Hannah Debelius: Hello, and welcome. We're gonna get started here in just a couple of seconds. Thanks so much for joining us today.

Excellent. Hello! Welcome to the 2021 Better Buildings Webinar Series. In this series, we are profiling the best practices of Better Buildings Challenge and Alliance partners and other organizations working to improve energy efficiency in buildings. Next slide.

My name is Hannah Debelius, and I'm gonna be your moderator today. I'm a fellow in the Building Technologies Office at the U.S. Department of Energy, and I help to support the Better Buildings program. Next slide.

Today, we are gonna be talking about climate risk assessments, which assesses properties at risk from the impact of climate change and develop a strategy to mitigate those risks. We're gonna hear from two different partners with examples today, but overall, a common overarching process is to identify the risks which may impact the property, analyze the potential future scenarios, and then evaluate future impacts and benefits to identify those priorities.

But of course, information also needs action, so the strategy and next steps aim to have an outcome of protecting occupants, interior systems and equipment, and of course, the physical asset. Next slide, please.

Today, we're gonna be using a tool called Slido. For those of you that have come to our other Better Buildings Webinars, it should be familiar to you, but for those of you that are new, you're gonna need to open up either a new window on your computer or you can use your mobile device and go to Slido.com, and then enter the event code #DOE. We're gonna be using this tool for the question and answer and also a couple of polls, so it's a good idea to go ahead and open that now so that you can ask a question any time during the session today, and we'll have time at the very end to do Q&A for all of our panelists.

So, with that, I think we're gonna launch into our first Slido poll here so we can learn a little bit more about you. So, the first thing we would like to know is just what sector you're coming from today. I'm gonna give it a couple minutes, but again, you're gonna open up Slido in either a new window or in your mobile device, and that's where you're gonna be able to access this poll.

Alright, wonderful. We have a lot of folks online from government, which is wonderful. We know there's a lot of action for climate risk assessments, of course, in that sector. Also, strong commercial real estate—both of our partners today are gonna be representing the commercial real estate perspective; that's great to see. Alright. And then, of course, higher education and multi-family nonprofit, and a lot of my colleagues in the federal government, I see. I'm just gonna give it a couple more seconds before we move on, here.

Alright, excellent. Well, thanks so much for telling us a little bit more about who we have on the line today and also utilizing the Slido tool. I think that we will go ahead and move on to the next question that we have for you all, which is a little bit closer to the topic that we have today, which is—have you engaged in a climate risk assessment before? And the options are yes, at the building level; yes, at the portfolio level; maybe you're somewhere in the process or progress right now; or you've joined today because it's something that you're considering and would like to learn more. So, it looks like we have a lot of people in that category, which is awesome. I think you're really gonna enjoy our panelists today, because they're gonna share a lot more about how they got there and success and outcomes they've had.

Alright, and interestingly, a couple more people, it looks like, have done this at the portfolio level and the building level. I'm also glad to see that so many people are here to learn, because we do have some great resources we'll share at the end, which include case studies from both of our partners speaking today, so it'll be a little extra information to take home with you.

Alright, great. It looks like the polls slowed down. So, thank you all so much for your information, and with that, I think we are going to move forward to introduce you to our wonderful panelists today.

We are lucky enough to have four panelists with us today, representing LBA Realty and also CBRE.

I'm gonna started by introducing our colleagues from LBA, so you can advance one more slide. We are joined by Allison Pumphrey, who is the Assistant Portfolio Operations Manager at LBA Realty, LBA Logistics, supporting corporate operations and sustainability at LBA since 2016. She is involved in improving and rolling out processes that include budgets, reforecast, operating expense reconciliations, and training for new and existing employees.

Allison also plays a role in LBA's sustainability program through utility data management and benchmarking and support of the implementation of energy efficiency projects.

And Allison is joined by, of course, also her colleague, Michelle German, who is the Director of Operations and Sustainability at LBA Realty, LBA Logistics, overseeing corporate operations and sustainability. Michelle is an integral part of the corporate operations team, and she continuously works to improve and create company processes that increase efficiency and streamline workflow. Michelle also has oversight over LBA's sustainability program, including data management, implementation of energy efficiency projects, water and waste focus, smart building programs, clean technology, and certifications.

So, as you can tell, we've got some excellent people on the line, and with that, I'm gonna turn it over to Michelle and Allison to tell us more from LBA.

Michelle German: Thanks, Hanna. Next slide, please. Next slide. So, good afternoon, everyone, we're really excited to be here today and to share a little bit about what we're doing at LBA with regards to climate risk. But before we get started, I always like to give just a high level overview of who LBA is.

And so, we are a full service real estate investment and management company. Our product type is about 20 percent industrial and 80 percent office at the moment, and we are about a 65,000,000 square footprint across the country. So, our office portfolio is more on the West Coast and our industrial portfolio spans the entire United States, and our corporate headquarters is out of Irvine in Orange County, California.

So, we do have a really large focus in ESG, and it rolls up under the operations arm at our company. So, what we like to kinda coin our program right now is our Sensible Sustainability Strategy. And what this means to us is that we not only focus on the environmental impacts that ESG focus has, but we're also looking at the business piece of each of the things that we're doing. And so, with that, we can jump into our next slide, please.

So, today, I want to take you through a little bit about what LBA does from the climate risk perspective, what process we created, and what it took to get it embedded in our entire organization. So, next slide, please.

So, I'm gonna spend a little bit of time here, and I'm really gonna take you through what our climate risk strategy was and really take you through more of the process of how our thought process, how we got things rolled out, and just kinda some of the challenges and, I don't know, missteps along the way.

So, what was our motivation? It was to own and operate a more resilient portfolio against the threats of climate risk. So, what does that mean? It was really about letting us figure out how, do we identify the climate risks? What's the best process to identify what the climate risk is at a property? And then once we identify what that climate risk is, how do we take action against it, and to mitigate risk?

So, our second bullet here is risk mitigation, and so, our intent was to put together a program that, when you just say "mitigate risk," what does that even mean? It's just to make sure that we're operating a more resilient property. So, we're making sure that we are putting the best operational practices in place, and maybe that includes adding operating expenses and capital items to our properties to make sure that we're doing everything possible to mitigate risk. And also, just looking at, if an event occurred, how quickly can LBA shift gears and get the property up and running again? So, it's not just even about time. Also, how can we get the property up and running again with the least amount of money, even, possible, and making sure that we're putting the proper resources and plans in place, should an event occur.

And then lastly, and not to say least important, I would say this is definitely up there with, most important is, it's important to the investors. And so, we have a lot of investors, and just over the years, we've gradually seen more and more investor questions, requests, inquiries about, "What are you guys doing when it comes to climate risk?" And so, we needed to have a response, a real response that says, "This is what we're doing, this is our plan" and to give comfort to our investors that we are making sure that we have a good process in place.

And of course, we wanna make sure that we're doing the right thing when it comes to the environment. So, I want to kind of take you through who our stakeholders were in the process of rollout and just what it looked like to get stakeholder engagement. So, the way we defined it is kind of in order of how we rolled things out. So, first we needed to get ESG team and sustainability consultant engagement. So, you're looking at part of our team right here, you have Allison and me, and then we also have a Sustainability

Consultant, Brenna Walraven, with Corporate Sustainability Strategies. And so, we had to sit down—and it's not just us, we have other teammates that we sat down and we said, "Okay, what are we looking to accomplish?" We had to leverage our network. What peers are out there in the industry that are already doing this? Calling them up and trying to put notes together to not only figure out, let's not reinvent the wheel, and then also put it into play of what LBA's goals and focuses are.

So, once we were able to put a plan in place, decide what our goals are, how are we gonna possibly reach that objective, get feedback from out in our network, we then presented that idea and plan of what we wanted to do to our LBA executives. And so, to me, this is such a huge key in stakeholder engagement is to get the executives on board, because you need them to be your cheerleaders. They need to sponsor whatever it is you're trying to do. A lot of times, people don't understand ESG initiatives, especially climate risk could feel a little overwhelming. So, as long as you have your executive team behind you saying, "Hey, this is important. We need to get this done, we need to do these things," it really gives you a strong foundation to roll out a good process.

So, once we were able to achieve that executive engagement, our next step was to reach out to our due diligence team. And the reason why this is a big stakeholder for us here is, part of our process was to do our Climate Risk Assessment process starting on the front end of acquisitions. And so, the due diligence team runs that process, and therefore, we needed them to understand what we were trying to achieve—the goals, the process. Because ultimately, we were turning it over to them to initiate the process and get things going.

So, not only did we need our internal team, but part of our process was to engage our external consultants, because they're the ones physically going on site during the due diligence period, and we needed them to be the eyes and ears at the property to look at what's going on from a climate risk perspective to make sure that we were understanding the risk of what's happening physically at the building and not just, "Hey, we're in a flood zone" or, "Hey, this is a wildfire area." Okay, but what does that mean for this property? And we needed our consultant to help tell us that story.

And so, the next team that we engaged at LBA was our risk management team, and naturally, a lot of these things roll up to risk management, but also insurance as part of a mitigation strategy. You know, maybe you can put all the processes in place

and have a really solid climate risk plan, but there still can be an event. And so, is there some sort of insurance that we can put in place that mitigates our risk?

And then lastly, the property management team. And really, this is, I would say the glue that holds the entire process together. We could do everything up front right. We can figure out the climate risk, we can have a consultant identify recommendations and measures we should be taking. We can have a great process up front, but when we transition a property over to the operations team who's going to own it and operate the building for the duration of ownership, they need to understand what the climate risks are, they need to put a plan in place.

And so, for me, they're the glue that holds this all together. And so, training them to understand what is climate risk, what things can you do when it comes to floods or heat stress or wild fires or different kinds of events? You should be looking to talk to your cities and local jurisdictions and possibly have consultants that are in place ready for some sort of events to occur.

And then the last piece is just summarizing, how do we embed this into our ESG program at LBA? And so, just to summarize everything again, it's key to get executive support, you have to have an in depth roadmap and a budget, like I talked about leveraging your resources out in the industry. You have to create a good process, and I will say, in the process creation stage, you have to make sure you're flexible. So, I just ran you through a handful of stakeholders. Well, every time I met with a different stakeholder, our process morphed just a little bit. It improved, because maybe we weren't thinking exactly like the due diligence team or like an executive or like the Risk Management Department. And so, just be flexible in your process on the front end and allow it to change if needed.

And, really, I'll put these two together. Lots of follow-through and a lot of perseverance. I say that because we put the process in place and we handed it over to due diligence, but we stayed closely involved, because we had to make sure it got embedded into the operations. And it took a while. We found that we didn't necessarily put it in on the front end, and we had to keep asking, and then we got them going on the process, but then the consultant wasn't on board fully, and so, we had to keep pushing at that. And then, eventually we got everybody on board with the process. And so, just be patient and have follow-through and perseverance.

And so, with that, I'm gonna turn it over to Allison, who's really gonna take you through the details of the process and the tools and resources that we created to roll out climate risk across the portfolio. So, Allison, I'll let you take it from here.

Allison Pumphrey: Thank you. Next slide, please.

I'm Allison Pumphrey. As Michelle said, I'll walk you through more of the detail of what our process actually entails. So, the Climate Risk Assessment process starts at the acquisition on the front end. So, what we start with is the internal due diligence team goes into the 427 platform and generate the Climate Risk Assessment report. So, as you'll see on the left side of the screen, this gives you kind of an overview of the rating system that 427 uses from left, which is green no risk, to on the right you'll see high risk and red flag in red.

So, what LBA really primarily focuses on is medium, high, and red flag risks. What the 427 report doesn't include is property sports attributes. So, basically, what you do is, you plug in your longitude and latitude for your property and it generates your risk based on geographical location.

So, the way that LBA's made this even more beneficial is that we've incorporated our due diligence consultant who then takes the results of the report and reviews it and actually looks at the report during their on-site physical condition assessment. So, for example, like Michelle had kinda mentioned, if we have a high risk flood property but the due diligence consultant is on site and says, "Well, you're above the flood plain," so this risk is really not an issue for this property, now we can note that no further issues would be needed, and we could kinda disregard that as a high risk for that asset.

So, the other thing that you'll see on the right side of the screen that the due diligence consultant does during their on-site inspection is that they complete a sustainability checklist. So, on the checklist, you'll see in the center, it shows that they summarize the results of what their thoughts are and validation of our Climate Risk Assessment. And the they also summarize other sustainability projects that we should take into consideration and possibly budget for in the future at that asset, unrelated to climate risk. So, any other sustainability projects that are maybe low hanging fruit or an opportunity for that specific property. Next slide, please.

So, phase two is where we create our operational strategy. What we did is, you'll see on the screen we included part of our Climate Risk Assessment memo. So, this is where we defined the medium to high climate risk, and then we also provide, the ESG team provides recommendations for operating and mitigating hazard risk. So, for example, there will be general recommendations and then after reviewing both the sustainability checklist and the Climate Risk Assessment report, you'll be able to provide more specific recommendations for what they can do at that asset.

The other person that looks at this is the risk management team. So, they look at this and the sustainability checklist and really identify if there is any additional insurance that can be purchased to mitigate the risk as well.

So, then, at this point, if there are real, major concerns, we create an issues memo that's fleshed out and distributed to the investment committee for review and consideration. Next slide, please.

So, the final and third stage is where we transition the process to the property management team. So, this is when we've fully teed up resources, so they have a Climate Preparedness Guide, they have a Climate Risk Assessment memo, and now they can say—okay, what do I need to budget or, what capital items do I need to budget for, and what operating expense items do I need to budget for? So, for example, if something comes back as high risk for wild fire and, through the resources that the ESG team and Risk Management and everyone has provided in reviewing prior to them, they might say, "Okay, I need to budget for landscape upgrades, I'm going to remove all the brush and create a fire safety fire zone within 30 feet of the perimeter of the building, or maybe I'm going to do a filtration upgrade so that the building is able to filter out smoke from wild fires."

So, they need to consider all that information, and then what happens is, they put it all into a final budget and prepare a resiliency plan, which then goes into our standard operating procedure, created after acquisition of the property within a certain number of days.

And then from here, it's really the property team's responsibility. As Michelle said, if we prep all this and then there's no follow-through, it's not serving any benefit. So, what we expect is that it's the property team's responsibility to execute on the plan throughout the ownership of the asset and then also annually just review their resiliency plan and see where they might need to

improve things or incorporate additional items on an ongoing basis.

And that really wraps up this process, so next slide, please.

Michelle German: Thanks, Allison. So, just to summarize and leave you guys with some best practices and tips on the process we went through, the lessons learned, if you're looking to start out, which I know on the front end of the survey, a lot of you are saying that you're looking to learn how to do this. So, just to bring you back through our tips to you guys—first, I would say, again, it's executive support is key. So, I know I spoke about that earlier, but it's very—it's a huge part of the process just to make sure your executive team is backing the process so that the engagement follows to the remainder of your organization.

The second tip to leave you with is leverage your network. So, again, I said, a lot of different companies and peers are doing this already. Leverage that network, call people up, understand their process, and gather information from them before you even get started.

Next is stakeholder engagement, making sure that you identify who are your stakeholders as you're putting that process together and just making sure that you're properly—I guess properly training them of the importance and that you're not just saying, "Hey, here's a process," but you're giving them the big picture as to why you're doing it so that they can understand and be a part of the goal.

And lastly, it's create a comprehensive process, and so, just make sure it's thought out, it's thoughtful, you've discussed it with all the stakeholders, and as I said, be flexible. You might have to change that process along the way once you meet with each stakeholder, and you might have to change it as you go along in general. It might be a year later and you have a process improvement.

So, that's kind of in a nutshell what we wanted to share today is really just our overall process and the tools that we put in place to accomplish that.

So, with that, I know that the team that is gonna be presenting, Zach and Rielle, they're gonna be sharing, I think, more from a portfolio perspective. So, I'm personally excited to hear what they're doing there—so, thank you, everyone.

Hannah Debelius: Excellent. Thank you so much, Michelle and Allison. I really appreciate that, and as a reminder, all of these slides will be available to attendees after the fact. I know there was a lot of great information in those that you probably wanna catch down.

Before I introduce our next speakers, I'm also just gonna remind everybody to use Slido for your questions. I see that the word is out there, because we're getting a lot of great questions in already. Another option for you is, if you see another question that's one you'd like to get answered, you can actually hit the little Thumbs Up button and it moves it up to the top of our queue, so, a reminder for that.

With that, I'd like to welcome Rielle and Zachary. Rielle Green brings over 10 years of experience in the fields of energy and sustainability to her role at CBRE. At CBRE, Rielle works across a national portfolio, creating and implementing programs around energy and water conservation, conducting internal and investor reports, including the GRESB and oversees LEED, ENERGY STAR, WELL, and Fitwel certifications.

Zachary Brown is Director of Energy and Sustainability at CBRE, where he supports the property management group as a dedicated resource overseeing ESG and sustainability for our national strategic clients. In this capacity, Zachary manages all sustainable real estate initiatives and reporting serving as a conduit between the ownership and management operating each asset. He also monitors local and state energy benchmarking and disclosure laws, oversees third party certifications, and manages annual GRESB assessments for multiple client trends.

So, with that, thank you so much, Rielle and Zachary, and you're welcome to take it away.

Rielle Green: Hello, everyone, and thank you, Hannah, for the introductions and a really big thank you for LBA for your insights as well as kicking off our webinar today.

As noted, Zach Brown and I, Rielle Green, we work for CBRE and I'll just have you switch to the next slide, please. Excellent.

So, CBRE is a global real estate company with a robust property management platform that serves over 2.7 billion square feet worldwide. We work for an investment management client across their U.S. portfolio of over 87,000,000 feet of mixed asset types.

Our team creates and implements a platform-wide ESG strategy, which includes smart building and advanced metering, as well as energy, water, and waste conservation, and all the other details that Hannah gave us in our introductions today. It was about three years ago that we launched a portfolio-wide approach to assess climate risk and resiliency in our portfolio. Next slide.

So, I'm gonna kick it off today with an example of a site, and this is really where our process started, with a specific site, and then we went ahead and piloted different strategies at this site. So, our pilot was a site in Boston, Massachusetts that sits along the Fan Pier. And we chose this site as it already had budding risk identified by the site team due to storm surge during winter. And one important thing about this was that we really worked with the consultant, much like the LBA team did as well, and our consultant was Arup, and we worked with them to prepare a site risk assessment that addressed hurricane, flood, sea level rise, and other impacts or the near and long-term. Arup brought in the expertise that was really critical for our team, and they helped us identify timelines and scenarios and overlaid these on our specific site.

The map shows annual flood percentages in 2030 and 2050 overlaid over the Fan Pier in Boston, while the image on the bottom left looks at each flood scenario over our specific site, giving us flood elevations to prepare for. From there, we identified the most critical parts of the building and invested in these mitigation measures for long-term resilience.

In total, we invested over $650,000.00 in protective measures, and these included the following. We looked into and did acquire an aqua fence, which is pictured there on the bottom right. And that, we went ahead and deployed to encircle the entire building as a first line of defense against any water infiltration. We also added three backup motors for the domestic pump system to reduce recovery time and prolong equipment life after a flood event. We purchased portable sump pumps and floodgates for the interior of the building, and this is because water can infiltrate the interior, should our first line of defense fail. And that was really critical when we identified where these openings could be potential and what we needed to protect within the building. So, looking specifically at rooms that held IT equipment as well as any electrical conduits. And lastly, we installed backflow valves to prevent storm water from backing up inside of our aqua fence, should water come through.

So, with this study as well as the purchase and installation of these measures, as I mentioned, it was really important to involve and train property managers and engineers. This is something that is so critical is the site team, as they know the assets best, and are truly the glue, as Michelle said earlier. They are key to hold our processes and these strategies in place. We focus on how best to prepare the building to best protect occupants and the physical asset ahead of a climate risk event. We create a comprehensive building level strategy, as I outlined, to really prepare for these risks identified, and complete dry runs—no pun intended—with all of our stakeholders to ensure our site asset results are implemented.

Our Boston pilot did a couple of things for us. It was our first venture into this climate risk resilience and study, and it really proved the investment of these mitigation measures were necessary to securely protect our asset versus the cost of damaging climate events with no measures, should we not implement these. The pilot also really spoke to the value of buy-in, which is something that the former panel also had mentioned. It is really key to prove the concept and outcomes to both our asset and our portfolio managers as well as show the value to investors and insurers down the line.

Due to the success of this pilot, we expanded the program into a top down portfolio evaluation with a targeted approach to assessing climate risk when identified at the property level. As mentioned, we have different property types in our portfolio and we have different assets throughout the country. So, while we have built a streamlined approach and it's really key to make sure that you have things in order and you can approach it from a systematic approach. It is really key to identify and work with different types of data, that was one thing that we really found, as well as look at a diverse range of risk factors and diverse strategies to protect buildings and the people that occupy and work in our assets.

So, I'll go ahead and pass it over to my colleague, Zach, to take us through the top down evaluation of climate risk in our portfolio bridge.

Zach Brown: Great. Thank you, Rielle, for that overview and thank you, also, for the great overview of getting buy-in and setting up a plan from LBA Realty, some really good information there as well.

What's interesting is that Rielle took us through our first pilot site assessment, which we did at an asset in Boston where we had history of potential flooding and really severe storms affecting the

property. While we were working on this, we were also considering how do we do a portfolio level screening of our assets? And, to be honest, this was two and a half, three years ago, and it was really, really daunting. On the screen, you'll see the deep dive, the second stage, which we kinda did first, to be honest, because the portfolio level solutions were difficult to get buy-in from our stakeholders. The price was too high, it just didn't offer enough granularity or perhaps too much granularity, but we really wanted to get to this hot spot screening to understand how our global diverse portfolio shakes out for specific risk factors and to be able to filter accordingly.

We now have a thorough risk review process, and it applies to our acquisitions, our standing assets, and our developments. And as mentioned before, 427 climate data—427 climate date now powers our screening tool, which we get as part of an add-on subscription to Measurable, which is our sustainability data management platform. And you'll see on this slide, a very simple filter to apply to, for example, our office portfolio and specifically for sea level rise, which is one of the two flood-related risk factors, and that gives you a heat map of how that shakes out for the portfolio around the country. Next slide.

What's interesting for us was, as we were working on these two processes, the site assessment and the portfolio assessment, we did the site assessment first, and I felt that was very good to get buy-in to show a real tangible impact for flooding and especially sea level rise on one of our very high profile assets. It was great for us that 427 paired with Measurable and a system we were already familiar with to add on this climate screening data that creates these hot spot evaluations for us. And when Measurable added this, we were very happy and we were definitely glad that we waited for this product to come through. For us, it was a great proof of concept, because once 427 Measurable data was lit up for our portfolio, we checked out that site where we did our first deep dive and, sure enough, it's a red flag sea level rise asset. The data supported the data that we got from the City of Boston as well as the site level deep dive that our third party consultant did for us. So, what a great proof of concept for us, and again, you see some screen shots of our anonymized asset in Boston, where it is on the Fan Pier, and the risk factor for sea level rise. Next slide, please.

So, as our risk review process came into focus and we worked on reconciling our site level assessments with our portfolio screening tool, our next focus was on a group of assets in Southern Florida. Similar to Boston, intuitively, there's a lot of flood impacts, water

related impacts such as sea level rise, precipitation, also potential hurricane action, so it was the next obvious spot for us to look at our next phase of working out our risk review process.

We identified two properties, three total buildings in Southern Florida, in Fort Lauderdale, two properties literally across the street from each other. The southern two buildings of that single property are right up against a channel in Fort Lauderdale, so had we not had the portfolio level screening, we would've invested very thorough third party screening deep dives at all three buildings. We just turned on our 427 Measurable climate data, and we discovered that the two building campus south of that northern one had a very different risk rating for sea level rise. It was a low risk compared to the one literally across the street as a high risk or, excuse me, a red flag risk rating. This gave us thought, and we also had to consider, if we're seeing this type of disparity where a building is right across the street from another building and the risk ratings are different, how does that inform our site level process?

So, given this information to help us figure out this process to reconcile site level deep dives in the portfolio, we still had our third party consultant do a deep dive on both properties. However, we focused on the red flag property and only did, when they procured weather data for one of the two buildings that's south of the red flag building.

It was also interesting just looking at the flood maps. The Zone AH, which is more of a flood zone than Zone X, just snakes between the two properties. And so, there is a lot going on in terms of sea level rise and flooding.

What was interesting is when we did the site level deep dive, we discovered that the DFE, the Designed Flood Elevation for the red flag property to the north, is twice as deep as the two buildings to the south. So, again, we're seeing results back up this fleeting data, which gives us more confidence in that type of screening for our portfolio. With this information, again, we invested in an aqua fence for the north building, had a potential vulnerability in the loading dock, actually very similar to our building in Boston. So, that was a very easy sell and to get that capex investment put into the budget.

For the two buildings on the south along the channel, given the DFE was half that of the building to the north and the screening tool flagged it as a low risk—granted, low risk is not no risk—we focused more on low cost opex intervention measures. So, you'll

see the picture in the middle, there's a little dog with a little deployable flood barrier, $500.00, $600.00 from Grainger. We had the property team install those on the backside of the mechanical doors on the south elevation of the building, electrical rooms, chiller rooms, the electrical vaults. So, those types of potential vulnerabilities.

In the case of a flood event, which is much less probable and at a much lower severity than the building to the north, if that were to happen, they can deploy a barrier to protect the south side of the building. We also looked potentially at an aqua fence for just the inside of the loading dock, and there's a photo there as well, to protect the grease and sand traps, which would be a bad impact for the first floor retail tenants to have their floor drains backed up. However, again, it doesn't have that same red flag status as the building to the north. So, that's a potential investment for next year's budget, and in the meantime, we continue to screen these properties using the 427 Measurable screening tool on an annual basis.

Had we not done the site level assessment first, we probably wouldn't really know how best to interpret the screening tool and that data. To do them in concert was extremely valuable, and now that we have this data provided through our Measurable platform, we screen all of our potential acquisitions, our standing assets on an annual basis, and our developments to see the risk profiles. And if warranted, if a red flag happens to come up, we now take that information to our third party vendors to do a potential deep dive. But again, having the real world experience of seeing how these risk factors play out on real assets that we tangibly are able to walk and see and see with our own two eyes—very valuable to help us inform the capex and opex investment process for mitigating factors such as deployable flood barriers or even an aqua fence.

I find it really useful to think of this in the same way as we look at energy efficiency. Looking at energy efficiency, we have high level screening tools such as EPA ENERGY STAR Portfolio Manager. Using that tool effectively for a large, diverse portfolio gives us an idea of the hot spots, those areas you'd want to invest in an energy audit to do a deep dive on the property. I see this working in a similar manner. We have tools such as 427 and the Measurable PCRX Climate Subscription Service, which we happen to use. That gives us an idea of the hot spots, those areas of focus, and then we invest in a site level deep dive that gives us that ground level property specific intel to inform our investment in the mitigation factors, such as aqua fence, such as flood barriers.

Moving equipment depends on the risk factors in the building, but that's been the most useful for us in understanding how the site level assessment informs our portfolio level assessment.

And that brings me back to the top of the presentation as far as our process for arriving at our portfolio screening process.

Hannah Debelius: Excellent! Thank you so much, Zach and Rielle, we appreciate that. Those are really great, interesting examples that you used for case studies there.

At this point, I'm gonna move forward to Q&A. So, I'm gonna invite our other panelists back onto the video screen here. And as a reminder, it's not too late to continue to submit questions. You can submit your own question or, again, use that Thumbs Up, and that will move a question up our queue, here.

So, we can actually go ahead and bring up the Slido onto the screen. Alright. Our top questions here had a lot of up votes, if you will, so people must be interested in hearing the answer. So, I'll start right at the top, which is on screen, here. Our first question is, "Is grid resilience part of risk assessment?"

Zach Brown: It can be. I would view that as a heat stress risk factor, which really speaks a lot to availability of cheap, clean energy. It's not as prevalent, at least for our work, we focus mostly on the flood, sea level rise, and flooding risk factors first. We're working towards completing our first wild fire, but I would incorporate this into a heat stress risk factor assessment.

And another thing to note is, most, if not—I mean, all the third party consultants that do this type of work, they can add on any type of evaluation to the assessment. So, if you had a property, for example, in a portfolio screening that had a high heat stress risk factor, red flagged, that has potential for grid implications down the line for the investment, and I would ask our third party consultant to focus on grid resiliency for that specific site level assessment.

So, we haven't personally done it, but that's a scenario where, potentially, that could be useful for developing a strategy for the asset.

Michelle German: And just to add to that, our corporate office is in California and Southern California, and we've had a lot of wild fires recently. And so, they've done some random shutdowns of electricity, so

you may want to factor in as part of your resiliency plan having some sort of backup, maybe battery storage, you may have solar—whatever it might be that you're doing or your energy efficiency initiatives, it might end up also being a resilience plan for a climate risk event, so.

Hannah Debelius: Great, thank you. The next question here is, "How do you monitor follow-through? Is there a process in place to check in with property managers or track if and how the operations and resiliency plan is being implemented?"

Michelle German: That's a good question. I could kind of talk to the LBA side. So, I don't think I mentioned this in my presentation, but we more recently have rolled out this process. So, I wouldn't quite say we're at the point of checking on the managers, per se, but the way that it would be embedded in a check process—well, first of all, at the transition calls, the operations team is on the line, so, we would make sure to download them on what they need to do. It gets put on an action plan checklist which has to be cleared out within 90 days of closing. And then Allison had mentioned we put it into our standard operating procedure and we do an operations compliance audit every single year, and we pick a sampling of properties from every regional office, and part of that sampling is the standard operating procedure to look at that it's been touched and updated throughout that year.

So, now that the Climate Risk Assessment is part of that SOP, it would just automatically get put into that process. So, that's kinda how I would say we would be catching if the team hadn't put it together and wasn't keeping it up to date, we would find it through the process.

Hannah Debelius: Mm-hmm. Great, thanks, Michelle. Rielle and Zach, anything to add on that?

Rielle Green: Sure, I'll just add on. So, we worked directly with our vendor who does our site specific assessments to develop a very clear and streamlined checklist of each of the measures that we want to implement at our site and then to identify what budget cycle those implementation measures will be rooted in, so we can track that. So, if we have immediate, near term risk and we've identified X, Y, and Z measures to implement at the site, we'll go ahead and check those off. And then we have identified measures that might be our budget in the following cycle or a couple cycles down the line.

So, we work with our property teams to make sure that they are completing these in a timely manner and that they're added to the budgets and then we also loop in the stakeholders for those properties. So, making sure that it's in those plans and it's brought to attention is really key and part of our process and strategy.

And that also all rolls up into the site level Climate Risk and Resiliency plans at the site. So, we're requiring our property managers to go ahead and create a binder of what these actions are and also how to roll out, for example, the aqua fence plan. It's all those procedures and current and future implementation measures are included within that binder and that risk profile.

Hannah Debelius: Thank you. It sounds like you all are both relying on a lot of great processes and kind of triggers that are embedded in your regular structure of communication and that sort of thing here, which makes a lot of sense.

My next question is, "Which data sources do you use for climate projections?" I knew we heard about 427 and Measurable and ENERGY STAR, but if anyone wants to jump in to speak a little bit more about that?

Michelle German: I think you covered it on our part. We just happened, both presentations, we both use, I think, 427 and then we also, in place of Measurable, we use GoBe. So, really, it's GoBe, ENERGY STAR, and 427.

Zach Brown: For our specific site level assessments, the one we did in Boston, the City of Boston had great data, so our consultant used the City of Boston data. For Florida, Fort Lauderdale doesn't have the same data available as Boston, so we had to procure the data, and Jupiter is the firm that procured that data for those three buildings, those two properties in Southern Florida. So, it depends on data availability, market, the city in which you're doing the site assessment. But yeah, and then 427 supplies the screening data for our portfolio for Measurable.

Hannah Debelius: Thanks. I think it's interesting, as we saw on our first poll at the beginning, we have a lot of people online that are from local and state government as well as federal government, so I am just wondering out loud if maybe some of the people who are in our audience have made those close ties with local governments and if they're doing that together or if that's something that local governments are looking into.

Great. Let me move on to our next question, here, which is, "What methods do you use to identify and prioritize the sports strategies to mitigate the climate risks for properties?" I know that we spoke a lot about your processes, especially for identifying those risks. So, maybe if you could just expand a little bit more about how you're prioritizing addressing those risks.

Michelle German: For us, I would say a big part of the prioritizing is coming from the consultant, that they're—you know, 427 is giving you a longitude, latitude of, you know, a geographical location of a climate risk, but it doesn't necessarily mean it's a risk to the property. So, once our consultant goes out and has eyes on the property and can legitimize the risk and give us some additional information, that's how we prioritize what we're gonna do at that point, so.

Zach Brown: Yeah.

Hannah Debelius: Great, thanks. I'm actually gonna jump down one question to the one that's addressed to CBRE. I'll start with you all, but I'm actually gonna also address the assets of LBA. "Do you all prefer to apply retrofits, as in the Boston case study, or are you driving changes in new construction, too? And if you're utilizing assessment tools such as LEED or Green Globes, and I also know that you all work with GRESB and that sort of thing." So, CBRE, if you want to address that question first.

Zach Brown: That's a pretty broad question. I think that speaks to our larger ESG platform and strategy. The specifics around doing an assessment for our developments, our acquisitions, and new construction, and of course our standing assets, that applies broader than climate risk and resiliency. So, obviously, social risks, energy, and carbon risks and how that potentially would pay into an investment in a third party standard such as LEED or BREEAM In-Use plays into our normal screening process beyond just climate risk and resiliency. So, it is part of that total, all encapsulating ESG platform that Rielle spoke to at the top of our section.

Hannah Debelius: Thank you. LDA, anything to add on that?

Michelle German: Nope, I think we're good on that one.

Hannah Debelius: Okay, great. So, I'm gonna jump down to another question here, which is, "How much of the LDA portfolio is in your climate risk plan, and how did you decide that?" So, we'll start with LDA, but I'm also gonna ask CBRE this question as well. *[Cross talk]*

Michelle German: Sure. So, for us, right now, it was implemented on the front end of our acquisition process, and so, this is a newer process for us in the last, I would say, let's just say a year. So, however many properties we acquired, just to give a round number, I'll say 20 properties or maybe even 30 this year that we have implemented this process on.

And so, that's how we selected the properties, it was through the acquisition process. So, I think, you know, just interesting to learn about what Zach and Rielle had discussed today is really looking from a portfolio level. So, I foresee our process kinda looking like this. We onboard for maybe the next year or so new acquisitions, and then I think we turn directions and we start looking at it from a portfolio perspective and start pulling out those red flags and high risks in certain areas and focusing that way. But right now, it's solely based on acquisitions is where we focus at the moment.

Hannah Debelius: Mm-hmm. Great, thank you. And Zach and Rielle, for your clients?

Zach Brown: Very similar in terms of, we applied a lot of our early investigative work into how to apply this to acquisitions. It's a great point of entry, obviously, if it comes into your portfolio, to do it then. We happen to, as I alluded to, we looked at portfolio screening tools and, from just a kinda pragmatic standpoint, to try to sell our entire portfolio to go into it and we have assets that aren't close to the coast, aren't on flood plains, aren't subject to potential earthquakes or wild fires.

So, to find that tool that would apply to the entire portfolio and not break the bank or prove itself not usable, it really was the perfect solution for us that we already used Measurable, it was an add-on subscription, the price was totally reasonable, and it does apply to our entire portfolio, which, obviously, not every building is gonna have a high risk factor, but just the fact that we have that completely, we have that one task now that applies equally to our entire portfolio to add consistency to our annual screening process on standing assets. I think there's some power to that. I think that that's—we're not cherry picking buildings, we're not just looking at coasts. We truly are looking at all the risk factors and data gets better, things change, climate changes. So, each year, we're gonna redo the list and see what flows to the surface. And as we get better at this, we may develop a better strategy for some of the trickier ones like water stress and heat stress, which aren't quite as tangible and visceral as the flood and wild fire risks.

So, we see it as an important tool to apply to the entire portfolio, and it just happened to really work with our current partnerships and the tools that were already available to us.

Hannah Debelius: Excellent. Well, thank you, all, so much. And with that, that's actually the end of our time for questions. We do have a couple of other Better Buildings business to share with you all. So, if we can switch back to the slide real quick so I can close out here.

I'm really excited to say that both of our organizations here with us today have worked with Better Buildings to write solutions about their climate risk assessment. So, when these slides are available to you, you can click the links, or you can search in our Solutions Center. We've also included some links to some other relevant resources that would be great to further explore this topic today. Next slide, please.

I'm also very pleased to announce that we will have the next Better Buildings Better Plants Summit in May. It's gonna be a virtual, no cost event featuring interactive sessions as well as opportunities for attendees to network with industry peers and experts, and registration is gonna be opening soon, so keep an eye on your inboxes or you can check back at the Better Buildings Solutions Center for that.

We also will be continuing the Better Buildings Webinar series. We have a couple left in this and then we'll also be launching our summer series soon. And in fact, you can join us for our very next webinar, which is on February 9th, which is called—thank you—Perspectives on Resilience: Insurance and Credit Underwriting. So, you can join this webinar to get insights from industry practitioners on how to interpret risks and uncertainty around building resilience as well as what building owners can do to improve performance.

I also want to highlight just a couple of great resources from other areas in Better Buildings, including our Workforce Portal. You can either go there to take the next step toward a career in energy efficiency as a potential employee or as an employer at an organization, you can get resources, information, training, education, and job opportunities. Look at that—perfect. *[Laughter]*

We also, of course, all of our webinars are available on demand, so you can see those virtually and search through the rest of our Solutions Center for topics that you might be looking for.

And finally, with that, I would just like to say thank you so much to our panelists again. This was really interesting and we appreciate you taking the time to go through your process and information and the stakeholders you're engaging and how you're gonna do this. As we saw in our poll, a lot of people here came to learn about how they can get started on this, and I think you offered some really great information for that, which is wonderful.

So, I further encourage you to follow Better Buildings on Twitter for all our latest news, and all of you online will receive an e-mail notice when this session is available online as well as the slides, and you can click through some of those links.

With that, thank you so much, and I hope that we'll see you again for the next Better Buildings Webinar series.

Zach Brown: Thanks, everyone.

Rielle Green: Thanks, all.

[End of Audio]