

## Webinar

State of Green: A Year of Progress on Sustainability

Date: September 15, 2021

00:01:06 --> 00:01:07:

00:00:02 --> 00:00:03: Alright, 00:00:03 --> 00:00:05: well hello everyone. My name is Marta chance. 00:00:05 --> 00:00:07: I'm the senior vice president for the Urban Land Institute, 00:00:07 --> 00:00:11: Greenprint Center for building performance and I'm also your moderator 00:00:11 --> 00:00:12: for today's webinar. 00:00:12 --> 00:00:15: State of Green, a year of progress on sustainability. 00:00:15 --> 00:00:18: This webinar is being recorded and both the slides in 00:00:18 --> 00:00:21: recording will be available on knowledge Finder within a week 00:00:21 --> 00:00:22: or so after the webinar. 00:00:22 --> 00:00:26: Next slide, please. Let me quickly introduce our speakers and 00:00:26 --> 00:00:29: then give you a bit of background on the UI 00:00:29 --> 00:00:32: Greenprint Center and the state of green before we get 00:00:32 --> 00:00:35: into their information. So first we'll have grenade level and 00:00:35 --> 00:00:35: state. 00:00:35 --> 00:00:39: She's the director of BSG with the Green Cities Company. 00:00:39 --> 00:00:42: After Renee will have Philip K goes the senior associate 00:00:42 --> 00:00:45: in capital markets with the Howard Hughes Corporation. 00:00:45 --> 00:00:48: Next will have Archer van Koi that Vice president of 00:00:48 --> 00:00:51: Project management in Northern Europe for Prologis and last but 00:00:51 --> 00:00:52: certainly not least, 00:00:52 --> 00:00:55: will have Lizzie Adams, who's the Vice President of Real 00:00:55 --> 00:00:55: estate. 00:00:55 --> 00:00:59: In asset management I Goldman Sachs next slide please. 00:01:01 --> 00:01:05: Now Greenprint is part of utilized research centers and initial 00:01:05 --> 00:01:06: initiatives.

It's focused on climate mitigation,

00:01:07> 00:01:11:	making the business case for green buildings by reducing carbon.
00:01:11> 00:01:13:	Entitlement to increases in asset value.
00:01:13> 00:01:16:	So we cover topics ranging from city and real estate
00:01:16> 00:01:18:	climate policy to sustainable tenant fit outs to.
00:01:18> 00:01:21:	Net zero and everything in between.
00:01:21> 00:01:22:	An addition to our research work.
00:01:22> 00:01:26:	You will like Greenprint includes a worldwide alliance of leading
00:01:26> 00:01:30:	real estate owners and developers committed to improving the environmental
00:01:30> 00:01:32:	performance of the global real estate industry.
00:01:32> 00:01:35:	It all started back in 2009 when a handful of
00:01:35> 00:01:38:	leading real estate owners came together in Greenland and realized
00:01:38> 00:01:41:	they needed to take action so they pulled together,
00:01:41> 00:01:43:	shared goals, and a shared commitment to cost,
00:01:43> 00:01:47:	effectively reduce their energy and water waste and greenhouse gas
00:01:47> 00:01:48:	emissions.
00:01:48> 00:01:51:	50% by 2030, and that group became great.
00:01:51> 00:01:53:	Print A blueprint for green buildings.
00:01:53> 00:01:55:	Next line, please. To this day,
00:01:55> 00:01:59:	we hold true to that original intent of Greenprint founders
00:01:59> 00:02:02:	committed to tracking progress against goals annually and publicly as
00:02:02> 00:02:06:	a proxy for the broader industries work to decarbonize and
00:02:06> 00:02:07:	in the real estate industry,
00:02:07> 00:02:11:	improved environmental performance can reduce operating expenses,
00:02:11> 00:02:14:	increased tenant demand lead to more efficient energy management of
00:02:14> 00:02:15:	natural resources,
00:02:15> 00:02:19:	increased property value, the the benefits are abundant,
00:02:19> 00:02:22:	and so every year the UI Greenprint Center puts out
00:02:22> 00:02:24:	a performance report.
00:02:24> 00:02:29:	Showing the improved formats of our GREENPRINT members year over
00:02:29> 00:02:30:	year.
00:02:30> 00:02:33:	These benchmarks can be utilized by a range of stakeholders,
00:02:33> 00:02:38:	whether it's academic researchers or sustainability practitioners or policymakers.
00:02:38> 00:02:41:	As a reference point for analysis on multiple facets of

00:02:41> 00:02:43:	real estate sustainability.
00:02:43> 00:02:47:	Now 2020, I think we've all heard this many times
00:02:47> 00:02:52:	with truly unprecedented year that the COVID-19 pandemic
	disrupted everything
00:02:52> 00:02:56:	and at the same time real estate doubled down on
00:02:56> 00:02:58:	the importance of addressing climate change.
00:02:58> 00:03:00:	I mean, never has the totality.
00:03:00> 00:03:03:	Yes, G and valued more and never has the you
00:03:03> 00:03:07:	like green current real estate membership then stronger and
	SO
00:03:07> 00:03:07:	from 19.
00:03:07> 00:03:10:	Or excuse me from 2019 to 2020.
00:03:10> 00:03:12:	You can see the results here on this slide.
00:03:12> 00:03:15:	GREENPRINT members achieved a record of 12.4%
00:03:15> 00:03:19:	carbon emissions reductions and some of this is certainly
00.02.40 > 00.02.22.	to the veceney and commercial buildings and in urban cores
00:03:19> 00:03:22: 00:03:22> 00:03:23:	to the vacancy and commercial buildings and in urban cores, but not all of it.
00:03:22> 00:03:23:	
00.03.23> 00.03.29.	Green Party members implemented over 14,000 ESG projects in 2020
00:03:29> 00:03:29:	alone.
00:03:29> 00:03:34:	In 2020 alone they. Earned 1600 New Green building
	certifications
00:03:34> 00:03:37:	in 17 of our GREENPRINT members have aligned to the
00:03:37> 00:03:39:	ULI Greenprint net zero goal.
00:03:39> 00:03:40:	Now Speaking of net zero,
00:03:40> 00:03:42:	let's go to the next slide.
00:03:42> 00:03:44:	This is the first year that you will like greenprint.
00:03:44> 00:03:48:	Members have started reporting specifically in line with this
	net
00:03:48> 00:03:51:	zero carbon goal and collectively in 2020.
00:03:51> 00:03:54:	Art members who are aligned with the goal.
00:03:54> 00:03:58:	And reported on it achieved a net carbon intensity of
00:03:58> 00:04:01:	35 kilograms of CO2 per square meter,
00:04:01> 00:04:03:	which is on the path to reaching.
00:04:03> 00:04:06:	Net zero emissions, and they used a combination of energy
00:04:06> 00:04:09:	efficiency improvements and then on site renewables.
00:04:09> 00:04:12:	Offsite green power, renewable energy certificates,
00:04:12> 00:04:14:	carbon offsets. And you know every tool in the tool
00:04:14> 00:04:16:	belt to work toward that.
00:04:16> 00:04:18:	And you can see the stacked bar chart here on
00:04:18> 00:04:19:	the slide,
00:04:19> 00:04:21:	with the breakout of carbon emissions,

00:04:21> 00:04:25:	but admitted and avoided. And so our analysis process overtime.
00:04:25> 00:04:29:	Will be further refined and standardized in coming years as
00:04:29> 00:04:31:	discussions around data collection for.
00:04:31> 00:04:35:	Net zero evolve. So we think about 2020 Kovin and
00:04:35> 00:04:39:	net zero tend to be fairly thematic for the year,
00:04:39> 00:04:42:	and we have four excellent real estate leaders here on
00:04:42> 00:04:46:	our webinar today to talk about how they're incorporating health
00:04:46> 00:04:48:	into their ESG strategies,
00:04:48> 00:04:50:	what they're doing to decarbonize toward.
00:04:50> 00:04:54:	Net 0 ultimately, and the business case behind it.
00:04:54> 00:04:57:	All the efforts to reduce carbon and increase asset value.
00:04:57> 00:05:00:	So with that I will pass it to Renee to
00:05:00> 00:05:01:	talk through her her case study.
00:05:05> 00:05:09:	Thank you Marta. I'm really excited to be here with
00:05:09> 00:05:10:	all of you today.
00:05:10> 00:05:14:	Next slide. So just a quick overview of our firm
00:05:14> 00:05:15:	Green Cities,
00:05:15> 00:05:19:	the Green Cities Company is a vertically integrated investment management
00:05:19> 00:05:20:	firm.
00:05:20> 00:05:22:	We currently have four discretionary funds,
00:05:22> 00:05:28:	largely a multifamily portfolio with some Commercial Office 4.5 million
00:05:28> 00:05:32:	square feet and nearly 2700 residential units under management.
00:05:32> 00:05:36:	We've been focused on sustainable real estate since the.
00:05:36> 00:05:40:	Early 2000s and have developed or redeveloped 70 /
00:05:40> 00:05:44:	70, LEED certified properties. Responsible investment is key to our
00:05:45> 00:05:45:	strategy.
00:05:45> 00:05:48:	Our approach focuses on creating a creative value to each
00:05:48> 00:05:50:	of our investments.
00:05:50> 00:05:54:	ROI is obviously very important but risk mitigation,
00:05:54> 00:05:57:	tenant retention and brand enhancement.
00:05:57> 00:06:00:	All of these are ways in which ESG adds value
00:06:00> 00:06:02:	in our responsible investment approach.
00:06:02> 00:06:05:	Here's a snapshot of our ESG framework.
00:06:05> 00:06:06:	What we call our green.
00:06:06> 00:06:09:	To these index, today's discussion is focused on the health
00:06:09> 00:06:11:	and Wellness pillar with our property.
00:06:11> 00:06:15:	Bauer as an example of heavily integrating health and

Wellness 00:06:15 --> 00:06:18: strategies in design and operations. 00:06:18 --> 00:06:21: Next slide. First I thought we should acknowledge how the 00:06:22 --> 00:06:25: pandemic has dramatically changed how we look at the business 00:06:26 --> 00:06:27: case for healthy buildings. 00:06:27 --> 00:06:32: Historically, we've justified investments in health and Wellness by highlighting 00:06:32 --> 00:06:36: improved productivity and higher retention rates associated with spaces that promote natural light, 00:06:36 --> 00:06:37: 00:06:37 --> 00:06:40: fresh air, and better thermal comfort. 00:06:40 --> 00:06:43: As we all experienced spaces in new ways during kovid, 00:06:43 --> 00:06:44: such as working from home, 00:06:44 --> 00:06:47: the average person has become more aware of how indoor 00:06:47 --> 00:06:49: environments make them feel, 00:06:49 --> 00:06:50: and so with COVID these. 00:06:50 --> 00:06:53: Attributes are no longer a nice to have. 00:06:53 --> 00:06:57: Healthy buildings are a life safety issue and tenant retention 00:06:57 --> 00:06:59: is a more powerful driver. 00:06:59 --> 00:07:01: We think about air quality differently now. 00:07:01 --> 00:07:05: It's not as simple as bringing air fresh air into 00:07:05 --> 00:07:05: the space. 00:07:05 --> 00:07:08: It's that plus the quality of filtration. 00:07:08 --> 00:07:11: Increasing the frequency of air changes, 00:07:11 --> 00:07:17: controlling humidity and other operational strategies that mitigate viral transmission. 00:07:17 --> 00:07:20: Two recent reports provide compelling data in 2020. 00:07:20 --> 00:07:24: And MIT back study showed commercial office properties with health 00:07:24 --> 00:07:26: ratings outperformed the market. 00:07:26 --> 00:07:28: The market by 4 to 7% 00:07:28 --> 00:07:32: even when controlling for factors like LEED certification and then 00:07:32 --> 00:07:36: Cushman and Wakefield's 2021 report showed that demand for office 00:07:36 --> 00:07:39: properties with ESG platforms increased at a faster pace during

00:07:39 --> 00:07:42: the pandemic and looking back over the past three years,
00:07:42 --> 00:07:46: LEED certified Office properties traded at Price is over 20%
00:07:46 --> 00:07:48: higher on average per square foot,
00:07:48 --> 00:07:51: which is showing evidence of sustainable.
00:07:51 --> 00:07:54: Value creation the good news is that over the past decade,

00:07:55> 00:08:00:	in particular, sustainability broadly has been focusing on better understanding
00:08:00> 00:08:03:	the Nexus between the built environment and human health.
00:08:03> 00:08:07:	This convergence has led to the development of certification frameworks
00:08:07> 00:08:10:	like well and FITWEL which provide guidance for best practices
00:08:11> 00:08:12:	for healthy buildings.
00:08:12> 00:08:15:	Next slide. So let's look at Bowers,
00:08:15> 00:08:19:	specifically. Bauer is a multifamily apartment project,
00:08:19> 00:08:23:	approximately 400,000 square feet with ground floor retail consisting of
00:08:23> 00:08:25:	two buildings and 312 units.
00:08:25> 00:08:29:	It's located right next to Fenway Park in downtown Boston.
00:08:29> 00:08:32:	The buildings are LEED Gold and Fit well certified and
00:08:32> 00:08:35:	feature a number of energy efficiency strategies,
00:08:35> 00:08:40:	such as a 75 kW cogeneration unit that produces electricity
00:08:40> 00:08:42:	on site and view dynamic glass.
00:08:42> 00:08:46:	The building, opened in September 2020.
00:08:46> 00:08:50:	A challenging time and is currently 90%
00:08:50> 00:08:54:	leased. Next slide. One of the main features of Bower
00:08:54> 00:08:56:	is biophilic design,
00:08:56> 00:08:58:	and this. This really gets me excited.
00:08:58> 00:09:02:	Biophilic design refers to using nature to inspire design in
00:09:02> 00:09:03:	the built environment.
00:09:03> 00:09:07:	It centers on the growing body of evidence that shows
00:09:07> 00:09:11:	positive health outcomes from being surrounded by nature and nature.
00:09:11> 00:09:15:	Inspired elements. Studies show that it creates positive physical and
00:09:15> 00:09:17:	psychological responses in people,
00:09:17> 00:09:23:	including increased happiness, reduce stress and improve cognitive function.
00:09:23> 00:09:27:	I also decided power includes things like introducing nature into
00:09:27> 00:09:28:	the space.
00:09:28> 00:09:31:	You know greenery itself and focusing on natural light and
00:09:31> 00:09:33:	creating interesting patterns.
00:09:33> 00:09:36:	Also, materials that reference nature through shape,
00:09:36> 00:09:40:	color and forms. You know like using curves instead of
00:09:41> 00:09:42:	hard edges,
00:09:42> 00:09:46:	next slide. Power also features view dynamic glass.
00:09:46> 00:09:51:	Sustainable building technology that provides both energy efficiency and health

00:09:51> 00:09:52:	benefits,
00:09:52> 00:09:54:	and you can see that in action here it the
00:09:54> 00:09:58:	glass tints automatically in response to ambient light levels to
00:09:58> 00:10:02:	reduce the need for blinds while preserving the direct view
00:10:02> 00:10:04:	and connection to the outdoors.
00:10:04> 00:10:07:	The level of tint can also be controlled by residents
00:10:08> 00:10:09:	via a mobile app and you know,
00:10:09> 00:10:12:	we start. We instill installed window blinds,
00:10:12> 00:10:14:	but the word is that they are rarely used.
00:10:14> 00:10:18:	Residents seem to appreciate. To have that continued connection to
00:10:18> 00:10:20:	the outdoors throughout the day and it,
00:10:20> 00:10:24:	it's interesting. We've even had residents who work graveyard shifts
00:10:24> 00:10:27:	at the nearby hospital share that they appreciate being able
00:10:27> 00:10:30:	to darken the glass during the day for better sleep.
00:10:30> 00:10:34:	This technology also provides thermal comfort benefits over a five
00:10:34> 00:10:35:	day period.
00:10:35> 00:10:37:	This past summer, view trended.
00:10:37> 00:10:39:	Two identical units in the building,
00:10:39> 00:10:41:	one with the 10 off and the other on auto,
00:10:41> 00:10:45:	and found a 37% reduction in power demand for HV
00:10:45> 00:10:47:	AC in the unit.
00:10:47> 00:10:50:	With the active tent. So that was really telling and
00:10:50> 00:10:53:	we look forward to more information like that to come
00:10:53> 00:10:54:	in the future.
00:10:54> 00:10:56:	Next slide. As I mentioned,
00:10:56> 00:10:59:	Bauer is fit well, certified fit well as a health
00:10:59> 00:11:03:	and Wellness standard administered by the Center for Active Design
00:11:04> 00:11:08:	which assesses health related opportunities and risks in the design
00:11:08> 00:11:11:	of an operation of buildings on the property.
00:11:11> 00:11:15:	Earned a two star FITWEL certification in Q1 of 2020
00:11:15> 00:11:17:	from a built characteristic standpoint,
00:11:17> 00:11:21:	there are a lot of indoor and outdoor spaces that
00:11:21> 00:11:25:	are just really inviting stairways or designed and located to
00:11:25> 00:11:26:	encourage use.
00:11:26> 00:11:29:	And we have the public park the fence located within
00:11:29> 00:11:30:	a half mile of the property,
00:11:30> 00:11:34:	which is a great amenity for the residents materials.
00:11:34> 00:11:38:	Interior finishes were selected based on environmental

	characteristics and having
00:11:38> 00:11:41:	low negative impacts to human health and from a lifestyle
00:11:41> 00:11:42:	standpoint.
00:11:42> 00:11:46:	Fitness center yoga classes. There's ample bicycle parking.
00:11:46> 00:11:49:	We have a dog wash station and it's a tobacco
00:11:49> 00:11:51:	free environment,
00:11:51> 00:11:54:	so all of the those were things that were recognized
00:11:54> 00:11:56:	within the FITWELL standard.
00:11:56> 00:12:00:	According to fit well as of July 2021,
00:12:00> 00:12:05:	/ 100 million square feet of properties have achieved certification
00:12:05> 00:12:09:	and registrations in Q4 2020 are over 600%
00:12:09> 00:12:12:	higher than they were just a year prior in Q4
00:12:12> 00:12:12:	2019.
00:12:12> 00:12:16:	So that's really showing the uptick in in awareness around
00:12:16> 00:12:17:	this connection.
00:12:17> 00:12:20:	Well is another healthy building rating system,
00:12:20> 00:12:24:	and according to them over 4000 properties have been well
00:12:24> 00:12:26:	certified in nearly 60 countries.
00:12:26> 00:12:30:	It will also created a viral response module to directly
00:12:30> 00:12:31:	address the pandemic.
00:12:31> 00:12:36:	Green Cities earned entity level viral response certification earlier this
00:12:36> 00:12:36:	year,
00:12:36> 00:12:40:	and we're in the process of certifying our individual properties.
00:12:40> 00:12:44:	The viral response module is especially designed to address operational
00:12:45> 00:12:47:	protocols with respect to air quality,
00:12:47> 00:12:53:	janitorial practices, PPE, and how you handle tenant communications.
00:12:53> 00:12:57:	Next slide. So the pandemic has caused us to,
00:12:57> 00:13:01:	you know, fundamentally, rethink how we design and use buildings.
00:13:01> 00:13:04:	What types of amenities are going to be desired in
00:13:04> 00:13:04:	this context,
00:13:04> 00:13:06:	and you know? And we're still in this,
00:13:06> 00:13:09:	so it's really evolving. But that said,
00:13:09> 00:13:12:	we're really proud of Bower as an example of how
00:13:12> 00:13:16:	a comprehensive focus on creating an environment that supports occupant
00:13:16> 00:13:19:	health and well being really prepared us for these challenges
00:13:19> 00:13:23:	and has led to value creation for our portfolio.
00:13:23> 00:13:24:	Thank you.

00.43.26 > 00.43.20.	Well that's fortactic Dance I are thing veryly talked a
00:13:26> 00:13:29:	Well, that's fantastic Renee. I one thing you've talked a
00:13:29> 00:13:32:	good bit about the pandemic and how that affected green
00:13:32> 00:13:32:	cities.
00:13:32> 00:13:36:	Healthy building practices, but I especially appreciate how you mentioned
00:13:36> 00:13:38:	that there are still a lot of energy efficient elements
00:13:38> 00:13:40:	that that go hand in hand,
00:13:40> 00:13:42:	right? With the code Gen unit and lead,
00:13:42> 00:13:45:	but also would fit well in biophilia and how the
00:13:45> 00:13:46:	value is still there.
00:13:46> 00:13:48:	Can you talk a little bit more about balancing the
00:13:48> 00:13:50:	the energy and the health pieces?
00:13:51> 00:13:53:	No, I mean, you know they're they're.
00:13:53> 00:13:56:	They're they've been really connected in our thinking.
00:13:56> 00:14:00:	For, you know, for many years now you know lead
00:14:00> 00:14:04:	had started to address you bleed addresses,
00:14:04> 00:14:07:	indoor air quality, and and many of these lifestyles,
00:14:07> 00:14:09:	sort of things at A at a basic level.
00:14:09> 00:14:12:	And it feels as though the industry has just been
00:14:12> 00:14:16:	evolving into a place where we're really drink.
00:14:16> 00:14:20:	Digging deeper into what makes a place,
00:14:20> 00:14:24:	really. Support well being and and making that more of
00:14:24> 00:14:29:	a priority or putting it on equal footing with environmental
00:14:29> 00:14:33:	impacts so it's it's a really great thing to think
00:14:33> 00:14:37:	about the synergies between the two and to really try
00:14:37> 00:14:39:	to create those Co benefits.
00:14:40> 00:14:42:	Awesome, alright, well let's let's move on to our next
00:14:42> 00:14:43:	speaker.
00:14:43> 00:14:46:	Will take all of the audience Q&A questions that have
00:14:46> 00:14:48:	been put into the Q&A box at the end.
00:14:48> 00:14:50:	So thank you, Renee and Phillip.
00:14:50> 00:14:53:	We we look forward to hearing from you about Howard
00:14:53> 00:14:54:	Hughes example today.
00:14:55> 00:14:57:	Yeah, thank you very much Marta.
00:14:57> 00:15:01:	Good afternoon everyone. My name is Phillip Gallegos and I
00:15:01> 00:15:04:	am a senior associate in capital markets at the Howard
00:15:04> 00:15:06:	Hughes Corporation.
00:15:06> 00:15:08:	I'm excited to be here and to share our story
00:15:09> 00:15:11:	and tell you more about 110 N Wacker in Chicago.
00:15:11> 00:15:16:	Next slide please. So by way of background,
00:15:16> 00:15:18:	the Howard Hughes Corporation plans,
00:15:18> 00:15:24:	develops, owns, and maintains master planned communities
	• • • • • • • • • • • • • • • • • • • •

	<b>,</b>
00:15:24> 00:15:26:	cities across the United States.
00:15:26> 00:15:28:	In addition to our 12 N Wacker asset,
00:15:28> 00:15:30:	which will get into momentarily,
00:15:30> 00:15:32:	we have communities in Houston,
00:15:32> 00:15:36:	TX and Hawaii, Columbia, MD and Las Vegas where commercial
00:15:36> 00:15:40:	and residential development is is really our bread and butter.
00:15:40> 00:15:44:	We also own the seaport as you see off to
00:15:44> 00:15:45:	the right which is.
00:15:45> 00:15:48:	450,000 square feet of dynamic restaurant,
00:15:48> 00:15:53:	retail and entertainment space. Located right on the East River
00:15:53> 00:15:54:	in lower Manhattan.
00:15:54> 00:15:58:	Our business is long term in nature where success is
00:15:58> 00:16:03:	measured over decades instead of quarters or months,
00:16:03> 00:16:08:	and as such we adopt A long term sustainable approach
00:16:08> 00:16:09:	to development.
00:16:09> 00:16:13:	So that said, we're excited to showcase how we've applied
00:16:13> 00:16:16:	this approach with the team at 110 N Wacker.
00:16:16> 00:16:21:	Next slide, please. OK, the building you see in front
00:16:21> 00:16:24:	of there is 110 N Wacker,
00:16:24> 00:16:27:	a 55 story 1.5 million square foot state of the
00:16:28> 00:16:32:	art office building located in the heart of Chicago,
00:16:32> 00:16:34:	right on the Chicago River.
00:16:34> 00:16:38:	The building opened last year in October of 2020 and
00:16:38> 00:16:42:	it's actually the tallest office building to be delivered in
00:16:42> 00:16:45:	Chicago in the last 30 years.
00:16:45> 00:16:49:	Howard Hughes sought out incredible local partners for this project.
00:16:49> 00:16:54:	Including guest partners for design and Riverside Investment and Development
00:16:54> 00:16:58:	Company for local development expertise and without these partners.
00:16:58> 00:17:01:	This project would just not be what it is as
00:17:01> 00:17:02:	a team.
00:17:02> 00:17:05:	We had a sustainable vision for this project.
00:17:05> 00:17:10:	Our team recognized we had a responsibility to be innovative
00:17:10> 00:17:13:	and to create something to mark the Chicago skyline in
00:17:13> 00:17:15:	a sustainable way.
00:17:15> 00:17:19:	Of anyone familiar with Chicago knows that Chicago has.
00:17:19> 00:17:23:	Numerous transportation alternatives, including train commuting,

or essentially small

00:17:23> 00:17:26:	which are site benefits from,
00:17:26> 00:17:29:	but we wanted to look beyond that as we mentioned
00:17:29> 00:17:30:	in the case study,
00:17:30> 00:17:31:	we've had a moment to read it.
00:17:31> 00:17:36:	One of the great things our construction team accomplished was
00:17:36> 00:17:40:	prioritizing both resource efficiency and waste mitigation.
00:17:40> 00:17:45:	They diverted 90% of construction waste from landfills to recycling
00:17:45> 00:17:48:	Centers for recycling and reuse.
00:17:48> 00:17:50:	Additionally, we were able to repurpose.
00:17:50> 00:17:53:	Stainless steel panels from the previous building on site,
00:17:53> 00:17:57:	which was the headquarters of Morton Salt.
00:17:57> 00:18:02:	Ultimately, we achieved LEED Gold certification for this asset,
00:18:02> 00:18:03:	and in addition to this,
00:18:03> 00:18:05:	our team is very proud that the asset has gained
00:18:06> 00:18:08:	significant recognition in the real estate community,
00:18:08> 00:18:11:	which is a testament to all involved.
00:18:11> 00:18:15:	Some recent accolades include the 2020 Office Development of the
00:18:15> 00:18:19:	Year by NAIOP Chicago and Illinois Real Estate Journal,
00:18:19> 00:18:24:	the 2021 International Architecture Award by the Chicago Athenaeum and
00:18:24> 00:18:27:	the 2021 Commercial development of the Year.
00:18:27> 00:18:29:	In the Chicago commercial Real Estate Awards,
00:18:29> 00:18:33:	among many others, we're very proud of it.
00:18:29> 00:18:33: 00:18:33> 00:18:35:	among many others, we're very proud of it.  Come next slide, please.
00:18:33> 00:18:35:	Come next slide, please.
00:18:33> 00:18:35: 00:18:39> 00:18:39:	Come next slide, please. So one of our
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44:	Come next slide, please. So one of our most notable initiatives was the enhanced open space on the
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.  The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50: 00:18:50> 00:18:54:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.  The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have actually
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50: 00:18:50> 00:18:54:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.  The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have actually provides a 45 foot wide river walk that is covered
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50: 00:18:50> 00:18:54: 00:18:55> 00:18:58: 00:18:58> 00:19:02:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.  The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have actually provides a 45 foot wide river walk that is covered but effectively open to the sky 55 feet above.  The result is a beautifully landscaped covered walkway that
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50: 00:18:50> 00:18:54: 00:18:55> 00:18:58: 00:18:58> 00:19:02: 00:19:02> 00:19:06:	Come next slide, please.  So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river.  The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have actually provides a 45 foot wide river walk that is covered but effectively open to the sky 55 feet above.  The result is a beautifully landscaped covered walkway that connects
00:18:33> 00:18:35: 00:18:39> 00:18:39: 00:18:39> 00:18:44: 00:18:44> 00:18:47: 00:18:48> 00:18:50: 00:18:50> 00:18:54: 00:18:55> 00:18:58: 00:18:58> 00:19:02: 00:19:02> 00:19:06:	Come next slide, please. So one of our most notable initiatives was the enhanced open space on the Riverwalk level for any site along the river. The city requires a 30 foot wide, publicly accessible Riverwalk and this design that we have actually provides a 45 foot wide river walk that is covered but effectively open to the sky 55 feet above. The result is a beautifully landscaped covered walkway that connects two important pedestrian. Cats and maintains an effectively unobstructed river view that

00:19:19> 00:19:22:	
00:19:19> 00:19:22:	On a personal note, I was actually able to experience this view of the building there from the river with
00:19:24> 00:19:27:	my family several weeks ago on a riverboat tour,
00:19:27> 00:19:29:	which is a really cool experience.
00:19:29> 00:19:33:	·
	Highly recommend. So in combination with other space,
00:19:33> 00:19:39:	This site is 50% open in publicly accessible at grade.
00:19:39> 00:19:44:	Next slide, please. So one of hkse DNA pillars which
00:19:44> 00:19:49:	we developed by is what we call building for the
00:19:49> 00:19:50:	future,
00:19:50> 00:19:53:	and that means not only building with an eye towards
00:19:53> 00:19:57:	issues of resiliency and sustainability and innovation,
00:19:57> 00:20:01:	but also keeping tabs on Wellness issues and understanding the
00:20:01> 00:20:02:	needs of our occupants.
00:20:02> 00:20:06:	One trend we have seen which was absolutely applicable at
00:20:06> 00:20:07:	110 N Wacker,
00:20:07> 00:20:10:	is that tenants are now more concerned about their health
00:20:10> 00:20:12:	and Wellness within the buildings.
00:20:12> 00:20:15:	They occupy and they want to know what you as
00:20:15> 00:20:18:	the landlord are doing to address these concerns.
00:20:18> 00:20:21:	To that end, we knew a well platinum designation would
00:20:21> 00:20:24:	be an excellent complement to achieving LEED Gold at the
00:20:24> 00:20:27:	property from a health and Wellness standpoint,
00:20:27> 00:20:30:	we focused on a few things which allowed us to
00:20:30> 00:20:31:	achieve that well.
00:20:31> 00:20:36:	Platinum designation. First we we looked at enhanced air quality
00:20:36> 00:20:40:	and specifically we implemented hospital grade filtration,
00:20:40> 00:20:44:	increasing fresh air rates beyond code requirements.
00:20:44> 00:20:48:	And also we installed a bipolar ionization system which helps
00:20:48> 00:20:51:	neutralize airborne virus and bacteria particulates.
00:20:51> 00:20:55:	Secondly we looked at minimization of touchpoints in the building,
00:20:55> 00:21:00:	so that includes Bluetooth enabled turnstiles at building entry destination
00:21:00> 00:21:01:	dispatch elevators,
00:21:01> 00:21:05:	which are no touch, and touchless plumbing fixtures and nano
00:21:05> 00:21:08:	septic applications in our common areas.
00:21:08> 00:21:12:	And lastly, we've taken a proactive building management approach implementing
00:21:12> 00:21:16:	thermal scanning for occupants at the height of COVID-19 in
00:21:16> 00:21:16:	2020,
	,

00:21:16> 00:21:20:	and we've enhanced our janitorial and cleaning protocols for all
00:21:20> 00:21:22:	building common areas.
00:21:22> 00:21:24:	So I think to put a bow on this.
00:21:24> 00:21:27:	Our hope was not only for the building to be
00:21:27> 00:21:30:	a successful commercial endeavour,
00:21:30> 00:21:33:	but also one that was developed with sustainability in mind
00:21:33> 00:21:36:	and one that has taken steps to address health and
00:21:36> 00:21:38:	Wellness initiatives.
00:21:38> 00:21:40:	To better serve our occupants,
00:21:40> 00:21:42:	and before we jump to questions,
00:21:42> 00:21:46:	I just want to make a quick note that.
00:21:46> 00:21:49:	There is a student or available for once in North
00:21:49> 00:21:51:	Wacker as part of the October ULI meeting,
00:21:51> 00:21:55:	and I anticipate that will be posted soon for students
00:21:55> 00:21:56:	to check out.
00:21:56> 00:21:57:	Thank you very much.
00:21:59> 00:22:01:	Thank you Phillip. This is great,
00:22:01> 00:22:04:	especially for such a. It looks like a landmark development
00:22:04> 00:22:06:	in the Chicago right on the water.
00:22:06> 00:22:09:	It's fantastic to see that leadership both on the the
00:22:09> 00:22:11:	the holistically right for sustainability,
00:22:11> 00:22:14:	both on the health and the more traditional energy or
00:22:14> 00:22:16:	sustainability side of things.
00:22:16> 00:22:19:	With the open space as well very good.
00:22:19> 00:22:22:	I have a question for you and it's it's a
00:22:22> 00:22:24:	little different than what we prepared,
00:22:24> 00:22:26:	so I hope you're up for it and that is
00:22:26> 00:22:29:	in regards to the business case for these additional investments
00:22:29> 00:22:29:	and decisions.
00:22:29> 00:22:32:	You would mention that Howard Hughes has a long term
00:22:32> 00:22:32:	hold strategy.
00:22:32> 00:22:36:	Can you talk through how that influences the the extra
00:22:36> 00:22:39:	elements that you're able to incorporate into your into your
00:22:39> 00:22:40:	developments?
00:22:40> 00:22:41:	Absolutely
00:22:41> 00:22:44:	at the the spaces that we create,
00:22:44> 00:22:47:	we create with our tenants in mind and our tenants
00:22:47> 00:22:49:	are investing in their space as well.
00:22:49> 00:22:51:	For the long term. And we think you know,
00:22:51> 00:22:55:	a building can only truly be sustainable if it satisfies
00:22:55> 00:22:58:	the needs of those occupants in a way that's beneficial

```
So it's. Kind of twofold.
00:22:59 --> 00:23:00:
                          You have to not only think about the tenant and
00:23:00 --> 00:23:03:
00:23:03 --> 00:23:06:
                          and their health and being sustainable from that perspective,
00:23:06 --> 00:23:10:
                          but also not negatively impacting those around you.
00:23:10 --> 00:23:12:
                          When we master plan our communities,
00:23:12 --> 00:23:14:
                          we have to think long term and think about a
00:23:15 --> 00:23:17:
                          development on this particular corner.
00:23:17 --> 00:23:19:
                          How does that help the residents?
00:23:19 --> 00:23:20:
                          A quarter of a mile away?
00:23:20 --> 00:23:24:
                          So we think very holistically when it comes to to
                          development and going back to this project,
00:23:24 --> 00:23:27:
00:23:27 --> 00:23:29:
                          you know it's it's great to build an office building
00:23:29 --> 00:23:30:
                          with sustainability.
00:23:30 --> 00:23:33:
                          As the focus I think and and to operate it
00:23:33 --> 00:23:34:
                          efficiently.
00:23:34 --> 00:23:38:
                          But if the focus doesn't really fully include your occupants
00:23:38 --> 00:23:39:
                          and their well being,
00:23:39 --> 00:23:42:
                          you're just. You're not going to be successful in the
00:23:42 --> 00:23:42:
                          long run.
00:23:42 --> 00:23:46:
                          So I think really, sustainability and Wellness in the health
00:23:46 --> 00:23:50:
                          and Wellness of these buildings is one that there are
00:23:50 --> 00:23:54:
                          two critical components that you need for a first successful
00:23:54 --> 00:23:56:
                          project. And that's just something that we embody.
00:23:56 --> 00:23:57:
                          That's how we work.
00:23:58 --> 00:23:59:
                          Awesome, alright? Well, thank you,
00:23:59 --> 00:24:01:
                          Phillip. There are more questions in the Q&A.
00:24:01 --> 00:24:03:
                          But we'll get to this at the end,
00:24:03 --> 00:24:05:
                          so let's move on to Archer to talk about his
00:24:05 --> 00:24:07:
                          project with Prologis.
00:24:13 --> 00:24:17:
                          Thank you Martha, and thank you for the opportunity to
00:24:17 --> 00:24:20:
                          showcase one of the projects of colleges.
00:24:20 --> 00:24:25:
                          British is and developer and long term owner of logistics
00:24:25 --> 00:24:26:
                          real estate.
00:24:26 --> 00:24:30:
                          And I joined the company about 15 years ago and
00:24:31 --> 00:24:31:
                          uhm.
00:24:31 --> 00:24:38:
                          But there definitely like about the company is that
                          sustainability
00:24:38 --> 00:24:41:
                          is really in our our DNA and.
00:24:41 --> 00:24:44:
                          With this project, I think it all came together,
00:24:44 --> 00:24:48:
                          so I'm really proud to tell you something more about
00:24:48 --> 00:24:48:
                          it.
```

to its surroundings.

00:22:58 --> 00:22:59:

00:24:55 --> 00:24:56: meter, 00:24:56 --> 00:25:00: so that's approximately 430,000 square feet, 00:25:00 --> 00:25:02: so it's not a small prototype, 00:25:02 --> 00:25:07: but it's a. Yeah, big such projects containing a imagining 00:25:07 --> 00:25:12: of 3500 square meters and 1000 square meters of office 00:25:12 --> 00:25:13: space. 00:25:13 --> 00:25:17: It's located in ain't over and it's at the point 00:25:17 --> 00:25:21: where four heavies comes to get come together. 00:25:21 --> 00:25:26: It's close to railway station and close to 90 over 00:25:26 --> 00:25:27: airport. 00:25:27 --> 00:25:31: Uhm? And what's special about this location? 00:25:31 --> 00:25:35: It's that it's partly located on a former waste dump. 00:25:35 --> 00:25:38: It used to be a waste dump in the 1780s, 00:25:38 --> 00:25:44: so. Of course, from a sustainability point of view, 00:25:44 --> 00:25:48: I think redeveloping Brownfield is. 00:25:48 --> 00:25:51: Yeah, it's the Ultram, but that. 00:25:51 --> 00:25:55: That's not easy. You know it comes with complex soil 00:25:55 --> 00:25:59: conditions and also challenging employment conditions. 00:25:59 --> 00:26:04: It's uhm. Yeah, in the end it all came together 00:26:04 --> 00:26:05: too. 00:26:05 --> 00:26:10: Turn this site into an attractive green business park, 00:26:10 --> 00:26:12: so to move to the next slide, 00:26:12 --> 00:26:22: please. Our ambition was to create a building. 00:26:22 --> 00:26:28: Uh, without gas connections so no local emissions. 00:26:28 --> 00:26:33: Combined with a with a rooftop solar system and also 00:26:33 --> 00:26:37: the health and well being for the employees, 00:26:37 --> 00:26:41: the workers inside the building we have set the goal 00:26:41 --> 00:26:44: to create a very pleasant working environment. 00:26:44 --> 00:26:48: And also at the outside of the building at the 00:26:48 --> 00:26:50: terrain we took into account. 00:26:50 --> 00:26:58: Yeah, ecological approach. Which which promotes biodiversity. This ambition it does not. 00:26:58 --> 00:27:00: 00:27:00 --> 00:27:04: did not came from a request from our customers because 00:27:04 --> 00:27:05: it was. 00:27:05 --> 00:27:08: It started as a speculative development. 00:27:08 --> 00:27:11: It was also not a requirement for municipality, 00:27:11 --> 00:27:14: but it was really the team that yeah. That was looking forward to do something innovative and 00:27:17 --> 00:27:21: make 00:27:21 --> 00:27:22: the next step in. 00:27:22 --> 00:27:26: Yeah, cutting carbon. So I'm really proud of that and

It's a project or logistics facility of a 40,000 square

00:24:48 --> 00:24:55:

00:27:32 --> 00:27:37: Translating our ambition into a building and. 00:27:39 --> 00:27:43: Yeah, we feel that in the application of an innovative 00:27:43 --> 00:27:47: system or electric for cooling and heating, 00:27:47 --> 00:27:52: it's a 2.9 megawatts solar system on the roof. 00:27:52 --> 00:27:56: We've chosen for circular building design. 00:27:56 --> 00:27:58: Mainly for the office interior. 00:27:58 --> 00:28:02: And in the end we were able to reach a BREEAM rating of 91%. 00:28:02 --> 00:28:05: 00:28:05 --> 00:28:08: So we are really proud to reach the yeah yeah, 00:28:08 --> 00:28:14: outstanding rating of RIM. And for the terrain and the 00:28:14 --> 00:28:15: greenery, 00:28:15 --> 00:28:18: we received a local label. 00:28:18 --> 00:28:21: It's called and our green label. 00:28:21 --> 00:28:24: Uhm, so we can move to the next slide, 00:28:24 --> 00:28:29: please. If you look at the yeah, 00:28:29 --> 00:28:35: the electric system, UM? It's a look. 00:28:35 --> 00:28:40: Normally we equip the warehouse is only with eating, 00:28:40 --> 00:28:44: but by switching to a system without disconnection, 00:28:44 --> 00:28:46: electrical system with heat pumps. 00:28:46 --> 00:28:52: Firms that also opened up the possibility to. 00:28:52 --> 00:28:54: Apply cooling to this space. 00:28:54 --> 00:28:58: So for the comfort and well being of the employees, 00:28:58 --> 00:29:01: that's really a big plus. 00:29:01 --> 00:29:03: If you look at this solar system, 00:29:03 --> 00:29:09: it's 2.9 megawatts and. To give you an idea that's 00:29:09 --> 00:29:15: the equivalent of approximately 750 households. 00:29:15 --> 00:29:19: Ads. This solar system generates rich more power than the 00:29:19 --> 00:29:21: building is using. 00:29:21 --> 00:29:24: Uh, yeah, then the building installations are using to give 00:29:24 --> 00:29:27: you an idea that there will be approximately 25% 00:29:27 --> 00:29:31: of the power generated by the solar system will be 00:29:31 --> 00:29:33: used for the building, 00:29:33 --> 00:29:36: and yet the rest of it will. 00:29:36 --> 00:29:39: The remainder will go to the bridge. 00:29:39 --> 00:29:46: Uhm? Let's see. Yeah, a lot of people always interested 00:29:46 --> 00:29:47: in in numbers, and the additional cost to switch from a traditional heating 00:29:47 --> 00:29:54: 00:29:54 --> 00:30:01: system gas by tasting system into this or electric system 00:30:01 --> 00:30:03: was about \$530,000, 00:30:03 --> 00:30:05: so a big number but. 00:30:05 --> 00:30:07: If we look at the calculation,

we can move to the next slide.

00:27:26 --> 00:27:28:

00:30:07> 00:30:11:	the return on investments will be between seven and eight
00:30:12> 00:30:12:	years.
00:30:12> 00:30:16:	And that made this design is decide to give it
00:30:16> 00:30:21:	a try and explore this innovative technology.
00:30:21> 00:30:24:	Especially when you look at the scale of the project.
00:30:24> 00:30:27:	And all electric system is not something you have on
00:30:27> 00:30:28:	the shelf,
00:30:28> 00:30:31:	so we had to do a lot of engineering to
00:30:31> 00:30:32:	make it work.
00:30:32> 00:30:40:	Uhm? Furthermore, we have installed a ventilation system which brings
00:30:40> 00:30:41:	fresh,
00:30:41> 00:30:46:	filtered and preconditioned air into the expedition area where most
00:30:46> 00:30:50:	of the activities that most of the workers will work
00:30:50> 00:30:51:	will be working.
00:30:51> 00:30:56:	So also to meet the requirements for air quality according
00:30:56> 00:30:58:	to the well building standard.
00:30:58> 00:31:03:	Uhm? In order to create a design in line with
00:31:03> 00:31:08:	well in line with Ebrium and our ambition also to
00:31:08> 00:31:12:	make our buildings more circular,
00:31:12> 00:31:16:	we have developed a tool box and.
00:31:16> 00:31:20:	This is now the third third project where we do
00:31:20> 00:31:25:	apply this toolbox and every next project we.
00:31:25> 00:31:31:	Yeah we make we make the design more circular and
00:31:31> 00:31:33:	also the it's.
00:31:33> 00:31:36:	It's a tool that helps us to select the right
00:31:36> 00:31:37:	materials.
00:31:37> 00:31:44:	So recyclable, reusable or made from recycled content and with
00:31:44> 00:31:48:	low emitting to the indoor air so.
00:31:48> 00:31:50:	Yeah, bringing this all together,
00:31:50> 00:31:55:	it's. I think completely turns logistics space.
00:31:55> 00:31:59:	You know former storage box into a complete different type
00:32:00> 00:32:00:	of assets,
00:32:00> 00:32:05:	which is, which is a nice place place to work,
00:32:05> 00:32:07:	and I think that's really yeah,
00:32:07> 00:32:10:	a games changer for our industry.
00:32:10> 00:32:12:	And if we move to the next slide.
00:32:14> 00:32:18:	Uh, just to give you an impression of the of
00:32:18> 00:32:22:	the building interior of the storage base.
00:32:22> 00:32:27:	Quite some daylight by window strips in the facade and
00:32:27> 00:32:28:	skylights,

00:32:28> 00:32:35:	increased lighting levels with LED lighting and yeah.
00:32:35> 00:32:39:	Also you can see here the fabric that's the kind
00:32:39> 00:32:42:	of tube by which the air the fresh air is
00:32:42> 00:32:47:	distributed in a very fluent and smooth way throughout the
00:32:47> 00:32:53:	warehouse. So this all created in a pleasant place to
00:32:53> 00:32:54:	work and.
00:32:54> 00:32:58:	Actually, it was one of the yeah all these sustainable
00:32:58> 00:33:02:	features with one of the decision making factors of a
00:33:02> 00:33:03:	tenant,
00:33:03> 00:33:07:	we were able to lease the building just before completion
00:33:07> 00:33:12:	and the sustainability features were definitely one of the decision
00:33:12> 00:33:16:	makers in comparison to a competitive product.
00:33:16> 00:33:21:	So I think that's a great example on how sustainability
00:33:21> 00:33:24:	is also a good investment,
00:33:24> 00:33:27:	and it pays out. And ultimately you want to create
00:33:27> 00:33:28:	something,
00:33:28> 00:33:31:	which, yeah, makes the world a little better.
00:33:31> 00:33:33:	And this is the way how we.
00:33:33> 00:33:37:	Believe in it, so thank you.
00:33:37> 00:33:38:	Thank
00:33:38> 00:33:40:	you so much, charter. I I think that's fantastic,
00:33:40> 00:33:41:	especially how you closed out with that.
00:33:41> 00:33:45:	That business case piece you mentioned that the incremental upfront
00:33:45> 00:33:46:	cost wasn't insignificant,
00:33:46> 00:33:49:	but had it a reasonable payback that that made this
00:33:49> 00:33:50:	worth trying out.
00:33:50> 00:33:53:	And then you know building this on spec is is
00:33:53> 00:33:54:	bold.
00:33:54> 00:33:55:	I I must say, you know,
00:33:55> 00:33:59:	without government requirements or tenant expectations and then in the
00:33:59> 00:34:03:	end having a tenant ultimately select the space partially because
00:34:03> 00:34:05:	of the sustainability features.
00:34:05> 00:34:07:	It really proves out your strategy.
00:34:07> 00:34:11:	Can you talk through? Which aspects of this design Prologis
00:34:12> 00:34:16:	may plan to implement more broadly across its portfolio for
00:34:16> 00:34:17:	other new developments,
00:34:17> 00:34:20:	like what? What if this can scale portfolio wide,
00:34:21> 00:34:26:	yeah well? If we look at the electric system,
00:34:26> 00:34:29:	there's well, there's not one single solution,

00:34:29 --> 00:34:32: so we are it. Of course, 00:34:32 --> 00:34:36: that depends on local climate conditions and and as being 00:34:36 --> 00:34:37: a global company, 00:34:37 --> 00:34:40: you have to deal with a lot of different climates. 00:34:40 --> 00:34:44: And it's it's. It's not on the shelf solution, 00:34:44 --> 00:34:47: so it requires quite some engineering engineering. 00:34:47 --> 00:34:52: But, uh, we already started in in in what 00:34:52 --> 00:34:53: city in France, 00:34:53 --> 00:34:59: with a also an electric system with boreholes which? 00:34:59 --> 00:35:03: Storage of yeah of heat and cold in the ground 00:35:04 --> 00:35:05: with saucers. 00:35:05 --> 00:35:10: So as we have started a in another development in 00:35:10 --> 00:35:16: the Netherlands where we are combining a solar system with 00:35:17 --> 00:35:19: a 1 MB MW battery system, 00:35:19 --> 00:35:26: so I do see a lot of innovations and technologies 00:35:27 --> 00:35:28: developing. 00:35:28 --> 00:35:31: So yeah, it's it's it's. 00:35:31 --> 00:35:34: It's definitely has our focus. 00:35:34 --> 00:35:38: It's too rolled out on the big scale were really 00:35:38 --> 00:35:40: go step by step and also. 00:35:43 --> 00:35:48: The building in Eindhoven has just been delivered and we 00:35:48 --> 00:35:51: have not even a year of of data, 00:35:51 --> 00:35:54: so we are at the moment gathering a lot of 00:35:55 --> 00:35:59: data to back up our theoretical calculations and I think 00:35:59 --> 00:36:03: when we can make more data driven decisions we can 00:36:03 --> 00:36:07: make smarter decisions and that will also help us too. 00:36:07 --> 00:36:11: Yeah, two step by step make it to standard 00:36:12 --> 00:36:14: awesome, that's true. I suppose you don't want to claim 00:36:14 --> 00:36:15: its net zero or. 00:36:15 --> 00:36:18: Net positive until you've got that full year of data, 00:36:18 --> 00:36:21: but it all points, all signs point to the right 00:36:21 --> 00:36:21: direction. 00:36:21 --> 00:36:24: so kudos on that. Absolutely all, 00:36:24 --> 00:36:25: right? Well, thank you, Arthur. 00:36:25 --> 00:36:28: Let's move on to our last speaker, 00:36:28 --> 00:36:31: Lizzie, to talk through some efforts from Goldman Sachs. 00:36:32 --> 00:36:35: Thanks Martha. So I'm movie Adams and I work at 00:36:35 --> 00:36:39: Goldman Sachs Asset Management and the real estate investing team. 00:36:39 --> 00:36:42: And just to clarify my title from the very beginning. I'm a VP in the in the real estate team 00:36:42 --> 00:36:44: 00:36:45 --> 00:36:47: rather than VP of the real estate team.

00:36:47> 00:36:51:	So next slide. I'm going to talk through two specific
00:36:52> 00:36:55:	voting optimization projects we've worked on,
00:36:55> 00:36:58:	as well as how we've got then taken those lessons
00:36:58> 00:37:02:	learned and applied them to create kind of a portfolio
00:37:02> 00:37:04:	approach to building optimization.
00:37:04> 00:37:10:	So next slide. Starting with and next slide starting with
00:37:10> 00:37:11:	a 95 dove.
00:37:11> 00:37:14:	This is about 100,000 square foot building in Newport Beach,
00:37:14> 00:37:16:	CA. So just South of Al.
00:37:16> 00:37:21:	A fairly warm climate and this is a fairly relatively
00:37:21> 00:37:26:	new building is built into year 2000 and so next
00:37:26> 00:37:26:	slide.
00:37:26> 00:37:29:	This is a lot of slides for small amount of
00:37:29> 00:37:29:	content.
00:37:29> 00:37:33:	This is a really amazing energy efficiency kind of building
00:37:33> 00:37:36:	optimization project where we were able to find just over
00:37:36> 00:37:38:	\$50,000 in annual savings,
00:37:38> 00:37:42:	majority from electricity savings. This means that we are avoiding
00:37:42> 00:37:46:	120 tons of carbon emissions every year and not only
00:37:46> 00:37:48:	was this sizable in terms of the savings,
00:37:48> 00:37:51:	but we also got a good yard on cost of
00:37:51> 00:37:51:	23%.
00:37:51> 00:37:54:	So this was this was a great project for us
00:37:54> 00:37:57:	and we did this through a very kind of wide
00:37:57> 00:38:00:	range of different energy efficiency.
00:38:00> 00:38:04:	Kind of measures, ranging problems and basic things like repairing
00:38:04> 00:38:07:	our air side economizers to make sure we're using outside
00:38:07> 00:38:10:	air instead of OWL compresses to cool the building as
00:38:10> 00:38:13:	well as something a bit more kind of a novel
00:38:13> 00:38:16:	chemical treatment to reduce fouling and our compressor and restore
00:38:16> 00:38:17:	some of the efficiency.
00:38:17> 00:38:21:	And then we applied a range of advanced HVAC controls,
00:38:21> 00:38:25:	one that's not. Written here optimal start or starting up
00:38:25> 00:38:29:	your heating and cooling systems based on weather rather than
00:38:29> 00:38:32:	just based on a set time every year every day.
00:38:32> 00:38:36:	Sorry, as well as adjusting RV 80 box set points.
00:38:36> 00:38:39:	So essentially the HVAC systems in the building and this
00:38:39> 00:38:43:	is a building with three rooftop terminal units in the
00:38:43> 00:38:46:	top on the rooftop with a vid with reheat system
	· · · · · · · · · · · · · · · · · · ·

00:38:46 --> 00:38:49: so very very typical system for California. 00:38:49 --> 00:38:53: And this size building, and this is essentially saying that 00:38:53 --> 00:38:57: we're not going to over deliver ventilation and heating and 00:38:57 --> 00:39:00: cooling to the spaces when it's not needed. 00:39:00 --> 00:39:03: And so this just dialed back from some older design 00:39:03 --> 00:39:07: standards that are usually over delivering air to the space 00:39:07 --> 00:39:10: and just delivers the right amount. 00:39:10 --> 00:39:14: We also fixed some control of the fan through a 00:39:14 --> 00:39:15: sensor, 00:39:15 --> 00:39:18: dust that pressure sensor, and then we also adjust the 00:39:18 --> 00:39:20: hot water system so that it locks. 00:39:20 --> 00:39:23: When it's warm outside, so the common theme running through 00:39:23 --> 00:39:26: a lot of these items is that they are implementing 00:39:26 --> 00:39:29: more kind of dynamic controls rather than kind of fixed 00:39:29 --> 00:39:33: set .6 times and olup ended up saving quite a 00:39:33 --> 00:39:38: lot of energy through this mix of kind of repairs. 00:39:38 --> 00:39:41: Physical repairs, plus a lot of kind of controls optimization. 00:39:41 --> 00:39:46: Next slide. And next slide the and then the other 00:39:46 --> 00:39:47: building. 00:39:47 --> 00:39:49: We're going to look at is 2001 Broadway. 00:39:49 --> 00:39:52: This is a fairly similar building. 00:39:52 --> 00:39:53: It's about half the size. 00:39:53 --> 00:39:57: 60,000 square feet is also in California up in Oakland, 00:39:57 --> 00:40:00: so a little bit more temperate climate, 00:40:00 --> 00:40:01: but it's it's a lot older. 00:40:01 --> 00:40:04: so it's 1939 construction and you can see it's got 00:40:04 --> 00:40:06: this beautiful kind of Art Deco facade. 00:40:06 --> 00:40:09: It's fairly downtown Oakland, so it's got a lot of 00:40:09 --> 00:40:11: pedestrian traffic. 00:40:11 --> 00:40:14: It's a little different from similar HVAC systems. 00:40:14 --> 00:40:16: Still, your roof top package unit, 00:40:16 --> 00:40:18: so your VAT distribution system. 00:40:18 --> 00:40:20: But it's it's mixed use, 00:40:20 --> 00:40:23: so you've got your retail on the ground floor office 00:40:23 --> 00:40:26: on the top floor and this does create some interesting 00:40:26 --> 00:40:29: opportunities for energy savings which we can talk about it 00:40:29 --> 00:40:34: on the next line. So this you know smaller voting 00:40:34 --> 00:40:40: so we're saving less energy in \$19,000 and annual savings 00:40:40 --> 00:40:41: per year, 00:40:41 --> 00:40:43: mostly again from electricity. You know, 00:40:43 --> 00:40:46: saving cost savings usually seem to come from electricity,

00:40:46> 00:40:49:	but this is allowing us to avoid 42 tons of
00:40:49> 00:40:50:	carbon per year,
00:40:50> 00:40:53:	and this this project financially came out a little
00:40:53> 00:40:56:	less impressive than the last one with a 10%
00:40:56> 00:40:59:	yield on cost. And I'll say this so this,
00:40:59> 00:41:02:	but this building also had some very much more typical
00:41:02> 00:41:05:	measures that we implemented rather than the kind of really
00:41:05> 00:41:06:	kind of interesting,
00:41:06> 00:41:09:	complex or unique ones that we found at 895 jobs.
00:41:09> 00:41:12:	So that includes you kind of bread and butter.
00:41:12> 00:41:15:	Eli D. Retrofit. Which is really the foundation of any
00:41:15> 00:41:17:	good energy efficiency.
00:41:17> 00:41:19:	And then we had optimal start,
00:41:19> 00:41:21:	which you'll notice is the same at 895 job,
00:41:21> 00:41:22:	and it's not a coincidence.
00:41:22> 00:41:26:	It says very common measure to find another thing that
00:41:26> 00:41:28:	we did that was unique to the building is that
00:41:28> 00:41:31:	we allowed one of the rooftop 10 million package units
00:41:31> 00:41:34:	on the roof to shut down over the weekend.
00:41:34> 00:41:37:	So the cafe runs all weekend and it needs air
00:41:37> 00:41:40:	conditioning throughout the entire time.
00:41:40> 00:41:41:	But the office spaces are empty,
00:41:41> 00:41:44:	so up until you know when we did this project.
00:41:44> 00:41:47:	The whole building was running whenever the cafe was open
00:41:47> 00:41:50:	and this this measure allowed us to shut down the
00:41:50> 00:41:54:	spaces that doesn't need heating and cooling over the weekend.
00:41:54> 00:41:56:	So all of you know mostly here we're talking about
00:41:56> 00:41:57:	control,
00:41:57> 00:41:59:	some you know fairly simple controls.
00:41:59> 00:42:01:	And then our Eli D retrofit.
00:42:01> 00:42:03:	So then looking next line.
00:42:06> 00:42:09:	And what one more so looking at how we take
00:42:09> 00:42:14:	these individual optimization projects and apply them to our specific
00:42:15> 00:42:15:	programs.
00:42:15> 00:42:20:	We have taken this, uh these individual retro commissioning measures
00:42:20> 00:42:23:	and use them to inform our kind of our program
00:42:23> 00:42:26:	and so this kind of the wave applied.
00:42:26> 00:42:28:	It kind of comes in three pieces right?
00:42:28> 00:42:31:	The first part is to get all your most common,
00:42:31> 00:42:35:	most impactful energy efficiency measures and apply them

	through some
00:42:35> 00:42:36:	kind of process.
00:42:36> 00:42:40:	Or ESG program. And this means we need regular
	communication.
00:42:40> 00:42:42:	You need to be providing information to your site,
00:42:42> 00:42:44:	teams on the kinds of things that they should be
00:42:44> 00:42:47:	looking at in every single building and collecting data back
00:42:47> 00:42:50:	from them on what kind of efficiency projects they're looking
00:42:50> 00:42:51:	at, where they're seeing savings,
00:42:51> 00:42:54:	what they're finding difficult, and having that kind of regular
00:42:54> 00:42:55:	communication.
00:42:55> 00:42:57:	And this is where you get your you know,
00:42:57> 00:42:59:	half your measures, your Eli D.
00:42:59> 00:43:02:	Retrofit your optimal start. These types of measures that you
00:43:02> 00:43:05:	just find again and again and buildings and of saving
00:43:05> 00:43:07:	a good amount of energy.
00:43:07> 00:43:09:	And then you have to couple that,
00:43:09> 00:43:11:	though with more of a customized solution,
00:43:11> 00:43:14:	because the other half year measures the other help your
00:43:14> 00:43:15:	opportunities are going to be very custom.
00:43:15> 00:43:18:	It's a broken sensor that's causing your economiser do not
00:43:18> 00:43:19:	work,
00:43:19> 00:43:21:	or your ducks that pressure did not work anymore.
00:43:21> 00:43:23:	Or is that you've got a mixed use?
00:43:23> 00:43:25:	You've got a law firm and a non profit in
00:43:25> 00:43:27:	the same building and one of them is working till
00:43:27> 00:43:29:	10K and the other is leaving at five.
00:43:29> 00:43:32:	So you need to be able to find and we
00:43:32> 00:43:36:	do this really through finding a device diverse set of
00:43:36> 00:43:37:	partners.
00:43:37> 00:43:38:	And it could be partners.
00:43:38> 00:43:41:	It could be software, or it could be partners that
00:43:41> 00:43:43:	combine both together.
00:43:43> 00:43:45:	And so this allows you to get to all your
00:43:45> 00:43:48:	more customized complex solutions.
00:43:48> 00:43:50:	And then the last piece to kind of tie this
00:43:50> 00:43:53:	kind of process and partners together as well.
00:43:53> 00:43:57:	I called Gamba well, not just me really comes from
00:43:57> 00:43:58:	Lean Toyota way.
00:43:58> 00:44:00:	It means kind of the actual place.
00:44:00> 00:44:03:	And you know, in a manufacturing setting where this concept
00:44:03> 00:44:04:	came from,

00:44:04> 00:44:08:	the where the actual place is your manufacturing floor.
00:44:08> 00:44:11:	But for commercial real estate your actual places,
00:44:11> 00:44:14:	the is your properties and that is where your value
00:44:14> 00:44:15:	is actually created.
00:44:15> 00:44:18:	So it's I found it incredibly important.
00:44:18> 00:44:21:	For us to go and see the site,
00:44:21> 00:44:24:	meet the site teams and really understand where the disconnect
00:44:24> 00:44:28:	exists between that process that you've applied Cross RE portfolio
00:44:28> 00:44:30:	and what is actually happening,
00:44:30> 00:44:34:	what succeeding that. You can then apply back what additional
00:44:34> 00:44:37:	resources or partners they need and it means that you're
00:44:37> 00:44:41:	able to actually really improve and have continuous improvement and
00:44:41> 00:44:45:	that kind of process and continually find new and better
00:44:45> 00:44:45:	partners.
00:44:45> 00:44:49:	So with that. I'd take any questions.
00:44:49> 00:44:50:	Fantastic
00:44:50> 00:44:51:	thank you Lizzy. This is.
00:44:51> 00:44:55:	One of the things I love about ESG and sustainability
00:44:55> 00:44:59:	is that foundational aspect of energy efficiency that often gets
00:44:59> 00:45:01:	lost in the in the blur of all of the
00:45:01> 00:45:03:	new opportunities out on the space,
00:45:03> 00:45:05:	and so especially in existing buildings I,
00:45:05> 00:45:08:	I think it's critical to address energy efficiency and in
00:45:08> 00:45:11:	the way that you have with Goldman Sachs asset management.
00:45:11> 00:45:14:	And I'm curious, can you talk through how Goldman decided
00:45:14> 00:45:17:	to take on this retro commissioning project at these two
00:45:17> 00:45:19:	buildings and then beyond what?
00:45:19> 00:45:21:	What factors had to be in place to make sure
00:45:21> 00:45:22:	it was successful?
00:45:24> 00:45:27:	So I think from a really basic level for these
00:45:27> 00:45:27:	two projects,
00:45:27> 00:45:29:	they both penciled out financially,
00:45:29> 00:45:33:	and that's important, but I would say that energy efficiency
00:45:33> 00:45:36:	has a very kind of long history in this.
00:45:36> 00:45:39:	In the real estate team at Goldman Sachs,
00:45:39> 00:45:42:	they've been, you know, been working on energy efficiency project
00:45:43> 00:45:44:	long before I joined the team,

00.45.44 > 00.45.47.	
00:45:44> 00:45:47:	and these are a little unique in that they were
00:45:47> 00:45:51:	more rigorously verified and we did work with a partner
00:45:51> 00:45:54:	at Carbon Lighthouse to establish this.
00:45:54> 00:45:59:	Leaving. But you know that I'd say it's just kind
00:45:59> 00:46:00:	of dumb.
00:46:00> 00:46:02:	Inherent in what? How we do business.
00:46:02> 00:46:06:	Is these energy efficiency looking for these energy efficiency
00.40.00 > 00.40.07.	projects?
00:46:06> 00:46:07:	I love it. I mean,
00:46:07> 00:46:09:	you said it yourself with with genva the idea of
00:46:09> 00:46:12:	the value is created at the building and that's what
00:46:12> 00:46:12:	you're.
00:46:12> 00:46:14:	That's what you're focusing on,
00:46:14> 00:46:17:	so that's fantastic, yeah? Let's let's bring it all together
00:46:17> 00:46:20:	now everyone can can put our videos back on for
00:46:21> 00:46:22:	some some audience Q&A.
00:46:22> 00:46:24:	We've got a number of questions,
00:46:24> 00:46:28:	and so I will. Let's see,
00:46:28> 00:46:31:	I will start with one that was directed to meet
00:46:31> 00:46:33:	just to make it easy speakers.
00:46:33> 00:46:34:	If you want to look into the Q&A and see
00:46:34> 00:46:37:	if there's a question in specific that that interests you
00:46:37> 00:46:37:	to answer,
00:46:37> 00:46:41:	please go ahead in the in the beginning of this
00:46:41> 00:46:41:	webinar,
00:46:41> 00:46:44:	which, by the way is recorded and will be shared
00:46:44> 00:46:46:	on knowledge Finder within a week or two after this
00:46:46> 00:46:48:	webinar as well as it slides,
00:46:48> 00:46:50:	so feel free to to follow up afterwards.
00:46:50> 00:46:52:	There I mentioned the progress that are green print real
00:46:52> 00:46:55:	estate numbers have made over the past decade,
00:46:55> 00:46:57:	plus on carbon emissions reductions.
00:46:57> 00:47:00:	Waste reduction. Water etc and the question is,
00:47:00> 00:47:03:	you know what methodology do we use to track that
00:47:03> 00:47:07:	and what we do is every year our GREENPRINT members
00:47:07> 00:47:11:	provide asset level building performance data with monthly
00.47.44	stats so
00:47:11> 00:47:13:	that we can do QA and QC analysis on it
00:47:14> 00:47:17:	and we look at like for like buildings from between
00:47:17> 00:47:20:	the two years to track that percent change and that's
00:47:20> 00:47:23:	that's the way we make sure that the numbers are
00:47:23> 00:47:25:	are realistic that we make sure we do have that

00:47:26> 00:47:29:	like for like because real estate portfolios change so frequently.
00:47:29> 00:47:32:	But we're able to to regularly track that progress year
00:47:32> 00:47:33:	over year,
00:47:33> 00:47:34:	and that's how we go about that.
00:47:37> 00:47:41:	OK, there have been. There's one question about choosing
	which
00:47:41> 00:47:43:	green building certification.
00:47:43> 00:47:45:	Is best to use and I think I'm going to
00:47:45> 00:47:46:	expand this just a little bit.
00:47:46> 00:47:49:	There was a question of why was lead chosen versus
00:47:49> 00:47:53:	build it Greens Green Point certification versus others.
00:47:53> 00:47:55:	I, I think have archery.
00:47:55> 00:47:58:	You mentioned BREEAM. So how many of you can answer
00:47:58> 00:47:59:	this one?
00:47:59> 00:48:02:	How do you choose which green building certification you go
00:48:02> 00:48:02:	after?
00:48:09> 00:48:13:	I might I would like to answer this one right.
00:48:13> 00:48:15:	It froze, it's it's.
00:48:15> 00:48:17:	It's a bit of a regional thing.
00:48:17> 00:48:22:	In EU. S We see more elite and and Europe
00:48:22> 00:48:24:	ebrium is more.
00:48:24> 00:48:32:	Yeah, it's more familiar. And what we have experienced ourselves
00:48:32> 00:48:36:	because we did one of the the first.
00:48:36> 00:48:40:	Buildings with which you should fight according to the well
00:48:40> 00:48:41:	building standard that.
00:48:41> 00:48:45:	We not only had to translate.
00:48:45> 00:48:53:	There. Requirements from US to European.
00:48:53> 00:48:58:	Regulations legislations, certificates, codes. But also we had to make
00:48:59> 00:49:04:	a translation between what's required or possible in an office
00:49:04> 00:49:08:	space where the standards for and how you can apply
00:49:08> 00:49:10:	that to. To logistics space.
00:49:10> 00:49:13:	So that was first really a challenge.
00:49:13> 00:49:16:	However we have seen. Quite some overlap,
00:49:16> 00:49:22:	for example between well and BREEAM I think about.
00:49:22> 00:49:26:	
	30 or 40% of the of the credits do have
00:49:26> 00:49:27:	an overlap.
00:49:26> 00:49:27: 00:49:27> 00:49:31:	
	an overlap.
00:49:27> 00:49:31:	an overlap. That's dumb. Yeah, for example,
00:49:27> 00:49:31: 00:49:31> 00:49:34:	an overlap. That's dumb. Yeah, for example, what we also liked about well is that it's all

00:49:40> 00:49:46:	measurement know it's really taking air samples and and testing
00:49:47> 00:49:51:	in a laboratory to to prove that's it really.
00:49:51> 00:49:57:	Yeah, the the indoor climate isn't good as as
00:49:57> 00:49:57:	as we.
00:49:57> 00:50:00:	It required, so that's right.
00:50:00> 00:50:01:	What we liked about that system?
00:50:04> 00:50:07:	Thanks Arthur and does anyone else want to chime in
00:50:07> 00:50:10:	on your decision making for green building certifications?
00:50:10> 00:50:13:	Or is it that regional?
00:50:13> 00:50:13:	Lead
00:50:14> 00:50:18:	I would just add you know that when one element
00:50:18> 00:50:21:	to consider is sort of just consistency from a process
00:50:22> 00:50:22:	perspective,
00:50:22> 00:50:25:	I mean for us, lead has the recognition in the
00:50:25> 00:50:26:	market.
00:50:26> 00:50:30:	It's so deeply tide to other reporting frameworks like grasp
00:50:30> 00:50:33:	which we report to grasp every year and have for
00:50:34> 00:50:35:	many years now.
00:50:35> 00:50:37:	And so there's that. But there's also just kind of
00:50:37> 00:50:38:	from a process standpoint.
00:50:38> 00:50:41:	Our teams are more familiar with it and as we
00:50:41> 00:50:43:	build on that perfecting that.
00:50:43> 00:50:45:	Process it, you know our product.
00:50:45> 00:50:48:	Our results are better and so that also is a
00:50:48> 00:50:49:	consideration.
00:50:51> 00:50:53:	Awesome alright. We have a we have a lot of
00:50:53> 00:50:56:	questions so I'm going to hop to another one and
00:50:56> 00:50:57:	this is on.
00:50:57> 00:51:02:	The the motivation for these sustainable measures coming from funding
00:51:02> 00:51:04:	sources potentially,
00:51:04> 00:51:07:	and so we're curious, are you seeing funding sources,
00:51:07> 00:51:11:	whether it be investors or shareholders or debt and equity
00:51:11> 00:51:12:	providers in general,
00:51:12> 00:51:17:	starting to require or expect certain sustainable measures?
00:51:17> 00:51:20:	What type of? Of motivation are you seeing from that
00:51:20> 00:51:21:	side of things?
00:51:25> 00:51:27:	Hi Marta, this Phillip guy goes here.
00:51:27> 00:51:30:	I think we're absolutely seeing that.
00:51:30> 00:51:33:	I think it manifests in different ways depending on the
00:51:33> 00:51:36:	project in the region and and what can be supported

00:51:36> 00:51:37:	economically by the project.
00:51:37> 00:51:39:	But we're absolutely seeing that,
00:51:39> 00:51:43:	and that's coming from all stakeholders from a Howard Hughes
00:51:43> 00:51:44:	standpoint,
00:51:44> 00:51:47:	I would encourage everybody here to read our annual ESG
00:51:47> 00:51:48:	report,
00:51:48> 00:51:50:	which talks about how we're trying to make an impact
00:51:50> 00:51:52:	and why it's important to us.
00:51:52> 00:51:53:	But in addition to that,
00:51:53> 00:51:56:	you know lenders are focused on it.
00:51:56> 00:51:59:	Tenants which occupier buildings are absolutely focused on it,
00:51:59> 00:52:01:	and it's one of those things that I think it's
00:52:01> 00:52:02:	a partially.
00:52:02> 00:52:04:	It's a cost of business,
00:52:04> 00:52:07:	but it's a positive as well because it obviously is
00:52:07> 00:52:09:	better for not just the environment,
00:52:09> 00:52:11:	but it's better long term,
00:52:11> 00:52:13:	which, as I mentioned earlier,
00:52:13> 00:52:15:	is kind of the way that we think about things.
00:52:15> 00:52:17:	We have to think about things with the with the
00:52:17> 00:52:19:	full view of the project lifecycle in mind.
00:52:23> 00:52:26:	Alright, I I think that makes a lot of sense.
00:52:26> 00:52:29:	We we have another fun question here and this is.
00:52:29> 00:52:31:	A bit of a backwards question,
00:52:31> 00:52:35:	a lot of cities are establishing public private partnerships and
00:52:35> 00:52:39:	incentives and programs to encourage more sustainable buildings,
00:52:39> 00:52:41:	and so the question for you all,
00:52:41> 00:52:44:	as the owners and developers are what?
00:52:44> 00:52:50:	What further things can governments do to incentivize sustainable buildings?
00:52:50> 00:52:52:	What what incentives do you want to see from your
00:52:52> 00:52:53:	local city governments?
00:53:00> 00:53:00:	Well,
00:53:00> 00:53:01:	Marta, that's a big question.
00:53:04> 00:53:06:	So hence the hesitation, I think.
00:53:06> 00:53:11:	But one thing that I would say is that it
00:53:11> 00:53:18:	helps when innovation can be recognized and sort of bought
00:53:18> 00:53:20:	into more quickly.
00:53:20> 00:53:24:	I think from a building code perspective we've seen recently
00:53:24> 00:53:27:	how they're spending a lot of progress in.

00.50.07 > 00.50.00.	Van language and a file and a single library and and
00:53:27> 00:53:29:	You know, some of the strategies like water reuse and
00:53:30> 00:53:32:	things like that that have that really had a lot
00:53:32> 00:53:34:	of hurdles associated with.
00:53:34> 00:53:36:	And from a permitting standpoint,
00:53:36> 00:53:39:	start to breakdown, and that's really helpful.
00:53:39> 00:53:43:	And then also you know utility incentives are pretty critical
00:53:43> 00:53:46:	to making a lot of this stuff work too,
00:53:46> 00:53:48:	to proving out that ROI.
00:53:48> 00:53:52:	And I think that the utilities could probably do a
00:53:52> 00:53:56:	better job of finding ways to support and analysis that
00:53:56> 00:54:00:	recognizes the energy efficiency benefits of some of the more
00:54:00> 00:54:05:	innovative technologies. And then you know gets more proactive about
00:54:05> 00:54:06:	providing.
00:54:06> 00:54:07:	Support for those.
00:54:11> 00:54:14:	Now did you wanna Fedramp into please?
00:54:14> 00:54:17:	I'd say the thing that you know one of the
00:54:17> 00:54:20:	bigger barriers right now is going to be in commercial
00:54:20> 00:54:21:	building.
00:54:21> 00:54:25:	Electrification for existing voting we see so much happening
	in
00:54:25> 00:54:27:	the residential space,
00:54:25> 00:54:27: 00:54:27> 00:54:29:	the residential space, but I'd say there's kind of two pieces there.
	•
00:54:27> 00:54:29:	but I'd say there's kind of two pieces there.
00:54:27> 00:54:29: 00:54:29> 00:54:32:	but I'd say there's kind of two pieces there.  One is the kind of steps need to take on
00:54:27> 00:54:29: 00:54:29> 00:54:32: 00:54:32> 00:54:34:	but I'd say there's kind of two pieces there.  One is the kind of steps need to take on the road to electrification,
00:54:27> 00:54:29: 00:54:29> 00:54:32: 00:54:32> 00:54:34: 00:54:34> 00:54:37:	but I'd say there's kind of two pieces there.  One is the kind of steps need to take on the road to electrification, of maybe going from steam to hot water, or go into a low temperature hot water system,
00:54:27> 00:54:29: 00:54:29> 00:54:32: 00:54:32> 00:54:34: 00:54:34> 00:54:37: 00:54:37> 00:54:40:	but I'd say there's kind of two pieces there.  One is the kind of steps need to take on the road to electrification, of maybe going from steam to hot water, or go into a low temperature hot water system, or some kind of retro commissioning.
00:54:27> 00:54:29: 00:54:29> 00:54:32: 00:54:32> 00:54:34: 00:54:34> 00:54:37: 00:54:37> 00:54:40: 00:54:40> 00:54:41: 00:54:41> 00:54:43:	but I'd say there's kind of two pieces there.  One is the kind of steps need to take on the road to electrification, of maybe going from steam to hot water, or go into a low temperature hot water system, or some kind of retro commissioning.  That's going to get you steps further.
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00:55:15> 00:55:18:	Art for prologis. There was a question about the all
00:55:18> 00:55:21:	electric aspect of your of your development,
00:55:21> 00:55:23:	specifically around hot water though,
00:55:23> 00:55:25:	is that all electric as well?
00:55:26> 00:55:31:	Yes, also, hotel service produced by the by the Heat
00:55:31> 00:55:32:	pump system.
00:55:32> 00:55:35:	Uhm, I must say for the logistics facility,
00:55:35> 00:55:39:	mainly the heating system of the warehouse is it's.
00:55:39> 00:55:41:	Yeah that's the highest energy consumption.
00:55:41> 00:55:44:	So there we can really make a difference.
00:55:44> 00:55:47:	And in the end we have chosen for really high,
00:55:47> 00:55:52:	highly efficient heat pumps and a low temperature water system
00:55:52> 00:55:56:	in the warehouse to to to yeah to regulate the
00:55:56> 00:56:01:	temperature and that that were working really well.
00:56:01> 00:56:01:	So yeah
00:56:02> 00:56:06:	great, thanks Arthur. Phillip, there's a question about the North
00:56:07> 00:56:08:	Wacker project as well.
00:56:08> 00:56:12:	If if you are aware of any studies that were
00:56:12> 00:56:13:	done to determine.
00:56:13> 00:56:18:	Extra energy use reduction. Whether it's thinking about solar incorporated
00:56:18> 00:56:21:	into the glass or some sort of microgrid system?
00:56:21> 00:56:24:	Where were there any studies exploring innovative energy
	efficiency for
00:56:24> 00:56:25:	the development?
00:56:26> 00:56:30:	Yes, absolutely. We we engaged a number of different third
00:56:30> 00:56:33:	party vendors to give us ideas as to what we
00:56:33> 00:56:37:	could implement in the building to help with electricity and
00:56:37> 00:56:39:	utility consumption and save ultime.
00:56:39> 00:56:43:	Ultimately, that that money that we save passes along to
00:56:43> 00:56:44:	the tenants.
00:56:44> 00:56:47:	And it's a positive thing reducing their gross rents.
00:56:47> 00:56:48:	So it's a good thing for them.
00:56:48> 00:56:52:	At at Wacker we had an 18%
00:56:52> 00:56:57:	cost savings from efficient appliances and energy saving HVAC.
00:56:57> 00:57:01:	Equipment and and that was really a recommendation that came
00:57:01> 00:57:04:	back as one of the most impactful ways that we
00:57:04> 00:57:08:	could save from a utility standpoint in that way.
00:57:08> 00:57:10:	And so you know, through those strategy,

00 57 40 > 00 57 44	
00:57:10> 00:57:14:	I think were anticipated to lower emissions by up to.
00:57:14> 00:57:17:	I believe it's 53% compared to a median building.
00:57:18> 00:57:22:	Alright, I love it well everyone one loves a good
00:57:22> 00:57:25:	sustainability sheret.
00:57:25> 00:57:29:	OK so. One thing that we are thinking of doing
00:57:29> 00:57:34:	is having a lightning round question to to close things
00:57:34> 00:57:34:	out.
00:57:34> 00:57:37:	And so that question is we're just going to bring
00:57:37> 00:57:39:	it back to COVID because we are still here,
00:57:39> 00:57:41:	even though we thought it was going to be a
00:57:41> 00:57:42:	2020 thing.
00:57:42> 00:57:45:	So really quickly around the horn to close it out.
00:57:45> 00:57:48:	What was the most significant or surprising impact of the
00:57:49> 00:57:52:	pandemic on sustainability in your portfolio last year or your
00:57:52> 00:57:53:	building?
00:57:54> 00:57:57:	I can take that one first because this is so
00:57:57> 00:57:58:	obvious to me.
00:57:58> 00:58:02:	I was amazed at the quickness and response of our
00:58:02> 00:58:07:	property management teams to something as extraordinary as as COVID
00:58:07> 00:58:07:	was.
00:58:07> 00:58:10:	It is a very quickly,
00:58:10> 00:58:14:	you know, indoor environmental air quality was a big focus
00:58:14> 00:58:17:	and enhanced operational safety was a big focus.
00:58:17> 00:58:20:	Cleaning protocols were a big focus and it was a
00:58:20> 00:58:25:	must with tenants because companies are weighing should be returned.
00:58:25> 00:58:27:	Office, should we work from home?
00:58:27> 00:58:30:	Well, working from home is working and people are being
00:58:30> 00:58:33:	productive working from home and so it was a big
00:58:33> 00:58:36:	focus and it took a a massive haul from our
00:58:36> 00:58:40:	property management teams to in.
00:58:40> 00:58:43:	Female 20 N Wacker this is speaking about Howard Hughes
00:58:43> 00:58:46:	generally I was just in all of their our property
00:58:46> 00:58:51:	management team's ability to coordinate implement safety measures to work
00:58:51> 00:58:54:	toward protecting the health of our tenants as fast as
00:58:54> 00:58:54:	they did.
00:58:57> 00:58:59:	All right, who next? Lightning answers here.
00:58:59> 00:59:02:	I I was surprised by the fact that it had
00:59:02> 00:59:04:	so much ripple on effect,
00:59:04> 00:59:07:	not just the indoor air quality and health and safety,
00:59:07> 00:59:08:	but it seemed like ESG,
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00:59:08> 00:59:12:	just. Got so much more attention starting around mid year
00:59:12> 00:59:13:	last year.
00:59:13> 00:59:17:	Really surprisingly we thought everyone go in like cash conservation.
00:59:17> 00:59:19:	Batten down the hatches and instead ESG.
00:59:19> 00:59:21:	I think really started to come into the spotlight.
00:59:24> 00:59:29:	And for me, I would say that marketing was was
00:59:29> 00:59:30:	really impacted.
00:59:30> 00:59:34:	You know we were leasing out properties in the middle
00:59:34> 00:59:37:	of the pandemic and you know we had to pivot
00:59:37> 00:59:41:	and use virtual touring and really implement some unique ways
00:59:41> 00:59:46:	to communicate everything that we otherwise would do in person
00:59:46> 00:59:50:	about the property to our potential tenants.
00:59:51> 00:59:55:	Some may Archer. Pandemic on sustainability.
00:59:56> 00:59:58:	Yes, especially logistics, real estate.
00:59:58> 01:00:03:	Of course the pandemic leader to an acceleration because of
01:00:03> 01:00:04:	all the e-commerce.
01:00:04> 01:00:07:	That's yeah, that was really a boost.
01:00:07> 01:00:09:	But on the other hand,
01:00:09> 01:00:12:	I think it does also shown how sensitive this is.
01:00:13> 01:00:14:	Blighting can be for disruption,
01:00:14> 01:00:21:	you know, and I think this more and more emphasized
01:00:22> 01:00:24:	that's to create a.
01:00:24> 01:00:28:	A healthy and and good working environment in,
01:00:28> 01:00:31:	in, in, the in the distribution center.
01:00:31> 01:00:35:	Yeah, it's it's it's very important and so yeah,
01:00:35> 01:00:37:	I think now it gets much more.
01:00:37> 01:00:41:	It gets much more attention which is a good thing.
01:00:41> 01:00:41:	Right,
01:00:41> 01:00:44:	well thank you to all of our speakers today.
01:00:44> 01:00:47:	Thank you to our attendees for coming in and listening.
01:00:47> 01:00:49:	I hope everyone learned a little bit about the state
01:00:50> 01:00:52:	of green and and where are you like GREENPRINT members
01:00:52> 01:00:55:	are are moving forward on the business case for sustainability.
01:00:55> 01:00:56:	Thanks everyone, bye.
01:00:57> 01:00:58:	Thank you bye bye.

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