some really special...above and beyond is the best way I can explain it above and beyond practices that were done. And they were measured and managed, and we can show that actually occurred on the project. So, a rating system overall can help us recognize in our communities, what sustainability looks like for us. And it's different everywhere so that's been kind of been the cool part of learning for me is the regulatory context is different everywhere in the world. The types of streets highways, bridges rails and trails, transit, what does transportation look like, what shape is it, how does it impact the environment, how are people using it, and how much does it cost? So, yeah, if that's a good summary of the rating system, that's what it is.

JEANNE: And for our listeners they can go to the Greenroads site and look, you have a map of projects. Is that right, projects that might be near you or around the country?

JERALEE: Yes.

JEANNE: And the Mercer project is very near and dear to my heart. I do love when I drive by, I always notice the rain gardens, or the natural drainage, or the pedestrian scale and crosswalks. So, it is a great project from that perspective. And then you mentioned some of the benefits that can be all over the place. The benefits can be a non-motorized or other modes, or in recycling, or other sustainable elements to the project. Where are you seeing some of the biggest benefits?

JERALEE: Great question. So, the biggest benefit. And I would say the hardest credits to get are the environmental credits, as well as the construction related credits if you think about it, those are, in terms of a green rating system, those are probably the most important. The other thing that we also are seeing the biggest bang for your buck, things like recycled materials, making sure you know where your waste goes, how much there is just resource management in general. So, environment water construction activities and materials and production are really big pieces of that puzzle where you think about its not necessarily just how people experience the project when it's done, but during construction how do pedestrians and bicyclists access the project and is the work zone connected from end to end or do you have to have this major detour. So those are some other, you can still have that human element as part of the construction project. There's a lot of good work to be done there too – quality, environmental management, safety management, as well on the construction side, so there's huge opportunities for the construction sector to take a lead on that. On the design side in the environmental compliance, a lot of things are driven in transportation by compliance. So, especially in engineering, you're looking in a book that tells you that you must have a 12-foot-wide thoroughfare in a particular residential area, like there's minimums that need to be met, but we often don't step back and say, "Well why do we have that?". And so, it's difficult to come back to a city council, or your local city and say, "What if we put a rain garden? Can we make this road a little narrower because it's coming up against some science standards that have been long standing practice for many, many years? So, I think there's a lot of opportunity for innovation in that area, going above and beyond what that standard design is and like targeting the use, or how people interact with the project, like we're starting to see I think I actually watched Pete Buttigieg on Seth Meyers last night and he said something about humanizing the transportation sector. And I think that is perfect. I think that's exactly what has to happen to not only humanize it, but also make it connected into our ecosystem, urban ecosystems as well as highways that go through a rural area or untouched wilderness. For what it's worth, we don't see that very often in the United States but internationally, one of the things I learned when I was

preparing for a TED talk last year...another credit that used to be in Greenroads was that 90% of new roads are being built outside of the US. So, in developing countries they're taking our 1970s highway infrastructure, and they're putting it together in their own countries, because their economic development is driving everybody. And now that we've had COVID, and everybody is racing to the top again to become the first to recover economically, where we are really investing, where our carbon footprint right now in infrastructure investment, we're building that, and those are the environmental impacts that are happening now. So, I think those are really the... construction, environment, materials management, there's so many great ways to do it. And the interesting part for Greenroads is that we aren't seeing that being easily reported it's just a new behavior that has to be learned for transportation and buildings are crushing us in the transportation sector. They're literally a quarter of a century ahead of us. And it's fascinating coming from that sector. And now it's like, okay, here's what we need to do. You need to check your waste footprint and you need to know where your materials are coming from.

JEANNE: You mentioned LEEDS before, LEEDS stands for leadership and Energy and Environmental Design, LEED certification, and that has that tiered system, just like you do. So, a platinum is a really great one. And then silver is ok and then you get a minimum certification. Talk to me at that about that. And then I want to compare and contrast LEED certification and how agencies requiring it influences how much it's spent.

JERALEE: So, LEED is the green building rating system, and it reflects site development projects and a good way to think about that...I don't know if you're asking me about LEED specifically or how it relates to Greenroads, but there were some really deliberate choices that we made when we thought about how our rating system would work for transportation. So, it's likely that it says civil engineers were not using the LEED rating system. So, if I back out a little bit, how did I get involved in the first place? I used to work in St. Luis Obispo. And I was all excited when I heard about the LEED rating system. I read the book cover to cover. It was like 2006 and then I went up to San Jose to take my LEED AP exam. I came back and I passed it, and I showed up to my boss's office and I said, "I'm ready to do green buildings", and he said to me, "Well steel is recycled, and concrete has fly ash in it and that's it, so there had to be something more to be done with that. And I ended up moving up to the Bay Area and working in a couple of geotechnical projects and figured out I finally wanted to go back to graduate school, and then the same thing happened. I went to the department and I said, "Alright, I'm ready to do green buildings in the structural engineer's program to get my master's degree, and then be done.". And they said, "Well, we don't really do that here but there's somebody downstairs in the construction engineering program that does green roads or something. And that's how the connection between myself and Martina happened. But overall the idea of buildings was we took the LEED rating system originally, and Martina had applied it to a road project, and lo and behold, a building rating system just doesn't work for road projects but the concept in and how it's designed, things like making sure it's a voluntary system, which is one of the reasons that policy is interesting, a voluntary program, points that are there, so you're adding points you're taking them away, set a minimum standard baseline. So, we have project requirements, the LEED rating uses what's called prerequisites, as well as a flag that won't let your type of project into the program. We don't quite have that yet, but you do you need to make sure that it's legal so that you're not building an illegal road somewhere to get into Greenroads. So, there's some standards that have to be met in order to participate. And then you need to make sure you do 12 things, and then beyond that it's up to you. So, LEED is a similar program we have categories that are organized with one or two things in each category that are required. Greenroads does it a little differently, mostly because we're engineers, we want to see that first list of things that have to do up front and then after that, we can make some choices. So, we basically categorize them by professionals likely to do them, so storm water environmental planning, that's in one category. Construction is another category materials is in another category. We have a new category I'm very excited about which fascinating to me on procurement and delivery, so it talks about labor and jobs, and sustainable finance which is probably the big thing coming up on the policy side and I'd love to talk to you more about that. And then access and livability as well as energy and mobility and our new program. There's another category for extra, extra credit. So,

everybody loves extra credit you can get bonus points for doing some things and it really provides a positive incentive to do something that's not currently required to get recognized, do something innovative and kind of contribute to the collective knowledge of the community overall. On the policy side, though, we have seen some agencies, here in Washington State, the city of Tacoma has a solution for Greenroads that sets a target of a gold certification for projects over \$5M. So, they've taken the LEED program and run sort of a model for what they already have as a building code requirement for LEED. The interesting thing with roads and buildings is that LEED mostly as a private sector, private development program. And the policies and stuff are really related to public buildings. So, schools, LEED for schools, hospitals, and those kinds of things, great program I love LEED. It's an awesome tool everybody knows about LEED and so it's a really good analogy too for Greenroads. On the flip side, transportation departments don't have something similar, and most of the work we do is public-oriented so we get a question often about what's the incentive for the owner to do Greenroads, and the reason behind it is that you can actually save money you can make an environmental impact that's lower than a traditional project, you can make sure you're meeting your community's needs as well. So, it really works really well with complete streets policies to kind of round out environmental component. Complete Streets is an awesome program, we love them and that makes a safer, healthier place for everybody of all ages and abilities. Greenroads has a lot of those components as well. Another thing that we're working on in version 3 is the racial equity component, social equity, income equity - Jeanne is excited about this one – and it's been fascinating to watch. Because a rating system also need to continuously evolve.

JEANNE: I'm going to back you up a little bit, our listeners may not get all the nuance. But for example, if we did a sounds transit project that's a new transit center, they would require that it meets some type of LEEDS certification or maintenance facility. They will require in the spec of building that meets a certain LEED certification and sometimes you can get more points if it's better but that doesn't apply, like you said...

JERALEE: What about your roads?

JEANNE: Exactly! So, for example, I know our friend is looking at ways to build some kind of sustainability criteria for granting. For our listeners, everything is about carrots and sticks in regulation, so encouraging people to do certain things, and then punishing them if they do bad things, is the norm. And for grantees, it's about encouraging people to say that they're going to do all the right and good things and sustainability is a great thing. And I suspect we'll see in the new pile of grant applications that come in at USDOT and others will mention climate and climate resiliency so Greenroads is going to be popular. Are you seeing interest that in that way? On the grant side or related to the...

JEANNE: Grant side or grant funding, or even regulations from the cities saying you must design this to a certain spec - you mentioned Tacoma.

JERALEE: Let's start with finance. There are, I would say, two categories of ways to fund your project. One is if you're private equity, private partnerships, design build projects your contractor's going to be taking quite a bit of bonded effort to build that project. That's a big portion of the work that we work on at Greenroads, especially internationally. So, many of our projects internationally are major highway projects where we are helping to help them reduce that footprint. On the traditional side with grants and green bonds for example, grants and the reference you're making earlier about Transportation Improvement Board, there's criteria that you can put into grants that encourage sustainability practices, and the more specific you can get, the more accountable you can hold the project at the end of that project and most grants are paid as you go or meeting certain performance milestones, and some are not. So, we do see grants from things like departments of ecology, or at least as Greenroads we see a project usually somewhere between 30 to 90% design depending on how early that project team learns about Greenroads, sometimes even later than that. A project might already be funded or might be positioning for funding. It may not be prepared, but one of

the really easy ways to say that you're going to do something, is to show a commitment to a third-party certification program as part of your commitment to meet sustainability criteria that might be in grants or we've seen on the private finance side Presidio Parkway in San Francisco is a great example. That was privately financed many years ago now, it's been seven years since this happened, but the organization was Meridian Infrastructure, and they were just looking at... this is when... this is before corporate social responsibility was cool, and people were looking at investing what they're finding now in the banking sector is that shareholder value is coming and looking for ways that you can show that you've invested in green projects. LEED is already accepted by banks as a way to show, third party accountability for sustainability in buildings, and if you are privately financing a transportation project, that's the next asset class that we're seeing. So, I think those are really interesting things. Presidio Parkway had a third- party requirement for buildings and they were really watching what was happening with certification of Greenroads because of that financing component, and they were very interested in it, so I think there's a huge amount of opportunity there. On the bond side the same thing, making sure you have some sort of public accountability, making sure that those funds go toward a green project. How do you know, you either believe the government telling you, or you can look to it outside independent organization that provides that outside assurance for sustainability, to make sure that you're hitting on all of those climate change and resilience issues, you're hitting on social issues that might be relevant to particular communities, you're also focusing on lifetime savings and investing in future generations. I think that's a really huge part of it, honestly because that's where you're really building the next generation of infrastructure for the next 40 or 50 years at least.

JEANNE: And I think when we think about infrastructure. the design life is so long, and we want these investments to be viable for years and decades to come. And I know we've talked about this before. And I actually went on FHWA's site and looked at INVEST and what I noticed about INVEST is it looks stale, or that it maybe hasn't been touched in a long time. What do you know about what has happened with it?

JERALEE: I can tell you a little bit about where INVEST came from. Rating systems are useful tools and INVEST is a great tool for preparing a project for planning, but it is not used for prioritization of projects and it is not used for funding projects. They do have I think pilot programs that are great. The way we at Greenroads, you know we're a nonprofit organization, a project that uses INVEST that is federally funded, because we wrote the system, we will actually rate your project for free. It's a tool that you can use online. So, if you need someone who is looking at your project for certification if it's federally funded, we will also do that for you, we will then give you both, if you're interested. We haven't had that request before so I can tell you that it's not super popular, but we would love to see that program, turn into like the ENERGY STAR for roads. Through FHWA, but ultimately, we think Greenroads is pretty cool. We are working on a couple of things, new things too, I guess I can tell you here. This is our first opportunity, but Greenroads is becoming The Sustainable Transportation Board. Our board of directors has adopted a brand-new name, and we are positioning to work with all types of sustainable transportation projects. I can't tell you in the last 10 years how many times I've been asked, "Does Greenroads rate bridges?" and if you step back for a second, I'm pretty sure that otherwise it would be a floating slab of pavement in the air if the answer was no. So, the same thing with transit. We have transit centers that are scored. We've walked back our understanding of what transportation really means. We rated bridges rails trails, and more. So, we have a suite of rating systems available to pick your project. We have a green rails pilot program available as well as a green ports program to try and understand how a runway might work. So those are some opportunities that Greenroads is looking forward to. The Federal Highway Administration has the INVEST best rating system, so that can help for positioning a project for certification if it's used early.

JEANNE: That's awesome! And so we have a new administration and you mentioned somebody from your board is going to work for the administration.

JERALEE: Yes, I'm very sad about that, but also very joyful. Maurice Henderson is now Senior Advisor to Secretary Buttigieg. And he joined our board last year, on the 50th anniversary of Earth Day. So, it's a funny story, I met him on an airplane to TRB, which is the Transportation Research Board, conference in Washington DC, and then he signed up for our board right away. We got him on the team for about a year a little under a year. And now he is adopted by the secretary. So, we are hoping that there will be some good overlap for us.

JEANNE: And Transportation Research Board is the big dance in transportation world, for our listeners. I suspect the Biden administration, and what we know Secretary Buttigieg, they are prioritizing climate, but also social equity and you teased me a couple of times in here about social equity. So, tell me how Greenroads is positioned, or how will it build on some of those topics. Because I think people will want to build those things into their transportation systems.

JERALEE: So, it's been interesting in the past year, we didn't have this initially planned out up front, as we do now. The changes with Black Lives Matter, and all of those things that happened within last year, have really put a lot of these issues front and center. So, with that situation, we've really updated our rating system to match the times for integrating social equity, which to us also looks at economic impacts of transportation projects. We've got a new credit for community connectivity, which helps to remove barriers in communities where they may have been split by for example a highway, a long time ago, and in other communities that are disproportionately impacted or historically disadvantaged and those kinds of things. So, we are tweaking the rating system. If you have comments on how we can do better, we'd love to hear it. We still have an open comment. Part of being a consensus-based standard is to have that open comment, and we do take that feedback that is handled through our technical advisor council, which are all volunteers. And some of the things we've added to the tool in addition to our normal safety mobility and access for non-motorized users, we also have added an equity analysis which is very exciting. And looking at accessibility as well for all ages and abilities, so those pieces are big in there. I'll say it this way is version 2. which was 2015, had an accessibility credit for equity and accessibility. And it didn't work very well so one of the things we understand what we're working with a tool, we'll put it out there and see what happens with it. It's kind of like a game but sometimes our credits are a little buggy. We don't know until somebody tries. And so, we had an accessibility design for accessibility credit, and it needed to be improved upon. So, we took that aside and reworked it and so in version 3 is a little better and allows people to go actively use it. So, for example, if a person is in a wheelchair, they can code test out the road and commission it, and make sure it works for them. And that's the step that we look for that can be documented, and you show that you did it. Also, of course participatory planning, so making sure that we're actively doing outreach and communication to communities that typically do not participate and understanding stakeholder engagement practices that are built into much of what we do. So that's a big part of it. That will reflect on a cultural inclusion credit as well so many of those things build on that participatory planning process as well to make sure that there's consistent engagement with the community throughout the design and construction of the project as well. I think that's pretty much the big highlights on that.

JEANNE: That's great. So, what's next for Jeralee? You're running for Council, you're in many places all at once, and you have a beagle. I do have beagles. I'm surprised they're being very good. I've got two beagles. And I have a brand-new husband too, so that's exciting in the last year. Greenroads is off to the races and trying to take over the world as usual. Of course, change the world one mile at a time. Our motto.

JEANNE: Awesome.

JERALEE: I am on City Council, and I'm running for Council again next year, so 2021. Currently I am the Vice President, which has been amazing. Very exciting experience and serving on the Public Works board. So, a

lot of the work at the state level has been really fascinating. I'm on the State Public Works board for the state of Washington. And we do capital project grants and low interest loans to severely distressed communities around the state of Washington. So, the public works for it as its own account, it's a public works assistance account. It's a really cool way and kind of tie back to this other conversation we were having about financing. There are so many opportunities when we are at the agency level to integrate social equity components or criteria to make sure that these brands are being invested in communities in a way that's going to last for generations. So, there's that. Building equitable access and solutions and environmentally friendly components depending on the type of project, of course. And then the other piece that's really cool is we're doing broadband. Just thinking about it like it blew my mind when I was having these conversations as well is that broadband access and communities that don't have it have limited education access. So, during COVID, telemedicine, just huge, huge opportunity for growth. And it's all infrastructure. So, it's so fundamental that at the end of the day comes back to the same things that we talked about before like the environment and how we're building it. And where those materials are coming from the same themes. Because it's a straight line and you don't see it, it makes it really difficult to appreciate it as just a general member of the public and there's so much stuff going on. Mercer Corridor is such a good one too. There's all sorts of secret stuff that happens under the pavement. It's a boring old road, but that whole facility actually restores...

JEANNE: All the infrastructure underneath...

JERALEE: Yeah, they had a big gas station near that they had a ton of environmental remediation. You never see it, you never know, a program like Greenroads can help you figure out that stuff and just flip back between Greenroads and Public Works, public works has to work for everybody. And you only start seeing it when it has problems, Texas is a great example of that. So, power infrastructure, broadband communication. All those things are super critical and as climate change gets worse and has much more impact, it's going to be so important to really rebuild it in a way that makes it better for everybody. So, I'm very excited.

JEANNE: Secretary Buttigieg comes from this perspective of smart streets sewers. So, he has this whole history of really caring about the sewers. And I heard him just the other day saying these are linear facilities where it would be a crime not to put down broadband or bring other utilities along, especially in rural areas, where we know that there's unique challenges of education. So that's very exciting. It's been really cool talking to you.

JERALEE: Thank you.

JEANNE: Thank you very much. Thanks so much for listening today. We hope you enjoyed this episode, and if you did, be sure to subscribe so you'll be notified when our next episode becomes available.