

Welcome to UNBOXED

'How can a change in the interior, change the system?'

This scheme looks to **challenge the conventions of current school design and pedagogy**. It will question how the interior can persuade our learning environment, allowing users to focus on being their most **genuine selves** at their most influential point of character development, causing a more **authentic society for our future**.

A **self-led** school designed around the key words '**curiosity, exploration and collaboration**'. In doing so the end result is an environment where students 'want' to learn, as they choose their subjects on their intrigues and passions.

"Education is the most powerful weapon you can use to change the world."

NELSON MANDELA

WHO:
Sixth Form Students

- | | |
|--------------------------|-----------------------------------|
| - 16-18 years old | - When most pressured by society. |
| - Key Age of Development | - About to go off alone |

WHY:
To create a more authentic society for the future.

- | | |
|----------------------------|-----------------|
| To avoid: | To encourage: |
| - Standardisation | - Creativity |
| - Conformity | - Authenticity |
| - Academic Inflation | - Collaboration |
| - 'Factory Line Schooling' | - Community |

"The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew. We must disenthrall ourselves, and then we shall save our country" LINCOLN, 1862

CONCEPT NARRATIVE

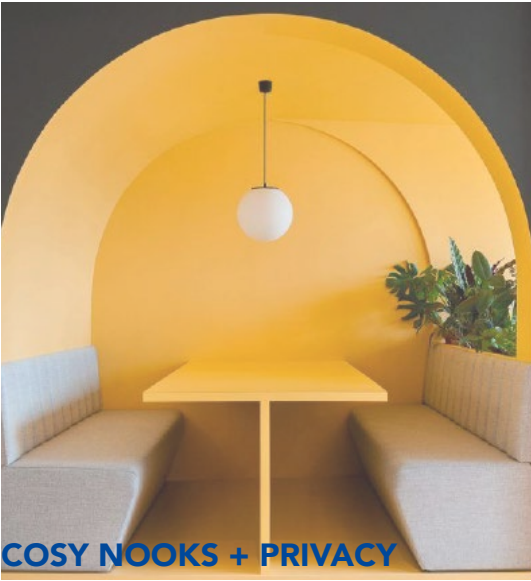
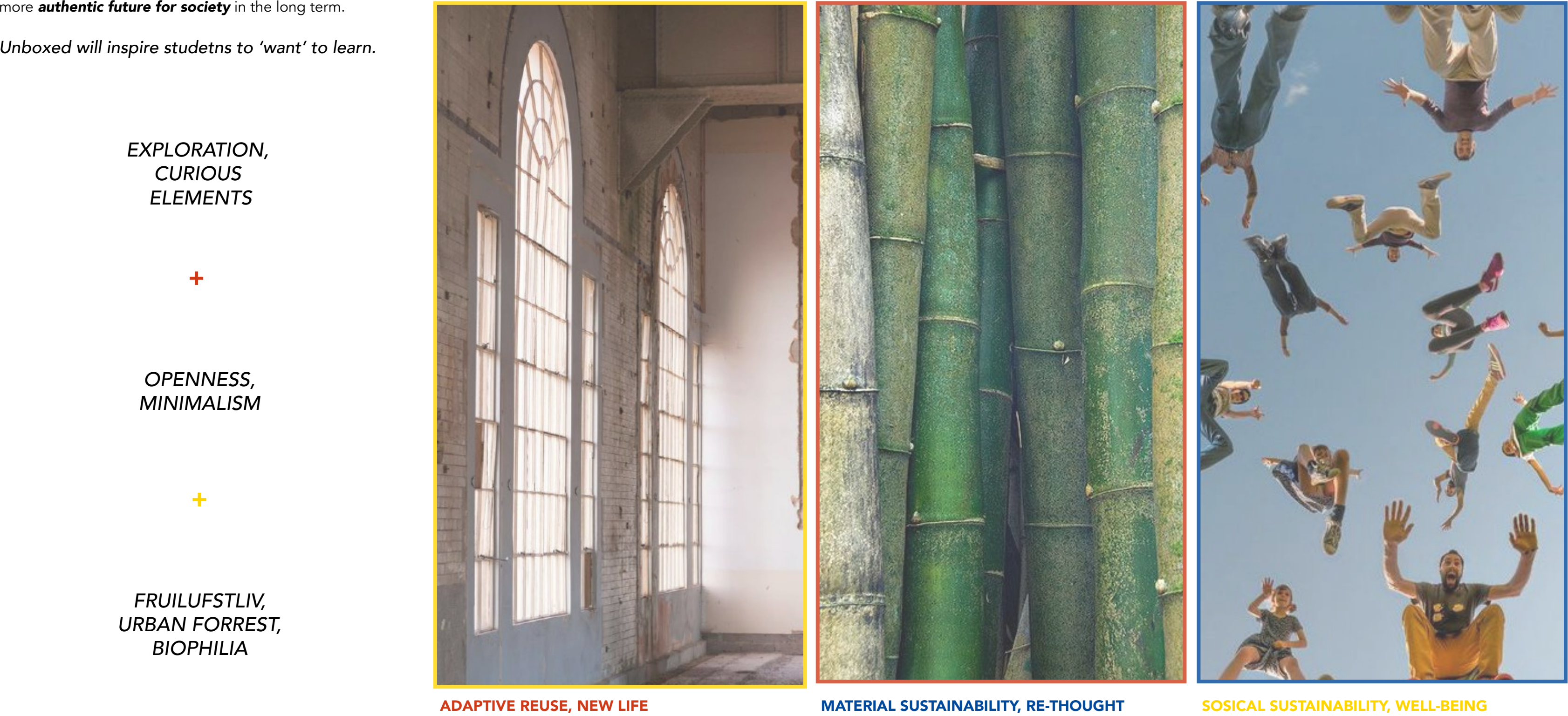
‘What if an interior caused you to be curious?’

The scheme has been designed in order to **create curiosity** and **encourage exploration** within the students. **Directed sight lines** and random openings might also **promote collaboration** among students and therefore evolving a community spirit, a key **life skill**.

The interior atmosphere is to remain open **minimalistic**, with **‘pops of colour’** for fun and **biophilic** elements to enhance **well-being**.

Being **self led** the students get to **choose their future**, remaining **authentic to themselves** and therefore creating a more **authentic future for society** in the long term.

Unboxed will inspire studetns to ‘want’ to learn.



Sustainability Statement

Sustainability is a key thread running through this scheme. Adaptive reuse is perhaps the more obvious sustainable method. Built with a **‘kit of parts’** the design brings **no harm to the original listed building** and can be **re-moved** at the **end of its life**. Other methods such as **Passivehaus, Carbon Footprint, Air Quality and Well-being** have all be considered.

Social Sustainability

The ethos of the scheme is to promote **self expression and authenticity**. If they know who they are then any relationships in the future are built on authentic grounds.

The open plan environment promotes **collaboration and communication** between students. If they are used to working together whilst they are learning, they develop the necessary life and career skill, teamwork.

The **social life of the future is** therefore **genuine**.

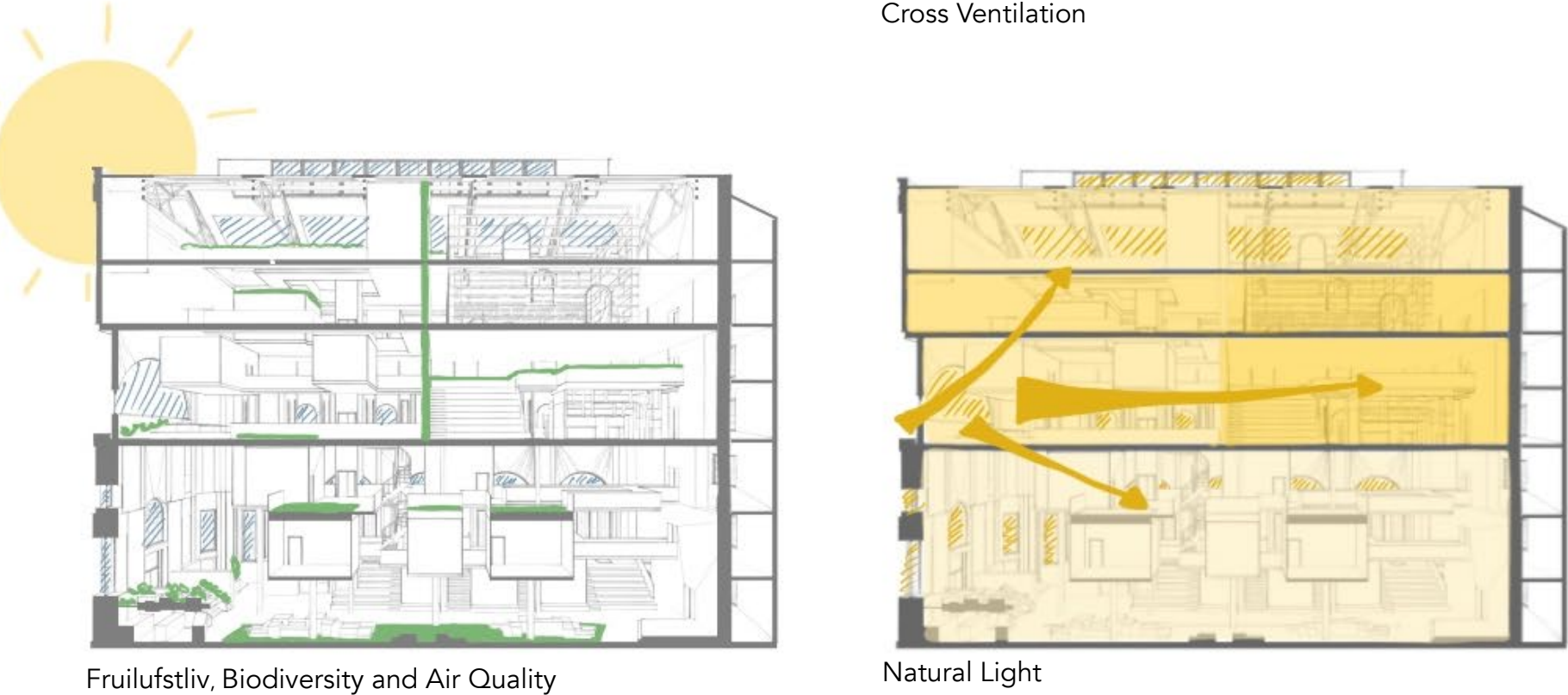
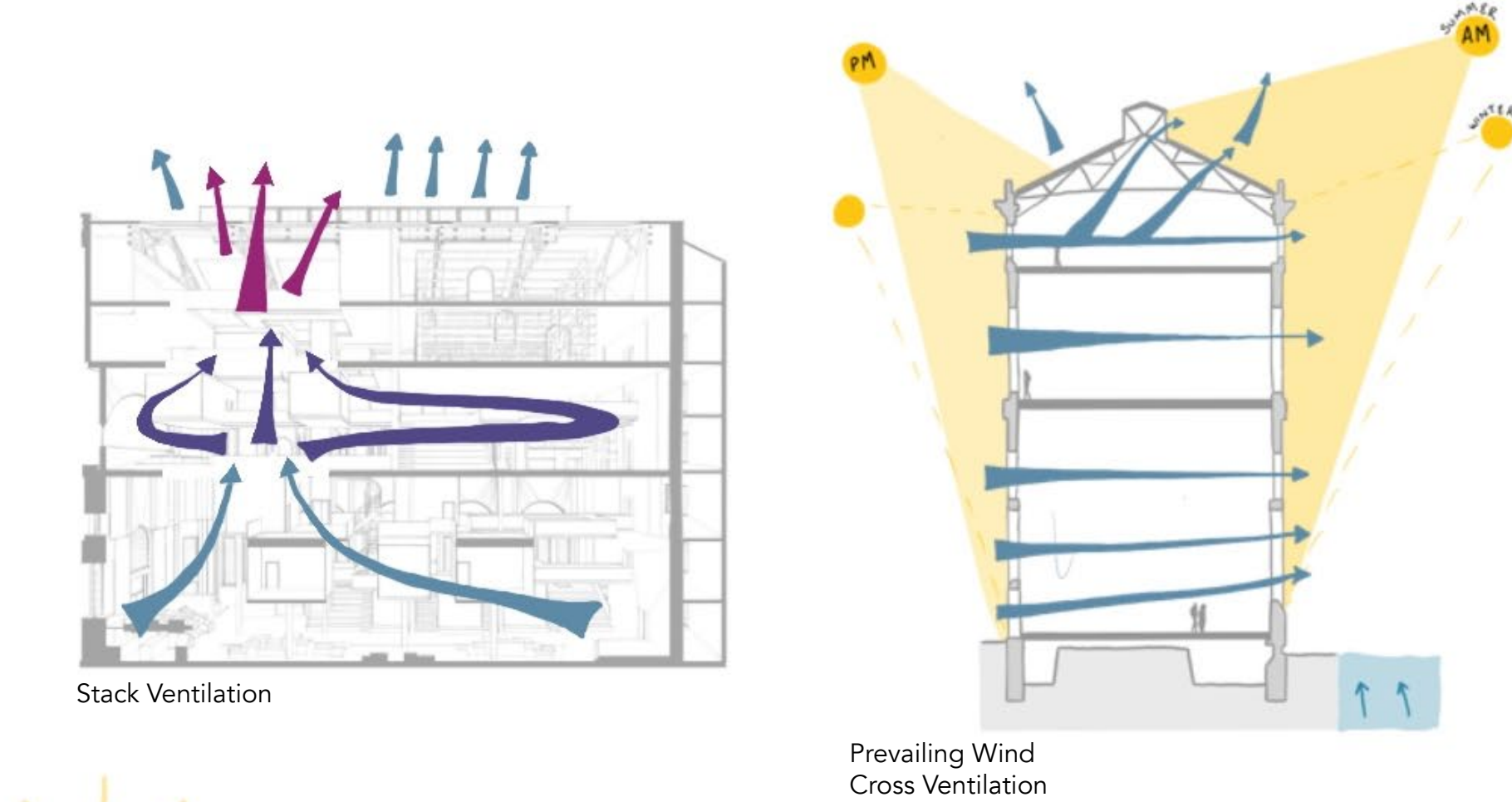
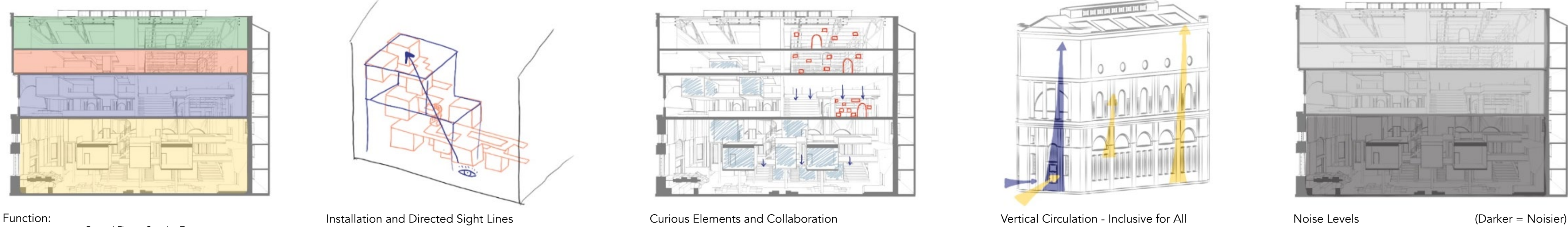
Material Sustainability

Most of the materials used in this project can be broken down to the ‘kit of parts’ at the end of the schemes life.

All material manufacturers are have received **various ‘green’ certificates** and are **sourced ideally in the UK**, or if unavailable from Europe, but no further.

The materials which **do not derive** from a **quickly renewable** source have been **reclaimed** from scrap or recycled from other projects.

CONCEPT DIAGRAMS



SUSTAINABILITY DIAGRAMS

ADAPTIVE REUSE:
When considering sustainability, it goes far beyond saving energy or careful sourcing of green materials however; **recycling and rejuvenating historic and derelict buildings is fundamental**. The foundation of my design lies in the adaptive reuse of the old **Generator Building in Redcliff Conservation Area, Bristol**. The industrial building hosts many man-made materials, such as concrete, brick and steel all of which will **remain** in my scheme as to no waste energy removing them. The original industrial feel is to be balanced out with natural, renewable and reoccurring materials.

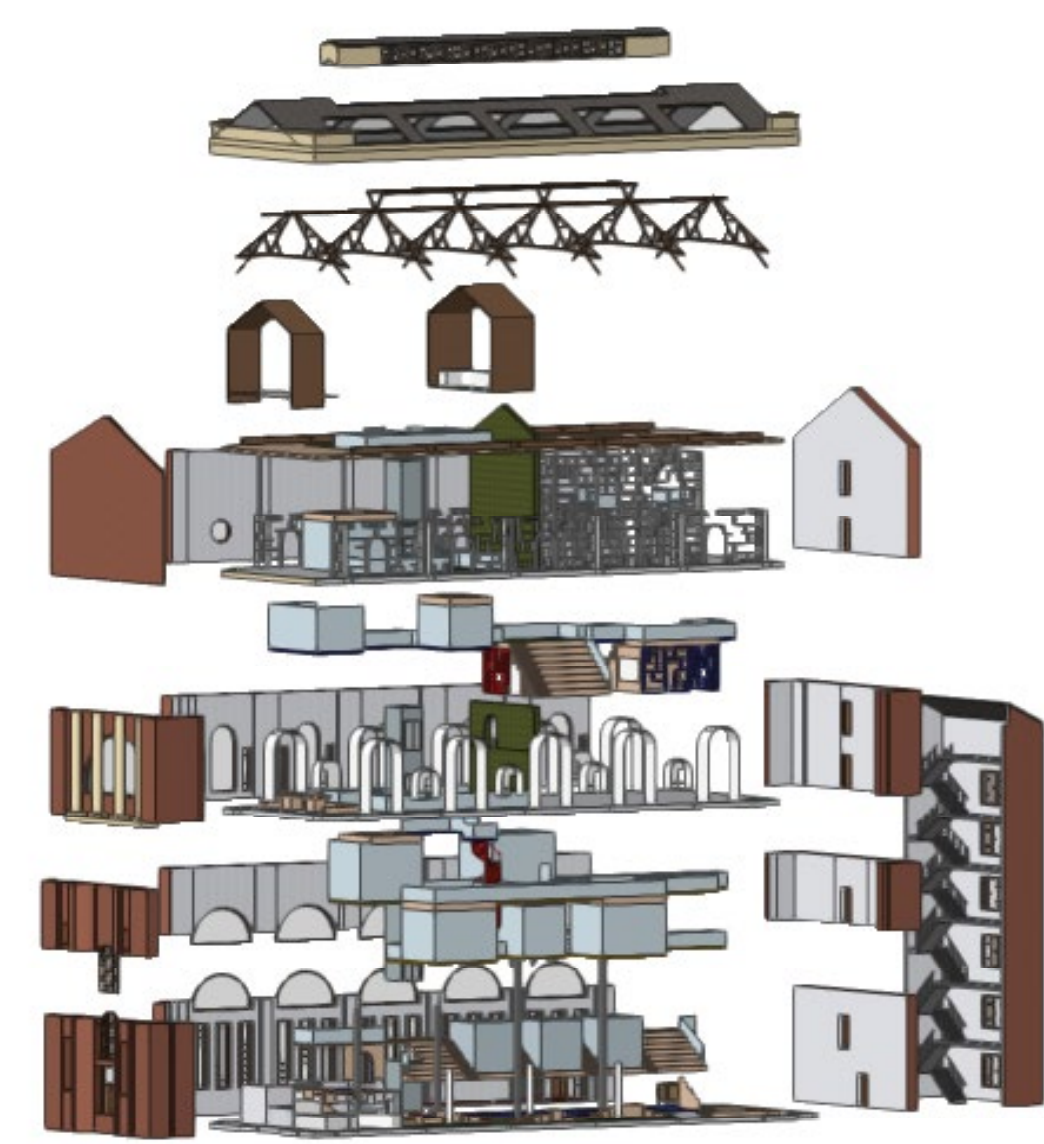
PASSIVEHAUS:
The site is host to **large windows** and a **glazed roof** allowing the site to be **flooded with natural light**. On the final floor the windows are smaller, so the **addition of skylights** will benefit this. Throughout the year the site is exposed to the sun at 3 out of 4 of the elevations. The **north facing windows** and fire exits will **require additional glazing**. With **prevailing winds** coming from the **SW the W** facing windows would also benefit from **additional glazing**. The **vertical void** at the south end enables natural light to floor the space, as well as allowing for **stack ventilation** as well as **cross ventilation**, giving potential for **maximum airflow** around the interior. A **living wall** is built in to the scheme to **regulate CO₂ levels**.

CARBON FOOTPRINT AND EMBODIED ENERGIES:
All materials are sourced from manufactures in the **UK** where possible and **never from beyond Europe**, meaning **minimal energy is embedded in transit**. When the materials are not quickly renewable they have been recycled giving them a new lease of life. Considering **C2C**, the whole design can be take apart at the end of its life time allowing for a new life after. **No glues or adhesives** were used in the design process.

MATERIALITY AND CERTIFICATION:
Aligning with my sustainability statement, recognising the necessity to solve the very real problem of climate change, all materials manufacturers used throughout the scheme have revived at least one 'green/sustainable' certification of some form. Certification example are listed under the material statement on next page.

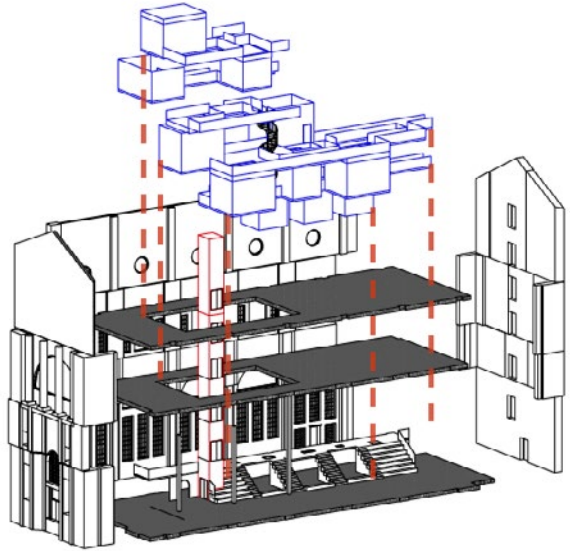
BIODIVERSITY:
Although the site is located in an **urban environment** it is surrounded by a wealth of wildlife and natural environments, home to numerous rare and local species. The addition of **bee bricks** at the north end of the roof will help to nurture and encourage more wildlife at castle park. The **living wall** will provide an opportunity for **internal mirco-climates** for students to learn from.

EXPLODED AXONOMETRIC



INSTALLATION:

Floating booths to thread through voids in the floor. The voids also allow for stack ventilation and increase of natural light from the central south facing window.



MATERIALS STATEMENT

The materials chosen for the scheme are **minimal, monochromatic** and most important-ly **sustainably sourced**. They are a balance between **natural and minimal** contrasting against **colourful and industrial**.

To enhance the **frilufstliv** element of the design then materials chosen are naturally soft-er, lighter and cleaner. I have chosen bamboo, reclaimed various wooden panels, living walls and grassed areas to hint at the urban forest. Whilst also maintaining CO₂ levels and biophilic elements to enhance well being among the students.

On the contrast, these soft natural materials are placed along side more robust, industrial materials, to firstly add the idea of exploration, but also drawing from the listed building's industrial history. These materials, for example are glass (clear, frosted and tinted) the original raw brickwork, original concrete flooring and steel frame/collumns.

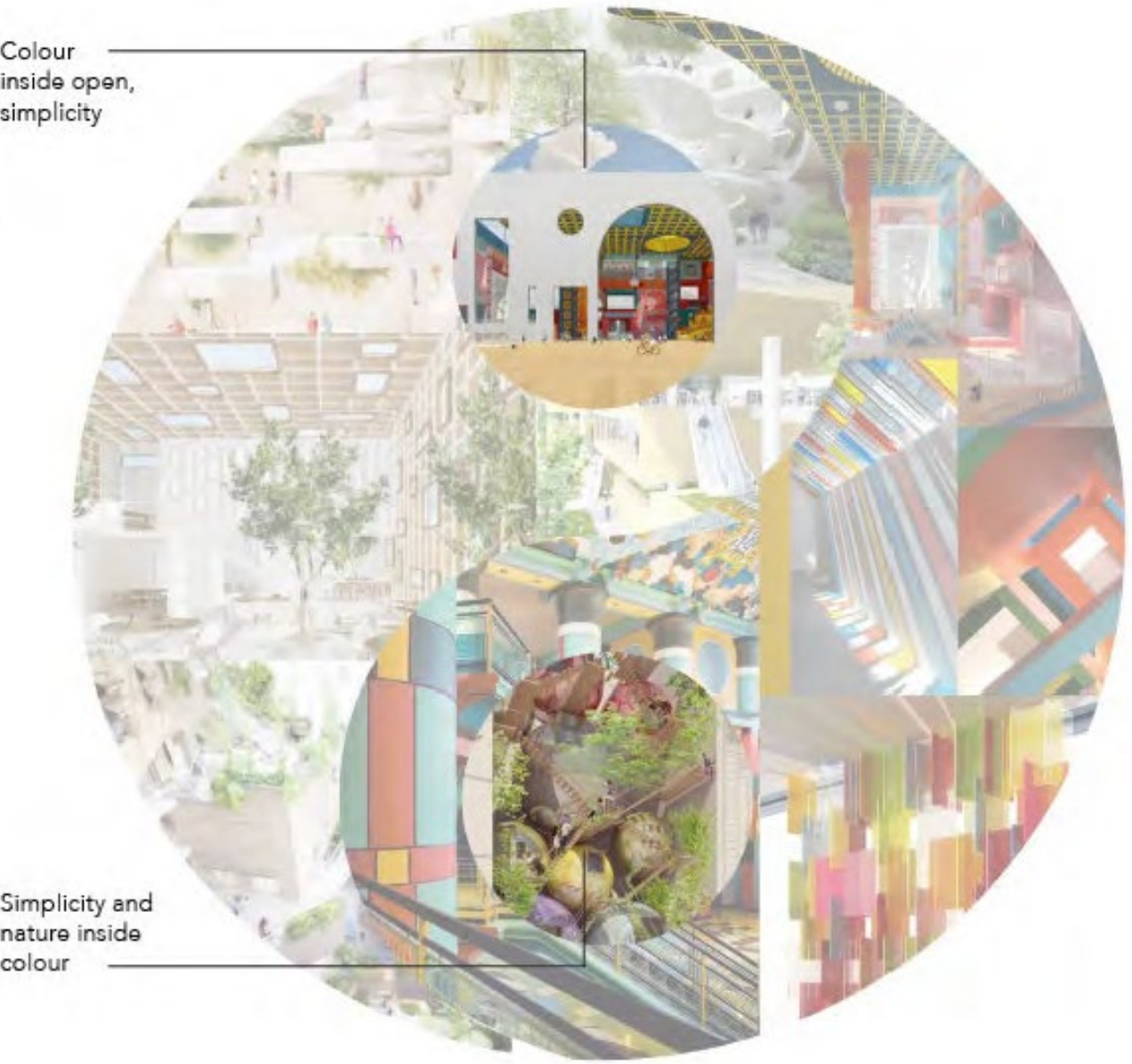
SUPPLIERS + CERTIFICATION

Aligning with my sustainability statement, recognising the necessity to solve the very real problem of climate change, **all** materials maufactuers used throughout the scheme have been awarded at least one 'green/sustainable' certification.

Material Suppliers - A few examples:

Forbo - C2C, BREEM, SKa, Eco Lighthouse, Prüfsiegel für Gesicherte Nachhaltigkeit
Lunawood - PEFC/02-31-144, Nordic Ecolable 3086 0005, KOMO, ISO 9001, Bre + more
Smith & Fong Plyboo (UK) - FSC, FloorScore 01350, ISO 14001, SCS, USCBC
Celtic sustainables - FSC, Global Organic Textilestandard 152029
Steelway - CE Certified, ISO 9001, ISO 14001, ISO 45001 + more
Dulux Paint - UKI BES 6001, UKI carbon/water/waster, ISO 9001, BREEM, LEED + more
IdealFelt - Oeko-tex 100, ISO 9001, C2C

MATERIAL BALANCE



GROUND FLOOR VISUAL View from the stage in to booths and informal box seats



FLOATING BOOTH VISUAL Into studios, Music, Art, History of Art



FIRST FLOOR VISUAL 1 Group acoustic booth and science booth



FIRST FLOOR VISUAL 2 Concept continued, sight lines throughout scheme



SECOND FLOOR VISUAL 1 Looking in to the common room, double height shelving



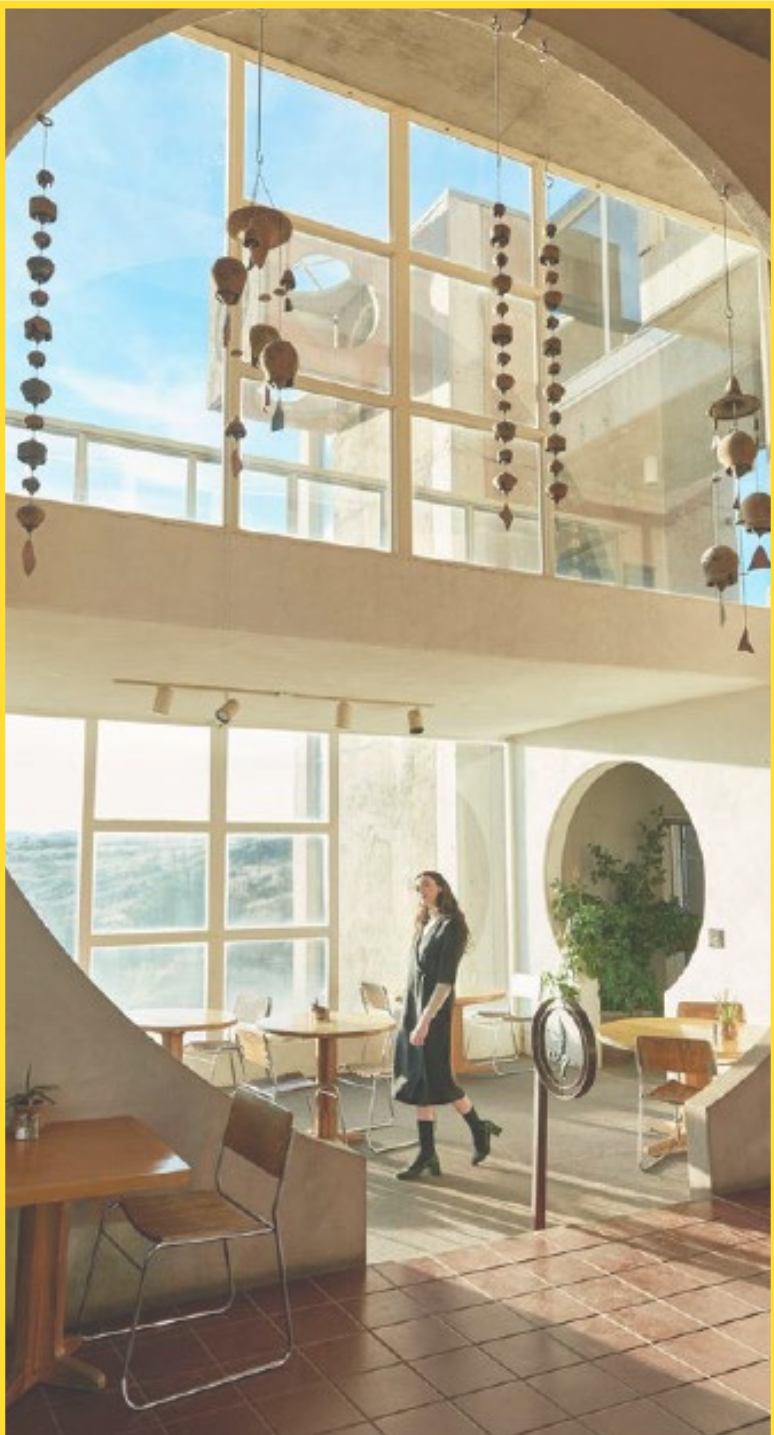
SECOND FLOOR VISUAL 2 Life skills level, textiles zone, modular bathroom



100% LED, ENERGY EFFICIENT



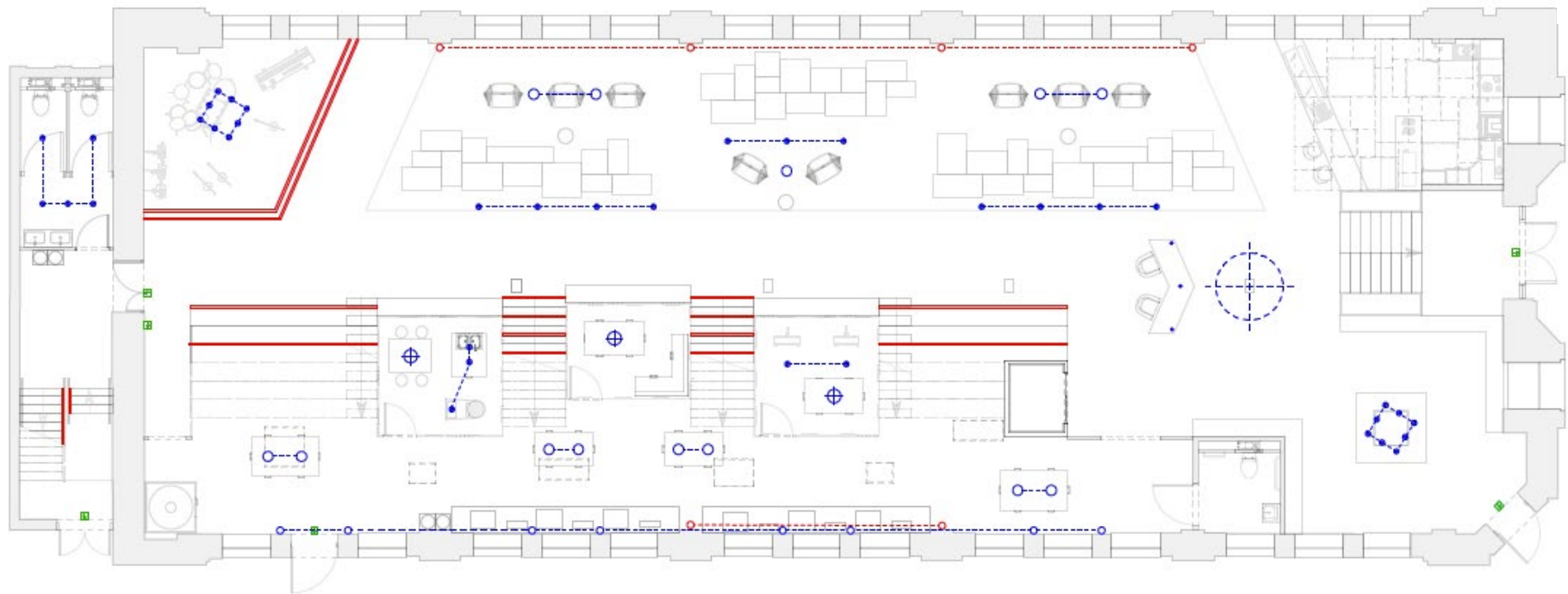
WELL-BGIN, CIRCADIAN RHYTHM



HIGH LEVELS OF NATURAL LIGHT

EXAMPLE RCP

Ground Floor Lighting Plan



KEY:

- A In Ground Lighting
- B Recessed Wall Lighting
- C Table Lighting
- D Spot Lighting
- E Pendant Lighting
- F LED Ground Strip
- G Chandelier 1
- H Chandelier 2
- Direction Of Light

LIGHTING SUSTAINABILITY STATEMENT

LED, Human Centric Lighting, Natural

ZERO WASTE: All bulbs and strips selected for this scheme are 100% LED, the most energy efficient with least wasted. However LEDs degrade over time, which is why Tala and Fagerhult have equipped their bulbs with CLO at a value of L100, enhancing their lifetime. The products were chosen because they are compatible with most standard lighting fixtures and there are either no pendants, or screwless pendants to allow for a new life post scheme, keeping a zero waste ethos and following a circular economy.

NATURAL LIGHT: The building already experiences an abundance of natural light. However, with additional voids and skylights will enhance this and allow for natural light to flood all floors in the scheme.

HUMAN CENTRIC LIGHTING: All manufactures were chosen due to having a HCL/Wellbeing lighting plan. There is a fundamental understanding that public spaces are made usable due to good lighting. They follow a circadian rhythm pattern imitating the natural daylight cycle allowing for a healthier sleep and therefore a more productive awake. Tala light bulbs also have anti glare technology.

CERTIFICATION: Certifications achieved by manufactures chosen are shown below.



MODULAR LIGHTING INSTRUMENTS - All smart light LED bulbs, partners with Phillips Hue and Casambi, ISO certified, Carbon Neutral Plan for 2025, Zero Waste/C2C program.
TALA - All smart LED bulbs, 10yr guarantee, WEEE compliant, Reforesting program to balance carbon footprint, UK MADE - Partnered with charities such as Groundwork, WONDER foundation and KidsOut, Buy back scheme.
FAGERHULT - All luminaries have a material deceleration, smart light LED bulbs, ISO certified and compliant with Sunda-hus and Building Material Assessment (BVB), no glue/zero waste, Factory run on 100% renewable hydroelectric power.
LEDRIDGE - All smart light LED bulbs, RecoLight Member, WEEE compliant, Bespoke = no waste, UK based.



Hipy 70 anti glare IP67 LED 3000K GE
- Modular Lighting Instruments



Starkey Wall Lamp
- Made.com
Elva 6watt
- Tala Bulbs



Starkey Table Lamp
- Made.com
Elva 6watt
- Tala Bulbs



Kaskad Flex
- Fagerhult



Starkey Single Pendant
- Made.com
Elva 6watt
- Tala Bulbs



14.4W LED Strip
Bright Primary Lighting
- LEDridge



Fabian
- Fagerhult



Starkey Chandelier
- Made.com
Elva 6watt
- Tala Bulbs