

# SBM\_BR1\_Window

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## SUMMARY KEYWORDS

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So yeah, I'm Ainsley Duick from Duxton windows. I'm on the board with SBM, and I've been with Duxton working for my dad for the last 10 years or so.



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And my name is Al Duxton. I'm changing my name anyway. We're we're happy to be here talking about what makes great Windows relative to topics that I think are particularly relevant to sustainable SBM, and that's what we're going to try and focus on. Admittedly, we obviously have a pretty biased view in certain ways, but we're going to try and stay as objective in some of those comments as possible. So, and even in this case, it starts off with, what is it? Pico,



00:45

yep, go ahead. So this is a pretty cool example of the efficiency Manitoba building envelope program. And I don't know all the details of what they had done, but I saw this post of their before and after, which was pretty incredible. And, you know, taking a really nice opportunity to add a lot of natural light and a high performance building envelope. So, yeah, really great.



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What a big example the folks at pico architecture, which is Gail little, and I'm not sure of all Gail, I think is the principle there, but one of the things you would notice here, which ain't a pointed to, was that, as the beginning of windows are not all created equal. They have a pretty large window in here and to meet the world's needs of both biophilic design as well as nap structural requirements, it's important for people to look at what that truly is, and there are some definite differences, not just by material, but by design.



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So a little overview of what we're going to chat about today. So our history, we'll try to get for some of the homeowners that are online with us, some of the ideas of what makes a better

quality window. And then we'll get a little bit more into this product specific details of you know, what the



02:16

for the record? I might even add, Laura, I think our history is not a commercial but more a reflection that I think will speak to itself of why we are where we are, and why we choose to do what we do. So yeah, she's going to turn this over because she was only helping me move that pizza equipment, out of the way, back when she was probably 10 years old, since 1992,000 is when it began as a blank page, and it's been an incredible journey. And I have to say, with all the naysayers about Winnipeg, it has been a great place for us to live, grow up, work, do business, build an incredible team of give or take 100 people from, I don't know about 10 different countries, and grow in a process from a very, very humble, small, unpretentious, very limited in size building to the facility that we're currently in. So I find just to make a little bit of a connection here, I had a little bit of fun with was, sometimes in the past, we're Hey, we're all proud of our country, our source, what we do, and sometimes in the face of certain imported products that were not tested or even considered to Canadian standards. I sometimes had a little fun and changing Duxton with an umlaut above the U and it was really a reference, kind of a way of connecting the dots, if you will, between some of the European roots of the things that we do, whether that is tilt and turn window and door designs, whether that's the creative genius of the founder of our primary pultruded fiberglass lineal supplier, but in a bigger way, also the very nature of who we are and what we do, and in a window context, I think, as you will see in some of this, the evolution of fenestration, even in the last 1015 years, is really significant, and it very much follows some of the needs that are there in today's world and its roots are many things, including even things like fenced about and seeing some of the things that are out there. I think one of the things that differentiates places too and people now sometimes want to talk about the durability of. Who you're dealing with. And I think the case that we would strongly make that picking your partner that way, if you will, becomes an important factor to understand who the people in behind the business, who actually own the business, run the business, and how they run the business is a very important element of what that window system may mean in the longer term. I have never had a great love affair for things like lifetime warranty. I have no clue what that means if somebody lives another five years or 10 years. What I do relate to is the foundation upon which businesses are built, the connections that are there, the important family members that are deeply vested in its long term success. And while my grandson sitting there may not right now be contributing to the window business right now, it's definitely a part of who we are, and my partner here, Ainsley, has now spent about 12 years with us, I'd go so far as to say that again, from what makes places different, having bright, passionate, committed people With deep knowledge makes a huge difference, and that reflects itself in something like this, where, again, this is not to fly a particular name or business, but I do believe that in today's world of manufacturing operations, the work that goes into things like continuous improvement is so critically important. And the contrast of somebody once saying, Yeah, I'm going to have somebody attend a CI course and then we're going to have BCI is such a bunch of BS. But because something like this takes many years of people taking courses and putting them through yellow belts and green belts and building, and in Toyota's case, which is the foundation. They actually talk about the fact that once the entire team of manufacturing people is grounded in lean or continuous improvement, that's a point at which that facility actually begins to function like that. And for us, I think, like I said, the fact that we've been at that for six or seven years and building a group of people with that kind of attitude, knowledge approach is really important to what differentiates and makes a fenestration system better. Boy, you're going to just let me run here

for a little while. So another piece that I think for us, and I think the customer, the designer, the specifier, I have often made the comment that my humble attitude really towards people specifying different types of windows and using them on projects, whether it's a 30 story tower in Calgary or something else, many of those buildings are designed for much more than a house for five or 10 years. And so hence, again, the connection to a business that is built upon a foundation. And this just happens to be an artist's impression of we have a new factory addition that's starting in construction in about two weeks, and will further transform our business as the city. Thank goodness finally agreed to sell us some land beside us, allowing us to create a more efficient space.

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What makes people, places, businesses, different, cuts, I think, really deeply to some of this, the psychology of what's behind it. And I have to say, from my family's point of view, including my chief partner, my wife, who says she chose fiber dust windows as our window base way back when. And she's partly true for sure, probably smarter than me anyway, at the roots of the some of this goes back way back when, working with Jorgastrovsky in Calgary on the Alberta sustainable house in the 90s, an amazing guy who created, lived, walked. I remember walking up and he's cooking a turkey in a solar oven on his front porch. And he's a guy that we created very unique products for which were high, super high solar gain on a south side, a Quint pain glass facing west. And these types of things, or, for that matter, the Airdrie Environmental Education Center, which, again, you look closely, you'd actually see you're in there are really, I think, important in the definition of who and what businesses are like and which way they're in. Uh, forming their their approach to creating things. And I think for us, this DNA was critically important for how we've approached things in the last 25 years.

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So another piece that

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I would say in our roots in Winnipeg and Manitoba were some of the really important connections that we have been able to work with over many years. I very much recall people like Dennis Quan and Dudley from Prairie architects, some of whom George Heath Winnipeg school division, a variety of people number 10 architecture, but in this case, Prairie who worked on a number of different kinds of projects. And in this case, this building had Straubiel portions to it. It had some very unique fenestration to it. Probably had one of the very first circular fiberglass window frames in it. And these kinds of connections, I think again, have a super big effect on organizations, whether they're manufacturing windows like this or others, because that connection and keeping an open two way conversation really makes a difference in looking at in this case, there were details about wall depths and perimeter trims and really important things that I will always be grateful for. So another piece that makes, I think, a really important difference for people looking at what makes products for buildings, houses, schools, towers, different, unlike some things, maybe Tesla can be fixed remotely from wherever. A piece of glass can't be replaced remotely. A piece of hardware can't be fixed remotely. And so really, I believe the best success, in many ways, comes in the scenarios where, regardless of where you

are, if who you're dealing with has people in the vicinity who have knowledge, experience of working with what you do. And I have to say again, from day one in our case, that has been a really important element, where these distributor partners who have worked with us, some of them for 1015, years, have a great deal of knowledge about how to fix, repair, install. And as sometimes people will say, 50% of a Windows installation. So the higher quality people experience, people that like that, even a guy like screwy Louie at the bottom there. He's up in far northern heaven, Alberta anyway. Okay, your turn.



12:55

So in the theme of the conference and the myth busting are all windows created equal. So we wanted to show some more local projects as we're going through this. So this is by roost custom builders. This was a deep energy retrofit where the homeowner was completely committed to Lindsay Robinson making sure that the building envelope was, you know, totally the proper blanket to keep all that energy inside and not waste it. So anyways, we'll go through a few different considerations for what makes a better quality investment.



13:41

So I have to say, from my perspective, the wise one in the house, my wife, the lawyer, knew something about what I had done for my first 13 years in the window business at Wilmar. And some of that was exposed to a real variety of frame types, vinyl wood, copper clad wood, fiberglass, etc. And so when we she crazily let me loose. We really wanted to say in terms of, where is the long term headed for the window and door industry, where is the right direction that we feel things are going to evolve, rather than the past. And we felt very strongly that the characteristics of this material, which was actually invented in Winnipeg, Canada, and then picked up in a few other places, whereby 65% of the content of the frame is actually glass, actually just a couple different variations. It's more of an engineered material frame, if you will, where the requirements for what that system does, in terms of its structural abilities, how it functions, are in many ways determined up front by what that design does. And in addition to which the. It has so many characteristics where, especially nowadays, where many of the clients are focused on things like that, lovely, biophilic see the views larger windows. As as glass gets not only bigger, but larger. And as triple, 345, mil, glass becomes ever a bigger issue. It becomes, structurally and engineering wise, an ever important point of the compatibility of the frames characteristics. And you can think about fiberglass and glass. Are materials that expand and contract roughly at the same rate. And so the logic of what's there, not the name, the logic is there.



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So in terms of the quality of living space, it was actually great that grant spoke right before us. You know, VOCs and what are you putting into your house? And all the plastics this Living Building Challenge or declare program is very, very close to that issue. And so it's it's a pretty extensive process where you have to figure out every ingredient that goes into your window all the way through the supply chain, and then they have certain number of band ingredients, including PVC, polyvinyl chloride. The chloride is the part that throws it into one of the banned substances. So we had to make sure that, you know, none of these ingredients were part of the

product to qualify for the job. A little bit about longevity of the product. So Al was explaining how fiberglass is made, which is why we decided to only offer fiberglass products. But some things that pictures that we've seen from others in the field or or job site visits is that, you know, colors or or softer materials can start waving, and so the seal against the glass gets compromised. Sometimes when you make hybrid style windows, those materials don't work well together, and so it's very common to put metal clotting onto other products, like wood, like PVC, but if the expansion and contraction rates are very different, it becomes more difficult to make sure that they hold to each other over many years as the temperature swings. And then finally, the this is more even about the energy efficiency, but you can see one of those mullions was cut in half as they were replacing windows, and they found, I don't know, 3u channels inside that mullion, and that's not always properly covered in the published thermal performance values. So you're trying to make sure you get a good value out of that.



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So to pick up one of the points Anthony made here. It's one of the topics that comes out inevitably at some point in time, either right at the end, ooh, what about the cost? And this one on the left is it's actually a window, a little close up window, of a condo, that the windows were seven or eight years old at that point in time, and they were approaching us to find a way to replace the windows in there. Anybody knows anything about condos? That means now we're talking cash call to do a fairly major reinvestment in a building and or, as I know, that's never the intention of a place like that, to put up something. And I've often made a little bit of fun of this scenario, if you want to talk about, well, is the fiberglass window system going to cost you 20 or 30% more, but maybe it lasts quite a bit longer, and that cash call for Window Replacement isn't going to be there. So those are some of the things and reasons why, when we look at something and saying, wait a minute, what are the differences? What makes something longer? What does make something structurally more stable, and you try and position it to add maximum value. So another part of the puzzle here, for our point of view in selection and choice and focus, obviously, the focal point on energy efficiency in our environmentally friendly world has been a big, big piece of the puzzle for quite a while now, and from our perspective, when we see our frame and systems compared to different situations different materials, there's obviously great aluminum window systems out there. But one of the challenges of working with aluminum and fenestration is it's a highly, highly conductive material, and that conductivity means it's quite difficult sometimes to get those U values down to a lower level, or to eliminate frost condensation in winter peg in places like ours, and it's another huge factor for us. Us in terms of believing that the combination of features makes differences in Windows systems, but we're looking for durability performance, after which we also add other features to it.



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So a little bit about color, finish. You know, it seems like, Oh, we're just talking about thermal performance, but the reality is, we want something to last as long as possible, and that includes, how does it look? How does the finish hold? How is the glass performing? So just a kind of a concept of what's been out there over the years. Wood needs more maintenance. It is a great product in terms of its environmental characteristics, but it needs more maintenance. PVC is tricky in the sense of color application. It's just not ideal for when you want color, whether it ends up getting painted in black or oil. Wrap just creates some challenges. Also,

black absorbs a lot of heat, which becomes more difficult if the material is already intent on expanding and contracting, or if that frame isn't stable around the glass, then you're a little bit more likely to see fog, you know, seal failure sooner. And then the last couple in there, aluminum has quite a reliable finish when it's prepped properly, and lots of established coatings over the years. And then finally, fiberglass has a really porous surface so it it adheres to paint really well. And over time, the coatings have evolved quite a bit. So these happen to be architectural specifications, but the aluminum has the same concept. So in our business, we cheat, and we call it the level three, four and five. And so, for simplicity, for simplicity, yeah,



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but the level three is sort of, by the way,



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that those numbers are established by IG Matt.



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So the architectural ratings for Level three is a one year until that swatch goes from the reference color to that swatch down below, or after five years. So it takes much longer, or after 10 years, to make that swatch change. And so over time, the fiberglass industry has kind of moved step by step towards that full six to five rating. We were just looking at some jobs in the queue today in the six to five, which was finally a bit more commercially available, and and we're voluntarily move moving the notch on some of those, because we want the finish to last as long as the rest of The system.



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No, I think it's



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important for us, for people to



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given a talk about Mythbusters and window types. This happens to be a building that in Regina called Rainbow towers that Crozier Kilgore, one of the best known Manitoba building envelope engineering firms, I believe. And this, I think, this building was acquired by globe out of Winnipeg. This is probably six or eight years ago. It was an interesting case where they specifically went through to develop details on and that happened, I was fairly close to some elements of this project, including an installer that we had dealt with for just about 20 years now, and in a particular case like this, it was quite interesting, because the old single pane

aluminum sliding windows, quite large ones, were drafty as heck, just for a variety of reasons. And I happened to run into some of the tenants, and it was quite interesting how, after they went through this difficult process, how they really felt the improvements in these places. So Nancy touched on, and I won't bore you with the details here, but we have talked about how I believe the DNA of a business is an important element what happens, and I will say, in a case like this, some of the things that define us. I to me having been in the Window Door business for almost 40 years, and having a I'm going to call it a forward leaning Look at this. We never sat still. And about 12, 1314, years ago, I was lucky to run into a great engineer with great experience, and we were able to take very important elements of what we had learned over the last X years. And. And very significantly improve our product offering. And again, what makes products different? This case, the material was something like 30 35% more material, tougher, more durable, longer lasting, and able to do bigger windows. Apparently, we got to keep moving. So we're going to keep this moving pretty quickly. You'd have to look at a lot of detail in here to really, truly understand this. But the contrast in here, at the end of the day, is, whereas American window companies tend to have a lovely Value Engineering, cut costs, cut costs, we went the opposite way. Or let's again, myth buster. What makes Windows different, not us is I would say that when people look at whether it's fixed or operating windows, what makes them tougher, stronger, and some of that is better material, thicker walls, better designed to carry heavy triple pane windows, etc. And some of those details are very easily found on websites such as certain companies have substantial websites with all kinds of information. And I do believe certain companies in fiberglass, such as the one that starts with a D, has enormous amounts of info. So another really important consideration, what makes myth buster? You could find quite a few different window types out there that really were never designed for a true high performance triple pane system. And those of us in this bit, in the design engineering types of understand that a certain size of air spacing is important to get there. This visual I will just cut to the chase, compares where we have an ability to do a one and a half inch for some companies, versus and one and a quarter. And in today's world, when you go to ever larger windows with 456, and even eight mil glass, you just can't get it unless you have the right people to work with, or indoor systems where they've got or indoor systems. Yeah.



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So this is a little bit about what kind of glass can you put into that frame,



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and what makes a company different. Because this is so the



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dual pane windows, for example, are still allowable in the building code, particularly in commercial buildings. So at a 1.5 overall U value, you know, you're really not nothing to brag about. You might be able to get that a little bit lower, but the technology to go to a triple pane with one or two low E coatings can drive your u value way, way down and keep that building

much more insulated, what we would call a high performance product. But then you can even make some pretty substantial jumps after that and and this is, I don't know if you want to talk to these, because this is your



28:00

okay, like in a nutshell, again, Mythbusters. What makes people different? It's not a mystery. I would say our background history connections, work we've done just leans into that in a significant way, because evacuated glass, such as the bottom right, is now back on the picture a little bit because a couple of North American firms are back playing with it. Has never really been totally taken there, but 23 years ago, ish, we were asked by an Alaska customer to do a package like that, and we did, and we learned something, because the glass lasted its vacuum about one year kind of cut our enthusiasm at that stage. On the left of that light zone is a really quite intriguing product from Edmonton gentleman that has always been dedicated to innovation. He has a really incredible range of products, from triple to quads to quince to six lights with films that create extraordinary performance. And he claims something like 50 year life, but it is quite expensive, and it doesn't fit into a lot of circumstances because it needs frame depths. But we have done a number of different things with it. And then top right is something that's newish, kind of getting into a commercialized phase in the US, as Biden and company are pouring money into North American products, quad thin glass is basically taking thin Gorilla Glass from computer, phones and such, and through Some unique technical elements, are able to ramp up from a triple to a quad and create more performance at a fairly reasonable cost, and we have done work with that also. So if you want me to just quickly cut into this one aids, I gather we're running out of time. Myth Buster. Dollars. In some cases, some of the school areas, new construction schools, retrofits, are definitely looking for alternatives. In some of those cases, they have wanted something more durable than vinyl. In some of those cases, they wanted something that was more energy efficient than aluminum, and so we have done quite a bit of work going back to George Heath, Winnipeg school division, where we had did some older schools, and more recently, in Saskatchewan, we're doing some stuff with fiberglass curtain wall. And they also push us in doing things like security screens, where they're trying to stop broken glass, a topic that's kind of difficult in some ways, but I personally believe that one of the weaknesses in fenestration in North America is the whole swinging door thing. We have this capacity to just focus on low cost, and I think a lot of people that are closer to design implementation work, look at this. In Europe, there are far more door systems out that are almost double the thickness of ours, that are far more effective at air tightness. And it's a topic that we have spent a fair bit of time on, and again, on Mythbusters. I think some of the things that will differentiate people is their willingness to kind of lean into this and come up with some better solutions. Same topic, the are, there are a couple of ways of enhancing performance, and it happens, let's say, in this particular case, that door has a glazing system that allows about a one and 5/8 inch thick triple. So it means it actually gives a swinging door like that a rating for ENERGY STAR, whereas some don't, because, very simply, the pocket of glass in there is too thin, and they can only get a dual or a very skinny triple in which doesn't work well. And additionally, ironically, back to Europe, they have done quite a bit of work on things like multi point locking systems, and I've got some personal experience with this on a certain scenario where these locking systems, they, what they do, in an amazing way, is they really, really lock that door panel against the weather stripping so it can't work, or allow frost and air To get in. What makes Myth Busters Windows different. I believe some of those companies take their investments in design process and their investments in listening to the marketplace, and in this case, we happen to be lucky to live in a city called Winnipeg. We are proud elements of that, and there are numerous projects in the city where people are looking



for a heritage look that it reflects modern technology. And so the project on the left is on just off the waterfront where the city people like Rena and company have very insistently wanted to have a more reflective kind of product in there, and so the bottom left image is a before and after, if you will. And I think the execution is remarkably good. And not only that, they are much more airtight than the old leaky wood double hunks



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I just let you talk about roost again.



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So one of the local contractors, roost has done some pretty extensive envelope upgrades, and I wanted to show a couple of these and and we touched base with the CO owners, Darren and Jonathan, to see what they had to say in terms of fenestration. So the top left was a deep energy retrofit. And then the bottom right, they were doing an envelope upgrade with adding two inches of rigid over the existing so, so yeah, some of the comments they had were that they they do a lot of big glazing, and you can see that from the pictures. So they wanted something that was more rigid. They want something that's easy to install so the frames stay nice and straight. You don't have to spend quite so much time shimming them to get straight lines. Yeah, and they're, and they're ultimately going for something that's that's going to be a long term solution for their clients. They're trying to offer a long term package that will last before you. Leave



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this just for two seconds. The interesting thing, I think, on on this topic again, I could say this many, many times we have gone on. Way to work with people like this or Peter amarong and at Edmonton, who specialize in many different types of things, like deep retrofit. And I think we learn a lot along the way. And one of the mythbuster elements is some familiarity of what do we bring to the party? So on more of a commercial side, if you will. This is in an evolving field, if you will, where I believe the officials have realized that just to have a metal window as a requirement a doesn't necessarily make sense, because the testing they've done doesn't reflect the realities. And secondly, sometimes a compromise in performance and u values versus that. So there's been in the NBC 2020, a very substantial change in what's going on, where there's much more of an acceptance of a variety of windows into so called combustible situations. This happened to be a project in Winnipeg and stairwells where we worked quite closely with somebody to develop solutions for that that would pass their



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evaluations, if you will.



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So now in the new NBC 2020 code, this has just been implemented in Manitoba in January. So

So now in the new NBC 2020, code, this has just been implemented in Manitoba in January. So it's been a conversation with our industry and designers to now design subseal drainage, under mold windows and all sorts of other conditions. So the the this kind of brings in a whole new world of of design details. And I should say, this hasn't been so new to us, because BC had their leaky condo crisis, they learned a lot from that. A lot of the detailing comes from their experience the IRC research of Canada, somehow, they did all sorts of studies about what's an effective installation detail for the long term, and then finally, probably because of the proximity, Alberta has also adopted a lot of these practices over the years, So it's been familiar to us, but to the Manitoban market, it's not. And the whole point is that a face seal means that you're sealing the window right at the flange, like at the outermost point of the window, whereas a rain screen, it's kind of like your wall cladding system, you're shedding most of the water on the outside. But you know that somewhere, somehow, something's going to creep through over the years. And so you have another barrier grant, called it redundancy in one of his presentations, is that you now, what's your redundancy? What's your backup plan? And so that's why the primary seal and the air barrier has now shifted to the interior of the window, and then there's either concealed or visible drainage from the rough opening out and and in Manitoba, there's already quite a few examples because of Crozier Kilgore, Taylor Lee is the top picture there, designed by bldg, their owners, shindiko, have been really interested in the longevity of their buildings, because they're owners of it. They're not trying to, you know, offload something. They want this building to last as long as possible. So that's why they brought on the building envelope consultant and then that bottom picture there, 2080 Pembina was a building envelope retrofit by them. And the differences, they didn't install them the same way. One of them was drained under the nailing fin that was on the new build. And then on the retrofit, they had gaps on the exterior, culking about an inch large.



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So Ainsley mentioned that,



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I think it's kind of interesting how these elements of Bill of buildings and stuff evolve over a course of time. And it's pretty clear that the adoption of different types of menstruation installation, and again, I would lean into this one in the context of we've been almost from the beginning, 20 some years ago, been doing work in Alberta, connecting with architects and building envelope engineers and they, in our experience, going back probably five, six years ago, a range of 20 to 30 story towers, for example, in both Calgary and Edmonton, where the building envelope engineers have been very clearly, crisply adopting things where there's a very. Definitive stop on the interior to seal air and water. And it's kind of even for an old dog like me to begin to more clearly understand that when you have negative pressure on the interior, which is completely sealed off, it can't suck moisture into the system. And there's some really important piece to this, never mind, such as a place like Chateau Lake Louise, which probably everybody's been at, RJC, went to quite a bit of trouble to work with the owner, to come up with a technique where 90% of the work, 95% of the work, is done from the interior, so they don't disrupt these wealthy holiday people, vacation people, whereby they're not putting scaffolding and all kinds of crap up there, and they're chipping away at putting venting, large venting windows, Myth Busters. What's different if you have a window that has increased material, tougher material, better designs that allows you to build a slightly bigger, somewhat bigger venting window that doesn't disrupt views, but gives you air tightness performance, and

those are some of the myth busters. I do believe that a topic that is going to become an ever bigger issue, and much like some other things, the Lower Mainland Vancouver, City of Vancouver seems to be leading some of this charge. They already are insisting on, I think, building permits to include some reference to embodied carbon, etc. They're trying to figure out what is there, and once they understand it, then they're going to start forcing people to do certain things. And so again, I think that what's a myth buster in terms of leaning into this stuff and trying to understand and it comes up in many different ways. UBC somehow has done a fair bit of research on some of this. One of those was earlier referred to as the durability of lifespan of fenestration, which, you know, I love that quote Peter Amerongen from Edmonton, who does all kinds of stuff, says my fiber gust canoe is more than 50 years old. It's partly why I believe in the durability of a fiber gust window frame, because I had come from a conversation I had with him about embodied carbon, because we were discussing what happens, and how do you consider that? Because if the thing is going to last a long time, then maybe that's truly part of it, and that's over and above that quote in the middle there, fiberglass windows have the potential to reduce the embodied carbon emissions of buildings compared to aluminum and PVC frame windows. Myth Buster.

 42:47

So that brings us to a close, and last shout out is to Sun certified builders. They had done this quite a few years ago already, but they were really clever about using south facing solar gain to bring warmth to the building during the winter. So, yeah, yeah, with the overhangs, right? So you can kind of see in that picture how, how those overhangs are quite large and protecting those windows. So smart design is a is a big part of, you know, good window design as well.

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Hey, I hope that hereby, we have tried to somewhat dispassionately focus on, you know, you're

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never dispatched,

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not totally. But

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anyway, I hope there's some balance and common sense and reference to you know, what makes things uniquely different and better, maybe in consideration? Laura,

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...

Hi, yes. Thank you so much for all of that. We've hit our four o'clock time and so we don't really have time for questions right now, but I'm so curious about waste, about a few other little things, so maybe we'll have to continue this conversation at another time. Laura,

 44:05

can I just quickly I see Pete DeGraff is on here, and there's a few core people in the Winnipeg or the Manitoba marketplace that did some very unique things that were the forerunners of passive coming back from Europe, and Pete was actually one of them that worked with another guy in Winnipeg. So someday, if you want to see a host in places like this, they did some of the things that now I don't know how many years, 3040, years later, Pete, why don't you speak up? When did you build your house,

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you're muted.

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Pete, you can just unmute yourself for sure. Say hi. Pete,

 44:52

uh, 7636 1976

 44:58

give give us two seconds. Pete, give us two seconds of what did you do with that house that was so unique and then, ahead of its time,

 45:08

solar heat south facing.

 45:12

All the windows were on the south side, few of them on the north side. Homemade solar heating system, air, and it was an air system. Now we've got a heat pump. Double wall construction, triple glaze windows.

 45:29

I heard your wife saying triple glaze windows, yeah, yeah. Well, it's Mel got Duxton Windows on it. Yes. Oh no, sorry about that. Laura, no,

 45:41

no. That's why we do the call this way is so that there's a sense of community. Like one of the things I always find interesting is that we're talking to people who have so much knowledge as well, and so we're often like questions. Sometimes I just want to be like comments, additions to the presentation.

 45:55

So this is great. Thank you for that, Jonathan.

 45:57

Jonathan is also on from roost. I saw Jonathan. You can unmute yourself. I He is, I think the roost guys are. They should also be given, I think, a lot of credit for being some of the leaders in our community. They are doing deep retrofit stuff in really innovative ways. And I have to say that this is my comment of covering Western Canada to some degree. It's harder to find that in Manitoba than it is in Alberta right now. So Jonathan, are you there? Can't hear you. Unmute.

 46:35

Might have left already fun. Oh, crap. Oh, sorry. I shouldn't have been like. I shouldn't have been like, ramping up time. I should have been like, comment time, but that's okay.

 46:47

Drinky. Drink time. Laura, aha, well,

 46:50

we're definitely continuing this conversation, not only next week, same time, same place, but also on the 24th we're going to be gathering in person in Winnipeg, for those of you who are in the region, and let's figure out how we can do some of these things to bring more

 47:03

minutes. Do you have two more minutes? I'm curious to hear a few comments from some of the observers, listeners. What do they see or like or don't like is that absolutely



47:13

people want to stick around a little bit extra. That's fine by me. Obviously, if people need to leave, they can do that. But yeah, if there's somebody, you can either drop your comment in the chat or raise your hand if you'd like to



47:26

boytech, come on.



47:29

Al Ainsley, where you you talked about some high performance doors, those thicker slab doors. Yeah. Are you guys looking to put those into production? Where is what's innovative coming from you guys,



47:45

we've done



47:46

a few different things along that line, Grant, as you know, and we, I went to fence about some years ago, which led to us importing some of them. Unfortunately, the demand for that marketplace seemed very limited, and so that was really six, seven pre covid years ago. I, in my mind, have no doubt that the timing is getting closer. Grant and we without disclosing corporate secrets. I think if one as you know, Grant, you build your business based upon certain principles and ideas, and I do believe that's, that's something we will need to deal with. You know,



48:29

yeah, like the one we showed we have carried, but it is imported. And so the serviceability, lead time, style options, costing are just limited. And so we are looking at some other alternatives to have more of a homegrown solution with the same, same principles.



48:46

In the short term, the things that we have done is, is incorporate thicker, higher performance triple glass in some of them better, really active locking systems that ensure that things can't work and get leaky, etc, right? So I think it comes in stages, quite frankly. I mean, the more aware people, I would say nowadays, are more willing to put a little bit more money into it. So it's trending in that direction. And even in sliding doors grant, we some 567, years ago, realized that what was out there just wasn't working, and we invested some money in newer products.

And most of what's there is really a relatively recent vintage, because as people were shifting into black heavy triples, it had to be slightly different. Other questions, I'm really curious on feedback. I honestly Laura, so while we're all waiting to have a drink,



49:47

is there anybody else you can raise your hand or just unmute yourself?



49:56

Not sure how you phrase the question, necessarily, but I'll. At my ignorance, because I'm based out here on the West Coast in BC, and what we saw when people were adopting the step code was builders slamming on more insulation, more insulation ceiling, more installations on walls. And the company I worked for property, it started out because there's, I love the analogy the founder uses is basically people were putting on a winter coat and wearing, you know, swim trunks, right? Like you're going to be cold because you're using the cheapest Windows you can buy.



50:30

That's a really good, yeah, that's a good phrase.



50:33

And I wonder you mentioned politely that your product was a little bit more expensive than other options, so it does allow extra insulation. What are the building code changes around energy efficiency in Manitoba? And how does that sort of and how does your product match with that trend and kind of keep a total building as a system cost down? Do you sort of have ways of looking at that, right? Because it's like, yeah, you're putting more money up front, but you're getting better performance down than better performance down the road, but at the same time, can they trade off other different options, right? That to avoid



51:07

so I think I really appreciate that, Steve, because I think that I can see the window behind you is not the smallest window either, right?



51:15

I wish this was my background. This is a fake background.



51:20

Okay, so that, because, quite frankly, and you know this, it sounds like the reality step code and Winnipeg, due to the past Conservative government did nothing, it went backwards, maybe. And so we have a really mixed bag here, quite frankly. I mean, residential has a mix of some triple, some dual. Even in commercial. There's no pressure, really, yet, and which is stupefying, because, like, why are we exploring crazy, expensive options when we can't even, you know, incorporate so from our perspective, just to cut to the chase, or again, we're trying to avoid that naming, from a myth busting point of view, I do believe that if a person considers, what does your frame do? How does that accommodate? Not only that, is your frame designed to accommodate high performance components such as bigger triples and stuff, because we way back when opened it up all the way to a one and 50, almost a two inch OD, because it was a Quint pain, heat mirror, and we initially thought that meant nothing. But once you start getting to six mil triples, all of a sudden, when you need air spaces, you need the space. So I think, and hence, I don't know what you how much of the presentation you caught, but I do feel our interaction with many different components of architecture, building, envelope suppliers, we try and learn from them, and we test stuff. And like even now, the evacuated glass stop seems to be bouncing around again, and we're trying to make sure that we've today, somebody talked about photovoltaic glass for the first time I hadn't heard about in 1015, years in a school project. So I love that piece. You know, there's this vibrancy to it. And when you hear a guy like Pete talk about a house he built in 76 with solar gain before your Germany thought they knew everything, right?

 53:15

Yeah, no, it's, it's, it's interesting. Cool. No, thank you for that. And sounds like, you know, part of these things are the technology and what's capable, what people are capable of doing, and then part of it is obviously just waiting on regulatory pressures to kind of raise the minimum bar, right? And it sounds like, probably, on this call, there's a lot of preaching to the choir on the need for for higher regulatory minimums to kind of encourage what's possible sooner,

 53:43

but even there, if I may, and I don't know your practice or exactly what you do, but it does seem like certain elements of the Lower Mainland marketplace has been shifting to higher performance window frames, if I may say so. You know, a certain company was starting with a C word, not a D word. Seemingly, have done some stuff out there, you know, so, but we have quite recently begun doing more work in the Okanagan and the Lower Mainland, and hence there's more feedback. Fantastic.

 54:22

No, there's, there's certainly a push on, and it's, it's surprising. I think I was recently, there's like a, we're now to, like 100 passive houses as residential houses in in the Lower Mainland, which is a shockingly, you know, seems like now there's some techniques, but it's, it's gaining momentum, but slowly, right? But how do we kind of increase that pace of adoption?

 54:43



Yeah, and another fascinating piece, I think that that's a real massive gap, is, if you want to talk about deep retrofit, and people say, Oh, 75% of our building stock exists, and most of it is under standard, and most of it will need to have, you know, as. Some substantial upgrades. I don't know about you, but I have a hard time believing. How many people are going to dump 2030, \$50,000 into upgrading their buildings voluntarily? 23 200,000

 55:13

much larger? Yeah,

 55:14

I think. And it's interesting, when I was talking to a builder out here in Vancouver, where the city of Vancouver is, they like to be aggressive on things, and they're pretty aggressive on, you know, if you spend \$50,000 now, you got to insulate your foundation. And the the downside of this, that this builder was quite honest about, was you drive people to the black market. It's like, Well, hey, I want to put granite countertops in. If putting my granite countertops in, mean, I now have to spend \$40,000 insulating my foundation just not going to get a building permit Right. Like, I'll just, it's a nobody maybe wants to say those things. But if you tie some of those required upgrades for energy efficiency to things that people want to do for esthetic reasons, you maybe create, you know, too high of a barrier, and people just start, yeah, cheating a little bit. So like, there's a, you know, there's

 56:07

a fine line in there, right?

 56:08

There's a fine line. I was actually talking to someone I live in East Vancouver, and they sort of said, Watch whenever the city goes on strike and everybody knows the building inspectors on around, that's where all the like, visible gets done.

 56:23

I have to give, I have to give Vancouver a shout out, Steve, because in 2019 we were doing, finally, a zipping trip through the Scandinavian on bicycles and all that crap. I was in a hotel, I think, in Copenhagen or something, and on TV in freaking Scandinavia. Was a an extended article about the Lower Mainland. Chris Higgins, green Vancouver. And I thought, yeah, be collected, right? Isn't that amazing? Crazy.

 56:50

The tree huggers came out there.

 56:54

Awesome. Laura, I don't want to take up all the time. I'll turn it back over to you, because I think it's

 57:00

no problem. I mean, if people are willing to stay like, that's what we're here, we're here to have the conversations. So this is great. And as I said, we've built conversation into the program, but it's not until the third day when they can be in person, happy to have conversations online. But we all know that they're a little bit better when we're actually together. So if there's nobody else that I see jumping forward

 57:26

or listening, you

 57:27

got to give them a chance to unmute themselves.

 57:33

Maybe they've all gone away to get their drink

 57:39

anyway. Pete, in case you're gone and sleeping or something. It was very nice chatting with you, and I hope you're very special. House continues to be a great place for you. Yeah, we

 57:50

still lose yours. Thank you,

 57:53

boy, tech, I can't hear you. Good, good.

 57:59

57:55  
You know I was. I think that I was the only one, not many people, was investing when i i started, 30 years ago, build the extensive renovation expansion on my house, which I'm here right now.

58:19  
Boy tech, by the way, is an architect in Winnipeg who I think may have been born in Poland. I'm guessing, right, yes, yeah,

58:28  
yeah. We emigrated from Poland 87

58:32  
and we built the house, and I put the triple glaze windows

58:39  
at 1990 and 19,

58:43  
and because I want to invest in the in the future, and the people were telling me to I'm throwing money, don't, don't throw them money in somebody's house. I said, What? What do you mean? Somebody's you know, because that was the real estate agent who came few years later asking me if I'm selling this house anyway. I'm still happy there wasn't Daxton windows. That was Wilmar windows, wooden clad windows.

59:18  
Oh, forgive you today.

59:21  
But you know, in the cottage, as you know, I have, I have Daxton triple glaze as well. And my cottage is like glass box. At least half of the living room is has four walls with glass.

59:37  
Yeah, I kind of remember that's great. And that thing we didn't talk about for a second, boytech and Laura was, I have some painful history to some of this boy tech, where, some years ago in

my wellmar history, there were triple pane glass being made with what was called squiggle spacers, which were supposed to be nice, warm edge, long lasting, but they proved and. Not to be long lasting. They were kind of a semi disaster. And there are now people out there making warm edge glass, which has a 20 year limited warranty. So Myth Busters, they don't all have to be something that doesn't last very long, and that's something that, again, in terms of looking for value. So sorry Deb, I was just thinking of that triple pane glass. Boy deck, no,

 1:00:24

you, you're right, because I, unfortunately, I have 222, set of Windows. I was doing in stages, yeah, yeah. And the second, second phase of the windows here I was, has this spacer, super spacer supposed to be means I get to replace quite a bit of field unit

 1:00:52

in the next one, next one you want to replace? You come see me, because I'll give you something that'll maybe last longer, and you'll be happy. And in fact, and you're in your loyalty, I'll donate that piece of glass. Okay,

 1:01:08

okay, I will keep you.

 1:01:13

I will remember that.

 1:01:17

Amazing, amazing. Well, thank you. All right. Well, if there's nothing else, I don't see anybody putting in the chat or raising their hand or anything. So one more time, I've got the feedback form if people want to tell us what they think we are doing this all again next week. So if we could do a little bit better, in your opinion, let us know. And other than that, have a great rest of your day. Thank you everybody. We can only do this because you all participate. Thanks Ainsley and AI for sharing.

 1:01:51

Yeah, we really appreciate the opportunity we've had to mix engage and discuss things that hopefully keeps things moving forward. Yeah,

 1:02:02

.....

absolutely. We hope you that you'll join us again on the 24th for the more discussions. And let's figure out how to bring more sustainable building to Manitoba. Let's, uh, let's have them talking about us on Scandinavia television. All right, have a great night, everybody. Bye. Bye.