

# Virtual Tour

## Burwood Brickworks, Melbourne, Australia

Date: May 24, 2021

00:00:43 --> 00:00:47: Good afternoon, thanks everyone for joining us for this tour  
 00:00:47 --> 00:00:49: of Burwood Brickworks,  
 00:00:49 --> 00:00:54: which is the world's most sustainable shopping center and the  
 00:00:54 --> 00:00:57: first retail center in the world to achieve.  
 00:00:57 --> 00:01:01: Living building certification. Thank you for joining us today.  
 00:01:01 --> 00:01:04: I'm Alex Lip I'm the manager at ULI Australia and  
 00:01:04 --> 00:01:09: I'd just like to start by acknowledging the traditional land  
 00:01:09 --> 00:01:12: owners of the land that I'm on today.  
 00:01:12 --> 00:01:15: The angle people of the ordination and I'd like to  
 00:01:15 --> 00:01:20: acknowledge the traditional owners of the land from the  
 00:01:20 --> 00:01:23: multitude  
 00:01:20 --> 00:01:23: of lands from which we gather today.  
 00:01:23 --> 00:01:26: Uhm, and now I'd like to hand it over to  
 00:01:26 --> 00:01:27: Steven Choi,  
 00:01:27 --> 00:01:30: who's the living building manager for at Fraser Properties for  
 00:01:31 --> 00:01:31: Burwood Brickworks,  
 00:01:31 --> 00:01:35: who will take us on this live tour and throughout  
 00:01:35 --> 00:01:36: the tour.  
 00:01:36 --> 00:01:39: Please do feel free to enter any questions into Q&A  
 00:01:39 --> 00:01:42: and I'll just feed those over to Steve.  
 00:01:42 --> 00:01:45: And as we go through the tour.  
 00:01:47 --> 00:01:49: Great thanks so much Alex and hello,  
 00:01:49 --> 00:01:53: everyone, wherever you are in the world.  
 00:01:53 --> 00:01:55: My name is Steven and come.  
 00:01:55 --> 00:01:56: I'm here at Burwood, Brickworks.  
 00:01:56 --> 00:01:59: UM, the land on which I'm standing on is actually  
 00:01:59 --> 00:02:00: a call in nation,  
 00:02:00 --> 00:02:03: and I'll tell you a bit more about that as  
 00:02:04 --> 00:02:04: you go up.

00:02:04 --> 00:02:07: As Alex mentioned, if you have any particular questions as  
00:02:07 --> 00:02:08: you go,  
00:02:08 --> 00:02:11: feel free to direct them and Alex will decide whether  
00:02:11 --> 00:02:13: or not they were the questions,  
00:02:13 --> 00:02:16: and then she will either interrupt me while you're walking  
00:02:16 --> 00:02:18: around or save them to the end.  
00:02:18 --> 00:02:21: If there's something that I'm walking past that you want  
00:02:21 --> 00:02:22: to know about immediately,  
00:02:22 --> 00:02:24: then please feel free to.  
00:02:24 --> 00:02:28: Come drop that in in the chat to Alex.  
00:02:28 --> 00:02:32: Uhm? I'll begin by just talking a bit about the  
00:02:32 --> 00:02:34: philosophy of this building,  
00:02:34 --> 00:02:39: because it's framework will probably help you understand  
why things  
00:02:39 --> 00:02:41: are done in a very particular way.  
00:02:41 --> 00:02:44: We're in Burwood, which is about 20 kilometres east of  
00:02:44 --> 00:02:47: Melbourne Central business district.  
00:02:47 --> 00:02:49: It's a pretty ordinary suburb.  
00:02:49 --> 00:02:51: I would say we've quite ordinary things,  
00:02:51 --> 00:02:56: quite ordinary people, and this is very important thing for  
00:02:56 --> 00:03:00: us because a lot of these extremely sort of.  
00:03:00 --> 00:03:02: Ultra Green building. They tend to be,  
00:03:02 --> 00:03:05: you know, very nice offices in the middle of the  
00:03:05 --> 00:03:09: city or there's someone some rich person's house in the  
00:03:09 --> 00:03:13: countryside and we really wanted something that was very  
accessible.  
00:03:13 --> 00:03:17: Hence it being a shopping center and something that's  
extremely.  
00:03:20 --> 00:03:23: Ordinary in its typology and its location,  
00:03:23 --> 00:03:25: so this quite as I mentioned,  
00:03:25 --> 00:03:29: quite and a normal place that lots and lots of  
00:03:29 --> 00:03:31: people live and work.  
00:03:31 --> 00:03:34: So the philosophy behind the building is that it undertook  
00:03:34 --> 00:03:37: something called the Living Building Challenge,  
00:03:37 --> 00:03:40: which is a bit like thinking of the world,  
00:03:40 --> 00:03:43: not in terms of your local building codes or the  
00:03:43 --> 00:03:46: authorities that have jurisdiction in your area,  
00:03:46 --> 00:03:49: but thinking about buildings in the context of if they  
00:03:49 --> 00:03:53: were like something that was genuinely in the natural world,  
00:03:53 --> 00:03:56: how would they behave? What would they be made of,  
00:03:56 --> 00:03:58: what they look like so you know,  
00:03:58 --> 00:04:01: I think about a tree.  
00:04:01 --> 00:04:05: A tree. Gets all of its energy from the sun,

00:04:05 --> 00:04:08: gets all of its water from the rain.  
00:04:08 --> 00:04:09: Anyone can sit under it.  
00:04:09 --> 00:04:13: It's not judgmental and it attracts insects and other species.  
00:04:13 --> 00:04:16: It's rooted in the place that it is actually located.  
00:04:16 --> 00:04:19: It feeds the soil and it also takes from the  
00:04:19 --> 00:04:19: soil.  
00:04:19 --> 00:04:21: It never takes back in.  
00:04:21 --> 00:04:25: Ever takes away more than it actually gives.  
00:04:25 --> 00:04:27: There's no toxicity. There's no pollution,  
00:04:27 --> 00:04:30: there's no waste products in the natural world,  
00:04:30 --> 00:04:33: and so we challenged ourselves to undertake this thing  
called  
00:04:33 --> 00:04:34: the Living Building Challenge,  
00:04:34 --> 00:04:38: which says, can we build a single building as good  
00:04:38 --> 00:04:41: as something as simple as a tree?  
00:04:41 --> 00:04:44: Uhm? And that's what we undertook to do.  
00:04:44 --> 00:04:47: So I'm going to walk around spooning and acico.  
00:04:47 --> 00:04:50: As I mentioned, we have questions are come I'm starting  
00:04:50 --> 00:04:52: on the outside I'll show you a model will go  
00:04:52 --> 00:04:55: right through the middle of the building and you'll see  
00:04:55 --> 00:04:59: some of the tendencies inside will go up on the  
00:04:59 --> 00:05:01: roof and take a look around.  
00:05:01 --> 00:05:04: One thing I will say is that it is live  
00:05:04 --> 00:05:07: and it's Monday afternoon here in Melbourne.  
00:05:07 --> 00:05:10: Anything can happen. I could get hit by a shopping  
00:05:10 --> 00:05:12: trolley and you know anything can happen.  
00:05:12 --> 00:05:15: So if that does happen I apologize in advance,  
00:05:15 --> 00:05:19: but this is sort of everyday life and the sense  
00:05:19 --> 00:05:22: is full of people so I'm going to walk you  
00:05:22 --> 00:05:23: now too.  
00:05:23 --> 00:05:26: A model which will help you see.  
00:05:26 --> 00:05:29: From the context of the site.  
00:05:29 --> 00:05:33: So. Here we are and we're in the UM,  
00:05:33 --> 00:05:36: how to put this when the.  
00:05:36 --> 00:05:39: Southern hemisphere, for those of you in the northern  
hemisphere.  
00:05:39 --> 00:05:42: So that means this time is actually coming around the  
00:05:42 --> 00:05:42: north.  
00:05:42 --> 00:05:45: We're looking north now. This is the east.  
00:05:45 --> 00:05:48: The sun comes around to the West.  
00:05:48 --> 00:05:50: This is the shopping center here.  
00:05:50 --> 00:05:53: UM, we're standing where this red dot is currently,

00:05:53 --> 00:05:57: and when I turn around will be looking at the  
00:05:57 --> 00:05:59: northern facade of that center,  
00:05:59 --> 00:06:03: so it's just over 13,000 square meters of gross leesport  
00:06:03 --> 00:06:03: area.  
00:06:03 --> 00:06:06: It's a 25,500 square metre retail site,  
00:06:06 --> 00:06:09: and it's surrounded by new housing and community use and  
00:06:09 --> 00:06:10: urban Plaza,  
00:06:10 --> 00:06:13: which will have a look at.  
00:06:13 --> 00:06:15: That RSPCA, if you're familiar,  
00:06:15 --> 00:06:17: is a charity for the responsible.  
00:06:17 --> 00:06:21: And, you know, protection of.  
00:06:21 --> 00:06:24: Of a species beyond human and and then there's also  
00:06:24 --> 00:06:26: aged care off to one side,  
00:06:26 --> 00:06:28: and this is, as I mentioned,  
00:06:28 --> 00:06:30: looking north as we go.  
00:06:30 --> 00:06:32: So if I swing around,  
00:06:32 --> 00:06:36: you'll see we're actually looking South at the southern facade  
00:06:36 --> 00:06:37: of the building.  
00:06:39 --> 00:06:42: On the left there and seeing my video isn't mirrors,  
00:06:42 --> 00:06:45: but on the left there and you could see some  
00:06:45 --> 00:06:47: trees along the facade.  
00:06:47 --> 00:06:49: They're all citrus trees in fact,  
00:06:49 --> 00:06:53: and on the right hand side you'll see actually a  
00:06:53 --> 00:06:54: cinema.  
00:06:54 --> 00:06:57: So we're gonna take a walk and as we go  
00:06:57 --> 00:07:00: and I'll explain things as we go from one thing  
00:07:00 --> 00:07:01: to think about.  
00:07:01 --> 00:07:04: Come here is sort of the history of the site.  
00:07:04 --> 00:07:07: I'll talk more about the First Nations or indigenous  
communities.  
00:07:07 --> 00:07:09: It used to be here,  
00:07:09 --> 00:07:12: but there's a couple of things looking at the facade  
00:07:12 --> 00:07:15: that give you a little bit of a hint as  
00:07:15 --> 00:07:18: to what the site used to be after it's it's  
00:07:18 --> 00:07:21: already always had traditional custodian ship from people in  
the  
00:07:21 --> 00:07:22: calling nation KULIN.  
00:07:22 --> 00:07:24: It was also an orchard.  
00:07:24 --> 00:07:27: Can we have a lot of orchard tree and it  
00:07:27 --> 00:07:29: used to be a brick work?  
00:07:29 --> 00:07:33: And hence that's why it's called the barefoot.  
00:07:33 --> 00:07:37: So here we go. And Alex,  
00:07:37 --> 00:07:41: feel free to verbally interrupt me as we go because

00:07:41 --> 00:07:45: I'll be juggling a few things and not looking at  
00:07:45 --> 00:07:46: the chat box maker.  
00:07:46 --> 00:07:51: Will do. Thank you in the distance there you might  
00:07:51 --> 00:07:54: be able to see a mountain range.  
00:07:54 --> 00:07:58: That mountain range, called the Dandenong and it's where  
Melbourne  
00:07:58 --> 00:08:00: gets a lot of its clean water and the water  
00:08:00 --> 00:08:01: rides there,  
00:08:01 --> 00:08:05: flows down to sites like this and then if you've  
00:08:05 --> 00:08:09: been to Melbourne you might know the Yarra River.  
00:08:09 --> 00:08:13: Not running right through the center of Melbourne.  
00:08:13 --> 00:08:16: It's the reason I'm telling you that story now,  
00:08:16 --> 00:08:19: but will come on to that in a minute.  
00:08:19 --> 00:08:23: But it's very important because it locates us right here  
00:08:23 --> 00:08:23: in.  
00:08:23 --> 00:08:26: In Melbourne, I'm gonna try and.  
00:08:26 --> 00:08:33: Right now so. Safety looking both ways.  
00:08:33 --> 00:08:37: Right? They're looking through the northern entrance of the  
building.  
00:08:37 --> 00:08:41: Into the central mole. On the right hand side is  
00:08:41 --> 00:08:44: a cinema on the left hand side there's a number  
00:08:44 --> 00:08:45: of tendencies,  
00:08:45 --> 00:08:48: especially tendency for those around.  
00:08:48 --> 00:08:52: Uhm 40 tenancy in total.  
00:08:52 --> 00:08:57: Give or take. Is a supermarket and.  
00:08:57 --> 00:09:01: Child Care Yoga Studio Medical Center.  
00:09:01 --> 00:09:06: And so on. And here we are in.  
00:09:06 --> 00:09:13: The first lobby. Now, hopefully you can hear in terms  
00:09:13 --> 00:09:17: of the sounds from each lobby.  
00:09:17 --> 00:09:22: As a soundscape. And in this case it's indigenous birds  
00:09:22 --> 00:09:23: the area.  
00:09:25 --> 00:09:28: There's also something visual in every lobby.  
00:09:28 --> 00:09:31: Two and in this case it's our signage which explains  
00:09:31 --> 00:09:34: how the building works in a system sense.  
00:09:34 --> 00:09:36: So the building part of an ecosystem.  
00:09:36 --> 00:09:39: So whether it's using water in a certain way,  
00:09:39 --> 00:09:40: food in a certain way,  
00:09:40 --> 00:09:44: energy in certain way, resources which some people call  
waste,  
00:09:44 --> 00:09:47: but let's call it resources in a particular way and  
00:09:47 --> 00:09:50: how people interact with all of those different components.  
00:09:50 --> 00:09:53: There's also a basement which we won't go into because  
00:09:53 --> 00:09:56: I'm probably will lose reception down there.

00:09:56 --> 00:10:01: But it's just over 200 different 200 bicycle parking facilities.  
00:10:01 --> 00:10:05: Electric car charging a battery which is being installed at  
00:10:05 --> 00:10:10: present and half a million liters of water storage,  
00:10:10 --> 00:10:14: which is part of the membrane aerated bioreactor to treat  
00:10:15 --> 00:10:17: black water in the center itself.  
00:10:17 --> 00:10:28: So here we go. The most shopping centers,  
00:10:28 --> 00:10:32: UM, they offer. Many are often designed a bit like  
00:10:32 --> 00:10:35: casinos where you can't find your way in or out.  
00:10:35 --> 00:10:39: You don't necessarily know what time of day it is.  
00:10:39 --> 00:10:41: It's slightly different here, in fact is very different.  
00:10:41 --> 00:10:44: Here we had one principle as part of the living  
00:10:44 --> 00:10:45: room challenge,  
00:10:45 --> 00:10:46: which is every human being,  
00:10:46 --> 00:10:49: particularly staff members who are working here need to  
have  
00:10:49 --> 00:10:50: access to fresh air,  
00:10:50 --> 00:10:53: daylight, and a view of the outside at all times.  
00:10:53 --> 00:10:55: Do you know what season it is?  
00:10:55 --> 00:10:57: You know what time of day is?  
00:10:57 --> 00:10:58: You know if it's raining outside,  
00:10:58 --> 00:11:01: that's quite different from the normal way of doing shopping  
00:11:01 --> 00:11:01: centers.  
00:11:01 --> 00:11:05: So here was standing in the middle of the mall.  
00:11:05 --> 00:11:08: Uhm, the windows above. They actually open and close.  
00:11:08 --> 00:11:10: Depending on the outside conditions.  
00:11:10 --> 00:11:14: And so if it's nice outside and we want to  
00:11:14 --> 00:11:15: tempt the inside,  
00:11:15 --> 00:11:20: we can turn thermal systems down or off and then  
00:11:20 --> 00:11:22: allow fresh air to come in.  
00:11:22 --> 00:11:25: Uhm, there's a supermarket, as I mentioned,  
00:11:25 --> 00:11:27: called Woolworths. If you're familiar.  
00:11:27 --> 00:11:31: I'm on one side and on the other side we  
00:11:31 --> 00:11:32: have a few kiosks.  
00:11:32 --> 00:11:36: And a couple of other food shops.  
00:11:36 --> 00:11:39: What's kind of important to understand is that.  
00:11:39 --> 00:11:41: Every aspect of what I'm talking about,  
00:11:41 --> 00:11:44: you know, with energy, water waste.  
00:11:44 --> 00:11:48: Materials, etc. They apply to all of the tendencies as  
00:11:48 --> 00:11:52: well and not just the base building or the shell  
00:11:52 --> 00:11:53: of the shopping center.  
00:11:53 --> 00:11:57: UM, so every single tenancy involved here has had to  
00:11:57 --> 00:11:59: do everything I'm talking about.

00:12:01 --> 00:12:04: Probably will turn that water and and rainbows are tanks.  
00:12:04 --> 00:12:08: I wouldn't mind just showing you the amenities.  
00:12:08 --> 00:12:11: So there's a few little controversial things here.  
00:12:11 --> 00:12:15: One of them is. 3 water so you know.  
00:12:15 --> 00:12:19: Shopping centers usually make quite a lot of money from  
00:12:19 --> 00:12:20: selling bottled water,  
00:12:20 --> 00:12:24: and in this case we have the Explorer native.  
00:12:24 --> 00:12:28: Water that it's free to the public and the other  
00:12:28 --> 00:12:31: thing is the sort of non technical approach which is  
00:12:31 --> 00:12:33: ways to reduce people's water use.  
00:12:33 --> 00:12:35: Of course we've got good taps,  
00:12:35 --> 00:12:37: got good showers, you know,  
00:12:37 --> 00:12:41: good toilets etc. But one of the ways that we've  
00:12:41 --> 00:12:45: managed to do is just have a communal washbasin so  
00:12:45 --> 00:12:48: people wash their hands together and.  
00:12:48 --> 00:12:53: This actually stops people we found from standing and  
wasting  
00:12:53 --> 00:12:59: water for minutes on heads because there's a cultural aspect  
00:12:59 --> 00:13:00: to doing that so.  
00:13:00 --> 00:13:04: A non technical sort of socialist both end cultural experiment  
00:13:04 --> 00:13:08: was looking at how we can reduce water without just  
00:13:08 --> 00:13:10: being purely technology focused.  
00:13:12 --> 00:13:17: Play walking South again. We're going to walk out towards  
00:13:17 --> 00:13:17: the east,  
00:13:17 --> 00:13:20: which is the urban Plaza.  
00:13:20 --> 00:13:24: So that's a completely pedestrianised part of the site.  
00:13:24 --> 00:13:28: And. Right in front of me there's a new apartment  
00:13:28 --> 00:13:29: residential,  
00:13:29 --> 00:13:31: which is also by Frasers property,  
00:13:31 --> 00:13:35: but developed it in a different way at a different  
00:13:35 --> 00:13:35: time.  
00:13:35 --> 00:13:37: Sorry to the shopping center,  
00:13:37 --> 00:13:39: so we've been open since December 2019,  
00:13:39 --> 00:13:42: which turned out to be a terrible time to open  
00:13:42 --> 00:13:44: anything in retail.  
00:13:44 --> 00:13:46: Given everything that happened in 2020,  
00:13:46 --> 00:13:51: but. These things happen. And the apartments that we're  
looking  
00:13:52 --> 00:13:53: at in this image,  
00:13:53 --> 00:13:56: you know, have only just been settled in the last  
00:13:56 --> 00:13:56: several weeks.  
00:13:56 --> 00:14:00: So people are in the process of moving in.  
00:14:00 --> 00:14:03: Uhm? There's children play here.

00:14:03 --> 00:14:05: There's a lot of communal seating,  
00:14:05 --> 00:14:08: and it's really a place where the community gathered to  
00:14:08 --> 00:14:10: do all kinds of things.  
00:14:10 --> 00:14:12: And there's many, many events around.  
00:14:12 --> 00:14:14: And, you know, from north,  
00:14:14 --> 00:14:17: all the way around to.  
00:14:17 --> 00:14:20: The South this is quite a large.  
00:14:20 --> 00:14:23: Space where there's lots of activities.  
00:14:23 --> 00:14:26: They're going to walk South again.  
00:14:26 --> 00:14:27: Past the fear of specialties.  
00:14:27 --> 00:14:30: I want to show you quickly the car park because  
00:14:30 --> 00:14:31: we do have a car park.  
00:14:31 --> 00:14:35: I'm at grave. And and I might explain some of  
00:14:35 --> 00:14:37: the materials as we as we walk.  
00:14:45 --> 00:14:49: Every physical thing that you can see.  
00:14:49 --> 00:14:55: We've been, uhm. Researching from a material ingredients  
and chemistry  
00:14:56 --> 00:14:57: perspective.  
00:14:57 --> 00:15:01: So. The brick the ground,  
00:15:01 --> 00:15:05: the tiling, the cement, the metals,  
00:15:05 --> 00:15:12: the lighting, the cabling. Any timber?  
00:15:12 --> 00:15:17: We researched service 6000 different materials products and  
asked the  
00:15:17 --> 00:15:20: suppliers what is in them down to 100 parts per  
00:15:20 --> 00:15:20: million.  
00:15:20 --> 00:15:23: And we were trying to avoid Red List substances,  
00:15:23 --> 00:15:26: so we were trying to avoid things that shouldn't be  
00:15:26 --> 00:15:27: in buildings anyway,  
00:15:27 --> 00:15:30: but at best or lead mercury and things that are  
00:15:31 --> 00:15:34: a bit more contentious like PVC or BPA or.  
00:15:34 --> 00:15:38: Say lights so every single product that we use to  
00:15:38 --> 00:15:39: be vetted,  
00:15:39 --> 00:15:43: invested and vetted went to multiple suppliers and of those  
00:15:43 --> 00:15:45: 6000 that we come.  
00:15:45 --> 00:15:48: Reviewed only 1300 were even compliant.  
00:15:52 --> 00:15:54: Still working along the southern edge.  
00:15:54 --> 00:15:59: As you can see, it's getting darker now in Melbourne.  
00:15:59 --> 00:16:03: I'm. And there's a few things in the car park  
00:16:03 --> 00:16:05: which expose a bit unusual.  
00:16:05 --> 00:16:08: One is that there's lots of food growing in the  
00:16:08 --> 00:16:09: car park,  
00:16:09 --> 00:16:12: so people are welcome to take some herbs home if



00:16:12 --> 00:16:13: they want to do this,  
00:16:13 --> 00:16:17: and native trees that have just been planted there and  
00:16:17 --> 00:16:19: in between all of the car park grows,  
00:16:19 --> 00:16:22: you might just see a bio Swale and so water  
00:16:23 --> 00:16:23: land.  
00:16:23 --> 00:16:27: On the surface, and then drains down through this natural  
00:16:27 --> 00:16:31: filtration system and then it gets captured in the basement  
00:16:31 --> 00:16:34: and that water can then be redirected to be used  
00:16:34 --> 00:16:36: in multiple ways. So for example,  
00:16:36 --> 00:16:39: it can be used to irrigate.  
00:16:39 --> 00:16:42: The plants used to flush the toilet.  
00:16:42 --> 00:16:45: It can be used to keep the building cool.  
00:16:45 --> 00:16:48: It gets used in a car wash.  
00:16:48 --> 00:16:51: It can even be used to wash clothes so there's  
00:16:51 --> 00:16:56: a reticulation system around the site that allows that to  
00:16:56 --> 00:16:56: happen.  
00:16:56 --> 00:17:00: Uhm, I'm just walking along the southern edge of the  
00:17:00 --> 00:17:01: building.  
00:17:01 --> 00:17:07: Uhm past dog Salon and a child care center.  
00:17:07 --> 00:17:10: I want to show you some of the bricks that  
00:17:11 --> 00:17:12: we have on the site.  
00:17:12 --> 00:17:16: The bricks are part of a sort of salvage material  
00:17:16 --> 00:17:17: campaign that we ran.  
00:17:17 --> 00:17:21: We tried to salvage as many we actually had a  
00:17:21 --> 00:17:22: target of.  
00:17:22 --> 00:17:25: 50 different salvage materials on the site.  
00:17:25 --> 00:17:29: In the end we salvage just over 90.  
00:17:29 --> 00:17:33: So these are some materials that have had a life  
00:17:33 --> 00:17:33: before,  
00:17:33 --> 00:17:38: so for example. The Frick when you see it be  
00:17:38 --> 00:17:40: written in one of them.  
00:17:40 --> 00:17:45: I mean, basic Bellwood Caesar actually made up on this  
00:17:46 --> 00:17:50: site between the 1950s and the 19 late 1980s,  
00:17:50 --> 00:17:54: early 1990s. So two reasons for this,  
00:17:54 --> 00:17:59: one is. The building is carbon positive or carbon neutral  
00:17:59 --> 00:18:01: and some in operation,  
00:18:01 --> 00:18:04: so all of the carbon used or created is actually  
00:18:04 --> 00:18:07: embodied in the building construction itself.  
00:18:07 --> 00:18:10: So we measured all of that.  
00:18:10 --> 00:18:14: And also offset that. But we also want to cut  
00:18:14 --> 00:18:15: down embodied carbon.  
00:18:15 --> 00:18:18: So uhm, bricks, as you can imagine,

00:18:18 --> 00:18:21: they're extremely energy intensive to make some.  
00:18:21 --> 00:18:25: Relative to some other handling products.  
00:18:25 --> 00:18:27: So what we did was salvages manager could.  
00:18:27 --> 00:18:30: In this case we're very lucky 'cause we found some  
00:18:30 --> 00:18:33: bricks that you know over half of a century old  
00:18:34 --> 00:18:34: and these are,  
00:18:34 --> 00:18:37: you know, full bricks. They were made.  
00:18:37 --> 00:18:40: Buildings are made using a lime rather than a cement  
00:18:40 --> 00:18:41: to the bricks.  
00:18:41 --> 00:18:44: It come apart more easily and then the bricks didn't  
00:18:45 --> 00:18:48: quite make it and were crushed up and you can  
00:18:48 --> 00:18:50: sort of see that specially.  
00:18:50 --> 00:18:55: Facades and. In the image there a man that is.  
00:18:55 --> 00:18:58: Uh, again bricks have been crushed up and used in  
00:18:59 --> 00:18:59: the society.  
00:18:59 --> 00:19:02: As I mentioned, part of this site history,  
00:19:02 --> 00:19:05: is it some? What the brickwork,  
00:19:05 --> 00:19:08: Sir? You know 50 years essentially.  
00:19:11 --> 00:19:12: They are species that, uh,  
00:19:12 --> 00:19:15: I mentioned on the model is just over there to  
00:19:15 --> 00:19:16: the South.  
00:19:16 --> 00:19:18: Stacy with the trees and.  
00:19:18 --> 00:19:20: Interestingly, they've been wonderful to work with.  
00:19:20 --> 00:19:24: They've given us a lot of their manure and so  
00:19:24 --> 00:19:24: on,  
00:19:24 --> 00:19:28: so we can use it on site in the landscaping.  
00:19:28 --> 00:19:33: And then there's an exchange both of different animals and  
00:19:33 --> 00:19:37: practices that we share with the RSPCA.  
00:19:37 --> 00:19:39: We're gonna go back into the main mall now,  
00:19:39 --> 00:19:42: UM? As you guys might talk a little bit about  
00:19:42 --> 00:19:43: the way so.  
00:19:43 --> 00:19:48: During the construction, we managed to divert just over 99%  
00:19:48 --> 00:19:53: of waste from landfill. That was extremely difficult to do,  
00:19:53 --> 00:19:56: and it involved a huge amount of policing and lots  
00:19:56 --> 00:20:00: of wasted thinking about how things are even delivered to  
00:20:00 --> 00:20:01: site.  
00:20:01 --> 00:20:05: The kinds of materials construction products that you want to  
00:20:05 --> 00:20:05: buy.  
00:20:05 --> 00:20:09: Making sure suppliers would take back.  
00:20:09 --> 00:20:14: The product packaging. As part of the delivery service and  
00:20:14 --> 00:20:15: so on.  
00:20:15 --> 00:20:18: And then it's in operation.

00:20:18 --> 00:20:23: We collect over a dozen different way stream so.  
00:20:23 --> 00:20:25: This stock selling, for example,  
00:20:25 --> 00:20:28: which I'm not sure we can see,  
00:20:28 --> 00:20:34: sorry, they called. I'm. They collect the hair from the  
00:20:34 --> 00:20:36: dogs once they've cut them,  
00:20:36 --> 00:20:40: and that hair is then used to come.  
00:20:40 --> 00:20:44: Clean up oil spills in in the waterways locally.  
00:20:44 --> 00:20:47: And we collect all the metals.  
00:20:47 --> 00:20:51: The seven codes of plastic and we collect.  
00:20:51 --> 00:20:56: Glass, separately paper and cardboard waxed cardboard.  
00:20:56 --> 00:20:58: And all kinds of foods,  
00:20:58 --> 00:21:02: compostable packaging and so on.  
00:21:02 --> 00:21:06: And all of it is diverted from landfills.  
00:21:06 --> 00:21:10: So it's a very difficult undertaking because waste is high,  
00:21:10 --> 00:21:14: highly changeable industry. But when we go in,  
00:21:14 --> 00:21:17: I'll show you some bin and you'll see.  
00:21:17 --> 00:21:19: Some of the ways that we work with them.  
00:21:19 --> 00:21:21: They're coming through the southern entrance.  
00:21:21 --> 00:21:23: They're building and I just want to pull it here  
00:21:23 --> 00:21:23: for a moment.  
00:21:26 --> 00:21:28: There's a cafe I just want to take a moment  
00:21:28 --> 00:21:31: to just reflect on the traditional custodian.  
00:21:38 --> 00:21:42: So. Where on the calling nation?  
00:21:42 --> 00:21:47: And part of this. Design process that we went through  
00:21:47 --> 00:21:49: and development was to try and.  
00:21:49 --> 00:21:54: Find ways to genuinely. Integrate.  
00:21:54 --> 00:21:56: The 10s of thousands of years of history.  
00:21:56 --> 00:22:00: From our site. Uhm, there's so much knowledge based in  
00:22:00 --> 00:22:03: the traditional custodian.  
00:22:07 --> 00:22:12: Many different knowledge systems. A huge amount of  
learning for  
00:22:13 --> 00:22:14: us as a team.  
00:22:14 --> 00:22:18: One thing that I love about the center is that.  
00:22:18 --> 00:22:20: As I mentioned in the lobbies,  
00:22:20 --> 00:22:23: there's the soundscape. In this case it's different Magpies.  
00:22:23 --> 00:22:25: Local magpie, which is a bird here,  
00:22:25 --> 00:22:28: so there's also a smell scapes if you were here  
00:22:28 --> 00:22:29: right now,  
00:22:29 --> 00:22:32: you would smell a burning eucalyptus smell.  
00:22:32 --> 00:22:34: And that's part of Biophilic design,  
00:22:34 --> 00:22:37: where you know there's always a visual element by filter  
00:22:37 --> 00:22:37: design.

00:22:37 --> 00:22:40: But then there's a soundscape and a smell scape.  
00:22:40 --> 00:22:45: You have that very. Startle aroma,  
00:22:45 --> 00:22:49: sometimes imperceptible, and then you see something  
visually and what  
00:22:49 --> 00:22:52: we're about to see is the ceiling of the mall,  
00:22:52 --> 00:22:55: which is done by an Aboriginal artist,  
00:22:55 --> 00:22:59: Mandy Nicholson and the ceiling of the mall and the  
00:22:59 --> 00:23:03: facade of the site really talked about the layers of  
00:23:03 --> 00:23:04: country.  
00:23:04 --> 00:23:08: Of the site so. The spirits in the sky.  
00:23:08 --> 00:23:10: In the air, the Earth itself,  
00:23:10 --> 00:23:13: the lamb, we walk on the soil below the soil  
00:23:13 --> 00:23:16: in the UM done in through the geology.  
00:23:16 --> 00:23:18: All of that is covered and discussed as part of  
00:23:18 --> 00:23:19: the artwork,  
00:23:19 --> 00:23:21: and it's represented in a visual way,  
00:23:21 --> 00:23:23: so I'm not going to speak,  
00:23:23 --> 00:23:26: but I'm just going to walk through the mall and  
00:23:26 --> 00:23:28: you can look up and see the ceiling and you  
00:23:29 --> 00:23:32: can reflect on where you are and their many thousands  
00:23:32 --> 00:23:35: of years with. Human and other cultural history.  
00:24:20 --> 00:24:22: So as you can see,  
00:24:22 --> 00:24:26: different parts of the sensor have very different views of  
00:24:26 --> 00:24:27: this ceiling,  
00:24:27 --> 00:24:29: so it allows light in one end.  
00:24:32 --> 00:24:37: And it supports this Aboriginal artwork on the other faith.  
00:24:37 --> 00:24:40: And above that, there's actually solar energy.  
00:24:40 --> 00:24:43: Some of you who are very perceptible may notice we're  
00:24:43 --> 00:24:45: actually a dog friendly center as well,  
00:24:45 --> 00:24:48: so some people are welcome to bring their pets.  
00:24:48 --> 00:24:51: And this is also part of by Philip Design.  
00:24:51 --> 00:24:53: If you have a dog,  
00:24:53 --> 00:24:54: you know what I mean.  
00:24:54 --> 00:24:56: The moment you see it,  
00:24:56 --> 00:24:59: when you get home, the change that you have in  
00:24:59 --> 00:24:59: you,  
00:24:59 --> 00:25:03: emotionally, mentally, spiritually, then, UM is quite significant.  
00:25:03 --> 00:25:05: Uhm, the bins I mentioned the bin,  
00:25:05 --> 00:25:08: so these are the ones that just in the mall.  
00:25:08 --> 00:25:10: So we collect a lot more stuff in the back  
00:25:10 --> 00:25:11: of house areas.  
00:25:11 --> 00:25:15: Set an. It's complicated because you know it's a ever

00:25:15 --> 00:25:20: changing industry and we're always trying to help people understand

00:25:20 --> 00:25:23: what's collected white collected.

00:25:23 --> 00:25:25: And how they might need to separate things?

00:25:25 --> 00:25:28: And people always use the wrong bin we find,

00:25:28 --> 00:25:31: but it's better than not trying at all.

00:25:33 --> 00:25:35: So we're gonna head upstairs.

00:25:35 --> 00:25:38: But before we do, I might just show you an

00:25:38 --> 00:25:40: example of this fresh air,

00:25:40 --> 00:25:45: daylight. Approach that we had so when we were developing,

00:25:45 --> 00:25:47: we weren't entirely sure which kind of retailers would be

00:25:47 --> 00:25:48: in the different swords.

00:25:48 --> 00:25:50: Then in the case of this store,

00:25:50 --> 00:25:52: this is their bulk food where there's no waste.

00:25:52 --> 00:25:54: Do you come in with your own containers or take

00:25:54 --> 00:25:57: a paper bag and you just fill up whatever you

00:25:57 --> 00:25:58: need of the project?

00:25:58 --> 00:26:01: But what I wanted to show you is at the

00:26:01 --> 00:26:04: back there you might be able to see this kind

00:26:04 --> 00:26:04: of.

00:26:04 --> 00:26:07: For the rectangle of light in the ceiling.

00:26:07 --> 00:26:10: That's actually a skylight that comes down from the roof,

00:26:10 --> 00:26:14: so the deeper tendencies that have back about areas they

00:26:14 --> 00:26:18: actually get to remote control operated skylights.

00:26:18 --> 00:26:20: It just means that even if you walk in back

00:26:20 --> 00:26:20: of house,

00:26:20 --> 00:26:22: you still have a connection to the outside.

00:26:25 --> 00:26:30: Now. Heading upstairs. There's quite a lot of timber in

00:26:30 --> 00:26:32: this building.

00:26:34 --> 00:26:38: And. Almost all of it is salvage,

00:26:38 --> 00:26:41: which means it's had a life before.

00:26:41 --> 00:26:43: And the timber on the bulkhead.

00:26:43 --> 00:26:48: The column. Something old factories and warehouses.

00:26:48 --> 00:26:50: I'm in the building. These seats actually come from.

00:26:50 --> 00:26:53: If you've ever been to the Opera House in Sydney

00:26:53 --> 00:26:54: outside their houses,

00:26:54 --> 00:26:56: there's a number of peers at Circular Quay.

00:26:56 --> 00:26:59: When one of the peers was demolished in 2018,

00:26:59 --> 00:27:03: we just bought the pier and now more seating is

00:27:03 --> 00:27:04: made of that.

00:27:04 --> 00:27:10: The cinema, when it was being built and the UM.

00:27:10 --> 00:27:13: Kids seating or the off cuts from the ends of

00:27:13 --> 00:27:13: those seats.

00:27:13 --> 00:27:16: Those kids where the seats sit on and we captured

00:27:16 --> 00:27:17: all that timber.

00:27:17 --> 00:27:20: That's all of our signage.

00:27:20 --> 00:27:23: The floor that we're standing on when we.

00:27:23 --> 00:27:27: Pause this special floor. Again,

00:27:27 --> 00:27:31: which was tested for emissions and ingredients.

00:27:31 --> 00:27:34: And all of the timber that is used in that

00:27:34 --> 00:27:38: form work which is recovered and is now on the

00:27:38 --> 00:27:40: ceiling of the shopping center.

00:27:40 --> 00:27:45: So. The idea is that firstly each entrance has this

00:27:45 --> 00:27:51: real sense of coming from someplace into a different place,

00:27:51 --> 00:27:55: the sensory experience. But there's a lot of remembering of

00:27:55 --> 00:27:58: history through the materiality of the building,

00:27:58 --> 00:28:01: and in this case it's timber for the flooring that

00:28:01 --> 00:28:01: was you.

00:28:01 --> 00:28:04: The floor I'm standing on was supported by the timber

00:28:05 --> 00:28:07: that you see now on the ceiling of the travel

00:28:07 --> 00:28:08: agent.

00:28:11 --> 00:28:13: When we look inside the tendencies,

00:28:13 --> 00:28:16: this is one of the biggest challenges of the building

00:28:16 --> 00:28:18: because every single thing you see here.

00:28:18 --> 00:28:22: That part of the building had to be tested.

00:28:22 --> 00:28:25: And so the tiles that are on the floor and

00:28:25 --> 00:28:27: the grout between those towers,

00:28:27 --> 00:28:30: the adhesives. They will have to be tested inside it

00:28:30 --> 00:28:34: lab chamber for two weeks to see if their volatile

00:28:34 --> 00:28:37: organic compounds were too toxic to be used and majority

00:28:37 --> 00:28:42: cases they were. And the different services for the joinery.

00:28:42 --> 00:28:44: The paint on the walls,

00:28:44 --> 00:28:47: the lighting, the powder coat.

00:28:47 --> 00:28:49: You know the emergency exit signs,

00:28:49 --> 00:28:53: the vent, the cabling, the hydraulics.

00:28:53 --> 00:28:57: Literally every object that physically part of the building had

00:28:57 --> 00:29:00: to be tested and reviewed the ingredients for where it

00:29:00 --> 00:29:01: was made,

00:29:01 --> 00:29:04: what waste products come at the end?

00:29:04 --> 00:29:06: If there's an impact on human health,

00:29:06 --> 00:29:12: either during the supply during the manufacture for someone

00:29:12 --> 00:29:16: actually

00:29:16 --> 00:29:16: installing one of these products and then at the end

00:29:16 --> 00:29:16: of life.

00:29:16 --> 00:29:20: Uhm? And so it's an extremely hiring process.  
00:29:20 --> 00:29:23: We actually had a full time person.  
00:29:23 --> 00:29:28: He collectively we spent just under 20,000 hours doing research  
00:29:28 --> 00:29:31: on materials and in a lot of cases we had  
00:29:31 --> 00:29:35: to advocate back to the building code Board and Australian  
00:29:35 --> 00:29:40: standards and other authorities having jurisdiction to change the policies  
00:29:40 --> 00:29:43: that make people use really poor buildings.  
00:29:43 --> 00:29:46: I'm. We're going to go upstairs,  
00:29:46 --> 00:29:50: but I wanted to show you some in Australia we  
00:29:50 --> 00:29:51: tend to never use.  
00:29:51 --> 00:29:55: Staircases and shopping centers, there's always usually a lift or  
00:29:55 --> 00:29:55: travel later,  
00:29:55 --> 00:29:58: and we have a lift and a travelator,  
00:29:58 --> 00:30:02: but it was important for us to come.  
00:30:02 --> 00:30:06: Really encourage people to take the stairs because it's healthier.  
00:30:06 --> 00:30:10: So. And what we ended up doing was putting the  
00:30:10 --> 00:30:11: lift in.  
00:30:11 --> 00:30:12: You know, in this location,  
00:30:12 --> 00:30:16: but the staircase on the northern side.  
00:30:16 --> 00:30:20: Uhm? It's actually put in a very very prominent place  
00:30:20 --> 00:30:23: so that people are more likely to take the stairs  
00:30:23 --> 00:30:27: then they are stabilised purely because the staircase is more  
00:30:27 --> 00:30:35: beautiful. And I hope you'll agree.  
00:30:38 --> 00:30:42: There's a huge amount of lights and.  
00:30:42 --> 00:30:47: The material doesn't mention again salvage from in this case  
00:30:47 --> 00:30:49: from old office buildings.  
00:30:49 --> 00:30:51: That would be in demolished.  
00:30:51 --> 00:30:54: Beautiful changing shadows throughout the day.  
00:30:57 --> 00:31:00: And just encouraging you to playfully go up the stairs  
00:31:00 --> 00:31:02: instead of taking the lift.  
00:31:02 --> 00:31:06: Ground level 1 here and you can see the top  
00:31:06 --> 00:31:07: of the sawtooth.  
00:31:07 --> 00:31:09: Uhm, if you've got really good item,  
00:31:09 --> 00:31:11: might even be able to see the solar that's sitting  
00:31:11 --> 00:31:11: on that.  
00:31:11 --> 00:31:13: If not, we'll see it again from the outside.  
00:31:16 --> 00:31:20: I'm going to now walk onto the eastern side of  
00:31:20 --> 00:31:21: the Level 1,  
00:31:21 --> 00:31:23: which is an urban farm.

00:31:33 --> 00:31:36: So one thing I'd like to mention is that.  
00:31:36 --> 00:31:40: We have about 5000 square meters of food growing on  
00:31:41 --> 00:31:41: the site.  
00:31:41 --> 00:31:44: After that, up on the roof and urban farm and  
00:31:44 --> 00:31:47: some of its own facades and the car park and  
00:31:47 --> 00:31:47: so on.  
00:31:47 --> 00:31:50: And it was raised to connect people to the food  
00:31:50 --> 00:31:50: they eat.  
00:31:50 --> 00:31:53: Often we have no connection for the food that we  
00:31:53 --> 00:31:53: eat,  
00:31:53 --> 00:31:56: and so it was very important for us to try  
00:31:56 --> 00:31:58: and find a better way to do that.  
00:31:58 --> 00:32:01: And so here we have again a lobby with natural  
00:32:01 --> 00:32:01: soundscape.  
00:32:06 --> 00:32:09: And the smell was up here.  
00:32:09 --> 00:32:11: They vary, we changed them up,  
00:32:11 --> 00:32:13: but citrus because we have a citrus facade,  
00:32:13 --> 00:32:15: particularly as it forms fruit.  
00:32:15 --> 00:32:17: So we did a huge harvest of citrus.  
00:32:17 --> 00:32:20: If you're ever in the area and you'd like some  
00:32:20 --> 00:32:20: marmalade,  
00:32:20 --> 00:32:23: feel free. I can provide you some straightforward.  
00:32:31 --> 00:32:35: The farm is made up of a number of components.  
00:32:35 --> 00:32:41: Raised beds, bathroom, planting and also a greenhouse with  
00:32:41 --> 00:32:42: cafe  
00:32:41 --> 00:32:42: inside.  
00:32:47 --> 00:32:49: There's a restaurant up here as well.  
00:32:49 --> 00:32:52: So all of the food that's growing here.  
00:32:52 --> 00:32:56: Harvested by a full time farmer who works for a  
00:32:56 --> 00:32:58: company called Acre and Acre,  
00:32:58 --> 00:33:02: our partnership and tenant who run the farm.  
00:33:02 --> 00:33:06: And. He gets eaten on site and then any food  
00:33:06 --> 00:33:10: plate scrapings or you know the ends of carrots that  
00:33:10 --> 00:33:12: are peeling or whatever.  
00:33:12 --> 00:33:17: They come and then. Managed on site as well,  
00:33:17 --> 00:33:20: so there's a very tiny kind of food circle here  
00:33:20 --> 00:33:23: so we don't tend to talk about food miles in  
00:33:23 --> 00:33:24: request project.  
00:33:24 --> 00:33:27: We usually talk about food meter box.  
00:33:27 --> 00:33:30: Do you see there? That's the skylight I was mentioning  
00:33:30 --> 00:33:31: about 10 minutes ago,  
00:33:31 --> 00:33:34: so you have come. The.



00:33:35 --> 00:33:38: People are able to in the back of our series,  
00:33:38 --> 00:33:40: operate those who remote control open and close them.  
00:33:45 --> 00:33:49: The farm itself is open to the public all the  
00:33:49 --> 00:33:50: time.  
00:33:50 --> 00:33:55: It's commercially operated. It's just over 200 different species  
of  
00:33:55 --> 00:33:59: food and all of it was designed for either eating  
00:33:59 --> 00:34:01: to support biodiversity.  
00:34:01 --> 00:34:04: And in some cases, support very specifically support  
pollination,  
00:34:04 --> 00:34:08: because you know we have a AB crisis in our  
00:34:08 --> 00:34:09: world.  
00:34:09 --> 00:34:13: If you're not familiar and we need be.  
00:34:13 --> 00:34:16: Uhm, it's one of our quail who's just laying an  
00:34:16 --> 00:34:17: egg at the moment.  
00:34:17 --> 00:34:19: It seems that she is.  
00:34:19 --> 00:34:21: Be comfortable so in Disturber anymore,  
00:34:21 --> 00:34:25: but there's some 18 or so quails that manage help  
00:34:25 --> 00:34:29: us to manage food as well on site and anywhere  
00:34:29 --> 00:34:30: you find a quail.  
00:34:30 --> 00:34:32: You'll find really, really good gross.  
00:34:32 --> 00:34:35: That's rhubarb and spring onions and gigantic.  
00:34:35 --> 00:34:37: They love to quail effluent.  
00:34:41 --> 00:34:44: So there's the empire walking past before.  
00:34:44 --> 00:34:47: We will that way along we're just up on level  
00:34:47 --> 00:34:47: 1.  
00:34:50 --> 00:34:53: We have beehives on the site so.  
00:34:53 --> 00:34:56: This Native Australian bees that they tend to be more  
00:34:56 --> 00:34:57: solitary.  
00:34:57 --> 00:35:00: They might only stay in one of our B hotels  
00:35:00 --> 00:35:01: for the night,  
00:35:01 --> 00:35:05: but there's also European bees and hives.  
00:35:05 --> 00:35:08: Uhm, which are on the shopping center and you can  
00:35:08 --> 00:35:12: imagine this was not easy to get approval for because  
00:35:12 --> 00:35:14: it's such a public building.  
00:35:14 --> 00:35:16: But like all the things that we've done in this  
00:35:16 --> 00:35:17: building,  
00:35:17 --> 00:35:20: you know huge amount of advocacy to the different  
authorities,  
00:35:20 --> 00:35:23: and you know, designed and proven concepts and  
sometimes unproven  
00:35:23 --> 00:35:26: concepts that we had to prove along the way.  
00:35:30 --> 00:35:33: In the back there UM again you'll see the soul

00:35:33 --> 00:35:35: or just there on the roof.  
00:35:35 --> 00:35:40: The garden sheds to skylight and.  
00:35:40 --> 00:35:43: At the back is a child care center so child  
00:35:43 --> 00:35:47: Care Center has their own access to the urban farm.  
00:35:47 --> 00:35:51: There are some of our insect hotels I was mentioning.  
00:35:51 --> 00:35:55: Uhm, we can't go in the childcare center 'cause obviously  
00:35:55 --> 00:35:57: there's some privacy requirements there,  
00:35:57 --> 00:36:01: but. It's a beautiful, beautiful built set out in that  
00:36:01 --> 00:36:02: child care center.  
00:36:02 --> 00:36:05: Probably one of the healthiest in the whole world.  
00:36:05 --> 00:36:09: There's an outdoor classroom area here.  
00:36:09 --> 00:36:13: They sometimes will have chicken is a gentleman and using  
00:36:13 --> 00:36:17: the compliant paint to paint some of the worm farm  
00:36:17 --> 00:36:18: like how are you doing?  
00:36:18 --> 00:36:22: Very well, thank you. Say hello to people all across  
00:36:22 --> 00:36:23: the world.  
00:36:23 --> 00:36:28: Thank you come. And this is the greenhouse from the  
00:36:28 --> 00:36:29: other end,  
00:36:29 --> 00:36:31: so there's a hydroponic system here.  
00:36:31 --> 00:36:33: Rainwater has organic nutrient doses,  
00:36:33 --> 00:36:37: there's no petrol. Chemical fertilizers allowed on this site.  
00:36:37 --> 00:36:40: And. Then they go inside.  
00:36:40 --> 00:36:45: In the absence of soil to grow generally leafy greens  
00:36:45 --> 00:36:48: and you know high frequency.  
00:36:48 --> 00:36:52: Very fast growing produce. And that gets eaten on the  
00:36:52 --> 00:36:53: site immediately.  
00:36:55 --> 00:36:58: I'm I'm gonna just take a look inside 'cause it's  
00:36:58 --> 00:37:00: getting a bit windy,  
00:37:00 --> 00:37:02: UM? And in a moment,  
00:37:02 --> 00:37:05: to be able to answer questions and.  
00:37:05 --> 00:37:07: But just for a few minutes,  
00:37:07 --> 00:37:09: I'm just something to say anything.  
00:37:09 --> 00:37:11: I'm just gonna walk around and walk around the farm,  
00:37:11 --> 00:37:14: look around the landscape so you get more of a  
00:37:14 --> 00:37:17: sense of place without having to listen to me.  
00:37:17 --> 00:37:19: And then I'll settle down and we can come.  
00:37:19 --> 00:37:21: Is there any questions? I'm happy to answer them.  
00:39:33 --> 00:39:37: It's pretty busy earlier and they're just closing down for  
00:39:37 --> 00:39:38: a few hours before.  
00:39:38 --> 00:39:42: I'm restarting again with the evening crowd.  
00:39:42 --> 00:39:44: It's nice for me, uhm?  
00:39:44 --> 00:39:47: I'm a bit of a break up.

00:39:47 --> 00:39:49: And my arm is aching from holding this camera,  
00:39:49 --> 00:39:52: so I'm going to go into the community room.  
00:39:52 --> 00:39:56: Uhm, which is a space that can be rented out.  
00:39:56 --> 00:39:58: For free by anyone in the community.  
00:39:58 --> 00:40:01: For communities. And I'll just have a seat there,  
00:40:01 --> 00:40:04: and if there are any questions I'm happy to answer  
00:40:04 --> 00:40:05: them.  
00:40:05 --> 00:40:08: And if I missed anything then I'm also happy to  
00:40:08 --> 00:40:09: try and cover those off.  
00:40:18 --> 00:40:19: As one of our cleaners,  
00:40:19 --> 00:40:23: actually we had to review all the cleaning products.  
00:40:23 --> 00:40:25: And they get used in this building 'cause there's no  
00:40:26 --> 00:40:29: point building this beautiful construction and then bring in  
toxic  
00:40:29 --> 00:40:30: chemicals to clean it.  
00:40:30 --> 00:40:34: So we had to review every single cleaning product too.  
00:40:34 --> 00:40:36: It's a little side note when I saw the cleaner.  
00:40:39 --> 00:40:45: Uhm? Now community room. Some just gonna spin around.  
00:40:45 --> 00:40:51: And take a seat. So.  
00:40:54 --> 00:40:55: Alex, did I miss anything?  
00:40:57 --> 00:41:01: No, that was awesome. Thank you so much Steven.  
00:41:01 --> 00:41:06: Just a few questions. None of them were location specific.  
00:41:06 --> 00:41:10: Uhm, have you found that having more fresh air and  
00:41:10 --> 00:41:14: natural light has attracted more people going to the mall?  
00:41:16 --> 00:41:18: Yeah, uhm, two big observation.  
00:41:18 --> 00:41:23: One is that during Kovid in particular.  
00:41:23 --> 00:41:26: People are avoiding indoor areas and so being in space  
00:41:26 --> 00:41:30: that feels like it's outdoors but indoors has been very,  
00:41:30 --> 00:41:33: very powerful. The second thing is,  
00:41:33 --> 00:41:36: some people come from a lot further away than you'd  
00:41:37 --> 00:41:37: expect you.  
00:41:37 --> 00:41:40: You know our catchment area has grown.  
00:41:40 --> 00:41:43: Uhm, you know because of what we've done here and  
00:41:43 --> 00:41:43: y'all.  
00:41:43 --> 00:41:46: Every not a day goes by where I don't see  
00:41:46 --> 00:41:49: people just coming from very long way away.  
00:41:49 --> 00:41:52: Sometimes Interstate, sometimes overseas just to come to  
this little  
00:41:52 --> 00:41:52: suburb.  
00:41:52 --> 00:41:57: See this building. So it's a combination of factors,  
00:41:57 --> 00:42:01: but. While attracting people really interested in energy and  
water  
00:42:01 --> 00:42:03: and waste materials when it comes down to,

00:42:03 --> 00:42:07: I think people just love fresh air and daylight.  
00:42:07 --> 00:42:12: And that you know that 'cause it's extremely human to  
00:42:12 --> 00:42:13: want that and.  
00:42:13 --> 00:42:16: Uhm? For me, that that is actually one of the  
00:42:16 --> 00:42:20: most powerful things about the project is its powerful look  
00:42:20 --> 00:42:22: design framework.  
00:42:22 --> 00:42:23: Of which daylight and fresh air is one of them.  
00:42:25 --> 00:42:28: Yeah yeah, I actually have a trip to Melbourne planned  
00:42:28 --> 00:42:30: in a month and I want to stop by at  
00:42:30 --> 00:42:31: the brickworks and check it out.  
00:42:31 --> 00:42:35: Uhm, another question with the discussion with tenants,  
00:42:35 --> 00:42:40: what was the experience like when communicating all the  
responsibilities  
00:42:40 --> 00:42:44: that they have in keeping with the requirements of the  
00:42:44 --> 00:42:44: building?  
00:42:46 --> 00:42:47: On  
00:42:47 --> 00:42:50: a very big spectrum at one end.  
00:42:50 --> 00:42:52: It was very unpredictable 'cause one end of discussion we  
00:42:52 --> 00:42:52: have,  
00:42:52 --> 00:42:55: you know, Mom and dad who are running the sushi  
00:42:55 --> 00:42:56: kiosk at the other end.  
00:42:56 --> 00:43:01: We have a. Yeah, a gigantic conglomerate and running some  
00:43:01 --> 00:43:05: of the other tenancies and or another tenancy so.  
00:43:05 --> 00:43:07: Some of them are far along the journey,  
00:43:07 --> 00:43:11: some of them have no idea what we're asking for.  
00:43:11 --> 00:43:12: And what we found was,  
00:43:12 --> 00:43:13: you know, there's no one trust.  
00:43:13 --> 00:43:16: It's all approach. Often it's just a lot of time  
00:43:16 --> 00:43:18: you have to put in time with people.  
00:43:18 --> 00:43:21: One thing that I've realized is that.  
00:43:21 --> 00:43:23: You know? A lot of relationships,  
00:43:23 --> 00:43:26: particularly in environmental world, leasing being one of  
them.  
00:43:26 --> 00:43:29: We think of it as very master and slave.  
00:43:29 --> 00:43:31: You know, you think of it as I need you  
00:43:31 --> 00:43:32: to do this,  
00:43:32 --> 00:43:34: and you shall do that,  
00:43:34 --> 00:43:38: but actually. As the landlord and developer have to actually  
00:43:38 --> 00:43:39: work out,  
00:43:39 --> 00:43:42: what's the best way to help someone do what they  
00:43:42 --> 00:43:45: they need to do so I don't run a sushi  
00:43:45 --> 00:43:47: kill or a supermarket,

00:43:47 --> 00:43:50: or a cinema like I don't fully understand what they  
00:43:50 --> 00:43:51: need?  
00:43:51 --> 00:43:53: There's a lot of listening involved,  
00:43:53 --> 00:43:55: the leases from a, you know,  
00:43:55 --> 00:43:59: contractual perspective. Are used to define expectations that  
we don't  
00:43:59 --> 00:44:02: use them to hammer over someone's head.  
00:44:02 --> 00:44:07: What they must mustn't do what we actually have to  
00:44:07 --> 00:44:09: do is incentivize.  
00:44:09 --> 00:44:11: You know and learn with them and realize that this  
00:44:11 --> 00:44:13: is an ongoing thing.  
00:44:13 --> 00:44:14: It's not going to be perfect,  
00:44:14 --> 00:44:16: and it's certainly not perfect on day one,  
00:44:16 --> 00:44:18: but it gets better and better.  
00:44:18 --> 00:44:22: And and. Every single tenancy needs a different thing,  
00:44:22 --> 00:44:25: so the ice cream store is different from the childcare  
00:44:25 --> 00:44:26: center.  
00:44:26 --> 00:44:29: The Yoga studio is different from the you know Nail  
00:44:29 --> 00:44:34: salon and they will have very different needs and  
requirements  
00:44:34 --> 00:44:37: and challenges that you know we have to sort of  
00:44:37 --> 00:44:40: work with the nail salon as an example.  
00:44:42 --> 00:44:45: Again, we had to check every single product they used  
00:44:45 --> 00:44:46: on nails.  
00:44:46 --> 00:44:48: I now know what shellac is,  
00:44:48 --> 00:44:52: and acrylics and acetone. So that was a really long  
00:44:52 --> 00:44:57: process to them learning about different products that used in  
00:44:57 --> 00:45:00: a beautician and how to best.  
00:45:00 --> 00:45:03: Approach those whilst knowing that they still have to run  
00:45:03 --> 00:45:03: a business,  
00:45:03 --> 00:45:06: but the cinema it's understanding how much oil is leftover  
00:45:06 --> 00:45:08: when they make popcorn.  
00:45:08 --> 00:45:11: You know there's so many different tiny little things that  
00:45:11 --> 00:45:14: make all the difference and what's been important is having  
00:45:14 --> 00:45:17: people who are through like me on the development process  
00:45:17 --> 00:45:19: through the design through the construction and into  
operations.  
00:45:19 --> 00:45:22: 'cause that's I think the key to some of these  
00:45:22 --> 00:45:24: things really happening in reality.  
00:45:24 --> 00:45:26: Sorry for the long answer,  
00:45:26 --> 00:45:28: but yeah, it's not. It's a very big question.  
00:45:28 --> 00:45:31: The question Matt tenants. And on the whole,  
00:45:31 --> 00:45:34: they've been absolutely amazing to work with.

00:45:34 --> 00:45:38: You know, really, really humbling experience to work with people

00:45:38 --> 00:45:41: who you know have their life savings on the line

00:45:41 --> 00:45:43: when they're opening a restaurant or.

00:45:43 --> 00:45:45: Whatever it might be, and.

00:45:45 --> 00:45:47: The way they're doing it,

00:45:47 --> 00:45:49: it's just so beautiful with an extremely grateful to them.

00:45:50 --> 00:45:52: That's awesome. People are so open about it.

00:45:55 --> 00:46:00: Another question. Another question from Phil Kim,

00:46:00 --> 00:46:04: would you discuss the extra costs to have gardens space

00:46:04 --> 00:46:09: and maintenance versus the additional value you gain environmentally and

00:46:09 --> 00:46:12: building experience and loyalty from your customers?

00:46:15 --> 00:46:17: So if you take the urban farm,

00:46:17 --> 00:46:20: which I think still is probably mostly referring to,

00:46:20 --> 00:46:23: that would have been a metal roof.

00:46:23 --> 00:46:25: Pretty easy just to frame in a metal,

00:46:25 --> 00:46:30: and it provides shelter and you know it stops water

00:46:30 --> 00:46:31: from coming inside.

00:46:31 --> 00:46:34: We decided that to make this work commercially,

00:46:34 --> 00:46:36: we had to really, really make the most out of

00:46:37 --> 00:46:38: every single surface.

00:46:38 --> 00:46:41: So the roof has to capture water has to capture

00:46:41 --> 00:46:41: energy.

00:46:41 --> 00:46:45: It has to grow food as well as provide shelter

00:46:45 --> 00:46:46: as well as being,

00:46:46 --> 00:46:50: you know, the structure for an artwork or whatever it

00:46:50 --> 00:46:51: might be.

00:46:51 --> 00:46:54: Come and if you take the urban farm as an

00:46:54 --> 00:46:55: example,

00:46:55 --> 00:46:58: it's it's a big expense to turn a metal deck

00:46:58 --> 00:46:59: roof into a,

00:46:59 --> 00:47:03: you know, structural slab that can hold drainage that can

00:47:03 --> 00:47:06: support trees as well as people that has a fully

00:47:06 --> 00:47:10: reticulated recycled water supply lit properly with all the

00:47:10 --> 00:47:14: safety

00:47:10 --> 00:47:14: measures in place with someone doesn't fall off the edge

00:47:14 --> 00:47:15: and so on.

00:47:15 --> 00:47:17: 'cause it's trafficable and throughout.

00:47:17 --> 00:47:21: Uhm? But that's offset by few things.

00:47:21 --> 00:47:22: One being is now a leasable space,

00:47:22 --> 00:47:25: so that's an area that people pay rent for.

00:47:25 --> 00:47:28: It's a rooftop that people come from much wider catchment

00:47:28 --> 00:47:28: to go to,  
00:47:28 --> 00:47:31: and that has flow on effects of the other tenants  
00:47:31 --> 00:47:33: so that they might come here to go to the  
00:47:33 --> 00:47:34: farm,  
00:47:34 --> 00:47:35: have a cup of coffee,  
00:47:35 --> 00:47:37: and then they end up going for lunch.  
00:47:37 --> 00:47:39: And then they watch a film,  
00:47:39 --> 00:47:42: you know. And so all of that plays into the  
00:47:42 --> 00:47:43: picture.  
00:47:43 --> 00:47:47: The maintenance is, you know it some.  
00:47:47 --> 00:47:49: You know it. It's a living building,  
00:47:49 --> 00:47:53: so there is maintenance just like a garden and come.  
00:47:53 --> 00:47:55: My personal philosophy is that you know,  
00:47:55 --> 00:47:59: we have to understand. Buildings are living things and they  
00:47:59 --> 00:48:02: have a life span like anything else,  
00:48:02 --> 00:48:05: and we can't expect buildings to be these inner boxes,  
00:48:05 --> 00:48:09: there have to be things that we're willing to look  
00:48:10 --> 00:48:12: after to tend to to curate.  
00:48:12 --> 00:48:15: They will degrade overtime. You know there's things that  
need  
00:48:15 --> 00:48:15: renewing.  
00:48:15 --> 00:48:18: It's like any relationship you have.  
00:48:18 --> 00:48:22: The financially speaking. The rooftop farms a great example  
of.  
00:48:22 --> 00:48:25: Is it worth doing something like that?  
00:48:25 --> 00:48:29: Certainly is you get new customers repeat customers are  
leasable  
00:48:29 --> 00:48:32: space that would have already been there and also a  
00:48:32 --> 00:48:35: great way to use up water when you have too  
00:48:35 --> 00:48:39: much, particularly in you know some Melbourne can be quite  
00:48:39 --> 00:48:42: rainy and we actually want a way to use the  
00:48:42 --> 00:48:46: water sometimes rather than just let it flow until they  
00:48:46 --> 00:48:51: bring types. There's many factors that come into play there.  
00:48:51 --> 00:48:53: I can tell you if you there's a lot of  
00:48:53 --> 00:48:55: people who come here from last week.  
00:48:55 --> 00:48:57: There were people you know who got married on.  
00:48:57 --> 00:48:59: I don't know why you'd get married on a  
00:48:59 --> 00:49:01: shopping center, but. But  
00:49:01 --> 00:49:04: you know what? The value in someone's memory of getting  
00:49:04 --> 00:49:05: married somewhere?  
00:49:05 --> 00:49:07: It's how do you put a value on that?  
00:49:07 --> 00:49:11: And also being comfortable with not being able to tangibly.  
00:49:11 --> 00:49:13: Commercially value everything, and that's all,

00:49:13 --> 00:49:16: right? You know, I'm such a lovely place to be  
00:49:17 --> 00:49:18: in a lovely place to work.  
00:49:18 --> 00:49:22: It has huge brand benefits come and people who come  
00:49:22 --> 00:49:22: here.  
00:49:22 --> 00:49:25: You know they still like their own it.  
00:49:25 --> 00:49:27: You know, there's lots of people,  
00:49:27 --> 00:49:28: particularly older generations to come,  
00:49:28 --> 00:49:32: constantly giving us advice to how to do different things  
00:49:32 --> 00:49:33: in the garden.  
00:49:33 --> 00:49:36: And I think that's a really nice thing and.  
00:49:36 --> 00:49:39: Again, not easy to value financially,  
00:49:39 --> 00:49:40: but certainly worth doing.  
00:49:43 --> 00:49:45: One more question in getting approval.  
00:49:45 --> 00:49:48: I think this person means government approval.  
00:49:48 --> 00:49:51: Is it extremely difficult for echo buildings?  
00:49:51 --> 00:49:54: What do people have to be mindful of?  
00:49:56 --> 00:49:59: It's extremely difficult. Depending  
00:49:59 --> 00:50:04: on where you are things to be mindful of and.  
00:50:04 --> 00:50:08: When you have a very large renewable energy.  
00:50:08 --> 00:50:13: On the site. Not many energy utility companies want private  
00:50:13 --> 00:50:15: owners to have that.  
00:50:15 --> 00:50:18: When you're trying to clean water on the site and  
00:50:18 --> 00:50:21: recycle it for people to reuse.  
00:50:21 --> 00:50:23: All the health authorities they generally don't like that they  
00:50:23 --> 00:50:25: would rather you just plug the building in,  
00:50:25 --> 00:50:29: get water from the municipal supply and then put it  
00:50:29 --> 00:50:30: in the sewer.  
00:50:30 --> 00:50:32: But that's not the future.  
00:50:32 --> 00:50:35: And so when we went through this process works and  
00:50:36 --> 00:50:38: the authorities to get that government.  
00:50:38 --> 00:50:42: Different authority, approval from government bodies and  
00:50:42 --> 00:50:46: another you know,  
00:50:46 --> 00:50:50: public or private bodies in some cases.  
00:50:46 --> 00:50:50: Council included it's a huge amount of dialogue and you  
00:50:50 --> 00:50:56: really need to be prepared to have those difficult  
00:50:56 --> 00:51:00: conversations.  
00:50:56 --> 00:51:00: Uhm, one thing that I would say and it sounds  
00:51:00 --> 00:51:00: silly,  
00:51:00 --> 00:51:05: but it's been for me the most effective approach is.  
00:51:05 --> 00:51:07: We never asked open or closed questions anymore.  
00:51:07 --> 00:51:10: We don't say can we do this?  
00:51:10 --> 00:51:12: Because I can guarantee you,



00:51:12 --> 00:51:15: for most authorities the answer will be no.  
00:51:15 --> 00:51:18: We just ask how are we going to do this.  
00:51:18 --> 00:51:21: Because we're assuming that we're going to do it,  
00:51:21 --> 00:51:23: so we're really talking about the mechanics behind making it  
00:51:23 --> 00:51:26: happen and not whether or not you're gonna allow us  
00:51:26 --> 00:51:26: to do it.  
00:51:26 --> 00:51:27: 'cause we're going to do it.  
00:51:27 --> 00:51:30: So how? How would you like us to do it  
00:51:30 --> 00:51:31: with you?  
00:51:31 --> 00:51:36: Uhm, and the authorities have been amazing because  
building codes  
00:51:36 --> 00:51:37: board.  
00:51:37 --> 00:51:42: And in our case, the Australian Standards and Standards  
Australia  
00:51:42 --> 00:51:42: and.  
00:51:42 --> 00:51:46: The local council. The state government of Department of  
Health  
00:51:46 --> 00:51:50: the EPA would be amazed by how interested and engaged  
00:51:50 --> 00:51:52: they are in what we're trying to do in it.  
00:51:52 --> 00:51:56: You know things that they the good ones recognize that  
00:51:56 --> 00:51:57: this is the future.  
00:51:57 --> 00:52:00: You know, buildings like this and not going to be  
00:52:00 --> 00:52:01: that rare very soon,  
00:52:01 --> 00:52:03: which is great for the authority.  
00:52:03 --> 00:52:05: Barriers are definitely there and there,  
00:52:05 --> 00:52:08: there, there in all kinds of ways.  
00:52:08 --> 00:52:11: You have to be very persistent and also a little  
00:52:11 --> 00:52:12: bit of humor helps.  
00:52:17 --> 00:52:21: I love that asking how it's going to happen instead  
00:52:21 --> 00:52:22: of if we can or not.  
00:52:22 --> 00:52:25: That's a good strategy. Well,  
00:52:25 --> 00:52:27: thank you so much Steve.  
00:52:27 --> 00:52:30: And we don't have any more questions so thank you  
00:52:30 --> 00:52:33: so much for this in depth tour and giving us  
00:52:33 --> 00:52:38: all your knowledge from this challenging and exciting  
innovative project.  
00:52:39 --> 00:52:41: You're more than welcome. Thanks everyone for making  
time.  
00:52:41 --> 00:52:44: Hope you enjoy the rest of the event and the  
00:52:44 --> 00:52:45: other session.

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