



**Bioregional**  
Championing a  
better way to live

Zibi One Planet Action Plan  
Progress Review

April 2022

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# Zibi's One Planet Action Plan

## Status of the Zibi development project

Zibi – meaning 'river' in the Algonquin language – is a unique redevelopment project by Theia Partners and Dream Unlimited Corp, located on islands on the Ottawa River at the crossroads between the cities of Gatineau and Ottawa, Canada.

The status of the buildings onsite is:

Complete or mostly complete:

- The 70 units of O Condominium, (block 13) occupied since 2018
- Kanaal (block 205a) construction complete, occupied since 2020
- Block 2/3, a restoration of an industrial brick building completed in 2019, occupation delayed by Covid. Currently one tenant: Spaces, a shared office concept
- Block 208 is a commercial building with a retained façade, completed at the end of 2020. It was occupied in 2021 by Spaces and Zibi will move its offices there in May 2022.
- Block 301, a public underground carpark in Ontario completed in 2019
- Block 211, an office building leased to the Federal government with occupancy planned for 2022.

Under construction:

- Block 10, a predominantly affordable 162-unit rental building in Quebec, with plenty of amenity space, welcomed first occupants in 2021 with full build out scheduled for 2022

In design:

- Block 7, space that could accommodate a grocery store and commercial office space on hold due to Covid and consequent lack of interest from grocers
- Block 206, shared rental accommodation with an affordable housing piece, construction to start in 2021
- Block 207 – commercial building, construction to start in 2021

Parks and plazas are also a critical component of the Zibi redevelopment:

- Pangishimo (sunset) park was completed and opened in 2021
- Head St Square opened in 2021 and will hold public open-air events during 2022
- Tesasini park, which was significantly impacted by flooding in 2019, will remain as a floodplain, but will open as a park in 2022/3
- Mokaham (sunrise) park will open in 2023
- One plaza was completed in 2020, a second will open in 2021

The Zibi zip-line, allowing you to ride a highwire from Ontario to Quebec, welcomed thousands of visitors in 2021!

## One Planet Living®

Bioregional’s One Planet Living® framework is a practical, intuitive and globally recognised framework that makes it easy and attractive for everyone to lead happy and healthy lives within the environmental limits of our planet.

It is made up of 10 Principles (see Table 1), which grew out of Bioregional’s experience of developing the pioneering BedZED eco-village in south London. These principles allow a holistic and interconnected view which addresses social, economic and environmental aspects of sustainability.

## One Planet Action Plan

The Zibi One Planet Action Plan was developed in April 2015. The One Planet Living principles have now been embedded into the by-laws of the project, in both the Gatineau and the Ottawa municipalities.

The One Planet Action Plan was updated in December 2017, following changes in the development site. This Annual Review document looks at these changes and reviews the progress made since 2015 and Zibi’s 2017 data.

Icon	Principle	Description
	<b>Health and happiness</b>	Encouraging active, social, meaningful lives to promote good health and wellbeing
	<b>Equity and local economy</b>	Creating safe, equitable places to live and work which support local prosperity and international fair trade
	<b>Culture and community</b>	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
	<b>Land and nature</b>	Protecting and restoring land for the benefit of people and wildlife
	<b>Sustainable water</b>	Using water efficiently, protecting local water resources and reducing flooding and drought
	<b>Local and sustainable food</b>	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
	<b>Travel and transport</b>	Reducing the need to travel, encouraging walking, cycling and low carbon transport
	<b>Materials and products</b>	Using materials from sustainable sources and promoting products which help people reduce consumption.
	<b>Zero waste</b>	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
	<b>Zero carbon energy</b>	Making buildings and manufacturing energy efficient and supplying all energy with renewables

Table 1. One Planet Living Principles

### **Comment by Ashley Graham, Sustainability Project Manager at Zibi**

In the past year, Zibi continued to navigate the global pandemic, which included some reopening, followed by the reinstatement of lockdown measures as variants of the virus came and went. While construction sites were not impacted by mandated closures in 2021, labour was, as people fell ill.

The most significant challenge stemming from the pandemic has been the increase in construction costs. In some instances, Zibi has experienced an increase of 20-30% in construction costs and while market rates for housing have increased (which brings with it social challenges), the increase is not at par. As a result, Zibi is challenged in achieving some of the targets in its One Planet Action Plan at the moment but is confident that it can continue to make tangible progress on its ambitious plan.

We are encouraged to see new construction technologies come onto the market and mounting social pressure on the development industry to be more environmentally conscious. This all helps Zibi achieve its goals.

### **Comment by Bioregional reviewer – Nicole Lazarus, One Planet Living Leadership Reviewer**

This amazing project has an inspiring story to tell on every aspect of One Planet Living. From the launch of a zero-carbon utilities company, way ahead of schedule, to the new partnership with local, sustainable food supplier Two Beets Farm, as well as the new parks and community art installations and the integrated active travel pathways.

Of course, there have been challenges, especially with the pandemic, the impacts of which are still playing out in the form of increased material costs and shifted lifestyle habits. But the Zibi team approaches every challenge with a holistic understanding of what a sustainable future will look like.

### **Comment by Bioregional – Sue Riddlestone, CEO of Bioregional**

I'm delighted to announce that Zibi remains a Global Leader in One Planet Living, demonstrating true leadership, innovation and joined-up thinking on this iconic project. I am really impressed with how the team continues to power through the challenges and achieve so much.

## 2021 summary of progress and highlights

### Highlights of 2021

- The zero-carbon thermal energy network is now complete and due to commence operation in early 2022, three years ahead of the original commitment.
- Zibi's first two public open spaces were completed and opened for use. Pangishimo Park, meaning sunset in the Algonquin language, is the first public green space, and Head Street Square is now available for public events.
- A new multi-use pathway now connects with the regional network, providing Zibi residents with safe and enjoyable active travel routes and access to wider destinations and green spaces.
- Zibi's first commercial tenant, Spaces, has embraced the One Planet Living ethos and will be expanding its facilities at Zibi.
- Interzip, Canada's first interprovincial zipline, opened at Zibi in 2021 welcoming tens of thousands of people to Zibi.
- Zibi has again exceeded its targets for reduction in potable water use.
- Zibi continues to creatively incorporate existing facades and whole buildings from the site's industrial past.
- Zibi continues to demonstrate true leadership in reconciliation, with ongoing productive partnerships with the Algonquin community and the Memengweshii Council, pro-active opportunities for First Nations people and celebration of Algonquin Anishinabe culture.
- Works by local artists were completed, including art bike racks by Karl Chevrier of the Algonquin community, and Zibi Plaza Wall art, designed by Naomi Blondin, a local Algonquin designer. A young aspiring Algonquin artist had the opportunity to shadow the painting of the large-scale mural at Zibi.

### Overview of progress in 2021

Since the review undertaken last year there has been significant improvement against many One Planet Living principles, with a number of them already having a high degree of certainty over their deliverability at this early stage of the project. Progress is shown in the table overleaf using the following traffic light system.

	Not able to assess progress at this stage
Green	Substantially or entirely completed, or a high degree of certainty over deliverability
Yellow	On track for a long-term target
Red	Substantially incomplete, behind schedule or doubt over delivery

One Planet Principle	Summary of activity	Performance & progress
<b>Health and happiness</b>	Facing ongoing pandemic restrictions, Zibi continued to adapt in 2021 and facilitated both in-person and online workshops and events. The pandemic has prevented the team from implementing the full engagement programme to bring the community together and this is reflected in survey results from the community, as only 33% feel involved in the community. Despite this, survey results also show average resident happiness ratings of 4 out of 5.	Unchanged
<b>Equity and local economy</b>	Zibi's first commercial tenant, Spaces, a sharing workspace, opened its doors in 2021 and the team on the ground has welcomed One Planet Living with open arms. Zibi also welcomed the first residents to Aalto, a rental building with an affordable component thanks to Canada Mortgage Housing Corporation. Interzip, Canada's first interprovincial zipline, opened at Zibi in 2021 welcoming tens of thousands of people to Zibi.	Progress
<b>Culture and community</b>	In 2021, Zibi began to transform from a construction site into a community, which is an exciting cultural shift for the project. The completion of Pangishimo Park contributes to this shift, as it is the first green space on the project, and Head St Square will be available for public events in 2022. The park was designed with Algonquin cultural elements brought forward by the Algonquin community and the Memengweshii Council. Public art includes a mural and a bike rack, adding flair and colour. We also saw the opening of a small but significant multi-use pathway (MUP) connecting Zibi to a large MUP network, providing residents with easy access to adjacent green space.	Progress
<b>Land and nature</b>	Pangishimo Park, Zibi's first park, was completed in 2021, marking an important milestone for the project. Pangishimo means sunset in Algonquin and the park, situated on the Ottawa River, faces west and boasts the most incredible sunsets, all while drawing on the natural features of the riverbed. The park was designed in collaboration with the Algonquin community and celebrates Algonquin culture through not only nameplacing but plant- and art-selection, and it will soon feature an Algonquin-focussed audio element.	Progress

<b>Sustainable water</b>	Zibi continues to exceed its potable water reduction targets and has made some changes to its design specification to ensure that water meters are installed in all newbuilds, which will help to track water consumption. Stormwater monitoring was piloted in 2021 but showed some issues with polluted runoff. The Construction Manager demonstrated strong leadership and made significant progress in empowering employees to recognise the importance of construction and management best-practices and to take action to rectify any concerns.	Mixed
<b>Local and sustainable food</b>	Regionally, CSA programmes flourished in 2021 as consumers prioritized local food sources. At Zibi, 16% of survey respondents indicated that they participated in a farm-to-table programme. Zibi would like to increase this number and can do so easily based on the reasons for not participating: not knowing about what was available and concerns that they would receive too much food. O's Community Garden had another fruitful season, and the self-governed committee has developed task lists to yield even more crops, all while sharing the workload.	Progress
<b>Travel and transport</b>	In 2021, Zibi built parking lots to a ratio higher than the One Planet Living target but parking infrastructure is front-loaded to Phase 1, with much less in later phases. The parking ratio will start to reduce in 2022, eventually meeting the target in future years. The major milestone of 2021 was the opening of a multi-use pathway (MUP) that connects Zibi to a large regional MUP network providing more connectivity for the Zibi community. Modal share is still heavily reliant on fossil fuel vehicles, but the new MUP and the eventual opening of the Eddy Booth corridor will start to shift habits in 2022.	Progress
<b>Materials and products</b>	Zibi is on track with targets for retention of existing buildings and facades and for reuse of demolition materials. Thanks to the efforts of the landscape architect CSW, nearly all the timber used in 2021 was either FSC or reclaimed wood. However, Zibi's new buildings rely on high-embodied carbon concrete frame structures. In 2021, Zibi worked with its consultant to brainstorm methodologies for effectively calculating the embodied carbon. Innovative embodied carbon reduction options were researched but no viable measures identified. Zibi will continue to track the feasibility to alternatives to carbon frame structures.	Unchanged
<b>Zero waste</b>	Survey respondents indicated a high level of recycling and composting at Zibi, however there is a small cohort of people who do neither and so Zibi needs to solve this to ensure that 100% of the community is doing as much as it can to divert its waste. Part of the solution will include visual waste audits to help us better understand what is being diverted. Zibi met its 90% construction waste diversion target this year, but the Ontario-based recycling rates remain low.	Progress



Zero carbon energy	Zibi made significant progress on what is arguably the project's most important milestone in 2021. They completed work on the district energy central plant and finished the year at 99%, expecting to open 3 years ahead of schedule. Due to rising construction costs, Zibi is currently struggling to meet its building energy demand target. Construction costs have increased by 20-30% during the pandemic and while rental and purchase prices have also increased, the difference between the two is significant for any developer needing to make a profit.	Significant progress on district heating. Challenges on demand-reduction
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### Key plans for 2022

1. The opening of the zero-carbon thermal energy network will deliver 100% zero carbon for Zibi!
2. Terasini Park will be completed in 2022, and with roughly 6100 square meters it will represent 31% of planned park space.
3. Zibi will begin the retrofit of Block 210b a building used for paper storage during the pulp and paper era on site.
4. Zibi will enable even lower food footprints through its new partnership with Two Beets Farm, offering personalised and flexible local and sustainable food provision and a community connection with local growers.
5. Zibi will open a One Planet Living Centre on site in early 2022, welcoming community members and other visitors to learn more about how One Planet Living has been incorporated throughout the community and offer everyone insight on how to adopt a more sustainable lifestyle.
6. Zibi plans to once again host world-class events on-site, including Festibière and Cirque du Soleil, along with the return of the popular Interzip experience.
7. A full programme of community events, workshops and engagement will be enhanced by the new Mighty Networks online facility.
5. The resident-led Green Committee will deliver a programme on better waste management
6. Gardening space will be made available to Block 10 residents in 2022. Zibi will host a balcony gardening workshop in the spring.

### Suggestions from the reviewer

Bioregional and the Zibi team have discussed suggestions for further action in 2022:

1. Restart One Planet Living inductions for site staff and trades. Deepen the **site staff engagement** and hopefully see this reflected in the annual survey response.

2. Map out high-level **embodied carbon impacts** for the scheme, identify the big hitters and explore options for alternatives.
3. Review the actions for achieving outcome ELE6: “Develop Zibi beneficially, with and for the **Algonquin Anishinabe Nation** and people, to ensure Indigenous culture is not only present at Zibi, but that Indigenous people truly live, work and play at Zibi”. Zibi has delivered all of the actions identified in the original Action Plan, but not all of the initiatives have been taken up. Zibi can draw on its excellent partnership with the Algonquin community and perhaps refresh the action plan for the coming years.
4. Zibi can explore the potential for **tracking of domestic waste and recycling tonnages** using on-board weight tracking technology on municipal collection vehicles.
5. With the successful launch of the Zibi Community Utility (ZCU) now completed ahead of schedule, Zibi has the opportunity to track **energy performance in use**. We suggest the results are reported in the 2022 annual review and they can also be used for resident engagement and feedback to inspire energy-efficient behaviour.
6. Zibi currently faces a challenging level of **fossil fuel car dependency**. We suggest ensuring the whole development is EV-ready with conduit for future charge points installed in all new parking bays. We discussed a need to track and report on modal split. We understand this is a planning requirement, but the data can also be used to inform future sustainable travel measures and for community engagement. **Creative incentives** to nudge sustainable travel behaviours can be introduced too.
7. Zibi set itself the ambitious aspiration to achieve a **400% improvement in biodiversity** for the site. The team currently use species numbers to track this, but we suggest exploring some species-specific or habitat-specific measures that might be particularly suited to the Zibi site, that might provide for inspiring stories and points of engagement. By way of an example, perhaps there are key bird or insect species inhabiting the riverscape that would benefit greatly from the floodable features of the new parks being created.

## Review of progress against Zibi's One Planet Action Plan

This section reviews the progress against the targets set out in Zibi's One Planet Action Plan. It takes into account the latest changes made to the Action Plan in 2017.

	Substantially or entirely completed, or a high degree of certainty over deliverability
	On track for a long-term target
	Substantially incomplete, behind schedule or doubt over delivery

### Health and happiness

#### Progress

Outcomes	Indicators	Baseline	Progress in 2021	Plans for 2022
Increase happiness for Zibi residents	> 75 % of residents 'happy' with their lives	Ottawa-Gatineau: 8/10 2018: 3.75/4	Survey: average response 4. 90% of respondents rated 4 or better.	Make the most of the new Mighty Networks online platform.  Full programme of community events.
Create opportunities for community involvement, learning and creative expression	> 70% of residents feel actively involved in their community > 12 events / classes held per year within community spaces	58% for Ottawa-Gatineau, (O&G) 65% for all of Canada	33% feel engaged, down from 35% in 2020. 18 events hosted plus a yoga programme. 7 events were for the community only	
Support better health outcomes	> 85% of residents/workers indicate overall satisfaction with their health >85% of workers indicate increased satisfaction working at Zibi as compared to other sites	63.6% of O&G residents perceive their health as very good; and 72.3% perceive for their mental health. Canadian average is 59.9% and 72.2% respectively	Survey: 100% of residents and staff feel their health allows them to meet their daily needs >90% of trade workers rate themselves in good health	Zibi will plan and offer activities like outdoor skating, bike tours, trash walk and the weekly Yoga programme in the summer months.

## Key achievements and challenges

Despite the challenges of the pandemic and the unpredictable restrictions on people getting together, the Zibi team has continued to offer community and public events. Resident engagement is low but will hopefully rise in 2022 as restrictions on gatherings lift, new residents and workers move in, and the new public spaces provide opportunities for both planned and spontaneous activities.

The One Planet Living Ambassador, a role that is fully funded for 5 years, managed to hold 18 events this year, in addition to an outdoor summer yoga programme. The O Condo community garden continues to thrive.

In 2022, Zibi will make the most of the new Mighty Networks online platform that gives community members a dedicated space to interact and share, in addition to a full programme of community events and activities such as a balcony gardening workshop, community yard sale, zero-waste workshop and trivia nights.

In the survey, many residents commented that more physical activity would improve their health, so Zibi will plan and offer activities such as outdoor skating, bike tours, trash walks, etc. The weekly Yoga program in the summer months will continue.

The One Planet Ambassador will increase OPL signage on site and improve onboarding and education initiatives and will work with the Construction Manager to encourage programs specifically targeting health. All construction workers continue to receive a One Planet Living induction, including a short video and guidance on wellbeing and healthy eating. Ongoing engagement with site trade workers remains a challenge as most have a specific trade and so are onsite to perform a specific short-term task and then move on.

## Equity and local economy

### Progress

Outcomes	Targets / indicators	Progress in 2021	Plans for 2022
Plan for 7% affordable housing	7% of total units social housing	Block 10, or Aalto Suites, a 162 unit rental apartment began leasing to renters in December 2021. This is Zibi's first affordable housing project.	Aalto's affordable rent units are due to complete, handover and be occupied in 2022. Construction will continue on Block 206 with its affordable housing component, occupancy anticipated in spring 2024.
Promote and give precedence to smaller, local and/or ethically run enterprises	50% of retail space storefronts that contain small, local, and / or ethical businesses, as a % of total Zibi storefronts	Due to the pandemic, no leases have been signed for retail storefronts, however Spaces, a coworking establishment whose forward thinking business values align with Zibi's, opened it's doors at Zibi in 2021.	Spaces will expand operations, opening a second coworking space. While the post pandemic future of commercial leasing remains uncertain, Zibi is confident it will attract more commercial tenants.
Engage Zibi residents in Fair Trade programs and products	One fair-trade business will be in place by the time that 50% of retail storefronts are occupied	Due to the pandemic, no leases have been signed, however leasing representatives continue to target a fair trade coffee shop for phase 1 of the project.	Leasing representatives continue to work towards this target as they negotiate with prospective tenants.

<p>Provide opportunities for all community members to democratically participate in governing and managing Zibi</p>	<p>Set up association within 1 year of first occupancy</p>	<p>As a busy construction site with a very small resident community, there is currently no need for a Community Wide Residents Association. In lieu, Zibi is facilitating a Green Committee with members from both condo buildings to address waste management issues and to plan community minded workshops and events.</p>	<p>In 2022 the Green Committee will expand its membership and implement programming related to better waste management.</p>
<p>Create a socially responsible tourist destination</p>	<p>By year 5, have 1000 tourists per year visit Zibi</p>	<p>Zibi offered a variety of workshops and events throughout the year, some virtual but mostly in person, for a total of 18 events, welcoming 17,667 visitors and participants to the site.</p>	<p>Pandemic allowing, Zibi plans to once again host world class events on site including Festibière and Cirque du Soleil.</p>
<p>Develop Zibi beneficially with and for the Algonquin Anishinabe Nation and people - to ensure Indigenous culture is not only present at Zibi, but that Indigenous people truly live, work and play at Zibi</p>	<ul style="list-style-type: none"> <li>• At least 20 First Nations individuals are bridged from on-reserve work to off-reserve work experience</li> <li>• At least 2 opportunities for long-term investment throughout project lifecycle</li> <li>• Offer a preferential residential pricing program for Indigenous purchasers</li> </ul>	<p>Zibi already exceeded this target. In 2021, Zibi created an Indigenous Employment Working Group to identify opportunities and to write a strategy. Approximately 8% of administrative staff self-identify as Indigenous.</p> <p>A long-term investment opportunity was presented to two Algonquin preferential partners. Both partners declined.</p> <p>A preferential pricing program provides a small discount to all First Nation, Inuit or Métis purchasers. Despite enquiries, this opportunity has not yet been taken up.</p>	<p>In 2022, Zibi will finalise its Indigenous Employment Strategy and will continue to look for opportunities to include Indigenous People through procurement.</p> <p>Zibi will not have a long term investment opportunity to present to First Nation preferential partners in 2022.</p> <p>Zibi will continue to implement the pricing program.</p>

## Key achievements and challenges

Financing from Canada Mortgage and Housing Corporation has enabled construction of the 162 unit affordable rent Aalto Block 10 with first residents starting to move in. Once fully occupied, approximately 50% of the completed units at Zibi will be affordable. This affordable housing is supplemented by the preferential pricing programme which offers a discount to Indigenous purchasers, though no purchases have yet taken up this offer.

The growing Green Committee provides the early-stage beginnings for the longer term aspiration for residents to be involved in the governance of the site.

Zibi has exceeded its aspirations for supporting First Nation workers in gaining work outside their reserves, with some 8% of admin staff self-identifying as indigenous. However, an investment opportunity of a 10% share in the District Utility Company was unfortunately not taken up by Algonquin partners.

Despite the pandemic, Zibi welcomed some 17,000 visitors to the site and the zip wire facility proved a tremendous success.

## Culture and community

### Progress

Outcomes	Target / indicator	Progress in 2021	Plans for 2022
Create a cultural identity that reflects the history of the locale	A Heritage Plan, endorsed by Municipal Heritage Planners and regional Algonquin communities, developed and implemented	Pangishimo Park, Zibi's first park was delivered in 2021. It includes elements from the Heritage Interpretive Plan including water, wood, habitat, transport and renewal.	Zibi will continue to implement themes identified in the Heritage Interpretive Plan in the construction of its second park in 2022.
Engage with Algonquins to ensure First Nations history, presence and culture are reflected throughout the development	<ul style="list-style-type: none"> <li>• Mention traditional Algonquin territory in all media events</li> <li>• 15% of place names will be in Algonquin</li> <li>• Establish an advisory council of Algonquin Anishinabe to guide on cultural matters</li> <li>• Minimum of 2 youth engagements per year</li> </ul>	<p>Zibi acknowledged the Algonquin territory in all speaking engagements, media events and published reports. Zibi added a statement to its event contracts to ensure that vendors understand the importance of Zibi's First Nation partners to the project.</p> <p>The Memengweshii Advisory Council met 5 times in 2021, providing feedback and planning a future video project.</p> <p>Algonquin consultant Christina Ruddy facilitated a One Planet Living workshop with elementary school students local to Pikwakanagan.</p> <p>A young Algonquin artist shadowed an established artist commissioned by Heritage Canada to paint a Zibi mural.</p>	<p>Zibi will continue to acknowledge Algonquin territory and to meet and collaborate with the Memengweshii council as well as our other Algonquin partners.</p> <p>Zibi will work with an Indigenous youth employment organization to fill two summer intern positions in 2022.</p>



<p>Create a sense of belonging through a culture of sustainability</p>	<ul style="list-style-type: none"> <li>• 70% of residents know their neighbour</li> <li>• 80% of all residents and workers indicate their awareness of sustainability has increased</li> </ul>	<p>80% know &gt;1 neighbour 40% know &gt;4 neighbours 33% of residents, 57% of staff and 60% of trade workers surveyed report increased or good awareness of sustainability</p>	<p>The One Planet Ambassador (OPA) will continue to engage through events and workshops. They will also use the Mighty Networks online space to share sustainability news and lifestyle tips.</p> <p>Zibi will open a One Planet Living Centre on site in early 2022, welcoming community members and other visitors to learn more about how One Planet Living has been incorporated throughout the community and offer everyone insight on how to adopt a more sustainable lifestyle.</p>
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### Key achievements and challenges

Zibi continues to implement the agreed Heritage Interpretive Plan. The naming of parks and public spaces, and signage for the three parks on site recognises the traditional ownership, while the retention of four facades and two buildings in phase 1 reflects the site’s industrial buildings of heritage.

The Zibi site was once the industrial heart of the National Capital Region and the restoration of some buildings will preserve this heritage. The retrofit of Block 208 completed in 2020 mingled historic brick facades with a modern steel and glass design. The retrofit design work continued in 2021 on Block 201b. In 2022, Zibi will incorporate another historic facade into Block 207 and will begin brick remediation on Block 210b.

Zibi has been working successfully with the Memengweshii Advisory Council since 2014. The council advises on Algonquin protocols and culture in all aspects of the project. It continues to implement two Collaborative Benefits Agreements with 2 of the 10 Algonquin communities in the territory. These agreements outline what the communities want to get out of the project. This is a great success and is probably one of the first instances of a real-estate developer working in this way in the region.

Zibi aims to promote local art and to support the local arts community. So far, every art installation at Zibi, both in the public realm and within buildings has been created by Algonquin, Indigenous or artists local to eastern Canada. 2022 will see the installation of a public art piece by Algonquin artist Naomi Blondin, telling the story of the Waterwoman. The pandemic has

hindered the aspiration to have two youth engagements per year, but in 2021 a young Algonquin artist shadowed an established artist who was commissioned by Heritage Canada to paint a Zibi mural.

Zibi aims to build a strong community around sustainability and the One Planet Living Ambassador used social media platforms to engage residents in discussions, organize community activities like lunchtime yoga and pollinator workshops (Zibeas), and share lifestyle tips on things like low-carbon eating, gardening, sustainable shopping and exercising for better health outcomes.

Zibi will continue the Trade of the Month program, rewarding those that apply sustainable practices on site - past winners have shown gratitude for the recognition.

## Land and nature

### Progress

Outcomes	Targets	Baseline	Progress in 2021	Plans for 2022
Remediate contaminated land and revitalize the area to maximize the benefit to natural ecosystems	<ul style="list-style-type: none"> <li>• 100% of the site area to meet provincial regulations after remediation</li> <li>• 14% of site to be parks</li> <li>• 400% increase in biodiversity with all to contain at least one plant of significance to First Nations people</li> </ul>	Contaminated land	<p>13,500 metric tons of soil from site was remediated meeting provincial regulations.</p> <p>Pangishimo Park and Head Street Square were completed. Together they represent 21% of the total planned park space and 3% of the total site.</p> <p>Of the 131 baseline species on site, only 62 were native. Through remediation, all baseline species were impacted but in 2021, 43 plant species are now present, of which 36 are new/introduced and 100% are native.</p> <p>Zibi now features 24 plant species identified as being culturally significant to First Nations people.</p>	<p>It is unlikely that there will be any soil remediation in 2022.</p> <p>Texasini Park will be completed in 2022, with roughly 6100 square meters it will represent 31% of planned park space.</p>

<p>Foster a love for nature through education and enhanced opportunities to interact with the natural world</p>	<p>50% of all residents will increase their time in nature</p>		<p>Some 40% of residents surveyed said their time in nature has increased since living at Zibi. Of those that indicated their time in nature has not increased, many commented that the completion of parks would help with this. There were also several mentions of creating walking or biking groups.</p>	<p>With the completion of Terasini Park, just over 50% of park spaces will be complete, giving the community over 10,000 sq. m of outside space to enjoy, including access to the shoreline. The OPA will facilitate walking and/or biking groups.</p>
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### Key achievements and challenges

The remediation work is almost complete now, enabling the polluted ex-industrial site to be restored to a healthy urban eco system. The first park, Pangishimo (Sunset) Park, and Head Street Square were both completed. Both contain native species and species important to the Algonquin community. The Park balanced the desire of the Algonquin community to maximise the natural landscaping while satisfying park requirements of the National Capital Commission. Pangishimo is skillfully designed to honour nature, making the most of the dramatic riverscape and the sunset outlook.

A third survey was undertaken to understand if residents feel the amount of time they spend in nature has increased since moving to Zibi. The figure has increased again year on year, from 35% to 40%, despite the ongoing pandemic.

## Sustainable water

### Progress

Outcomes	Targets	Baseline	Progress in 2021	For 2022
Reduce potable water use for residents and irrigation	<ul style="list-style-type: none"> <li>• 138L Potable water consumed per resident, per day</li> <li>• 0% of potable water used for permanent irrigation systems</li> <li>• 10% toilet flushing with non-potable water</li> </ul>	163l	<p>All water fittings meet LEED platinum standard.</p> <p>No irrigation was installed for public realm. Instead drought tolerant species were used.</p> <p>Exceeded potable water target; Kanaal 83l/p/d (down from 99 in 2020); O Condominium at 121l/p/d</p> <p>Zibi has exceeded its target with 14% of toilets flushed with non-potable water.</p>	<p>Zibi will continue to install water meters and water efficient fittings, avoiding the need for irrigation in public realm and identifying new opportunities for non-potable sewage conveyancing.</p> <p>They will engage and educate on water conservation.</p>

Achieve near-zero export of pollutants via stormwater outflow	Total Suspended Solids will be reduced by 80% prior to discharge	Infrastructure planned,	Stormwater infrastructure has been installed and Zibi began sampling stormwater. Sampling occurred during a significant rainfall event which represented a worse case scenario for run off. Results were 2-3 mg/L higher than the local standard indicating that more work is required to prevent erosion and to control sediment.	Zibi will continue to refine its stormwater monitoring program to collect data representative of normal conditions and increase the amount of data collected. It will continue to encourage the Construction Manager to improve housekeeping practices which have a direct impact on stormwater quality.
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### Key achievements and challenges

Zibi continues to exceed its target of reducing potable water consumption from a regional average baseline. In Kanaal, water consumption reduced from an already low 99 down to 83litres per person per day. Water consumption in O Condominium is higher at 121 but this still exceeds the target.

Stormwater sampling and testing for total suspended solids was carried out for the first time in 2021. Unfortunately the results were high and did not meet the target. This may well have been due to a rainfall event at the time of sampling. So in 2022, more data collection will be carried out and vigilance over construction site practices will help to ensure an improvement in results.

## Local and sustainable food

### Progress

Outcomes	Targets	Progress in 2021	Plans for 2022
Provide access to modest garden spaces for 90% of households that want it	1.4 m2 Area of food-growing garden spaces onsite per household (m2) 1:10 Ratio of food-growing garden spaces to households	0 Community Garden continued to be self-run and had a successful growing season.  Zibi currently exceeds its target ratio for food-growing gardens to households at 1:8.6	Gardening space will be made available to Block 10 residents in 2022. Zibi will host a balcony gardening workshop in the spring. The One Planet Ambassador will work with residents to create a community garden committee.
Create a community-scale food distribution network to increase access to local, fairly traded and organic food	5% in year 1, growing to 25% by year 5 of Zibi residents participating in 'farm-to-table' schemes	16% of residents participated in CSA or farm-to-table programs. Many of the reasons for not participating were due to either not knowing about available programs or fearing getting too much food to consume in one week (many were single persons).	Zibi has partnered with Two Beets Farm for the 2022 growing season, which offers a personalised and flexible CSA program.  With the help of the community, the OPA has created a shareable Google Map that will be updated regularly indicating shops within 5km of Zibi, allowing residents to find local grocery/produce from sustainable and/or local businesses.
Engage residents to reduce their consumption of high-carbon foods	50% of all residents will report a decrease in high-carbon food consumption year over year	55% of residents surveyed indicated at least 25% of their food is organic, local or Fair Trade; up from 60% in 2020 and 33% in 2019.	Workshops and events on low carbon, sustainable food choices will be prioritised by the OPA.

## Key achievements and challenges

Zibi aims to provide some food growing space to all residents. At O Condominium there are 15 gardens, each of which can be two plots, for the 70 apartments. Currently this more than meets the demand of the residents, This is an excellent initiative to enable more residents to be able to grow food.

The new partnership with Two Beets Farm Community Supported Agriculture program is unique in that it allows participants to select what local organic produce they receive, how much, and how frequently, which addresses the issues some residents have had in the past. Coupled with increased programming and engagement workshops, Zibi hope to double participation in local food to table programmes and hit the 25% target by 2023.



## Travel and transport

### Progress

Outcomes	Targets	Baseline / 2017	Progress in 2021	Plans for 2022
Reduce carbon emissions associated with local transportation of residents	20% of parking spaces with electric car charging stations	Ontario: >20%	There is conduit in place for every parking spot in Block 205A to receive a car charging station. For Block 301, there is 1 empty conduit for every 2 spaces, where a double unit can be installed thus allowing every space a charging station. Block 211 will have conduit to 21% of parking stalls and 4 chargers will be installed by Zibi for occupancy.	Moving forward, Zibi will focus its efforts on installing conduit to 100% of parking stalls as we believe this is where value is added. This will ensure that Zibi buildings are future-proofed and it will take the burden of post construction conduit install off of the plate of condo boards.
	0.7 household car parking ratio	Car ownership in O&G >1.45 per household	To date residential parking is at a 1:1 ratio.	Zibi's parking ratio will begin to decline in 2022 with less parking being available for residents of Aalto and Block 11.
	Modify roadway reducing lanes from 4 to 2	Planned	Zibi's portion of the Eddy-Booth St Transformation project was completed in 2020.	Public Services and Procurement Canada (PSPC) will begin their portion of the work on the Eddy Booth Corridor Transformation project in 2022. This is the last step in providing a complete street between the Gatineau and Ottawa sites of Zibi, and a significant milestone for the region.

	Targeted commuter transport split: Auto Driver: 25%, Auto Passenger: 10%, Transit: 45%, Non-motorized: 20%	n/a	According to resident survey data, most respondents are traveling 100 kms or more per week and most often with a gasoline vehicle; very few have electric or hybrid vehicles; many are also often biking or walking as a supplement to driving	It is hoped that the completion of the Eddy Booth corridor and the rise of electric vehicles will start to shift this modal split away from fossil fuel vehicles.
Reduce the travel distance for basic goods and services to within walking distance	Community walkscore >90 at 50% build-out	Gatineau 92, Ottawa 44, (O&G region 54)	Zibi is several years away from 50% buildout however a multi use pathway connecting the Zibi community to an existing regional network opened in 2021 increasing the walkability of the site.	The opening of the Eddy Booth corridor will improve the walkscore for Zibi.

**Key achievements and challenges**

The new multi-use pathway connecting with the regional network is a major milestone this year. Ongoing pandemic-related delays to the completion of the Eddy-Booth corridor are hindering any significant modal shift, but Zibi is future proofing the latest and future phases with extensive electric car charging capacity.

The One Planet Ambassador has been promoting the public transport links to residents and future commercial tenants, including in the One Planet Guide for commercial tenants. With the lifting of covid restrictions, the engagement programme can be developed further as more residents and tenants move onsite. This can include training, guidance, apps to provide real-time information, negotiating discounts or offers at bike stores or for public transport.

O Condominium and other early buildings do not meet the target car parking ratio or electric vehicle charging points; however later buildings will have a lower parking ratio to ensure that the 0.7 ratio is achieved overall. Conversely the Kanaal building parking is provided in block 301, which slightly reduces the total number of spaces onsite and centralises the parking – reducing vehicle movements onsite. and moves car parking to the periphery of the development.

## Materials and products

### Progress

Outcomes	Targets	Progress in 2021	Plans for 2022
Reduce the impact of construction	<ul style="list-style-type: none"> <li>• 50% of existing building area retained</li> <li>• 90% of demolition materials recycled</li> <li>• 5% of demolition materials reused</li> </ul>	Zibi is exceeding its target for repurposing existing buildings, as per the master plan. Refer to 2020 report for a summary of buildings being retained. Preliminary design began on Block 24, the old match factory. No demolition occurred in 2021.	Zibi will begin the retrofit of Block 210b a building used for paper storage during the pulp and paper era on site.
	20% of materials contain recycled content 20% materials locally sourced/manufactured	Of the products that were reported on for Block 211 (72 products), roughly 12% contained recycled content and 37% contained locally sourced materials.	
	80% of timber or wood products reclaimed, reused or certified by FSC	There was very little timber used in 2021 but Zibi met its target as all wood used in Head Street Square and almost all wood used in Pangishimo Park was FSC certified or reclaimed/salvaged.	Zibi will continue to expand its inventory of suppliers that can help achieve this target.
Meet or exceed best practice standards for indoor air quality	Achieve relevant LEED credits	Set in specifications in all buildings. Shop drawings are checked for compliance.	Introducing on site spot checks for compliance in 2022.

Embed a culture of reducing and reusing within the development	At least one sharing centres and/or related web-based sites established at Zibi	Residents have been provided with an online forum that allow for them to share, buy and sell. The yard sale scheduled for 2021 was postponed due to changing covid restrictions.	Zibi will continue to encourage residents to share, buy and sell primarily through online tools. Zibi is hoping to host a community wide yard sale in Spring of 2022 to enable residents to sell/trade unwanted.
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### Key achievements and challenges

Zibi has been designed to retain 50% of the existing buildings and facades. The team has successfully recycled and reused demolition materials, ensuring that the project is well on track in these areas. Use of sustainable materials in the buildings has been a little more piecemeal, with a mixture of successes and some failures:

- The team are succeeding in securing concrete supplies with recycled content – but it is not known if this is cement or aggregate replacement, which has a significant impact on the carbon benefit of the recycled material.
- Efficient design to minimise concrete led to O condo having 14% less concrete compared to industry benchmarks.
- All the landscaping timber used in Head St Square and Pangishimo Park was either FSC certified or certified reclaimed. Securing certified sustainable timber for more substantial construction uses is more challenging and difficult to source within Canada.

The most effective strategy to drastically reduce the carbon content is to eliminate the use of cement-based materials, for example through the use of timber, 100% cement-replacement materials, lime and plant-based materials. The team have an ambition to construct at least one Zibi building with cross laminated timber (CLT) instead of concrete frame. This would represent true leadership in Canada. However there are a number of barriers to this. FSC certified CLT products are difficult but not impossible to procure in Canada. The trade contractors skilled at installing CLT are all outside the Ottawa region. CLT is unproven in the Ottawa climate, especially in the large buildings planned for Zibi. So CLT is currently looking unlikely as a long term viable option.

The use of LEED standards for air quality has been included in construction specifications. For example:

- Building 208: nearly 50% of all insulation materials are GREENGUARD Gold Certified (lowest level of VOCs), CFC & HCFCs-free, and have less than 100ppm product formaldehyde content.
- Building 205: All paints, coatings, sealants and adhesives used have 45 g/l VOC content or lower.

In terms of sustainable materials in operation the new One Planet Ambassador has initiated a number of projects:

- Set up an on-line forum for exchange of goods between residents
- Created a Green Cleaning Guideline for commercial tenants
- Developed a One Planet guide for commercial tenants with a range of minimum and suggested requirements for tenants. This includes an extensive list of procurement requirements.

These are being supported by an OPL on-boarding session and an OPL property managers guide. For the residents more events are planned to co-create a culture of sharing durable goods.

## Zero waste

### Progress

Outcomes	Targets	Baseline	Progress in 2021	Plans for 2022
Divert 70% of total annual residential and commercial waste from landfill	>70% of residential and commercial waste diverted from landfill	n/a	Survey results: Recycling; residents 98%, staff 100%. Compost; residents 82-98%, staff 78%  Waste audits have not been possible to date	One Planet Ambassador will continue with regular visual audits of residential and commercial waste and will engage and educate according to results. Outreach in 2022 will include friendly competition between buildings.
Reduce residential waste	291 kg/person/year, a 20% reduction compared to municipal average	365 kg/person/year	Indicator not measured. Visual waste audits inform engagement.	
Divert 90% of construction waste from landfill	<ul style="list-style-type: none"> <li>90% construction waste diverted from landfill</li> <li>Concrete: 75% re-use on site, 20% re-use off-site, 5% clean fill</li> </ul>	98%	99% in Quebec 78% in Ontario No demolition in 2021	Visits to waste handling facilities.

### Key achievements and challenges

Zibi relies on regional waste handling processes to meet its construction waste targets. Quebec's recycling rate is reported as very high at 99% but in Ontario the rate is much lower at 78%. On average, Zibi looks to be meeting its 90% target. Covid restriction allowing, Zibi will visit waste sorting facilities to ensure waste is being diverted appropriately.

Waste audits have still not been possible for Zibi but visual waste inspections have been introduced this year which allows the One Planet Ambassadors to tailor their waste-related engagement efforts to what they see in the bins. Zibi's resident-led Green Committee is focussed on waste and resource efficiency so this provides another avenue for engagement.

Residents are provided with sorting bins to enable recycling of key materials and kitchen waste. Residents have the facilities to achieve a 70% recycling rate if they follow the guidelines and fully use the facilities.

For the commercial buildings the One Planet Commercial Tenant Guide outlines the obligations on the tenants.

## Zero carbon energy

### Progress

Outcomes	Targets	Progress in 2021	Plans for 2022
Ensure 100% of Zibi energy needs met from renewable energy	100% of total building energy demand met through zero carbon sources	Energy company and infrastructure installed to supply zero-carbon heat, opening planned for 2021	Switch on the district heating system and achieve 100% zero carbon for Zibi!
Decrease building energy demand by 30%	30% reduction in building energy demand during operations, compared with a code-compliant baseline building	18% reduction on Block 211	Continue to navigate the challenging costs and business case.

### Key achievements and challenges

Zibi Community Utility (ZCU) faced delays in opening due to delays with Public Services and Procurement Canada, the government department that was installing sections of pipe on behalf of ZCU. However, infrastructure required for heating of the Quebec side of Zibi was installed in the fall of 2021. ZCU is expecting its final permit from the Canada Energy Regulator which will allow for the operation of the district thermal system in early February.

The initial commitment was for the zero-carbon heat network to be in place in 2025, yet the opening is on track to happen in 2022 – a fantastic achievement.

Electricity is all zero-carbon electricity sourced from Quebec Hydro. So once the district heating is operational, Zibi will no longer require the use of greenhouse gases. This marks one of the most significant milestones for the project.

Zibi also has a target to reduce building energy demand by 30%. Previous years have reported 30% saving at O Condominium 25% at Kanaal. However, this year Zibi reports only an 18% saving on Block 211. There have been challenges to the specification due to rising costs of construction materials. Zibi will continue to prioritise the 30% target as it navigates the cost of construction and the market rental and condo rates. The intention is still to achieve this target over the course of the project.