

Optigo Extras Podcast: AEI

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Speakers	Luba Kim-Reynolds, Director, Multifamily Capital Markets, Freddie Mac Multifamily Holly Neber, CEO, AEI Consultants Justin Thomson, Director, Multifamily Asset Management, Freddie Mac Multifamily

Text Edited for Clarity

Luba Kim-Reynolds [00:00:03] Welcome to the Optigo Extras Podcast series where we are zooming into certain topics which relate to the latest trends in multifamily lending, capital markets and impact investing. My name is Luba Kim-Reynolds and I lead our Multifamily Investor Relations and ESG Initiatives team. Today we have two amazing guests, they have joined us to talk about what physical resiliency is, why it's important, the various work already being done, and the standards being created.

So, first of all, we have Holly Neber, CEO of AEI Consultants, an employee owned property consulting firm providing building momentum, wind and sustainability assessment and consulting services throughout North America. Holly is currently chairing the development of an ASTM standard for the assessment of physical climate risk and other natural hazards for commercial properties. Second, we have Justin Thomson, director of Physical Risk at Freddie Mac. Justin and his team oversee the property condition reports and the reporting of our green product. Welcome.

Before we dive in, I want to talk a little about why we are even having this conversation. As the climate around us continues to change, so too does the type and amount of threats to our infrastructure, community and safety. Over the past decade alone, there have been hundreds of natural disasters and severe weather events that have each exceeded \$1 billion in damage. Combined these have taken the severe human and economic toll¹, causing the loss of more than 5,000 lives², an average of 232,000 people displaced per year and over 800 billion in damage. These disasters also present an equity issue as they tend to disproportionately affect low income communities, communities of color and other vulnerable populations. Although natural disasters take many forms, their general increase in frequency and severity results in human and economic toll and requires a heightened focus on resilient infrastructure. So let me start with Justin. Can you expand on why is resiliency on our mind at Freddie Mac?

Justin Thomson [00:02:17] All right, well, thanks Luba, I appreciate you inviting me on today. So at Freddie Mac, we've seen an increase in the attention placed on the risks we face related to natural disasters and other climate related disasters. We've also seen more and more attention and focus placed on understanding resilience in real estate and seen the industry trying to better understand climate driven risk. We think this is really great for the industry that they're paying more attention to resilience and trying to evaluate climate risks for their real estate portfolios. We at Freddie Mac see this as something that impacts our mission. And as you indicated, Luba, climate risk is shown to have a disproportionate impact on low income, minority and vulnerable communities, which really are the communities that we largely

¹ <https://www.internal-displacement.org/countries/united-states>

² <https://www.climate.gov/news-features/blogs/beyond-data/2010-2019-landmark-decade-us-billion-dollar-weatherand-climate>

serve. So this risk will make it more difficult for these communities to have safe, affordable and sustainable homes that they can live in. So we are seeing this as an opportunity, particularly in multifamily housing, as it's not just something from a climate risk perspective of understanding and identifying those risks, but also figuring out ways that we can mitigate for those risks. We think this is really important. Resiliency is a key way in which we can frame our understanding of climate risks so that we can better help our communities, businesses, households, really, individuals prevent, withstand and respond to and even recover from these types of disruptions.

Luba Kim-Reynolds [00:04:07] Great. Thank you, Justin. Well, let me turn it over to Holly now, one of the top experts in this topic. So let's get more technical. What is physical resiliency?

Holly Neber [00:04:19] Well, thanks Luba, but I just want to say first how excited I am to be here with you and Justin today. I really enjoyed the prior episodes and I'm so looking forward to our conversation. So on the topic of resilience, the definition that FEMA uses, I think Justin kind of referenced it a little bit is the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. So the term resilience can be used broadly to apply to a community or infrastructure or in the case of the work we're doing on a new property assessment standard in the case of buildings. And so resilience in the context of what we're talking about is the ability of a building or a property to withstand natural hazard impacts. The idea being that a more resilient building will perform better when impacted by natural hazards, and that will create better outcomes for occupants, investors, developers, insurers, the lenders and of course, the broader community as well.

Research from the National Institute of Building Sciences has found that every dollar invested in natural hazard mitigation produces significant savings in how property values perform. So, hazard mitigation does work and it does protect property values, but the costs of the natural disasters and the frequency and severity of those disasters, as you mentioned Luba, is increasing because our population is growing and growing in vulnerable areas. I guess I just want to also add that the word resilience is a bit of a hot topic right now and showing up in many forums. But I think it's really important to note that natural hazard preparedness and hazard mitigation has been around for decades especially for some hazards like flood and wind. And we're leveraging all that knowledge and expertise as we bring resilience into the property risk management and value preservation space today.

Luba Kim-Reynolds [00:06:30] So then there is a natural question what kind of standards are out there? And I know I mentioned in our opening you chairing the effort to create resiliency standards as part of the ASTM. Do you mind just to give us a little bit more background on what you are working on and what the kind of vision is for those standards?

Holly Neber [00:06:52] So ASTM International is one of the largest voluntary standards developing organizations in the world, and it provides a forum for industry experts, end users, consumers, government and academia to all come together and collaboratively work together to produce an agreed upon standard for a given purpose. And so there are ASTM standards for everything from concrete to building material, other types of building materials to processes like those in the commercial real estate space. Many of your listeners may be familiar with the environmental site assessment phase one environmental site assessments that are conducted, property condition assessments and seismic risk assessments. Those are all part of the ASTM family of standards. So those types of reports have really been ubiquitous in the real estate finance space for many years, and they help borrowers and lenders make informed decisions by indicating if there are impairments that may affect a property value or cash flow so that those involved can address the concern prior to moving forward. So it's really been a long, well-accepted and established part of due diligence and risk management policies that environmental site assessments are conducted, and so that the ASTM community is now coming together and looking at 'how can we develop a standard for assessing physical risk beyond the environmental side?'

Luba Kim-Reynolds [00:08:31] This is fantastic, and this effort is going to be so important for a lot of players in the industry and I know for us we definitely will be relying on them. Justin, do you mind expanding a little bit on how we will be using some of those standards in the way we're going to think about resiliency?

Justin Thomson [00:08:50] Yes, definitely. So just a few things. I want to also echo what Holly said about the ASTM standards themselves, and particularly how Freddie Mac uses those standards. And so, we as part of every loan that comes through, we do a lot of due diligence on the loans, and we leverage these ASTM standards as part of the diligence that we perform for each of these properties. And so, as she mentioned, there's a property condition assessment that's happened. There's a phase one and environmental assessment that happens at properties, seismic reports, all of these standards. My team has helped to set the requirements for those reports, and we leverage the ASTM standard and essentially say that, hey, any report that's provided to us has to meet these ASTM created standards. And so we know that what we're getting is going to meet a standard that's very high and that's accepted out in the industry, in the marketplace. Because really the ASTM process is robust, it's inclusive, it's transparent. It has a lot of stakeholders that are a part of the process to really ensure that all points of views are considered and really, it raises the best ideas and solutions to be included as part of the standard.

As part of this resiliency work, I've also been a participant on the committee. That's one of the things I've found that's been really valuable as part of creating the standard is just there's so many participants that are included in the process that you really get a very well-thought out, thorough standard that includes some of the best ideas and thoughts from industry experts and those that are really out in the field, those in academia, those doing financing, you know, all aspects of the industry are included. And so, for us understanding that process, and particularly now as they're working to develop this resiliency standard, we really think that's going to help move the industry forward to really having a more standardized approach in evaluating resiliency, particularly for us in multifamily properties.

And so these are things we're looking at what we can do to incorporate this standard into our due diligence process and how that could inform our loan-making process in the future. By adopting that standard, we recognize our place in the market as well and that can help signal its importance and really help to encourage further adoption. All that being said, I think that's very critical and important, particularly at Freddie Mac, but ultimately, I really see its value and the actual content that's being created in the guide and the implementation of that content. So, it's important to have a standard and something that's there, but more important is the utilization of that information. And so, the more that we have multifamily properties utilizing this process by which you can evaluate resiliency, we're going to see a greater number of properties, better understand the climate risks that they face and be in a better position to make decisions that can help them become more resilient.

Luba Kim-Reynolds [00:12:31] Having standards designed by a group of experts in such a respectable organization as ASTM will give a solid foundation for the industry. There is something that you have said Justin, the word utilization. It's a very important word and let's switch gears to talk about some of the practical applications of resiliency. I think Hurricane Ian brought to light some of the examples and the better outcomes for the properties that have done resiliency improvements. Holly, have you come across recently some examples where resiliency work has been done?

Holly Neber [00:13:06] Sure. We have seen in the wake of those disasters that basic resilience measures can have a big impact on how a building performs, particularly with respect to wind and some flood activities. I think storm surge is a tougher one to mitigate against, but there are many examples I think people have probably seen in the news of communities that were built to a higher resilience standard and fared very well and we want to continue to replicate those things. I think it's important to point out that these resilience measures in some cases can be very basic. So, for instance, you could have two buildings with similar building elevations that are subject to the same type of flood risk. But one has critical equipment in the basement and the other has critical equipment above projected flood levels.

You know, the two buildings would really experience that hazard differently and we see that time and again. So, it, it doesn't have to be a super expensive or super sophisticated solution, but it can really impact how a building performs.

Luba Kim-Reynolds [00:14:18] These are some great points. Justin, anything from your side that you have seen?

Justin Thomson [00:14:23] Yes. I want to kind of piggyback a little bit off what Holly's mentioned as well. But also thinking back on some of the experiences we've had already at Freddie Mac on our Green Loan program, because part of the way I think of resiliency includes how we can better improve the efficiency or the performance of these properties. And so, you could think of it in context of some of the disasters we've talked about.

We talk about some of the hurricane storms, but there's also storms such as heat waves that may impact a property. And so, a lot of the improvements that were made through our Green Up program included things like more efficient HVAC systems or installing high efficiency windows or insulation. Those would all be things that certainly improve the efficiency of the building, but can also help them to withstand those types of climate related events, like a heat wave. Or, for instance, there's other disasters that we've heard about in, say, California, where they've had challenges with the grid and being able to access power at certain times. And so, when a property owner could install, say, a solar PV system at their property and potentially improve their ability to produce power for their tenants, if there are these grid challenges that they're facing, they're obviously going to be more resilient and able to withstand those sorts of outages that may happen at the properties. So we've seen some of those instances where, as Holly mentioned, some simple measures that could be made to help your building perform more efficiently from an energy standpoint or even from a water standpoint, can really help to improve the resiliency at the properties.

Holly Neber [00:16:27] Yes, I think that's a great point. And I would add that the assessment that we're talking about would include not just acute hazards like a storm, but also chronic things like heat stress. And so, when a property owner is making decisions about what type of improvements they want to make or how do they want to maintain their facility, they can make better informed decisions about what type of upgrades they may need to their equipment, their roofing and so on with a broader understanding of what hazards the property may be subject to in the future.

Justin Thomson [00:17:06] I think that's a great, great point to emphasize, Holly, that sometimes these decisions are, as you mentioned, in response to acute situations, a reaction to a storm or an event. But also, a lot of resiliency planning is really thinking of it from that long term perspective of how I can position my property to be able to withstand or even prevent some of these hazards that certainly can be acute, but as you mentioned, some of the chronic challenges that are facing. And so, identifying those risks that would be in play at your property, but also what are things we can do to better mitigate those? Certainly in the short term, but also long term is really going to go a long way to help the resiliency of a property.

Luba Kim-Reynolds [00:18:02] Justin and Holly, what have you seen in terms of getting these type of improvements financed? We are in an affordable housing space and I'm sure some of these properties can use some help to make sure the math works.

Justin Thomson [00:18:16] Yes, so definitely financing is certainly a key component to this resiliency challenge and the types of properties that Freddie Mac typically is financing includes what we call workforce housing properties. And so, these are typically on average properties that are around 30 years old, so they're really starting to show their age. And frankly, these are the types of properties that often are most in need of these types of resiliency improvements. And so, the challenge with getting more of these vintage properties up to code or to be more resilient is that it's going to require some investment and upfront capital. So we have to be creative in finding ways to finance it. So certainly, there are avenues out there, traditional financing models with banks and lenders that could be a source of capital.

The way I'm thinking of it from a lender perspective is what can we do as lenders to better incentivize this type of work and encourage this type of investment at the properties? What can we do to better understand the impacts that these improvements could have on our collateral and the credit performance of the properties? How does it change the risk profiles for the properties that we're lending? And so, this is definitely something internally at Freddie Mac we're taking a hard look at and we're really trying to work on strategies to address this type of financing.

But we also must find alternative financing sources. We certainly know there are other public sources, other programs that are focused on funding, resiliency and efficiency projects. So, the question is where do resiliency policies and dollars connect? One example that we can highlight is a well-known housing program, the low-income housing tax credit program, sometimes known as LIHTC. We did some research a few years back to determine what state housing agencies are doing across the country to incentivize resiliency improvements for projects that are seeking these LIHTC allocations for new construction and renovation of affordable housing. And what we found was that many states are giving credit to projects that include resiliency improvements in their applications for these funding allocations. And so we are seeing some evidence of these policies where there's an incentivization for resiliency for, in this case, new or rehab projects for these affordable housing projects across the country and so that's something that can be pretty meaningful.

But we recognize as well that not all projects can or do seek to obtain these [low-income housing] tax credits. So alternatively, we know that there are municipalities out there that are also realizing that there is value in resiliency projects. They're setting up funding sources that can help provide capital for some of these resiliency projects. So really, in terms of financing these projects, there's not always a straightforward answer for every project. It's probably going to look a little bit different, but we really have to look at all the way that we can partner with these various public and private funding sources to help meet the needs for resiliency financing.

Holly Neber [00:22:06] Yes, and Luba. I would just jump in and say I think we're in kind of early stages. I mean, in terms of government financing, there are a number of federal programs trying to enhance community resilience and some of that may trickle down to the property owner level. But beyond that, I think what will be interesting to see in the years ahead is to the extent that lenders and other types of commercial real estate investors are becoming more aware of the natural hazard risk within their portfolio. Will they be motivated to creatively come up with incentive lending programs to incentivize their borrowers to proactively make their buildings more resilient so that the loan portfolios of those lenders contain more resilience?

One thing we're seeing is what the rating agencies are running. Anyone who has geolocation information on a property, if it's within, let's say, a loan pool, can run that address through a risk assessment to identify what natural hazards might apply at that location. And so, I think the more and more that happens, there will become a need for people to be able to communicate what resilience measures might be present at the site or in the case of, as I mentioned earlier, what may be appearing to be a high risk, but because of certain property attributes, it's not a high risk. There just needs to be a way to communicate that because some of these mapping and modeling climate and natural hazard resources, they're very helpful as a pointer, but if you're not able to physically be on the ground at the property itself to observe the building attributes and characteristics, you might be missing some important information. So I think it's really pairing that mapping and modeling information with on the ground observations to verify and validate that natural hazard risk information that some of those investors and rating agencies might be looking at to protect investors but to also protect renters.

Justin Thomson [00:24:20] And I'll just piggyback off of that. I completely agree. And I think, again, from that lending perspective, that also would help provide lenders with a better perspective of the risks that could be faced at these properties. But as you mentioned, you know that risk identification, Holly, really

utilizing a firm like AEI or others that can go out to the property and really evaluate [the property and identify] some of the risks that we know that this area faces. [So, for example], this property is built in such a way that it could withstand these types of hazards that the property could face. And so that assessment at the property level is really important and can help make and inform some of these lending decisions.

Luba Kim-Reynolds [00:25:14] Holly and Justin, thank you so much for your thoughts today. It was very beneficial to learn more about physical resiliency and start thinking more seriously about incorporating it in our processes. Being able to communicate resiliency, improvements, information to the various stakeholders participating in our transactions will be a very important step. Thank you both.

Holly Neber [00:25:36] Thank you Luba, it was great to be here.

Justin Thomson [00:25:38] Thank you for having me. Appreciate it.