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SUSTAINABILITY REPORT 2022

Fitzpatrick + Partners produces an annual report which categorises our goals and captures our progress in our journey towards sustainability.

This past year has been our first year working towards a sustainable agenda based on the Architects Declare principles. We have seen success in several areas and have developed tools and resources to facilitate a sustainability agenda across all of our projects.

The following areas have been the key focus of our work:

- **Developing a Tool to Calculate Embodied Carbon**
- **Creating a Materials Schedule of preferred materials and suppliers who support a sustainable agenda**
- **Evaluating all projects against a set of Sustainable Principles which can be assessed at different stages of the project**
- **Implementing a sustainable agenda across our Studio**
- **Creating a Newsletter which promotes Sustainability**
- **Utilising these Sustainability tools at the concept design stages of our projects**
- **Categorising building performance for new and existing projects**

2022 IN REVIEW: EMBODIED CARBON

Embodied Carbon has been identified as a critical area where we, as architects, can directly influence the carbon footprint of a project in the early stages of the design process.

As we move towards being able to reduce operational carbon through controlling solar heat gain, improving insulation, and providing energy efficient services which are powered by green energy sources, we have realised that it is imperative that we shift our focus onto the initial upfront carbon in construction materials and processes and the overall embodied carbon in the building lifecycle.

Across the design industry there is not yet a readily available tool which can be used to measure upfront carbon options at the early design stages. To tackle this problem we have looked into where can have the greatest impact on embodied carbon in the early design phases and determined that the structure and facade were the areas that should be focused on.

Over the past year we have developed a tool to analyse and compare the upfront embodied carbon in different structural systems and used it at the concept design stage on a project in the studio to weigh its effectiveness.

The tool has been further refined and in 2022 f+p shared not only the outcome but the underleing architecture of the tool with the broader industry so that there would be a free accessible tool for all firms to be able to use.

As we cant solve the issue of climate change alone we have chosen to **Share**. Our goal is to make it as easy as possible for others to be able to move towards reducing embodied carbon in their projects as well. To this end during the course of the year we have done numerous presentations to other architects, engineers and academics, showing how the tool works and providing a link to make it available on demand. We are here to help, we see this as a joint cause which should be undertaken as a community endeavour.

The image opposite provides a snapshot of the information in the embodied carbon modelling tool, and the link below gives access to the app. The behind the scenes architecture of the app is available in docker and Github.

www.embodied-carbons.com

2022 IN REVIEW: MATERIALS

The materials selected for a project are one of the most critical elements in determining a project's sustainability. Materials can be selected to minimise embodied carbon, protect clean air through reducing volatile emissions, protect the planet by being sourced responsible from ethical manufacturers, be produced through ethical labour practices, and be recyclable and reusable as a first principal.

To date, there has not been a comprehensive guide for materials selection on projects that will allow us to understand their sustainable credentials. Working with the Architects Declare Materials Working Group we realise as a collective the importance of supporting companies endeavoring to advance in this space, as well as help educate the industry to broaden knowledge and assist in making more informed decisions around material and product selections.

We will continue working with this group and assist in creating guides and resources to be shared amongst the wider Architecture and Design community.

On this page is an image showing an example of the Sustainable Materials Guide we created in 2022 and shared within our own office and with the AAD MWG. We are now expanding on this and are working on a second revision to share with the wider community.

This guide includes:

- Other useful resources and guides
- Environmental Certifications and what they mean
- Timber Certifications and what they mean
- Questions to ask suppliers before specifying
- Common words/phrases within the sustainability space and their definitions

2022 IN REVIEW: MATERIALS

We also put together a process on **how to narrow down** the potential materials and product options you are considering for a project.

We called this method **'The Sieves Process'**

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SEPTEMBER 22

SUSTAINABLE MATERIALS GUIDE

PEFC
Programme for the Endorsement of Forest Certification - International non for profit organization.
(Called Responsible Wood in Australia)

FSC
Forest Stewardship Council – International non for profit organization.

Both organisations certify timber so specifiers know that it is sustainably sourced. They mainly check two things:

- Forest Management Certification:
  This audit considers the social, economic and environmental aspects of a product. This certification means the product has come from a responsibly and sustainably managed forest.

- Chain of Custody (CoC) Certification:
  This certifies the CoC of the timber through the full production process - including its removal from the forest, processing, manufacturing and distribution. Products will be stamped with one of the logos and an identification number, you can go online and track where the timber has come from.

PEFC STANDARDS

Maintenance and enhancement of:

1. Forest resources
2. Forest ecosystem health and vitality
3. Productive functions of forests (wood and no-wood)
4. Conservation of biological diversity
5. Protective functions in forest management)
6. Socioeconomic functions and conditions
7. Compliance with legal requirements

TYPES OF LABELS

- PEFC/Responsible Wood Certified (at least 70% of tree based material in product is PEFC certified, remaining must be from PEFC controlled sources)
- PEFC/Responsible Wood Recycled (only recycled forest and tree based material in product)
- PEFC/Responsible Wood Off - Product (for certified companies wanting to promote their certification)

FSC PRINCIPLES

1. Compliance with laws
2. Workers rights and employment conditions
3. Indigenous Peoples rights
4. Maintain or improve well-being of local communities
5. Benefits from the Forest
6. Environmental values and impacts
7. Management planning outlining objectives and policies
8. Monitoring and assessment to meet above objectives
9. High conservation values
10. Ensure management activities comply with FSC criteria and principles

TYPES OF LABELS

- FSC 100% (all materials certified)
- FSC Recycled (product made from 100% recycled materials)
- FSC Mix (Mix of FSC materials, recycled materials and/or FSC controlled wood)
- Controlled wood is wood not necessarily FSC certified. Manufacturers can use up to 30% of controlled wood to meet consumer demand.
- Controlled wood is verified through a risk assessment, to ensure it still aligns with the FSC Principles.

WHATS THE DIFFERENCE?
The main difference with FSC and PEFC is that FSC has higher standards and can be harder to comply with. For example, Tasmanian timber is all PEFC but not yet FSC certified.
PEFC incorporates more national certification schemes therefore covers a larger area than FSC.

WHAT CAN YOU DO?
When specifying any timber note that it has to be either FSC or PEFC certified, as early as possible. It is better to note both schemes down as a requirement as some suppliers may only have one certification, not both.

If possible, try and source local for a smaller carbon footprint. Always ask where the timber is coming from.

LINK: FSC DATABASE

LINK: PEFC DATABASE

LINK: RESPONSIBLE WOOD DATABASE

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SEPTEMBER 22

SUSTAINABLE MATERIALS GUIDE

WHAT SHOULD WE BE ASKING SUPPLIERS BEFORE SPECIFYING A PRODUCT?

If a product with specific environmental certifications such as those above can't be specified, the following questions can be asked of suppliers to confirm whether or not it is a suitable alternative:

- ***Does your company have a Sustainability Action Plan or strategy? If so can you share it? If not why not?***
- ***Do you have any take-back schemes for your products at at the end of their life cycle?***
- ***What happens to this product at the end of its life, can they be recycled or will it go to land fill? Can it be disassembled?***
- ***Where is the product manufactured? (Try to prioritise local if you can)***
- ***What ingredients is the product made up of?***
- ***Is the product Red List Free?***
- ***What is the rough wastage percentage when installing this product? (you may need to provide rough plans / design for this)***
- ***What is your manufacturing source of power, is it green?***
- ***Do you have any credetials around Modern Slavery reporting?***

DEFINITIONS:

OPERATIONAL CARBON
Operational Carbon is the amount of carbon emitted during the operational phase of a building - such as heating, cooling, ventilating and lighting of a building.

NET ZERO / CARBON NEUTRAL
Net zero is the balance between the amount of greenhouse gas produced by human actvity and the amount removed from the atmosphere by implementing methods of absorbing carbon dioxide from the atmosphere and reducing emissions. This means we can still produce some emissions, but we need to offset them (for example, by planting new forests.) As a process this should be the last resort to reduce carbon emissions.

RED LIST INGREDIENTS
This term was coined by the Living Future Institute and is associated with the 'Declare' label certification (noted above)
Red List ingredients are known to have harmful effects on humans, other living creatures and the environment. This list is updated regularly.
If something is 'Red List Free' it means the product does not contain any of the harmful ingredients currently on the Red List.

MATERIAL STEWARDSHIP
Materials stewardship is an informed approach to materials management that addresses the maintenance of the material during product ownership and the "second life" of the material when its re-used or recycled.

PRODUCT STEWARDSHIP
Product stewardship acknowledges those involved in designing, manufacturing, and selling products have a responsibility to ensure those products or materials are managed in a way that reduces their environmental and human health impacts, throughout the life-cycle of the product and across its supply chain.

EMBODIED CARBON
Embodied Carbon is the emissions associated with construction, relating to how a material is first extracted, transported, manufactured, transported again installed on site, maintained and its end of life disposal.

BIODIVERSITY
Is the different life you will find in one area - animal life, plants, fungi, microorganisms such as bacteria etc. All of these contribute to natural ecosystems that maintain balance and support life in that environment.

EPDs
An Environmental Product Delcaration (EPD) is an independantly verified and registered document (based on ISO14025 and EN15804) that gives information on the life cycle of a product in one comprehensive document. They could include information on areas like carbon footprint and end of life options. Unlike eco labels, they don't give ratings, but rather all the information so the user can make their own informed decisions. EPD Australiasia have a database online to search for products. Note; ISO 14021 is self declared and as such less trustworthy than ISO14025.

GREENWASHING
Greenwashing is a marketing strategy adopted by some organisations that put forward they are sustainable and practicing environmental initiatives, when really they are not. Often certain information is witheld or their environmental contributions are minor compared to the harm the business causes in their general practices.

When talking about % of recycled content...
POST-CONSUMER CONTENT
Materials generated by households or by commercial, and institutional facilities e.g. kerbside recyclables.

PRE-CONSUMER CONTENT
Materials diverted from waste stream during manufacturing e.g. offcuts.

The Sieves

1 THE NON-NEGOTIABLES

Sample Y/N Questions:
- Does it meet BCA/AS requirements? e.g. flamability, combustibility, slip
- Is it Redlist free? (LBC requirement)
- Is it considered low VOC?
- Does the product have any environmental certifications?
- FSC or PEFC Certified? (if wood product)

2 CONSIDERATIONS

Sample Y/N Questions:
- Is it suitable for the project / concept from an aesthetic point of view?
- Do we definitely need the finish? Is it unnecessarily decorative? Can we leave it exposed?
- What happens to it at the end of it's life? Does it go to landfill?

3 PROJECT SPECIFIC CRITERIA (ANSWERS TO BE RANKED)

Sample Questions:
- How far from site is the product manufactured?
- Is the main ingredient recycled or considered sustainable?
- What is the warranty duration for the product? (Commercial or residential)
- Embodied carbon amount?

2022 IN REVIEW: EVALUATION

To ensure that all of the projects within our studio are sustainable we have developed assessment criteria to guide the project at the concept design stages and to influence the project as it progresses towards delivery.

There are many sustainability evaluation tools throughout the industry, but often they are related to building performance and finishes selection rather than addressing the first principles of design. We want all of our projects at f+p to be sustainable, not just the projects which are reporting on a third party set of criteria.

In making a sustainability evaluation tool we looked to distill the elements where we could make the most impact as architects, first focusing on what could be influenced at the early stages of design, such as site selection, building orientation and massing, and then adding elements which would enhance its performance such as solar protection, and minimising energy and water consumption. In the end we identified six main assessment categories.

Evaluation Categories

- Site Context and Appreciation
- Form & Massing
- External Envelope
- Materials
-Energy
-Water

Each of thes categories has a subset of evaluation criteria which relate to most of the work that we do. There is an initial project evaluation at the early stages of the design process and then follow up at each subsequent stage to track the progress of the design. From this a full description of the sustainable criteria can be delivered at the end of the project to share with others and build upon for new work.

Sustainability Evaluation Categories

2022 IN REVIEW: EVALUATION

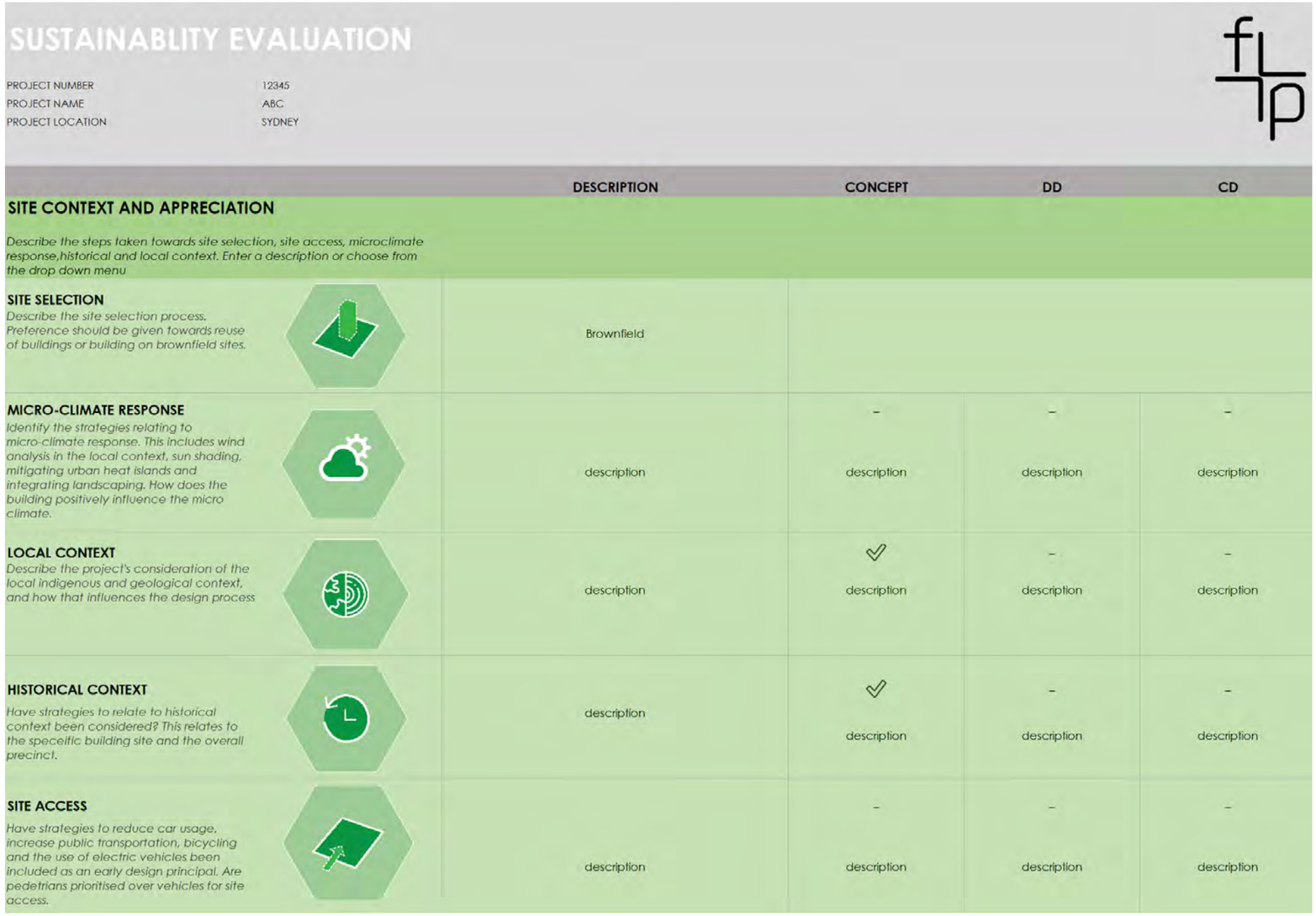
Implementation

For the evaluation tool to be effective it has been designed to be easy to use and interactive. It's not an end of project review of what's been done, but a guide to ensure that sustainability is considered as a first principle of design.

Elements that are critical to its success:

- Embedded in the design process
- Implemented at the start of design
-Establishes benchmarks for accountability
- Provides a common framework to compare projects

Site Context and Appreciation Sub Categories



Sustainability Evaluation Tool

2022 IN REVIEW: STUDIO INITIATIVES

F+P are proud to have achieved carbon neutrality for the third consecutive year.

We commissioned our third carbon audit through the Carbon Reduction Institute to measure our carbon footprint. Our report for FY2022 confirmed we had reduced our total emissions footprint from 156.34 tCO2-e last year to 113.24 tCO2-e this year.

Our total emissions decreased, attributed from assets and expenses with a net total decrease of 33%

Given the disruption due to COVID over the last few years, understanding the patterns of our carbon footprint has been challenging, however with the extent of tracking and measuring that we now in place, we are better equipped to form targets for our future emission reductions.

F+P purchased carbon offsets in 2020, 2021 and due to do the same in 2022. We appreciate that this is a last resort strategy to achieve carbon neutrality and in the future aim to reduce our overall carbon footprint, in order to achieve less reliance on the purchase of offsets.

2022 also saw F+P continue to purchase Greenpower for the third consecutive year, continuing our commitment to more sustainable operations.

F+P in-house waste workshop for staff

We are particularly fortunate as tenants of 9 Castlereagh Street, to find ourselves among a community of tenants who share our enthusiasm for improving the sustainability of our business operations.

In February of 2022, a fellow tenant, Steensen Varming, facilitated a Waste Management workshop with Foresight Environmental, the waste provider of 9 Castlereagh St.

Through this we gained greater knowledge into the building management waste plan and learnt how to best avoid contaminating our recycled waste. This will now enable F+P and the other tenants of 9 Castlereagh St to confidently reduce landfill waste in the future.

The building managers are proactively taking measures to assist in facilitating waste reduction and advised that waste scales are due to be installed in the loading dock at 9 Castlereagh in the near future. This will enable building managers to identify tenants who require assistance to improve their individual waste management operations.

We have shared the knowledge gained in this workshop to better educate our team in our quest to reduce contaminating recycled waste and ultimately reducing waste going to land-fill.

F+P became a signatory in 2022 to CitySwitch, a program run by the City of Sydney for like-minded businesses wishing to reduce their carbon emissions in the pursuit of net zero. Cityswitch achieves this through education, tracking and networking with other signatories.

One of our sustainability representatives, Liz Need attended several of the CitySwitch workshops on tracking carbon emissions, leading to our first emissions tracking survey being completed in February 2023.

We are pleased to be on a positive pathway in reducing our carbon footprint and look forward to continuing our efforts in 2024 and determined to further improve our efforts.

CARBON REDUCTION INSTITUTE

3.9. COMPARISON WITH PREVIOUS YEARS

This audit found that Fitzpatrick and Partners' total emissions footprint has decreased from 156.34 tCO2-e in FY2021, to 113.24 tCO2-e in FY2022.

The most significant change that has occurred during FY2022 is the decrease of emissions attributed to Assets, as these changed from 62.34 tCO2-e in FY2021 to 20.73 tCO2-e in FY2022. The second largest change in emissions was a decrease in those attributed to Expenses.

Table 17: Sources of Fitzpatrick and Partners' emissions for Audited Periods (NoCO2 Boundaries)

Scope	Emission Source	FY2019	FY2021	FY2022	% Difference From Initial Audit	% Difference From Previous Audit
Scope 1 & 3	Fuel Consumed	0.00	0.14	0.00	-	-100%
	Gas Usage	0.00	0.00	0.00	-	0%
	Refrigerants	0.00	0.00	0.00	-	0%
Scope 2 & 3	Electricity	67.86	36.61	51.11	-25%	40%
Scope 3	Staff Travel	2.32	2.81	1.16	-50%	-59%
	Assets	29.22	62.34	20.73	-29%	-67%
	Expenses	46.07	49.58	25.50	-45%	-49%
	Cost of Sales	0.00	0.00	6.04	-	-
	Flights	2.87	0.00	2.82	-2%	-
	Waste	7.19	4.87	2.43	-66%	-50%
	Staff Telecommuting	0.00	0.00	3.45	-	-
	Gross Total	**155.53**	**156.34**	**113.24**	**-27%**	**-28%**
	Carbon Neutral Expenses	0	36.61	33.31	-	-
	Net Total	**155.53**	**119.73**	**79.93**	**-49%**	**-33%**

Figure 8: Comparison of Emissions for Current and Previous Audit Periods

CARBON REDUCTION INSTITUTE

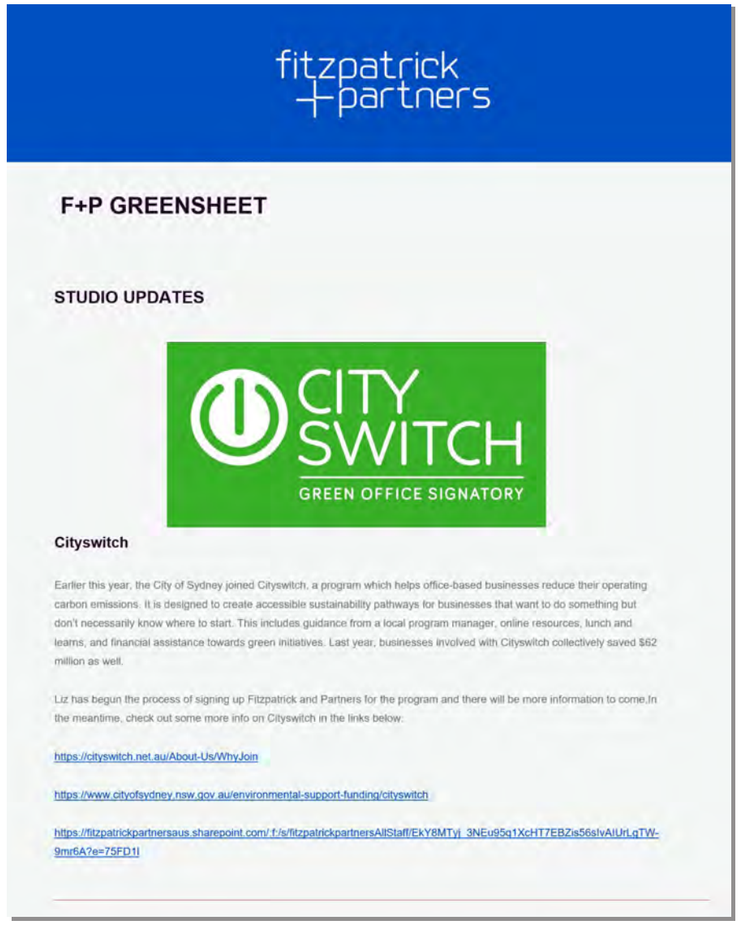
Extract from FY2022 NoCO2 Audit Report by Carbon Reduction Institute

2022 IN REVIEW: NEWSLETTER

In 2022, Fitzpatrick and Partners introduced a monthly sustainability newsletter. Its purpose was to share some of the sustainability initiatives we were undertaking with the broader studio; promote sharing of knowledge between different teams and projects; and help keep the studio up to date with global news related to climate and architecture. There has been a lot going on internationally over the course of the past few years and it is often difficult to keep on top of everything without a little help. The newsletter looks to make everyone aware of current events both internally and externally and gives tips for how we can individually step up to make a difference.

The newsletter is distributed as an email with links to projects, articles and other resources. With this format, it is envisioned that it could be shared beyond the studio in the future. This reflects F+P's view that as a collective problem, climate change requires a collective solution and all resources, knowledge and expertise should be shared.

The process of developing the newsletter required a consideration of what kind of information would be shared, what was the best way of doing it and how frequently this would happen. Over several weeks we developed a format and ways of distributing through different marketing automation platforms. The first issue was sent out as a work in progress and allowed us to gauge what kind of information other staff were interested in and the way they receive it. With further newsletters, we were able to develop and refine according to this feedback.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F+P GREENSHEET

STUDIO UPDATES

CITY SWITCH
GREEN OFFICE SIGNATORY

Cityswitch

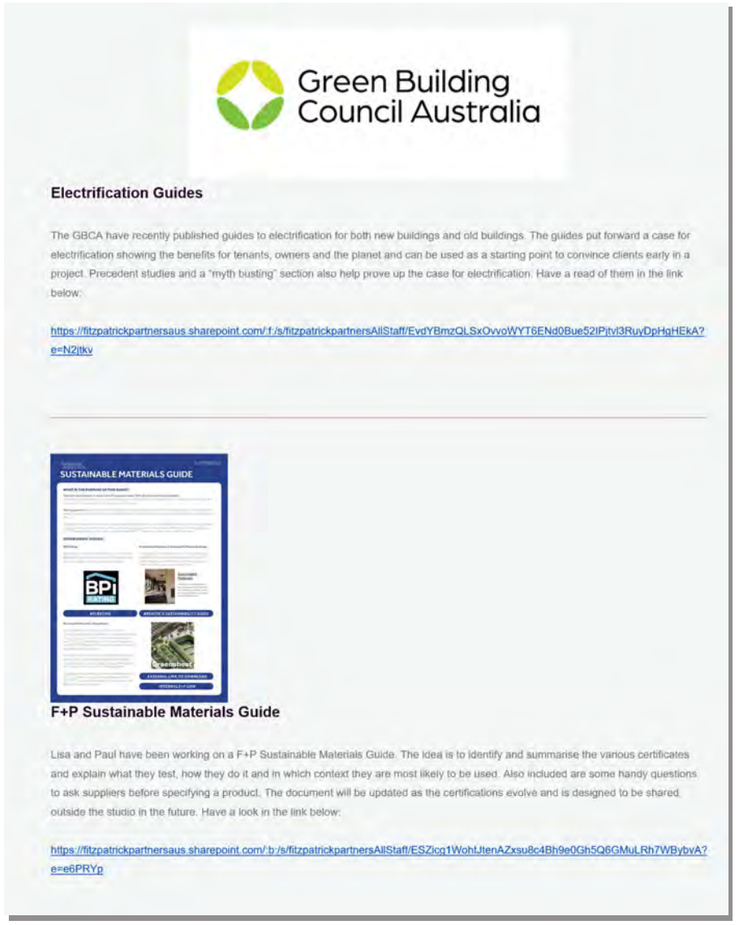
Earlier this year, the City of Sydney joined Cityswitch, a program which helps office-based businesses reduce their operating carbon emissions. It is designed to create accessible sustainability pathways for businesses that want to do something but don't necessarily know where to start. This includes guidance from a local program manager, online resources, lunch and learns, and financial assistance towards green initiatives. Last year, businesses involved with Cityswitch collectively saved $62 million as well.

Liz has begun the process of signing up Fitzpatrick and Partners for the program and there will be more information to come.In the meantime, check out some more info on Cityswitch in the links below:

https://cityswitch.net.au/About-Us/WhyJoin

https://www.cityofsydney.nsw.gov.au/environmental-support-funding/cityswitch

https://fitzpatrickpartnersaus.sharepoint.com/:f:/s/fitzpatrickpartnersAllStaff/EkY8MTyj_3NEu95q1XcHT7EBZis56sIvAlUrLqTW-9mr6A?e=75FD1I


Green Building Council Australia

Electrification Guides

The GBCA have recently published guides to electrification for both new buildings and old buildings. The guides put forward a case for electrification showing the benefits for tenants, owners and the planet and can be used as a starting point to convince clients early in a project. Precedent studies and a "myth busting" section also help prove up the case for electrification. Have a read of them in the link below:

https://fitzpatrickpartnersaus.sharepoint.com/:f:/s/fitzpatrickpartnersAllStaff/EvdYBmzQLSxOvvoWYT6ENd0Bue52IPjtyl3RuyDpHgHEkA?e=N2jtkv

F+P Sustainable Materials Guide

Lisa and Paul have been working on a F+P Sustainable Materials Guide. The idea is to identify and summarise the various certificates and explain what they test, how they do it and in which context they are most likely to be used. Also included are some handy questions to ask suppliers before specifying a product. The document will be updated as the certifications evolve and is designed to be shared outside the studio in the future. Have a look in the link below:

https://fitzpatrickpartnersaus.sharepoint.com/:b:/s/fitzpatrickpartnersAllStaff/ESZicg1WohtJtenAZxsu8c4Bh9e0Gh5Q6GMuLRh7WBybvA?e=e6PRYp

Sharing studio sustainability news through the sustainability newsletter

Embodied Carbon Tool

From feedback and testing, the app now has a new UI. With the app getting more feature, the new UI will create a base platform for a cleaner and legible design

- New iconography for readability and compacting information.
- A responsive design, to allow more users with different screen resolution to easily use the app.
- addition of Discord link for community building and help resource.

New features in the works

- Save and load previous projects and variations
- Single page benchmark of all saved projects
- Single page comparison between projects
- Ability to print to pdf

More about embodied carbon

THINGS YOU MAY HAVE MISSED

To Avoid Climate Disaster, One Task Is More Urgent Than Anything Else

Landscape architects' competition entry critiques greenwashing

AGL will close Victoria's coal-fired power station Loy Yang A a decade

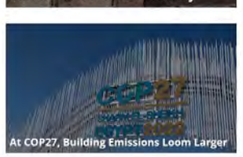
A retrofitting revolution

fitzpatrick + partners

For this issue we've compiled some stories about two major events of the moment which have intrinsic links to sustainability and architecture – the COP27 UN climate conference and the Qatar FIFA World Cup. Did someone say greenwashing?

NEWSLETTER ISSUE 3

COP 27



QATAR WORLD CUP 2022

MECLA GUIDES

MECLA have published some useful guides, glossaries and case studies on decarbonisation in the building industry. Find them here-

S:\0007 OFFICE REFERENCE DOCUMENTS\SUSTAINABILITY\MECLA GUIDES

STUFF YOU MAY HAVE MISSED

- Melbourne now has chief heat officers. Here's why we need them and what they can do
- An entire Pacific country will upload itself to the metaverse. It's a desperate plan – with a hidden message
- This is what post-carbon design looks like now
- Visualizing the Accumulation of Human-Made Mass on Earth

A special issue compiling news from COP 27 annd the football world cup

2022 IN REVIEW: RECONCILIATION ACTION PLAN

2022 also saw Fitzpatrick and Partners begin its Reconciliation Action Plan program with the development and formal endorsement of our Reflect RAP. This underpins our continuous commitment to both environmental and social sustainability. In moving towards regenerative design, we understand the deep wealth of knowledge First Nations people have of the Country we work on through 60,000 years of continuous occupation. Now more than ever it is crucial to recognise, integrate and collaborate with aboriginal design practices and practitioners and the RAP is an important step in this process.

As a group of Architects F+P have always sought to place our work in its context and are continuing to evolve this strategy to a more holistic understanding of Place and Country. One that recognises the original Custodians of the land and their place in this process. Designing for projects in contemporary Australia means designing on Country and we seek to grow our knowledge and respect for both the place and the peoples who have cared for it since the beginning of time.

Throughout the year we also looked to engage the studio more broadly with First Nations culture and history. In May 2022, the team had a cultural awareness presentation from the Aboriginal and Torres Strait Islander Defence and Infrastructure Consortium (iDiC). We are also engaged in a partnership with iDiC, trhough which we are able to integrate indigenous proicurement in our supply chain. The studio experienced the Aboriginal history of Sydney Harbour aboard the Mari Nawi or 'big canoe' in October 2022. We heard stories of the Gadigal, Guringai, Wangal, Gammeraigal and Wallumedegal people, learning about pre-colonial life like traditional fishing methods and food gathering techniques.

We see the opportunity for our work to be informed by a greater knowledge of the Aboriginal and Torres Strait Islander understanding of Country and to be created with greater awareness of place, as everywhere we design is on unceded Aboriginal land. This understanding will help us create buildings which are not just neutral to the environment around us but actually give back.

Cultural Awareness Presentation from iDiC in May 2022

Learning about the First Nations history of Sydney Harbour on Be-lang-le-wool (Clark Island)

Artwork at Gosford Health & Well Being by Aunty Donella Waters - Portrays the weave of the dilly bag as a background within which a sea eagle sores over Gosford

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2022 PROJECT PROFILE: COTTLESLOE

We are excited and proud that our Cottesloe project will be our first **LIVING BUILDING CHALLENGE** project, we aim to grow both our knowledge as a studio and our positive impact on the industry through the development of this project with a great team of collaborators and a visionary client.

The client has chosen to pursue full certification using the ILFI's Living Building Challenge (LBC) rating tool, where the focus is to create projects to generate positive environmental and societal impacts. The tool is widely acknowledged within the industry as the most rigorous rating tool in the world and the proposed building is set to be one of the first in Australia to achieve this rating. It will create a world-class office and residential hub, delivering an exemplar work-live environment and a four-bedroom apartment.

As part of its evolving business focus, the client has a vision for a flourishing world, through pursuing purpose, people and the planet are in balance. Beginning with the principle of a local responsibility but a global focus, the project will utilise local and sustainably sourced materials to create a connection between people and the environment, proving that not only can the needs of humanity be met within the means of the planet but that development can give back more than it takes.

This is a unique opportunity to realise what is possible in the realms of architecture and design. Through purpose, vision, collaboration, and imagination, we will deliver Western Australia's first Living Building with focus on the following seven performance areas.

Place – Restoring a healthy interrelationship with nature

Water - Creating developments that operate within the water balance of a given place and climate

Energy – Relying only on current solar income

Health & Happiness – Creating environments that optimise physical & psychological health and wellbeing

Materials – Endorsing products that are safe for all species through time

Equity – Supporting a just and equitable world

Beauty – Celebrating design that uplifts the human spirit

As part of this project we will also be undertaking a self assessment against the Just protocol to further harness the power of transparency and support the social health of the studio.

01 **Generate 105% of our power need**

02 **Capture and use all our own water**

03 **Minimise operational energy needs**

04 **Minimise embodied carbon**

05 **Optimise alternative transport options**

06 **Support biodiversity through greenery**

07 **Develop an exemplar work-live building**

LIVING BUILDING CHALLENGE

2022 PROJECT PROFILE: THE BOND

We were excited to see our first mass timber multi-storey come to life in 2022.

After COVID and the associated lock-downs that occurred from 2019 onwards and experiencing a shortage in supplies and cost escalations, The Bond was finally realised this year and is fast approaching completion.

Fitzpatrick + Partners have invested much time over the years researching mass timber construction and with two previous projects under our belt, this was a chance to execute the principles we've developed at a larger scale.

The project comprises of two components; A timber structure positioned above a concrete podium with basement carpark below.

The timber structure consists of six commercial floor plates approximately 1500m2 each and floor to floor heights of 3.7m. The timber frame is glulam and LVL, while the floor slabs are CLT.

The building has attracted various health providers ranging from an oncology specialist housing two radiation bunkers in the basement to an IVF specialist. A child-care facility has been integrated at level one with an extensive outdoor play area.

The buildings' green credentials include 5 Greenstar (targeted for Design and As Built), 4.5 Star Nabers Office Base Building Rating for Energy and 2.5 Star Nabers Office Base Build Rating for Water.

The base building committed to reducing the environmental impacts, in particular embodied carbon of the building materials / products used in construction of the project. To reduce the impact across a wide range of indicators, a number of initiatives have been investigated:

- Maximising recycled content;
- Switching products or components with high embodied carbon to lower embodied carbon alternatives where there is no sacrifice in performance;
- Utilising alternative fuels in delivery and manufacture;
- Purchasing or utilising Certified GreenPower for manufacturing processes; and
- Carbon offsetting part or all of a product or materials manufacturing emissions in accordance with the National Carbon Offset Standard (NCOS) or similar

The base building provides co-mingled recycling, paper/cardboard recycling, organic recycling and general waste facilities.

All timber used on or within the building has been sourced from forests that have been certified by forest certification schemes that meet the GBCA's Essential' criteria for forest certification.

The project is due to undertake a whole-of-building and whole-of-life (cradle to grave) assessment.

This has been a long project in the making and we are pleased to see it finally completed March 2023

Timber fire stairs at The Bond

The completed project, view from Elizabeth Macarthur Drive

Typical commercial strata suite at The Bond