

## Webinar

The Materials Movement: Creating Value with Better Building Materials

Date: December 01, 2023

00:00:11 --> 00:00:13: Hi everyone, Welcome. 00:00:14 --> 00:00:16: It looks like people are trickling in from the waiting 00:00:16 --> 00:00:16: room. 00:00:18 --> 00:00:19: We'll get started in a couple of minutes. 00:00:20 --> 00:00:22: While we're waiting, feel free to introduce yourself in the 00:00:22 --> 00:00:24: chat and tell us where you're joining us from. 00:00:27 --> 00:00:28: Thanks for being here. 00:00:49 --> 00:00:49: All right. 00:00:50 --> 00:00:51: Well, go ahead and get started. 00:00:51 --> 00:00:52: So welcome. 00:00:52 --> 00:00:55: My name is Victoria Ostreich and I'm Senior Manager with 00:00:55 --> 00:00:58: the Urban Land Institute's Randall Lewis Center for Sustainability in 00:00:58 --> 00:00:59: Real Estate. 00:01:00 --> 00:01:02: I'm really excited to have you here and tell you 00:01:02 --> 00:01:05: a little bit about the materials movement. 00:01:05 --> 00:01:08: We've assembled an amazing panel of experts who are going 00:01:08 --> 00:01:11: to share their perspectives on the real estate industries movement 00:01:11 --> 00:01:13: towards healthy and sustainable building materials. 00:01:14 --> 00:01:16: We'll talk about why material choices are important for the environment, for future tenants and for communities. 00:01:16 --> 00:01:19: 00:01:20 --> 00:01:23: We'll also talk about how professionals across the value chain 00:01:23 --> 00:01:26: are successfully making more informed choices to integrate better materials 00:01:26 --> 00:01:28: that are good for people on the planet. 00:01:29 --> 00:01:31: We're really glad to have you with us, so let's 00:01:31 --> 00:01:31: get started.

00:01:33> 00:01:35:	I'm excited to introduce you to today's speakers.
00:01:36> 00:01:39:	Sydney Mainster is the Vice President of Sustainability and Design
00:01:39> 00:01:42:	Management for the Durst Organization, one of the oldest family
00:01:42> 00:01:45:	run commercial and residential real estate companies in New York
00:01:45> 00:01:45:	City.
00:01:46> 00:01:49:	Suzanne Fallander is the Vice President of Global ESG for
00:01:49> 00:01:52:	Prologis, which acquires, develops and maintains the largest collection of
00:01:53> 00:01:55:	high quality logistics real estate in the world.
00:01:56> 00:01:59:	Heidi Creighton is the Vice President of Sustainability for Skanska
00:01:59> 00:02:00:	USA Commercial Development.
00:02:01> 00:02:04:	Skanska is a 135 year old development and construction company
00:02:04> 00:02:07:	that began in Sweden and operates globally.
00:02:09> 00:02:12:	Today's webinar was organized through the Uli Randall Lewis Center
00:02:12> 00:02:15:	for Sustainability in Real Estate, which leads the industry in
00:02:15> 00:02:19:	creating places and buildings where people and the environment thrive.
00:02:23> 00:02:24:	Here's our agenda for today.
00:02:25> 00:02:27:	First, we're going to do a quick poll to better
00:02:27> 00:02:29:	understand who's in the audience.
00:02:29> 00:02:32:	Then I'm going to provide a brief overview of the
00:02:32> 00:02:33:	Materials Movement report.
00:02:34> 00:02:37:	Later, our panelists will present their firm's approach to sustainable
00:02:37> 00:02:40:	building materials and highlight example projects that are leading this
00:02:40> 00:02:41:	movement.
00:02:42> 00:02:45:	Following the presentations, we'll move to a panel discussion and
00:02:45> 00:02:47:	then open it up for panelists to answer your questions.
00:02:48> 00:02:50:	So as you're listening in, please enter your questions in
00:02:50> 00:02:51:	the Q&A box.
00:02:51> 00:02:54:	You can also use the upvote feature to elevate questions
00:02:54> 00:02:55:	that you like.
00:02:56> 00:02:58:	And finally, I want to flag that this webinar is
00:02:58> 00:03:01:	being recorded and we'll share a recording with all the
00:03:01> 00:03:04:	participants and publish it on UL Eyes Knowledge Finder website.
00:03:06> 00:03:08:	It looks like folks are introducing themselves in the chat.

00:03:09 → 00:03:10: Welcome. 00:03:11 → 00:03:14: So we're going to go ahead and launch our poll. 00:03:14 → 00:03:17: We this is a three question anonymous poll for you to answer. 00:03:18 → 00:03:22: We're just hoping to get a better sense of who's in the virtual room and what you already know about embodied carbon and material health. 00:03:25 → 00:03:26: Don't worry, it's not a test. 00:03:26 → 00:03:28: We're just hoping to learn a little bit more about you. 00:03:28 → 00:03:31: And if you've never heard of these terms, don't worry, sith sith ight. 00:03:31 → 00:03:31: We'll we'll define them for you in just a minute. 00:03:34 → 00:03:31: We'll we'll define them for you in just a minute. 00:03:34 → 00:03:31: So we'll give this about 30 seconds or so for people to respond. 00:03:54 → 00:03:54: Looks like we have almost everyone responding. 00:04:30 → 00:04:30: Great. 00:04:30 → 00:04:30: Great. 00:04:30 → 00:04:30: We'll go ahead and end the poll. 00:04:30 → 00:04:30: We'll go ahead and end the poll. 00:04:30 → 00:04:30: It looks like we have a diverse group and we have mixed levels of knowledge of these topics, which is really great. 00:04:40 → 00:04:40: So I do want to just provide a couple of quick definitions to make sure that we're all on the same page. 00:04:59 → 00:04:55: Embodied carbon is the greenhouse gas emissions that arise from the production, transportation, installation, and disposal of building materials. 00:05:02 → 00:05:05: So% of a building's total carbon emissions over its lifetime. As buildings become more energy efficient, embodied carbon becomes a 00:05:18 → 00:05:18: Or ingredients on human health. 00:05:18 → 00:05:21: Like embodied carbon, this encompasses the health impacts that can	00:03:08> 00:03:09:	Thanks for doing that.
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	00:05:18> 00:05:21:	•

00:05:21> 00:05:24:	occur across the entire life cycle of a product, so
00:05:24> 00:05:27:	this includes people who are exposed to that product while
00:05:27> 00:05:30:	it's being extracted or manufactured, recycled, or put into a
00:05:30> 00:05:30:	landfill.
00:05:31> 00:05:34:	This graphic from the Carbon Leadership Forum shows the different
00:05:34> 00:05:35:	stages of a product's life cycle.
00:05:36> 00:05:39:	This is obviously for embodied carbon, but it's a useful
00:05:39> 00:05:41:	frame for thinking about material health impacts as well.
00:05:46> 00:05:49:	So diving into the drivers of this movement towards better
00:05:49> 00:05:51:	materials, the first driver is regulation.
00:05:51> 00:05:54:	It seems like almost every day there are new regulations
00:05:54> 00:05:57:	and financial disclosures that are asking companies to report on
00:05:57> 00:05:58:	the embodied carbon of their buildings.
00:05:59> 00:06:00:	And it's not just regulation.
00:06:00> 00:06:03:	In the embodied carbon space, we're also seeing increased scrutiny
00:06:03> 00:06:06:	of certain classes of chemicals that are commonly used in
00:06:06> 00:06:07:	building products.
00:06:07> 00:06:09:	One class you might have heard of is P Foss,
00:06:09> 00:06:12:	which is known more commonly as Forever Chemicals.
00:06:13> 00:06:16:	Green building certifications are also motivating a shift in the
00:06:16> 00:06:16:	industry.
00:06:17> 00:06:20:	More and more, these certifications are demanding that real estate
00:06:20> 00:06:23:	meet certain criteria for low embodied carbon materials, healthy materials
00:06:24> 00:06:25:	or improved air quality.
00:06:26> 00:06:29:	The next driver that we're seeing is demand from occupiers
00:06:29> 00:06:30:	in tenant spaces.
00:06:30> 00:06:33:	Building materials can be an important expression of a company's
00:06:34> 00:06:37:	brand, and many large space users such as Google, Salesforce,
00:06:37> 00:06:40:	Meta and Kaiser Permanente are leading the charge and demanding
00:06:40> 00:06:44:	these better materials because they know that healthy materials create
00:06:44> 00:06:48:	healthy spaces leading to greater employee health, Wellness and productivity.
00:06:49> 00:06:52:	As a result of this demand, there's also financial benefit.
00:06:52> 00:06:56:	Buildings that are sustainable and healthy, especially those with certifications,

00:06:56> 00:06:58: 00:07:00> 00:07:03:	are transacting higher rent premiums and attracting tenants.  And finally, ESG investing is another key driver towards
	better
00:07:03> 00:07:04:	materials.
00:07:04> 00:07:08:	Investors are increasingly demanding ESG performance, and so many companies
00:07:08> 00:07:12:	are formally integrating embodied carbon and material health in their
00:07:12> 00:07:13:	ESG frameworks.
00:07:14> 00:07:17:	Net 0 carbon targets often include ambitions for reducing Scope
00:07:17> 00:07:21:	3 emissions, which encompass all of the indirect emissions that
00:07:21> 00:07:24:	occur both upstream and downstream of a company's activities in
00:07:25> 00:07:25:	real estate.
00:07:25> 00:07:28:	That includes the emissions from construction materials.
00:07:30> 00:07:32:	So how do our material choices affect humans in the
00:07:32> 00:07:32:	environment?
00:07:33> 00:07:35:	There are five key impact categories.
00:07:35> 00:07:38:	These categories were initially created by the AIA Architecture and
00:07:38> 00:07:41:	Design Materials Pledge and are starting to form the basis
00:07:41> 00:07:45:	of many conversations and initiatives for reducing material impacts in
00:07:45> 00:07:48:	the industry, including the Mindful Materials Common Materials Framework.
00:07:49> 00:07:51:	The first category of impact is climate.
00:07:52> 00:07:56:	Around 11% of global carbon emissions are from the manufacturer,
00:07:56> 00:07:58:	transportation and disposal of building materials.
00:08:00> 00:08:01:	The second category is human health.
00:08:02> 00:08:05:	We all spend about 90% of our lives inside buildings
00:08:05> 00:08:07:	and are exposed to chemicals and other substances on a
00:08:07> 00:08:08:	daily basis.
00:08:09> 00:08:12:	The choices that development teams make about building materials directly
00:08:12> 00:08:16:	affect the health of future tenants, workers and communities.
00:08:17> 00:08:20:	There are also equity implications of our material choices.
00:08:21> 00:08:24:	People of colour and those with low incomes are disproportionately
00:08:24> 00:08:25:	impacted by toxic chemicals.
00:08:26> 00:08:29:	They're more likely to have industrial manufacturing facilities sited in
00:08:29> 00:08:31:	their neighbourhoods and face air pollution as a result.

00:08:32> 00:08:35:	And complex global supply chains can hide unethical working conditions
00:08:35> 00:08:37:	and even modern slavery.
00:08:38> 00:08:40:	The next category is ecosystems.
00:08:41> 00:08:45:	Ecosystems around the world are impacted by material
	extraction, manufacturer
00:08:45> 00:08:45:	and disposal.
00:08:46> 00:08:49:	Insufficient regulation in certain areas can allow invasive and unethical
00:08:49> 00:08:53:	extraction practices that deplete natural resource stocks before they can
00:08:53> 00:08:53:	regenerate.
00:08:55> 00:08:57:	And finally, circularity, which is just a fancy word for
00:08:57> 00:09:01:	a system that reuses products indefinitely without waste, currently in
00:09:01> 00:09:04:	the built environment, is one of the largest producers of
00:09:04> 00:09:06:	solid waste and only a very small fraction of those
00:09:06> 00:09:07:	materials are reused.
00:09:08> 00:09:12:	In addition, many recycling processes require energy and
	release carbon
00:09:12> 00:09:15:	to grind up, burn, or convert that material to different
00:09:15> 00:09:15:	products.
00:09:19> 00:09:21:	The good news is that there are many strategies that
00:09:21> 00:09:24:	teams can implement at every stage of the development process.
00:09:24> 00:09:26:	We won't have time to walk through every strategy, but
00:09:26> 00:09:28:	I do want to highlight a couple of key points.
00:09:29> 00:09:30:	The first one is to start early.
00:09:31> 00:09:33:	By starting to think about materials at the outset of
00:09:33> 00:09:37:	a project, you can consider alternative structural materials, engage manufacturers,
00:09:37> 00:09:39:	and potentially save cost down the line.
00:09:40> 00:09:42:	The second point is to reuse and repurpose as much
00:09:42> 00:09:43:	as possible.
00:09:43> 00:09:46:	The most sustainable building is one that already exists.
00:09:46> 00:09:49:	Of course, we're in real estate and not building is
00:09:49> 00:09:50:	not always an option.
00:09:50> 00:09:53:	So it's important to look for ways to use salvage
00:09:53> 00:09:56:	materials when possible and think about how to maximize efficiency
00:09:56> 00:09:57:	in the design.
00:09:57> 00:09:58:	To do more with less.
00:09:59> 00:10:02:	#3 is to build your requirements for embodied carbon and
00:10:02> 00:10:05:	material health into your specifications.

00:10:05> 00:10:07:	This signals to potential partners that you are serious about
00:10:07> 00:10:09:	choosing better materials.
00:10:09> 00:10:13:	Many organizations, including Building Transparency and
	others, offer example spec
00:10:14> 00:10:15:	language to help you do this.
00:10:16> 00:10:19:	And last, there are software programs and online resources, many
00:10:19> 00:10:22:	of which are free, to help teams make more informed
00:10:22> 00:10:22:	choices.
00:10:23> 00:10:26:	These products can help model the embodied carbon and chemicals
00:10:26> 00:10:27:	during project scoping.
00:10:27> 00:10:30:	They can identify and evaluate low carbon or healthy products,
00:10:30> 00:10:33:	and they can help teams report on its successes at
00:10:33> 00:10:34:	project completion.
00:10:34> 00:10:37:	This market is advancing rapidly and it's really exciting to
00:10:37> 00:10:38:	see.
00:10:39> 00:10:41:	There's obviously a lot more here, but in the interest
00:10:41> 00:10:43:	of time, I'm going to keep going.
00:10:43> 00:10:45:	So if you like this content and want to learn
00:10:46> 00:10:48:	more, keep an eye out for the materials movement report
00:10:48> 00:10:49:	coming out very soon.
00:10:49> 00:10:52:	The report highlights more details around the topics that I
00:10:52> 00:10:55:	just highlighted, including the market drivers that are inspiring a
00:10:55> 00:10:58:	shift in the industry, how materials impact human health in
00:10:58> 00:11:02:	the environment and strategies for incorporating better materials throughout the
00:11:02> 00:11:03:	development process.
00:11:03> 00:11:06:	It also shares 9 innovative projects that are leading the
00:11:06> 00:11:08:	way, a few of which will be featured in this
00:11:08> 00:11:09:	presentation.
00:11:10> 00:11:12:	So with that, I'm going to hand it over to
00:11:12> 00:11:13:	Sydney mainster Sydney.
00:11:16> 00:11:21:	Victoria, thank you so much for introducing this entire webinar,
00:11:21> 00:11:21:	man.
00:11:21> 00:11:24:	Can you can introduce every panel I'm on because that
00:11:25> 00:11:26:	was an amazing, amazing intro.
00:11:27> 00:11:29:	So hello everyone.
00:11:29> 00:11:30:	My name is Sydney Mainster.
00:11:30> 00:11:33:	I'm the Vice President of Sustainability and Design Management for

00:11:33> 00:11:34:	the Durst Organization.
00:11:35> 00:11:35:	Next slide please.
00:11:38> 00:11:41:	So today I've been asked to speak about Durst approach
00:11:41> 00:11:45:	to selecting and installing sustainable building products using Spen as
00:11:45> 00:11:46:	a case study.
00:11:46> 00:11:49:	So just a quick overview of this building, it's located
00:11:49> 00:11:50:	in Long Island City.
00:11:51> 00:11:55:	The architect was hand out Interiors done by Seldorf
	Architects.
00:11:55> 00:11:59:	978,000 square feet, 71 stories.
00:11:59> 00:12:03:	It's that tall building you see in the back there,
00:12:03> 00:12:08:	958 residential units total, of which 288 are affordable units.
00:12:10> 00:12:14:	That development also included the restoration of a historic 1927
00:12:14> 00:12:17:	Long Island City clock tower building.
00:12:17> 00:12:19:	You can see it right in front of the of
00:12:19> 00:12:23:	the building there, just next to the the elevated subway
00:12:23> 00:12:23:	line.
00:12:24> 00:12:27:	It opened in 2022 and it is the first building
00:12:27> 00:12:31:	in the world, excuse me, first multi family building in
00:12:31> 00:12:36:	the world to achieve lead before new construction platinum level
00:12:36> 00:12:37:	certification.
00:12:37> 00:12:38:	Next slide please.
00:12:40> 00:12:43:	So before I go into more detail about the Durst
00:12:43> 00:12:47:	approach at Spen, I think it's important to introduce Durst
00:12:47> 00:12:51:	as a company as Spen really exemplifies decades of commitment
00:12:51> 00:12:54:	to designing and constructing sustainable buildings.
00:12:55> 00:12:57:	So as you see on the slide here, the Durst
00:12:57> 00:13:00:	mission is to build, own and operate many of the
00:13:00> 00:13:02:	world's most innovative and efficient buildings.
00:13:03> 00:13:07:	We create value for our tenants by developing sustainable residential
00:13:07> 00:13:10:	and commercial properties in which people live, work and thrive.
00:13:11> 00:13:13:	There's that thrive word again, Victoria.
00:13:14> 00:13:18:	As you can see, sustainability is, is directly integrated into
00:13:18> 00:13:19:	that mission statement.
00:13:20> 00:13:20:	Next slide please.
00:13:23> 00:13:28:	As developers, owners and operators, we operate 13,000,000 square feet
00:13:28> 00:13:32:	of premier office space in Manhattan, including 151 which

	was
00:13:32> 00:13:36:	formerly known as Four Times Square, the world's first green
00:13:36> 00:13:41:	skyscraper, 1 Bryant Park, the first LEED Platinum
	skyscraper and
00:13:41> 00:13:45:	One World Trade Center, the tallest building designed to
00:13:45> 00:13:49:	achieve LEED Gold certification in the US And so tall in
00:13:49> 00:13:51:	
00:13:49> 00:13:51: 00:13:51> 00:13:53:	fact that it actually goes off the slide.
	And if I try to actually scale this slide, all
00:13:54> 00:13:55:	the other buildings become quite tiny.
00:13:56> 00:13:57:	Next slide please.
00:13:59> 00:14:03:	The nearest residential portfolio has 3400 units across 3,000,000 square
00:14:03> 00:14:06:	feet with several thousand more in the pipeline.
00:14:07> 00:14:10:	Spen is the most recently completed residential property.
00:14:11> 00:14:11:	Next slide please.
00:14:13> 00:14:16:	So all ground up development design decisions are made to
00:14:16> 00:14:21:	balance these four sustainability focused areas, water conservation and quality,
00:14:21> 00:14:26:	energy efficiency, material stream optimization and indoor Environmental Quality.
00:14:26> 00:14:30:	There is a relationship and trade-offs between selections made in
00:14:30> 00:14:34:	each of these categories and it's important to test out
00:14:34> 00:14:38:	and weigh out options when you're making design decisions
	of
00:14:38> 00:14:40:	how they impact each of these.
00:14:41> 00:14:41:	Next slide please.
00:14:43> 00:14:47:	So here's a very busy slide that I love to
00:14:47> 00:14:52:	show because it shows how how our values around choosing
00:14:53> 00:14:57:	materials play out in terms of decision making.
00:14:57> 00:14:59:	A decision making tree, let's call it.
00:14:59> 00:15:02:	The big take away from this slide is that when
00:15:02> 00:15:05:	you work with us on a project, the project selection
00:15:05> 00:15:08:	requires iterative review for many team members.
00:15:08> 00:15:12:	That could include design team members, operations team members, people
00:15:12> 00:15:16:	that are have used this before or even the manufacturer,
00:15:16> 00:15:21:	excuse me, definitely the manufacturers themselves, the design team members
00:15:21> 00:15:23:	will do initial product research.

material

Consider the their sustainability goals as integral to the

selection and really the ideal selection balances

00:15:23 --> 00:15:28:

00:15:28 --> 00:15:33:

	performance, sustainability, cost,
00:15:33> 00:15:37:	availability, appearance, maintenance, end of life reuse.
00:15:37> 00:15:41:	But really few perfect ideal products exist on the market.
00:15:42> 00:15:44:	One item to add is that I I created this
00:15:44> 00:15:48:	decision flow chart actually back in 2015 and it is
00:15:48> 00:15:51:	still how we assess and evaluate projects Excuse me which
00:15:51> 00:15:54:	products go into our projects today right please.
00:15:54> 00:15:58:	So at Spen and an all new Durst development projects,
00:15:58> 00:16:02:	building products are pre vetted during the design phase with
00:16:02> 00:16:07:	follow up confirmation of materials selected during
	construction administration.
00:16:08> 00:16:12:	We do not want procurement and or installation the installation
00:16:12> 00:16:15:	portion of the project to be delayed due to building
00:16:15> 00:16:19:	products not meeting health or sustainable design criteria
	and not
00:16:19> 00:16:23:	only being discovered through the submittal review process.
00:16:23> 00:16:27:	Subs and our construction managers should not be selecting
	the
00:16:27> 00:16:28:	building products.
00:16:28> 00:16:31:	We want that to be overseen by the design professionals.
00:16:31> 00:16:32:	I can't stress that enough.
00:16:33> 00:16:36:	That means listed products in our specs.
00:16:36> 00:16:39:	So when the submittals come through we are not seeing
00:16:39> 00:16:41:	something for the first time.
00:16:41> 00:16:43:	Is it 100% perfect?
00:16:43> 00:16:46:	No, but we try to minimize as many surprises coming
00:16:46> 00:16:49:	through or showing up on site as possible.
00:16:50> 00:16:54:	During Spen we created our own building product database and
00:16:54> 00:16:58:	workflow tool to enable the design team to better and
00:16:58> 00:17:01:	more efficiently be able to complete that vetting process of
00:17:01> 00:17:05:	material of building products and getting them listed into the
00:17:05> 00:17:06:	spec.
00:17:06> 00:17:09:	The slide you see shows a snapshot of the range
00:17:09> 00:17:11:	of products in our tool as well as vetting status
00:17:11> 00:17:13:	on those products of and as well as which are
00:17:13> 00:17:15:	included in our best in class.
00:17:15> 00:17:18:	So this is a number of product projects along the
00:17:18> 00:17:21:	bottom and their status in the vetting process.
00:17:22> 00:17:27:	Our residential project currently under construction 2030 Hollets Point has
00:17:27> 00:17:30:	over 1400 products listed in our database, which is about

00:17:30> 00:17:34:	the number we'll typically see in a high rise multifamily
00:17:34> 00:17:35:	project.
00:17:35> 00:17:38:	Again, we try to avoid to the greatest extent possible
00:17:38> 00:17:41:	leaving any spec section without a listed product option.
00:17:42> 00:17:43:	Next slide please.
00:17:44> 00:17:46:	So I'd like to talk a little bit about an
00:17:47> 00:17:49:	example of some of the criteria we use for our
00:17:49> 00:17:50:	building products.
00:17:51> 00:17:56:	We each product category has bespoke criteria that is associated
00:17:56> 00:18:01:	with either the installation or use or known health concerns
00:18:01> 00:18:03:	around that product.
00:18:03> 00:18:08:	I think this is well exemplified by our cabinetry criteria.
00:18:09> 00:18:13:	So specifically with cabinetry we have criteria around FSD certification.
00:18:13> 00:18:16:	We have criteria around formaldehyde content.
00:18:17> 00:18:20:	But the one of the most important criteria we have
00:18:20> 00:18:21:	is around emissions.
00:18:21> 00:18:27:	And because the cabinetry on our project is manufactured bespoke
00:18:27> 00:18:31:	for the project, we require that we do spot testing
00:18:31> 00:18:35:	of that cabinetry for emissions throughout the project.
00:18:36> 00:18:42:	So we require a CPH version 1.22017 residential scenario.
00:18:43> 00:18:45:	We need to see the full report as part of
00:18:45> 00:18:46:	this.
00:18:46> 00:18:49:	This happens first immediately after reward.
00:18:49> 00:18:52:	We require a mockup that gets sent for testing.
00:18:52> 00:18:56:	And then because we don't want surprises coming off the
00:18:56> 00:19:01:	full production line, we actually randomly pull select cabinets want
00:19:01> 00:19:05:	from each delivery that we actually send ourselves to spot
00:19:05> 00:19:08:	check and do emissions testing on to make sure that
00:19:08> 00:19:12:	what we tested right after the buy is exactly what
00:19:12> 00:19:13:	we're receiving.
00:19:14> 00:19:17:	And you can imagine that helps keep the fabricator on
00:19:17> 00:19:21:	their toes as they know that we are testing it.
00:19:21> 00:19:25:	It also helps to remind the the Subs and on
00:19:25> 00:19:29:	the trades that we take this quite seriously and that
00:19:30> 00:19:34:	we indeed are going to be doing this random testing.
00:19:34> 00:19:37:	We also conducted a full indoor air quality test at
00:19:37> 00:19:38:	the end of the project.
00:19:39> 00:19:41:	So it's as critical to the for those Subs to
00:19:41> 00:19:45:	understand that in order to pass that IAT test, they

00:19:45> 00:19:48:	need to make sure they're installing products that are listed
00:19:49> 00:19:52:	and tested and meet our criteria because that is the
00:19:52> 00:19:55:	ultimate confirmation that we've met our target.
00:19:55> 00:19:56:	Next slide please.
00:19:58> 00:20:02:	One of the other pieces that we included in Sven
00:20:02> 00:20:06:	was a post consumer glass in lieu of Portland cement
00:20:06> 00:20:07:	in our concrete.
00:20:07> 00:20:12:	This ground glass PUZZLIN or GGP was incorporated in a
00:20:12> 00:20:16:	slab circled here in orange as a test of viability,
00:20:16> 00:20:20:	poor ease of pouring and workability in a slab on
00:20:20> 00:20:21:	deck scenario.
00:20:21> 00:20:22:	Fairly low risk.
00:20:23> 00:20:25:	This pour as well as a pilot in another Durst
00:20:25> 00:20:29:	multifamily high rise project give us the confidence to incorporate
00:20:30> 00:20:33:	ground ground glass pazlin at a much larger scale on
00:20:33> 00:20:35:	our two multifamily towers currently underway.
00:20:36> 00:20:39:	We've been able to incorporate it in over 18,000 cubic
00:20:39> 00:20:43:	yards of concrete on the project as a partial replacement
00:20:43> 00:20:46:	for Portland cement in the mixes, right please.
00:20:48> 00:20:51:	And then finally as mentioned Sven is the the first
00:20:51> 00:20:54:	multi family building in the world to achieve lead before
00:20:54> 00:20:57:	new construction platinum certification.
00:20:57> 00:21:01:	Durst views lead certification as a reflection of our core
00:21:01> 00:21:06:	sustainability values and criteria and especially regards to materials, health
00:21:06> 00:21:07:	and indoor quality.
00:21:07> 00:21:10:	Indoor air quality, excuse me, but it's not the driver.
00:21:10> 00:21:14:	While the sustain why the sustainability criteria is actually placed
00:21:14> 00:21:18:	on building product selection without changes to our approach to
00:21:18> 00:21:21:	sustainable building product specification and use.
00:21:21> 00:21:25:	The project had over 100 contributing EP DS in the
00:21:25> 00:21:30:	environmental product declarations and health project declarations HPDS.
00:21:30> 00:21:34:	We also had fantastic success passing our IQ test which
00:21:34> 00:21:37:	we rewrote to reflect the lower than lead allowed values
00:21:37> 00:21:41:	we'd actually seen that we could accomplish on our other
00:21:41> 00:21:44:	existing multi family projects due to the stringency of our
00:21:44> 00:21:47:	health, our healthy building product criteria.
00:21:48> 00:21:51:	Our aim with spend as with all our projects is
00:21:51> 00:21:54:	not just to provide a place where residents can live

00:21:54> 00:21:57:	and thrive, but to demonstrate to the entire community that
00:21:57> 00:22:01:	this high standard is achievable with the right criteria, correct
00:22:01> 00:22:03:	processes and attention put into place.
00:22:06> 00:22:06:	Thank you very much.
00:22:09> 00:22:09:	Thank you, Sydney.
00:22:10> 00:22:10:	Wonderful.
00:22:11> 00:22:13:	So now we're going to transition to Suzanne.
00:22:15> 00:22:15:	Great.
00:22:15> 00:22:17:	Thank you and and great project Sydney.
00:22:17> 00:22:20:	Looking forward to hearing even more in the discussion about
00:22:20> 00:22:22:	that and and thank you everyone, really happy to be
00:22:22> 00:22:23:	here with you today.
00:22:23> 00:22:26:	I'm Suzanne Founder, I head up global ESG at Prologis.
00:22:26> 00:22:30:	And for those of you not as familiar with Prologis,
00:22:30> 00:22:34:	we're the global leader in logistics real estate and we've
00:22:34> 00:22:37:	got 1.2 billion square feet in 19 countries.
00:22:37> 00:22:41:	And our portfolio is really distribution centers, warehouses that we
00:22:41> 00:22:44:	develop and lease out to customers around the world.
00:22:44> 00:22:46:	This might be some of the largest global companies who
00:22:47> 00:22:49:	are a key part of their supply chain as well
00:22:49> 00:22:51:	as many small and medium sized businesses.
00:22:51> 00:22:55:	And so what's important though in our strategies, we're not
00:22:55> 00:22:59:	just providing the space and also helping them on kind
00:22:59> 00:23:03:	of looking at how to incorporate green aspects into development,
00:23:03> 00:23:08:	but we're also increasingly providing services related to renewable energy,
00:23:08> 00:23:11:	helping them with their EV trucks to transition to more
00:23:11> 00:23:16:	sustainable transportation as well as other sustainability services.
00:23:17> 00:23:20:	We also when you think about construction, every real estate
00:23:20> 00:23:22:	asset class is really different.
00:23:22> 00:23:24:	So the things that Sydney can innovate on and multi
00:23:24> 00:23:27:	family are different than what you could do at industrial.
00:23:27> 00:23:30:	If you think about a warehouse and the roof space
00:23:30> 00:23:33:	that we have, a big part of our strategy is
00:23:33> 00:23:34:	being able to scale solar.
00:23:35> 00:23:37:	And so we right now are #2 in the US
00:23:37> 00:23:40:	for on site solar and it's a big part of
00:23:40> 00:23:42:	our our strategy going forward.
00:23:43> 00:23:48:	Next slide, we think about that scale just for context,

00:23:48> 00:23:53: 00:23:53> 00:23:57: 00:23:57> 00:24:00:	but 2.8% of the world's GDP goes through a Prologis building in a year and so and 1.1 million people work under a Prologis roof.
00:24:00> 00:24:03:	So we think about that and and take that scale
00:24:03> 00:24:07:	really we see that comes with great responsibility but also
00:24:07> 00:24:09:	we see that as an opportunity for how do we
00:24:09> 00:24:13:	enable all those customers and and really help Dr.
00:24:13> 00:24:15:	sustainability not just for us but kind of more more
00:24:15> 00:24:16:	broadly.
00:24:16> 00:24:20:	If you go to the next slide, one back, we
00:24:20> 00:24:26:	have been setting public goals for many years.
00:24:26> 00:24:31:	We have sustainability goals related to building certifications.
00:24:31> 00:24:34:	Every new development is either LEED certified or one of
00:24:34> 00:24:37:	the other certifications in the countries where we operate.
00:24:37> 00:24:42:	We also have a number of well certified buildings going
00:24:42> 00:24:46:	on to the Wellness piece, but last year we levelled
00:24:46> 00:24:50:	our upper ambition to drive a new net zero strategy.
00:24:50> 00:24:53:	We'd already had an approved science based target, but we
00:24:53> 00:24:57:	aligned with the science based targets initiative net 0 standard
00:24:57> 00:25:00:	to drive net zero across our full value chain.
00:25:00> 00:25:04:	So not only Prologis's own operations but also across our
00:25:04> 00:25:07:	full portfolio and value chain by 2040.
00:25:08> 00:25:10:	We have a number of interim targets that help us
00:25:10> 00:25:13:	to get there including getting to one GW of solar.
00:25:13> 00:25:18:	We're around 500 megawatts right now, but we're and we'll
00:25:18> 00:25:22:	get to for own operations sooner than 2040 by 20-30.
00:25:22> 00:25:25:	If you go to the next slide, one of the
00:25:25> 00:25:29:	things put this in context and and Victoria did a
00:25:29> 00:25:33:	great job kind of talking about different types of emissions
00:25:33> 00:25:37:	and and what level of control you have over it,
00:25:37> 00:25:41:	99, .9% of Prologis's emissions are indirect, they're scope 3
00:25:41> 00:25:44:	and of that 75% is the energy use of our
00:25:44> 00:25:46:	customers in our buildings.
00:25:47> 00:25:50:	So for that we're working with them to drive energy
00:25:50> 00:25:54:	efficient design and also helping them to reduce their, their
00:25:54> 00:25:58:	energy needs, but also we're helping with renewable energy.
00:25:58> 00:26:01:	So whatever energy they do use, they can use green
00:26:01> 00:26:01:	power.
00:26:02> 00:26:04:	The 25% is really what we're going to talk about
00:26:04> 00:26:06:	in the case study today, which is related to construction
00:26:06> 00:26:08:	and development and embodied carbon.

00:26:08> 00:26:12:	And when you think about construction of an industrial building,
00:26:12> 00:26:15:	we don't have as many different products as Sydney.
00:26:15> 00:26:18:	We don't have lots of very special beautiful cabinets and
00:26:18> 00:26:21:	different things, but we have a lot of concrete, we
00:26:21> 00:26:25:	have roof materials, steel and then a number of other
00:26:25> 00:26:27:	things that we're we're looking at.
00:26:27> 00:26:29:	And so a lot of our strategy has been how
00:26:29> 00:26:32:	do we Sidney has done with her company, what are
00:26:32> 00:26:35:	the standards we have to do in our specs and
00:26:35> 00:26:37:	then what are the ways we can innovate.
00:26:38> 00:26:41:	So next slide, so one of the first things we
00:26:41> 00:26:45:	did after launching the net zero goal was to put
00:26:45> 00:26:49:	in place new specs for our our new construction.
00:26:49> 00:26:53:	And so this also is you know focused on making
00:26:53> 00:26:56:	sure every building is solar and EV ready, you know
00:26:56> 00:27:00:	making sure you have a roof life that can support
00:27:00> 00:27:04:	solar for the long term, also high efficiency HVAC materials
00:27:04> 00:27:08:	and also completing a life cycle assessment for every new
00:27:08> 00:27:12:	building that helps us to really get that embodied carbon
00:27:12> 00:27:13:	piece.
00:27:14> 00:27:16:	The other thing we did is we had standards for
00:27:16> 00:27:17:	retrofit.
00:27:17> 00:27:19:	So going back to some of Victoria said at the
00:27:19> 00:27:22:	start, we want to make sure everything is ready in
00:27:22> 00:27:25:	our new buildings, but also how are we looking at
00:27:25> 00:27:28:	our existing portfolio and making the right investments and upgrades
00:27:28> 00:27:31:	as we have new tenants coming in or as we
00:27:31> 00:27:32:	need to replace equipment.
00:27:33> 00:27:39:	So next slide, so we have within piloting and testing
00:27:39> 00:27:42:	different types of materials.
00:27:42> 00:27:44:	Some of these I think Sydney had had covered in
00:27:44> 00:27:45:	hers as well.
00:27:45> 00:27:48:	And really the the key comes down to making sure
00:27:48> 00:27:51:	because the buildings need to last for a long time
00:27:51> 00:27:54:	and because of the industrial usage of the building, we
00:27:54> 00:27:57:	need to make sure they still meet all of our
00:27:57> 00:27:59:	long term quality needs, durability.
00:27:59> 00:28:02:	But we, we do really approach this from an innovation
00:28:02> 00:28:05:	perspective because we have in 19 countries, we have very
00:28:05> 00:28:09:	different environmental climates, different weather and so some things that

00:28:10> 00:28:12:	might work in one location or with one type of
00:28:12> 00:28:14:	build might not work in another.
00:28:14> 00:28:18:	So we've really worked with our our local teams also
00:28:18> 00:28:19:	to innovate.
00:28:19> 00:28:22:	We go to the next slide.
00:28:23> 00:28:25:	So this brings to me to the case study we'll
00:28:25> 00:28:26:	talk about today.
00:28:26> 00:28:28:	This is Prologis Evergreen.
00:28:28> 00:28:30:	I'm really excited about this project.
00:28:30> 00:28:33:	It's a project in Brampton ON Canada and it was
00:28:33> 00:28:36:	a project that as the team was kicking off said,
00:28:36> 00:28:40:	you know, there's lots of different things we could test
00:28:40> 00:28:43:	and we could test mass timber or we could test
00:28:43> 00:28:45:	you know, different things.
00:28:45> 00:28:49:	And they had come across the supplier in Canada that
00:28:49> 00:28:54:	creates a low carbon alternative to the concrete panels and
00:28:54> 00:28:57:	they're called Nexi, Nexi panels.
00:28:57> 00:29:01:	And what they they have a lower embodied carbon around
00:29:01> 00:29:06:	in this project, 17% lower embodied carbon than a traditional
00:29:06> 00:29:08:	concrete panel.
00:29:08> 00:29:10:	And then they also have a lot of other benefits.
00:29:10> 00:29:13:	And so we decided not just to test one or
00:29:13> 00:29:15:	the other, but test those two things together.
00:29:15> 00:29:18:	And I think that's one of the key learnings as
00:29:18> 00:29:20:	we go through our, our testing and piloting is, is
00:29:21> 00:29:24:	really understanding what we can accomplish when we're looking at
00:29:24> 00:29:27:	the the whole design and the building and the different
00:29:27> 00:29:28:	things we can test together.
00:29:29> 00:29:32:	So you know when we think about Nexi panels, it's
00:29:32> 00:29:36:	the lower embodied carbon but also some of the life
00:29:36> 00:29:39:	cycle pieces it low uses less water kind of in
00:29:39> 00:29:40:	construction.
00:29:40> 00:29:43:	There are benefits in terms of the time to put
00:29:44> 00:29:47:	that in place because it's pre poured and and we're
00:29:47> 00:29:49:	able to pull that together quicker.
00:29:51> 00:29:54:	You know from mast timber, everything we're using for mast
00:29:55> 00:29:59:	timber is FSC certified, so for stewardship Council certified.
00:30:00> 00:30:04:	And mass timber also allows you to really address that
00:30:04> 00:30:08:	steel component which is the the second largest contributor
00:30:09> 00:30:13:	to embodied carbon in one of our buildings and that results

00:30:13> 00:30:17:	in a 62% decrease in embodied carbon than a traditional
00:30:17> 00:30:18:	steel skeleton.
00:30:20> 00:30:23:	Again, a lot of this is very data-driven for us
00:30:23> 00:30:23:	as well.
00:30:23> 00:30:27:	So having a third party do the life cycle analysis
00:30:27> 00:30:30:	on a building on a project that's when you have
00:30:30> 00:30:34:	the different pieces coming together is helping then to drive
00:30:34> 00:30:37:	that design back with our other teams and looking at
00:30:37> 00:30:41:	where we can use this in other locations as well.
00:30:44> 00:30:48:	So with next slide, so just a few other kind
00:30:48> 00:30:49:	of details on here.
00:30:49> 00:30:52:	On the other piece on terms of learn, well this
00:30:52> 00:30:55:	will also have lead certification, but we're also looking at
00:30:55> 00:30:58:	some other features, you know, cool roof LED lighting as
00:30:58> 00:31:01:	a standard in all of our new buildings as well.
00:31:01> 00:31:04:	So all these things to help drive the energy use
00:31:04> 00:31:07:	down in addition to the lower embodied carbon.
00:31:09> 00:31:11:	So I'll stop there and hand it back, but happy
00:31:11> 00:31:13:	to discuss more when we get into discussion.
00:31:14> 00:31:15:	Thank you so much, Suzanne.
00:31:16> 00:31:18:	We're going to pass it over to Heidi.
00:31:18> 00:31:21:	And just as a friendly reminder to the audience, please
00:31:21> 00:31:23:	feel free to enter your questions in the Q&A box
00:31:24> 00:31:26:	and we'll get back, we'll get to them after Heidi's
00:31:26> 00:31:27:	presentation.
00:31:27> 00:31:28:	So thank you.
00:31:28> 00:31:29:	Take it away, Heidi.
00:31:29> 00:31:30:	Thank you.
00:31:31> 00:31:33:	Thanks everybody for joining us this morning.
00:31:33> 00:31:34:	Happy December, everybody.
00:31:35> 00:31:39:	Again, Heidi Creighton, I'm with Skanska Commercial Development, VP of
00:31:39> 00:31:40:	Sustainability.
00:31:40> 00:31:45:	So really overseeing Skanska sustainability initiatives across our US portfolio
00:31:45> 00:31:48:	and just making sure that we're making the most sustainable,
00:31:48> 00:31:52:	healthy, circular, resilient and impactful projects in in all of
00:31:52> 00:31:53:	our markets.
00:31:53> 00:31:57:	Next slide and as Victoria said at the beginning, we're
00:31:57> 00:32:02:	an international construction and development firm, 135 years old and
00:32:02> 00:32:05:	we're, we're headquartered in Stockholm and Sweden.
00:32:06> 00:32:08:	And here in the US we have three different business

00:32:09> 00:32:09:	units.
00:32:09> 00:32:11:	We have our civil group, we have our construction group
00:32:11> 00:32:14:	and we have commercial development and commercial
	development is where
00:32:14> 00:32:14:	I sit.
00:32:15> 00:32:19:	You know slightly different from Durston, Sydney, we we also
00:32:19> 00:32:22:	do all new construction but we don't hold on to
00:32:22> 00:32:23:	our properties.
00:32:23> 00:32:26:	We we get them leased and then we divest and
00:32:26> 00:32:27:	sell to investors.
00:32:28> 00:32:31:	So a little bit different model there, but this gives
00:32:31> 00:32:33:	you a pretty good snapshot of when we opened up
00:32:33> 00:32:37:	our offices here in the US for commercial development, how
00:32:37> 00:32:40:	many projects we finished and how many we have we
00:32:40> 00:32:40:	have underway.
00:32:41> 00:32:44:	But you know we're a self funded business model and
00:32:44> 00:32:45:	which is really exciting.
00:32:45> 00:32:48:	It gives us really great opportunity to kind of take
00:32:48> 00:32:52:	some risks and really invest in sustainability and an innovation
00:32:52> 00:32:56:	and have aggressive sustainability goals somewhere to to Prologis and
00:32:56> 00:32:57:	Durst.
00:32:58> 00:33:01:	And we're really motivated to kind of do do that
00:32:58> 00:33:01: 00:33:01> 00:33:05:	innovation and leading edge technologies and investment
00:33:01> 00:33:05:	innovation and leading edge technologies and investment and really share
00:33:01> 00:33:05: 00:33:05> 00:33:08:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all
00:33:01> 00:33:05: 00:33:05> 00:33:08: 00:33:08> 00:33:10:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.
00:33:01> 00:33:05: 00:33:05> 00:33:08:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of
00:33:01> 00:33:05: 00:33:05> 00:33:08: 00:33:08> 00:33:10: 00:33:11> 00:33:15:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right.
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right.  We've got great partners with our construction arm.
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:33:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right.  We've got great partners with our construction arm.  It gives us just so much more control and visibility
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:33:  00:33:33> 00:33:35:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this. But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right. We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability,
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:33:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right.  We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability, right.
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:35:  00:33:35> 00:33:36:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this.  But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right.  We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability, right.  We have the same governance, we have the same values,
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:35:  00:33:35> 00:33:36:  00:33:36> 00:33:38:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this. But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right. We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability, right. We have the same governance, we have the same values, we have the same climate targets that we're reaching for.
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:35:  00:33:35> 00:33:35:  00:33:36> 00:33:38:  00:33:38> 00:33:40:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this. But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right. We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability, right. We have the same governance, we have the same values, we have the same climate targets that we're reaching for. So it really helps us have much more collaborative and
00:33:01> 00:33:05:  00:33:05> 00:33:08:  00:33:08> 00:33:10:  00:33:11> 00:33:15:  00:33:15> 00:33:20:  00:33:20> 00:33:24:  00:33:24> 00:33:27:  00:33:27> 00:33:29:  00:33:30> 00:33:35:  00:33:35> 00:33:35:  00:33:36> 00:33:36:  00:33:38> 00:33:40:  00:33:40> 00:33:44:	innovation and leading edge technologies and investment and really share that with with the broader industry and share with all of you and venues like this. But yeah, it's you know working for a Swedish company really prioritizing sustainability is is extremely ingrained in all of Skanska's values and and decisions that we make and then it's actually extremely helpful, right. We've got great partners with our construction arm. It gives us just so much more control and visibility over what we do, gives us a ton more accountability, right. We have the same governance, we have the same values, we have the same climate targets that we're reaching for.
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00:33:52> 00:33:54:	been doing sustainability for so long.
00:33:54> 00:33:59:	We actually created our first sustainability report in 1996 and
00:34:00> 00:34:04:	it was one of the industry's first environmental reports and
00:34:05> 00:34:09:	you know like Suzanne and Sydney shared too, we also
00:34:09> 00:34:12:	are really you know and do a lot of third
00:34:12> 00:34:14:	party certifications.
00:34:14> 00:34:17:	We think that's really important to have that that third
00:34:17> 00:34:18:	party verification.
00:34:18> 00:34:22:	And so 100% of our commercial development USA portfolio
	is
00:34:22> 00:34:27:	the certified or pursuing certifications and many of those projects
00:34:27> 00:34:31:	also pursue well or fit well and other certifications on
00:34:31> 00:34:32:	top of that.
00:34:32> 00:34:35:	But proud to say we've got 4.7 million square feet
00:34:35> 00:34:39:	of LEED Platinum certified space to date and we've got
00:34:39> 00:34:43:	another million and a half targeting Platinum in our pipeline
00:34:43> 00:34:43:	right now.
00:34:43> 00:34:45:	Next slide.
00:34:47> 00:34:51:	So this graphic is really showing our sustainability target, so
00:34:51> 00:34:54:	0 emissions by 2045 and then we've got some interim
00:34:55> 00:34:57:	goals listed there on the slide for 2030.
00:34:58> 00:35:01:	So yeah, we've got a lot of work to do
00:35:01> 00:35:04:	and and as you can imagine the decisions that we're
00:35:04> 00:35:07:	making today are going to be really impacting our emissions
00:35:07> 00:35:08:	in in 2030.
00:35:08> 00:35:10:	So we need to be really proactive on top of
00:35:10> 00:35:13:	this and be really strategic about the decisions we're making
00:35:13> 00:35:15:	in what we're investing in.
00:35:16> 00:35:21:	And our you know our targets are are science based
00:35:21> 00:35:27:	targets which means that they're in line with Paris 1.5??C
00:35:27> 00:35:31:	capping our emissions at at that EC3 tool.
00:35:32> 00:35:34:	Hopefully many of you have heard of this hopefully many
00:35:34> 00:35:36:	of you are using this tool.
00:35:36> 00:35:38:	The the link is right there.
00:35:38> 00:35:41:	It's a free tool to use, but it's called it's
00:35:41> 00:35:45:	embodied Carbon and construction calculator, that's the EC3.
00:35:47> 00:35:50:	So Skanska Co created this tool with Microsoft years ago
00:35:50> 00:35:53:	and it's we use it in all of our design
00:35:53> 00:35:57:	and construction projects and it's basically kind of like you
00:35:57> 00:36:00:	know, Sydney was talking about the EP DS.
00:36:00> 00:36:03:	So it's a database of a huge you know hundreds

00:36:03> 00:36:07:	of thousands of environmental product declarations which are basically like
00:36:07> 00:36:10:	a a nutrition level of embodied carbon.
00:36:11> 00:36:13:	So there's lots of tools out there.
00:36:14> 00:36:18:	You know, there's there's some other tools that probably more
00:36:18> 00:36:21:	teams might use during design to really inform, well, do
00:36:21> 00:36:23:	we want to do a concrete or steel or a
00:36:23> 00:36:27:	mask timber scheme and really selecting the best structural scheme
00:36:27> 00:36:28:	for the project.
00:36:29> 00:36:31:	EC3 tool can be used for some of that early
00:36:31> 00:36:35:	modeling, but really it's best for helping make those procurement
00:36:35> 00:36:36:	decisions, right.
00:36:36> 00:36:40:	So you put the material quantities into the database at
00:36:40> 00:36:43:	your site location and then it will show you kind
00:36:43> 00:36:46:	of the best in class, best version of the materials
00:36:46> 00:36:49:	that you want to specify and procure for your project.
00:36:50> 00:36:52:	So please use it.
00:36:52> 00:36:55:	The more, the more people using it, the more kind
00:36:55> 00:36:58:	of you know demand across the subplay chain that we're
00:36:58> 00:37:01:	all asking for these EP DS, the more transparency and
00:37:02> 00:37:05:	the more information we'll have to make better and better
00:37:05> 00:37:08:	decisions as we are all driving down to to 0.
00:37:09> 00:37:13:	And just just really quickly you know we're finding that
00:37:13> 00:37:16:	on our projects we can easily see like a 10
00:37:16> 00:37:19:	to 30% reduction in body carbon by using a tool
00:37:19> 00:37:22:	like this with no, absolutely no cost impacts.
00:37:23> 00:37:25:	And then it's also really helpful.
00:37:26> 00:37:29: 00:37:29> 00:37:29:	You know there's still some markets where there aren't many or any EP DS.
00:37:30> 00:37:33:	So you know asking these questions, having those
	conversations with
00:37:33> 00:37:36:	your suppliers is is super helpful and we've we've seen
00:37:36> 00:37:38:	good willingness to engage in those conversations.
00:37:40> 00:37:43:	Next slide, so I'm gonna get into the case study
00:37:43> 00:37:47:	that I'll be sharing with you today and that's 1550
00:37:47> 00:37:48:	on the green.
00:37:49> 00:37:50:	So that's the rendering of it right there.
00:37:51> 00:37:52:	The envelope is up.
00:37:52> 00:37:55:	So you know the photograph of that view, it looks
00:37:55> 00:37:59:	pretty much like the rendering you see there, but it's

00:37:59> 00:38:02:	a 28 story building and it's 387,000 square feet office
00:38:02> 00:38:05:	tower and it's on track to be one of the
00:38:05> 00:38:09:	most sustainable projects in the Houston area which we're really
00:38:09> 00:38:12:	thrilled about and it's located next to Discovery Green.
00:38:12> 00:38:15:	That's the point of view from that that photo there.
00:38:15> 00:38:18:	That's Discovery Green Park, which is a 12 acre park
00:38:18> 00:38:20:	in the heart of Houston Central Business District.
00:38:21> 00:38:24:	And this is the first phase of a three block
00:38:24> 00:38:28:	mixed-use development that that we own and we'll be developing
00:38:28> 00:38:31:	the next blocks over the next couple of years and
00:38:31> 00:38:32:	decades.
00:38:33> 00:38:36:	But there's retail at the base about about 7000 square
00:38:36> 00:38:40:	feet and then there's beautiful terraces on levels 1220 and
00:38:40> 00:38:41:	28.
00:38:41> 00:38:44:	You can see some of the trees popping up there
00:38:44> 00:38:47:	and just absolutely stunning views of Discovery Green and
	the
00:38:47> 00:38:48:	city.
00:38:48> 00:38:52:	The architect for this project is big, the Archangels group
00:38:52> 00:38:55:	and we're about to wrap up construction and we'll be
00:38:55> 00:38:58:	delivering the project in in early 2024.
00:38:59> 00:39:02:	And next slide, so you know in addition to to
00:39:02> 00:39:07:	Well and leave Putnam certification for the project, we're also
00:39:07> 00:39:10:	pursuing Wired Score and Fit Well certifications.
00:39:12> 00:39:14:	And you know we've been working closely with the city
00:39:14> 00:39:15:	and the Mayor of Houston.
00:39:16> 00:39:19:	So it's aligned with with the city's environmental goals.
00:39:20> 00:39:22:	We've got 30% more fresh air than a typical Class
00:39:22> 00:39:24:	A building in the project.
00:39:24> 00:39:28:	There's a listing of other sustainability features that I'll just
00:39:28> 00:39:31:	let you you scan through there on the slide.
00:39:31> 00:39:34:	But you know it's surrounded by greenery and that really
00:39:34> 00:39:37:	allows the tenants to experience the benefits of nature.
00:39:37> 00:39:40:	You know when they're working inside or outside the building,
00:39:41> 00:39:43:	we have floor to ceiling vision and glazing and so
00:39:43> 00:39:46:	really great natural light coming into the space.
00:39:46> 00:39:49:	And then we also have a unique side core design
00:39:49> 00:39:53:	and really open floor plates and that really allows for
00:39:53> 00:39:56:	our tenants that that have a very kind of airy
00:39:56> 00:39:59:	flexible office environment when they come to work in the

00:39:59> 00:40:00:	building.
00:40:01> 00:40:01:	OK.
00:40:01> 00:40:02:	Next slide.
00:40:04> 00:40:07:	So just wanted to dive in more specifically on the
00:40:07> 00:40:09:	embodied carbon for this project.
00:40:09> 00:40:11:	So we use the EC3 tool to track the, the
00:40:12> 00:40:16:	carbon intensive materials, right, like the carbon, sorry, the concrete,
00:40:16> 00:40:19:	the the rebar, the aluminum etcetera to really find out
00:40:20> 00:40:22:	where those key reductions could be made.
00:40:23> 00:40:26:	And we discovered really quickly and early in the process
00:40:26> 00:40:30:	that the local suppliers, especially the concrete suppliers, we didn't
00:40:30> 00:40:32:	have EP DS in place for their products and we're
00:40:33> 00:40:36:	just starting to become more transparent about embodied carbon.
00:40:36> 00:40:40:	And so for the manufacturers, as you've probably many of
00:40:40> 00:40:43:	you heard, that process can be pretty lengthy to get
00:40:43> 00:40:43:	EP DS.
00:40:43> 00:40:46:	So you know us having those early conversations and showing
00:40:47> 00:40:49:	the supply chain that we were going to be demanding,
00:40:49> 00:40:52:	this was really important to to prompt the market to
00:40:52> 00:40:55:	move forward and be more transparent and get those EP
00:40:55> 00:40:55:	DS.
00:40:56> 00:40:58:	But I'm really proud to say the numbers up there
00:40:59> 00:41:01:	on the slide, but we've we've achieved a 45% reduction
00:41:01> 00:41:03:	in embodied carbon from the baseline.
00:41:05> 00:41:08:	And so the scope of that is the foundations and
00:41:08> 00:41:13:	the basement construction, the superstructure, the enclosure, the roofing and
00:41:13> 00:41:17:	then some corn shell interior construction scope of work.
00:41:18> 00:41:22:	And so the materials that that had the most impact
00:41:22> 00:41:25:	are are listed in the box there, but it is
00:41:25> 00:41:30:	the concrete rebar, metal framing, aluminum fins, gypsum board, acoustic
00:41:30> 00:41:34:	ceiling tile acoustic ceilings and the carpet tiles as well.
00:41:35> 00:41:39:	And then specifically in the foundations, we were able to
00:41:39> 00:41:43:	replace 55% of the cement with a low carbon intensive
00:41:43> 00:41:46:	cement and just to to give you a reference point
00:41:46> 00:41:50:	that's similar to taking you know 2 million vehicle miles,
00:41:50> 00:41:53:	not driven just as a carbon equivalency.
00:41:53> 00:41:58:	So these decisions we're making are, are very powerful.

00:41:58> 00:42:01: 00:42:01> 00:42:03: 00:42:03> 00:42:04:	And then I think I just have one last slide if you'd like to learn more about the project. This is the development team.
00:42:04> 00:42:06:	So I just wanted to put their names and faces
00:42:06> 00:42:08:	up there, that's their LinkedIn profiles.
00:42:09> 00:42:12:	So if you or you know anyone who'd like to
00:42:12> 00:42:16:	to leave some really stunning office space that's also low
00:42:16> 00:42:19:	carbon and healthy, reach out to me Or or any
00:42:19> 00:42:21:	of these three fantastic people.
00:42:22> 00:42:23:	That's it for me, Vic.
00:42:25> 00:42:26:	Excellent.
00:42:26> 00:42:28:	Thank you so much to all three of you for
00:42:28> 00:42:30:	your wonderful presentations.
00:42:30> 00:42:32:	I'm going to go ahead and stop sharing my screen
00:42:33> 00:42:35:	and if you'd like to pull your videos on and
00:42:35> 00:42:37:	we can open it up for discussion.
00:42:38> 00:42:40:	I was watching the Q&A function throughout and it looks
00:42:40> 00:42:43:	like there's lots of good questions that are coming in
00:42:43> 00:42:44:	from the audience as well.
00:42:45> 00:42:48:	And I'll just plug another quick reminder, if you have
00:42:48> 00:42:51:	questions, please feel free to continue to enter them.
00:42:51> 00:42:54:	As we're chatting, I have a couple of first questions
00:42:54> 00:42:56:	that to direct to the panelists.
00:42:57> 00:43:00:	So first one being, you know as I was researching
00:43:00> 00:43:03:	for this materials report, one of the big discoveries for
00:43:03> 00:43:05:	me and maybe this is obvious to people who are
00:43:05> 00:43:08:	working in this space all the time, but supporting better
00:43:08> 00:43:11:	materials in many ways is more about the process changes
00:43:11> 00:43:14:	that you can make to the development process to incorporate
00:43:14> 00:43:16:	those better materials, better specs.
00:43:16> 00:43:20:	Talking to manufacturers and Sidney, you highlighted some of those
00:43:20> 00:43:21:	changes.
00:43:21> 00:43:23:	I wonder if you might just be able to elaborate
00:43:23> 00:43:25:	a little bit more on some of the things that
00:43:25> 00:43:28:	you found to be most successful and if there's any
00:43:28> 00:43:31:	low hanging fruit that people listening in can do right
00:43:31> 00:43:33:	now to start to incorporate better materials.
00:43:34> 00:43:34:	Yeah.
00:43:34> 00:43:39:	I think I can't emphasize enough that one of the
00:43:39> 00:43:44:	biggest pieces we really tried to change was leaving any
00:43:44> 00:43:49:	product or material selection in the CA space after

procurement 00:43:49 --> 00:43:55: and shifting the majority of those selections to the design 00:43:55 --> 00:44:00: process because you means that you have better ability to 00:44:00 --> 00:44:05: vet it early without running into possible delays or impacts 00:44:05 --> 00:44:09: to construction or submittal schedules. 00:44:09 --> 00:44:13: So really pulling, pulling that out of submittal review, which 00:44:13 --> 00:44:16: is where it kind of traditionally lived and really living 00:44:16 --> 00:44:19: with the Subs to make sure that all the criteria 00:44:19 --> 00:44:22: was met and placing it back on the design team 00:44:22 --> 00:44:25: to make sure that you're really careful about what you're 00:44:25 --> 00:44:28: putting in the specs to begin with. 00:44:29 --> 00:44:32: And I think the other piece as I mentioned, really 00:44:32 --> 00:44:35: improving A workflow around how to take what we learned 00:44:36 --> 00:44:39: on past projects and be able to give design teams 00:44:39 --> 00:44:40: a starting point. 00:44:40 --> 00:44:42: There was one of the questions actually in the chat. 00:44:42 --> 00:44:45: There was do we do we prescribe A spec from 00:44:45 --> 00:44:49: the beginning or do we ask designers to go and 00:44:49 --> 00:44:50: research this? 00:44:50 --> 00:44:53: And my answer is we really do both. 00:44:53 --> 00:44:56: But we wanted to make it as easy as possible 00:44:56 --> 00:45:00: for the designers to start with Stuff already vetted that 00:45:00 --> 00:45:03: we knew met are really intense criteria like drywall or 00:45:03 --> 00:45:07: sealants or fire stopping or which is something maybe you 00:45:07 --> 00:45:10: know you don't want to spend a lot of time 00:45:10 --> 00:45:13: researching, you want to do the designers want to do 00:45:13 --> 00:45:17: the fun stuff they want to do the finishes and 00:45:17 --> 00:45:18: the cool technology stuff. 00:45:19 --> 00:45:21: So if I can kind of shepherd them and and 00:45:21 --> 00:45:24: give them a great starting point for that kind of 00:45:24 --> 00:45:25: material. 00:45:25 --> 00:45:27: The behind the wall stuff that we've spent a lot 00:45:27 --> 00:45:30: of time with the manufacturers really refining like insulation for 00:45:30 --> 00:45:31: example.

00:45:30 --> 00:45:31: example.

00:45:31 --> 00:45:35: It lets them kind of focus and and do some

00:45:35 --> 00:45:39: fun questions with some of them maybe more innovative or

00:45:39 --> 00:45:44: or present materials in the project sort of visible materials.

00:45:45 --> 00:45:49: And then finally, I think the biggest thing is that

00:45:49 --> 00:45:53: we think it's important for everyone in the project to

00:45:53 --> 00:45:57: understand their role and how critical they are to meeting

00:45:57 --> 00:46:01: the sustainability and health expectations for the project.

00:46:02> 00:46:05:	So sitting with contractors making sure my face or one
00:46:05> 00:46:10:	of my team members face is there one-on-one talking
	through
00:46:10> 00:46:15:	exactly what the expectations are, educating them about material health,
00:46:15> 00:46:19:	making sure it's clear there are consequences if they do
00:46:19> 00:46:23:	not provide the documentation they're looking for or again that
00:46:23> 00:46:27:	we're going to go ahead and test the whole project.
00:46:27> 00:46:28:	So they better do their part.
00:46:30> 00:46:33:	I think just making sure that that everyone's got buy
00:46:33> 00:46:37:	in whether you're dragging them along or they're ready team
00:46:37> 00:46:40:	members is is super key to to getting success.
00:46:40> 00:46:42:	Oh, when you wanted low hanging fruit, sorry.
00:46:42> 00:46:45:	I think going back to the behind the wall stuff
00:46:45> 00:46:49:	like literally just hand over a drywall spec and an
00:46:49> 00:46:53:	insulation spec and a concrete sealer, like give the stuff
00:46:53> 00:46:57:	that like studs, you know, again like all the stuff
00:46:57> 00:46:59:	that duck sealant etcetera.
00:46:59> 00:47:00:	Like get that out of the way.
00:47:00> 00:47:03:	Make that your basis for all of your projects if
00:47:03> 00:47:06:	possible, so that you have a good list to start
00:47:06> 00:47:10:	from, and then make the bespoke kind of project finishes
00:47:10> 00:47:12:	or or pieces that are really visible.
00:47:13> 00:47:16:	You can make that, you'll make those changes over time,
00:47:16> 00:47:19:	but if you can start with like really good behind
00:47:19> 00:47:21:	the wall stuff as a firm or as a company,
00:47:21> 00:47:23:	I think you're already, you know, 50% of the way
00:47:23> 00:47:26:	there with hitting some sustainable, healthy targets.
00:47:28> 00:47:29:	Thank you so much.
00:47:29> 00:47:32:	So many good Nuggets in that you talked a little
00:47:32> 00:47:36:	bit about ensuring that everybody knows their role and
	having
00:47:36> 00:47:38:	those conversations, Heidi.
00:47:38> 00:47:40:	I know that was a big piece of 1550 on
00:47:40> 00:47:44:	the green and having those conversations early with manufacturers and
00:47:45> 00:47:48:	suppliers locally who at that point did not have environmental
00:47:48> 00:47:50:	product declarations in place.
00:47:50> 00:47:54:	But through those early conversations you were able to get
00:47:54> 00:47:55:	them, you know, pull them along.
00:47:56> 00:47:58:	So any additional thoughts that you wanted to add on
00:47:59> 00:47:59:	that topic?

00:48:00> 00:48:01:	Yeah, thanks.
00:48:02> 00:48:02:	Yeah.
00:48:02> 00:48:04:	And you know, I think if you're just really understanding
00:48:05> 00:48:07:	what's most material and where you could have the most
00:48:07> 00:48:10:	impact and focusing on that, right, don't let perfection get
00:48:10> 00:48:11:	in the way of great progress.
00:48:12> 00:48:15:	So yeah, we we proactively reached out to the key
00:48:15> 00:48:18:	Subs, you know prior to bidding really to inform them
00:48:19> 00:48:20:	of what our expectations were.
00:48:20> 00:48:23:	We wrote an advocacy letter, we had a bunch of
00:48:23> 00:48:27:	calls and basically told them that their ability to provide
00:48:27> 00:48:29:	us with specific EP DS would be part of the
00:48:30> 00:48:31:	selection and the word process.
00:48:31> 00:48:34:	So that signalling was really important.
00:48:35> 00:48:38:	And then you know as we reached out to suppliers
00:48:38> 00:48:41:	just making sure that the EP DS would be created
00:48:41> 00:48:45:	during the project since they weren't there at the beginning
00:48:45> 00:48:48:	because when we started 1550 on the green, there were
00:48:48> 00:48:51:	no concrete DP DS in the entire state of Texas.
00:48:51> 00:48:54:	And now now there are because because of of the
00:48:54> 00:48:56:	work that we did there and I'm sure other people
00:48:56> 00:48:58:	are are building off of the work that we've done.
00:48:58> 00:49:01:	But it's just so important to get everybody on board
00:49:01> 00:49:04:	and and really just signal to them that you
00:49:04> 00:49:06:	know this is going to be heavily weighted in our
00:49:07> 00:49:09:	decision making and you need to get on board.
00:49:11> 00:49:11:	Thanks for that, Heidi.
00:49:12> 00:49:14:	And Suzanne, I know you know going back to that
00:49:14> 00:49:18:	process piece, there's a couple of different things that Prologis
00:49:18> 00:49:21:	has done to incorporate better materials and embody carbon goals
00:49:21> 00:49:23:	into your processes.
00:49:23> 00:49:24:	Do you mind speaking to some of those?
00:49:25> 00:49:25:	Yeah.
00:49:25> 00:49:28:	So I think the first thing it starts, you know,
00:49:28> 00:49:29:	with our capital deployment process.
00:49:29> 00:49:32:	So again, I think I always think about ESG and
00:49:32> 00:49:35:	sustainability as making sure it's not a separate process, but
00:49:35> 00:49:37:	how do you build it into your processes like Sydney
00:49:37> 00:49:39:	and Heidi have talked through.
00:49:40> 00:49:43:	But the first thing is every investment committee memo,
	anytime

00:49:43> 00:49:46:	we're gonna build a new building, anytime we're gonna do
00:49:47> 00:49:50:	a major project, there are sections in that investment committee
00:49:50> 00:49:53:	memo that have our new net zero requirements.
00:49:53> 00:49:55:	So we can include the cost of the underwriting in
00:49:55> 00:49:56:	that project.
00:49:56> 00:49:59:	And then also it's an opportunity for teams when they
00:49:59> 00:50:02:	are able to do different innovations or requests to kind
00:50:02> 00:50:05:	of test things we're seeing that come through that process
00:50:05> 00:50:05:	too.
00:50:05> 00:50:07:	So it can really be discussed at the highest levels
00:50:07> 00:50:09:	of the company in terms of what the learnings are
00:50:09> 00:50:12:	and there's a learning section of what we've learned through
00:50:12> 00:50:13:	the projects as well.
00:50:13> 00:50:16:	So I think that has been a real key for
00:50:16> 00:50:18:	us and and moving this forward.
00:50:18> 00:50:21:	And then the other piece of that just from a
00:50:21> 00:50:24:	data and learning perspective, our global ESG team reviews every
00:50:24> 00:50:27:	investment committee memo that goes through to.
00:50:27> 00:50:29:	And then we have that discussion back and forth with
00:50:29> 00:50:32:	the teams when they have choices to make or when
00:50:32> 00:50:35:	they're trying to move to a higher certification level or
00:50:35> 00:50:38:	where they're trying to engage with our you know procurement
00:50:38> 00:50:41:	team on different types of materials to make sure they're
00:50:41> 00:50:42:	meeting our standards.
00:50:43> 00:50:47:	The other thing I'd say from kind of the integration,
00:50:47> 00:50:51:	we're lucky to have a Prologis Ventures arm that has
00:50:51> 00:50:55:	invested 180 million and 40 early in the growth stage
00:50:55> 00:50:56:	companies.
00:50:56> 00:51:00:	But we've been having good conversations with them about circularity
00:51:00> 00:51:04:	and you know basically the embodied carbon aspects and and
00:51:04> 00:51:08:	all the innovations they're seeing in the market related to
00:51:08> 00:51:10:	some of these new materials.
00:51:10> 00:51:12:	So that's another piece.
00:51:12> 00:51:14:	One new thing that they invested in last year related
00:51:14> 00:51:17:	to our solar business is a company called Solar Cycle.
00:51:17> 00:51:20:	So as we are scaling more solar installations, we're also
00:51:20> 00:51:25:	investing and partnering with organizations that are really thinking about

00.51.25> 00.51.27.	that hie cycle approach to those as well.
00:51:29> 00:51:31:	So I am happy to add more.
00:51:31> 00:51:33:	I know there's a bunch of questions in the in
00:51:33> 00:51:33:	the chat that I it's.
00:51:34> 00:51:34:	Perfect.
00:51:34> 00:51:36:	Yes, there are a bunch of questions in the chat.
00:51:36> 00:51:38:	I just have one more that I wanted to get
00:51:38> 00:51:38:	to.
00:51:38> 00:51:40:	Talking about measurements.
00:51:40> 00:51:43:	Obviously, there's some great tools on the market both to
00:51:43> 00:51:47:	measure embodied carbon and material health a little bit
	more,
00:51:47> 00:51:49:	a little easier for the embodied carbon piece.
00:51:49> 00:51:52:	Right now, material health is maybe a little bit less
00:51:52> 00:51:53:	tangible in some ways.
00:51:53> 00:51:58:	Obviously there's health, product declarations and other labels that can
00:51:58> 00:51:59:	help get us there.
00:52:00> 00:52:02:	Vinny, you could speak to a little bit about what
00:52:02> 00:52:05:	are you using to measure your success when it comes
00:52:05> 00:52:06:	to material health?
00:52:06> 00:52:08:	You talked a little bit about indoor air quality and
00:52:08> 00:52:09:	some of those other pieces.
00:52:09> 00:52:11:	I wonder if you could expand on that.
00:52:12> 00:52:13:	Yeah, it is.
00:52:13> 00:52:15:	I would say we honestly still also struggle with how
00:52:16> 00:52:18:	to communicate the success in this area effectively.
00:52:18> 00:52:22:	To your point, it's the the metric based idea of
00:52:22> 00:52:26:	communicating material health in a or visually or graphically or
00:52:26> 00:52:30:	even how do you put the the metrics together around
00:52:30> 00:52:33:	this is I I certainly do not have a great
00:52:33> 00:52:34:	solution off hand.
00:52:34> 00:52:39:	However I do think luckily we have healthy building network
00:52:39> 00:52:43:	which is working on a footprint tool which I think
00:52:43> 00:52:47:	is going to be I really like what they're trying
00:52:47> 00:52:47:	to do.
00:52:47> 00:52:50:	And I was even thinking as, as I think about
00:52:50> 00:52:53:	this question, that might be an opportunity for us to
00:52:53> 00:52:57:	kind of retroactively actually go back through a project and
00:52:57> 00:52:59:	and put it in there to sort of demonstrate a
00:52:59> 00:53:03:	starting point and against the baseline of how much better
00:53:03> 00:53:07:	our building is actually performed given the selections we've

**00:51:25 --> 00:51:27:** that life cycle approach to those as well.

done. 00:53:08 --> 00:53:11: I think mainly the piece that I used to talk 00:53:11 --> 00:53:16: about hitting success with healthy materials criteria is talking about 00:53:16 --> 00:53:20: the rigorous process we use to actually make the selections 00:53:20 --> 00:53:23: in the 1st place and ensure that what we've put 00:53:23 --> 00:53:27: in the design documents and we've selected actually makes it 00:53:27 --> 00:53:30: to the project and is what is installed. 00:53:30 --> 00:53:33: Because we don't just assume that what is in a 00:53:33 --> 00:53:35: set of documents is going to get there. 00:53:35 --> 00:53:39: There's a lot of checks and balances and oversight, and 00:53:39 --> 00:53:42: I think that is just as important to relay to 00:53:42 --> 00:53:46: somebody that we're serious about looking out for human 00:53:46 --> 00:53:51: environmental health by implementing these process and putting human resources 00:53:51 --> 00:53:54: on it to watch this as it is through the 00:53:54 --> 00:53:57: vetting process itself and the selection itself. 00:53:57 --> 00:53:59: So that's typically what I use to convey it. 00:53:59 --> 00:54:02: One day I'll have a beautiful graphic and it'll be 00:54:02 --> 00:54:05: amazing and easy to understand, but we're not quite there 00:54:05 --> 00:54:05: yet. 00:54:07 --> 00:54:09: Be excited to look forward to it. 00:54:10 --> 00:54:12: So let's shift to some of the questions that are 00:54:12 --> 00:54:13: in the chat. 00:54:13 --> 00:54:16: Thanks to everyone who has plugged their questions in. 00:54:16 --> 00:54:19: We have a couple of questions that have been highly 00:54:19 --> 00:54:19: voted. 00:54:20 --> 00:54:21: I like this one. 00:54:21 --> 00:54:24: What do the presenters think is the major roadblock for 00:54:24 --> 00:54:28: developers to implement more and healthier buildings building materials? 00:54:28 --> 00:54:32: Is it cost, performance, lack of information and that can 00:54:32 --> 00:54:33: go to anyone? 00:54:33 --> 00:54:33: Yeah. 00:54:34 --> 00:54:34: Yeah, I can start. 00:54:34 --> 00:54:36: I think I think it's a mixture of things and 00:54:36 --> 00:54:39: sometimes and there's a lot moving in the external environment 00:54:39 --> 00:54:40: that's shifting this too.

especially you know, I think there were some other questions

But I think cost is you know, still an issue,

00:54:40 --> 00:54:42:

00:54:42 --> 00:54:45:

00:54:45> 00:54:48:	in, in the chat around size, organization and what you're
00:54:48> 00:54:51:	able to do in one project versus scaling across multiple
00:54:51> 00:54:51:	ones.
00:54:52> 00:54:55:	And I think it's a time horizon thing as well.
00:54:55> 00:54:58:	Some of these, as they mature, I think the costs
00:54:58> 00:55:01:	are going to change and become you know more useful
00:55:01> 00:55:02:	as we go forward.
00:55:03> 00:55:06:	I think the other piece is just human nature, resistance
00:55:06> 00:55:08:	to change, you know what works, risk aversion of trying
00:55:08> 00:55:11:	something new that you might have to replace if it's
00:55:11> 00:55:13:	not durable enough or if there might be a risk.
00:55:13> 00:55:16:	And then the third part is regulation.
00:55:16> 00:55:18:	I think you had highlighted Victoria, some of the positive
00:55:18> 00:55:21:	regulation moving to some of these, but I think there
00:55:21> 00:55:24:	might be some of these more innovative materials that don't
00:55:24> 00:55:26:	they're they're the regulations haven't caught up to them in
00:55:26> 00:55:29:	certain jurisdictions and so you have to kind of balance
00:55:29> 00:55:30:	that timing as well.
00:55:30> 00:55:34:	So, but I think it's about changing your conversation internally
00:55:34> 00:55:37:	to you know make sure you have the right processes
00:55:37> 00:55:40:	and I like Sydney's never get surprised but also about
00:55:40> 00:55:43:	creating that space for innovation, that space for testing that
00:55:43> 00:55:46:	space for local teams to kind of identify local suppliers
00:55:46> 00:55:49:	that then could be really you know part of that
00:55:49> 00:55:52:	that project at that level and maybe scale across.
00:55:53> 00:55:55:	In Victoria, if I can just build off of that
00:55:55> 00:55:57:	too, there's there's just so many Co benefits when you
00:55:58> 00:55:59:	look at it holistically, right.
00:55:59> 00:56:02:	I mean and I forgot to mention at the beginning
00:56:02> 00:56:04:	that we do, we do office and multi family and
00:56:04> 00:56:05:	a couple of labs.
00:56:06> 00:56:09:	So for the residential we're you know we're doing the
00:56:09> 00:56:13:	interiors but for the office we're just doing corn shelf.
00:56:13> 00:56:16:	So we have opportunities with with both.
00:56:16> 00:56:18:	But you know I think we can really advocate for
00:56:18> 00:56:21:	our tenants moving into our office spaces too.
00:56:21> 00:56:25:	Like we've given them this really beautiful healthy, it's sustainable
00:56:25> 00:56:28:	corn shell building and really encourage them when they do
00:56:28> 00:56:30:	their fit outs to to do it with the
00:56:30> 00:56:31:	same mindset.
00:56:31> 00:56:34:	But you know I think when you focus on healthy

00:56:34> 00:56:38:	materials and when you focus on embodied carbon and and
00:56:38> 00:56:41:	maybe think about the entire supply chain and who's being
00:56:42> 00:56:45:	impacted by all of the work that we're doing, There's
00:56:45> 00:56:48:	just multiple benefits, right As we get off of petroleum
00:56:49> 00:56:53:	based products and we're healthy natural products, those products have
00:56:53> 00:56:55:	a lower embodied carbon.
00:56:55> 00:56:58:	So I think it's just that holistic look and you
00:56:58> 00:57:01:	know, you know, asking our teams to to to do,
00:57:01> 00:57:04:	to do the legwork and like Suzanne said, you know,
00:57:04> 00:57:07:	it's change or so it makes everybody a little bit
00:57:07> 00:57:11:	uneasy because they're not doing things the way they had
00:57:11> 00:57:12:	been doing it.
00:57:12> 00:57:15:	But that's everything we're doing in sustainability is always asking
00:57:15> 00:57:17:	people to change what they're doing today to to make
00:57:17> 00:57:18:	it even better for tomorrow.
00:57:19> 00:57:21:	And I love what you said high to about Co
00:57:21> 00:57:23:	benefits because I think there were some other kind of
00:57:23> 00:57:25:	questions in the chat about, you know what are some
00:57:25> 00:57:27:	of the health impacts of doing mass timber and and
00:57:27> 00:57:27:	other things.
00:57:27> 00:57:30:	And I think one thing we've learned through this project
00:57:30> 00:57:32:	is you know the the next site panels that we
00:57:32> 00:57:34:	used, they were the the, the wall units that they
00:57:34> 00:57:35:	had for us.
00:57:35> 00:57:37:	They were quicker to install.
00:57:37> 00:57:39:	There were other health benefits and things.
00:57:39> 00:57:43:	When you think about mass timber, there's you know, research
00:57:43> 00:57:46:	studies out there with satisfaction from laborers liking to work
00:57:46> 00:57:48:	there that's safer you know in terms of some of
00:57:48> 00:57:50:	these other pieces sometimes.
00:57:50> 00:57:53:	So I think really you might make a decision based
00:57:53> 00:57:56:	on sustainability and you find it helps your time to
00:57:56> 00:57:56:	build.
00:57:56> 00:57:58:	It helps on some of your other metrics as well.
00:57:59> 00:58:02:	I'm sorry to piggyback again, but then you just reminded
00:58:02> 00:58:05:	me of something that on 1550 on the green, because
00:58:05> 00:58:07:	we were so focused on the embodied carbon, we asked
00:58:07> 00:58:10:	our engineer well to be more to really kind of
00:58:10> 00:58:13:	find any opportunities to reduce and not oversize the
	structure.

00:58:13> 00:58:16:	And so they were able to shave off I think
00:58:17> 00:58:20:	3/8 of an inch on the floor system on every
00:58:20> 00:58:22:	single of those 28 floors.
00:58:22> 00:58:25:	And that was equivalent to 700 cubic yards of concrete
00:58:25> 00:58:28:	and 70 truckloads of concrete in and out of the
00:58:28> 00:58:29:	neighbourhood.
00:58:29> 00:58:32:	So even just thinking of all of the X, you
00:58:32> 00:58:35:	know, all of that noise and traffic and you know,
00:58:35> 00:58:39:	combustion from those trucks and the air quality impacts to
00:58:39> 00:58:41:	the neighbourhood, reducing that.
00:58:41> 00:58:43:	So 3/8 of an inch might not sound like a
00:58:43> 00:58:46:	lot, but it had significant positive impacts.
00:58:47> 00:58:49:	Amazing, wonderful.
00:58:49> 00:58:52:	We're coming right up against the top of the hour
00:58:52> 00:58:54:	and I'm so sorry that we weren't able to address
00:58:54> 00:58:56:	all of the wonderful questions that came in through the
00:58:56> 00:58:57:	chat.
00:58:57> 00:59:00:	I want to thank the panelists so much for joining
00:59:00> 00:59:04:	this conversation, for presenting and sharing about their impressive projects
00:59:04> 00:59:06:	and for engaging in this discussion.
00:59:06> 00:59:09:	We're so thrilled to be able to watch this change
00:59:09> 00:59:13:	happen in the industry towards a better sustainable and healthy
00:59:13> 00:59:17:	materials and we're glad that you were able to join
00:59:17> 00:59:18:	this webinar.
00:59:18> 00:59:18:	So thanks.
00:59:18> 00:59:21:	Thanks for joining us today, Audience.
00:59:22> 00:59:24:	We dropped a link for a short survey in the
00:59:24> 00:59:28:	chat and we'd be grateful for your feedback If you
00:59:28> 00:59:30:	might be able to share your thoughts.
00:59:31> 00:59:34:	And again, keep an eye out for the recording of
00:59:34> 00:59:36:	this webinar as well as a link to the Materials
00:59:37> 00:59:39:	movement report which is coming out very soon.
00:59:40> 00:59:42:	Thanks again and I hope you all have a wonderful
00:59:42> 00:59:42:	day.
00:59:43> 00:59:43:	Take care.
00:59:43> 00:59:43:	Thank.
00:59:45> 00:59:45:	You.

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