

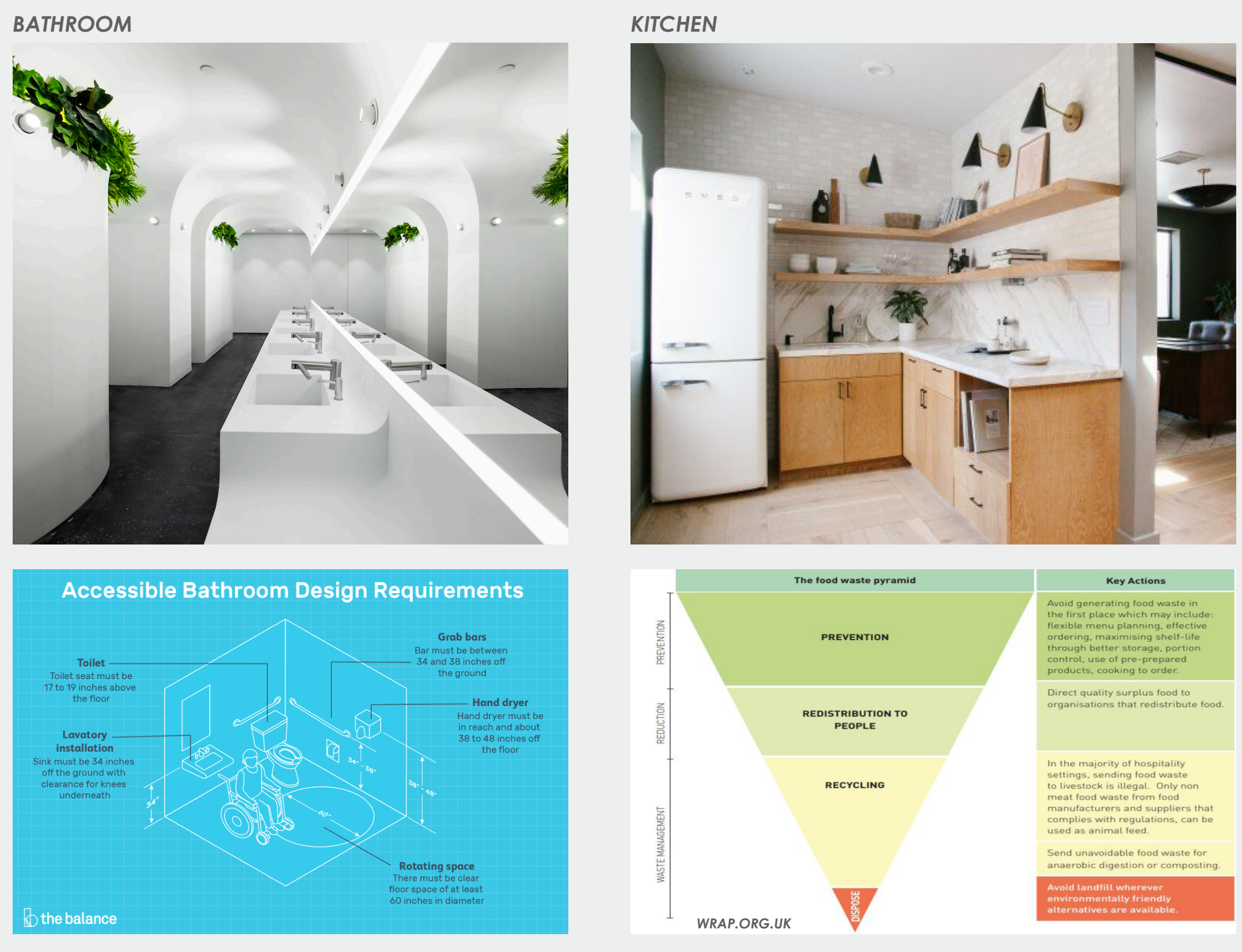
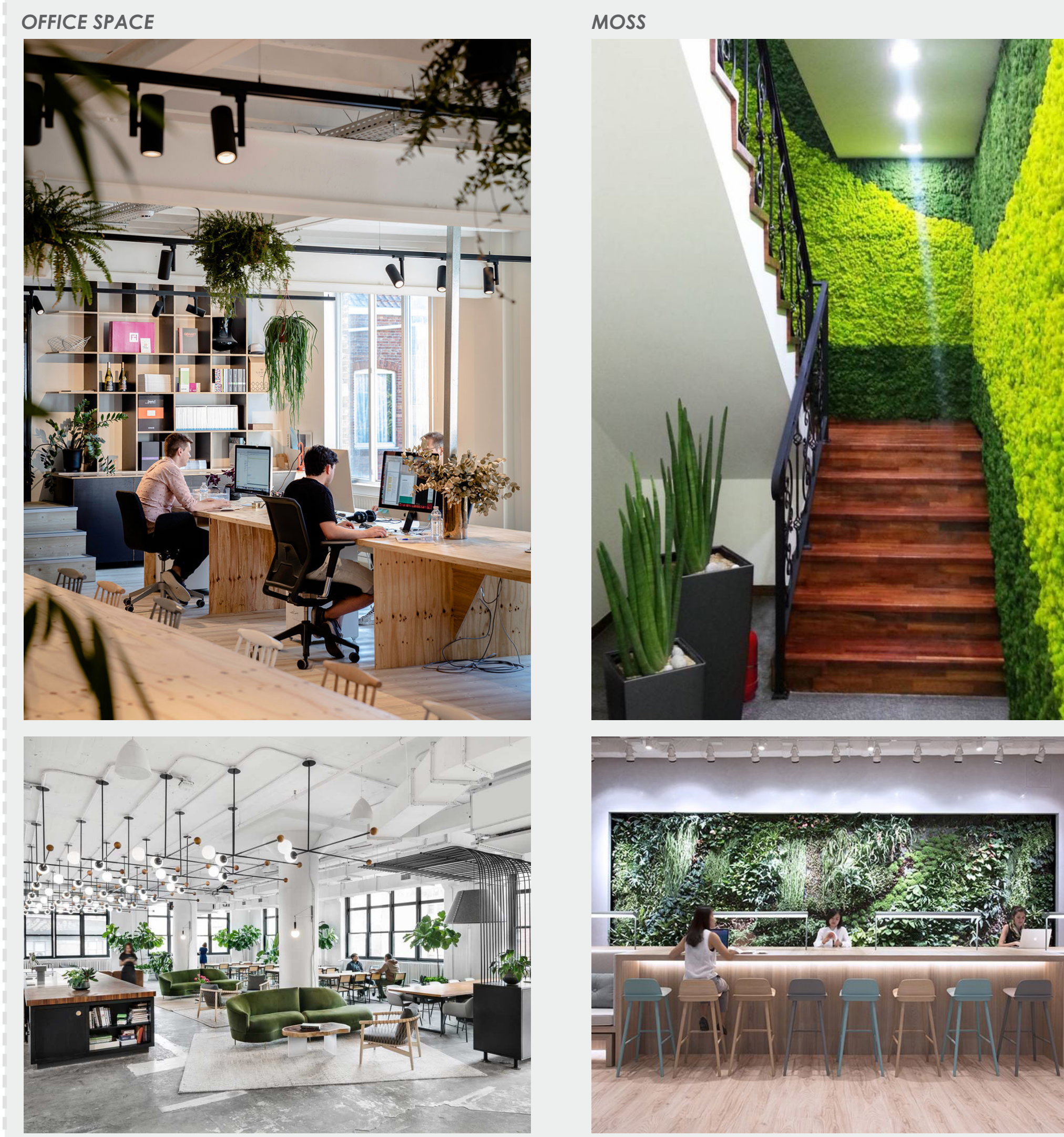
# WATERHOUSE BUILDING

TEAM MARSHALL  
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The brief for this project is centered around the continuing growth and adaptation of Jesus college and its significant estate. With the requirement for student accommodation being fulfilled elsewhere the desire is to turn this building into a contemporary and efficient workspace for the college administration staff. Efficient in terms of being responsibly built and powered, but also efficient in its output – as a place which cares for, and gets the best out of, the staff inhabiting building.

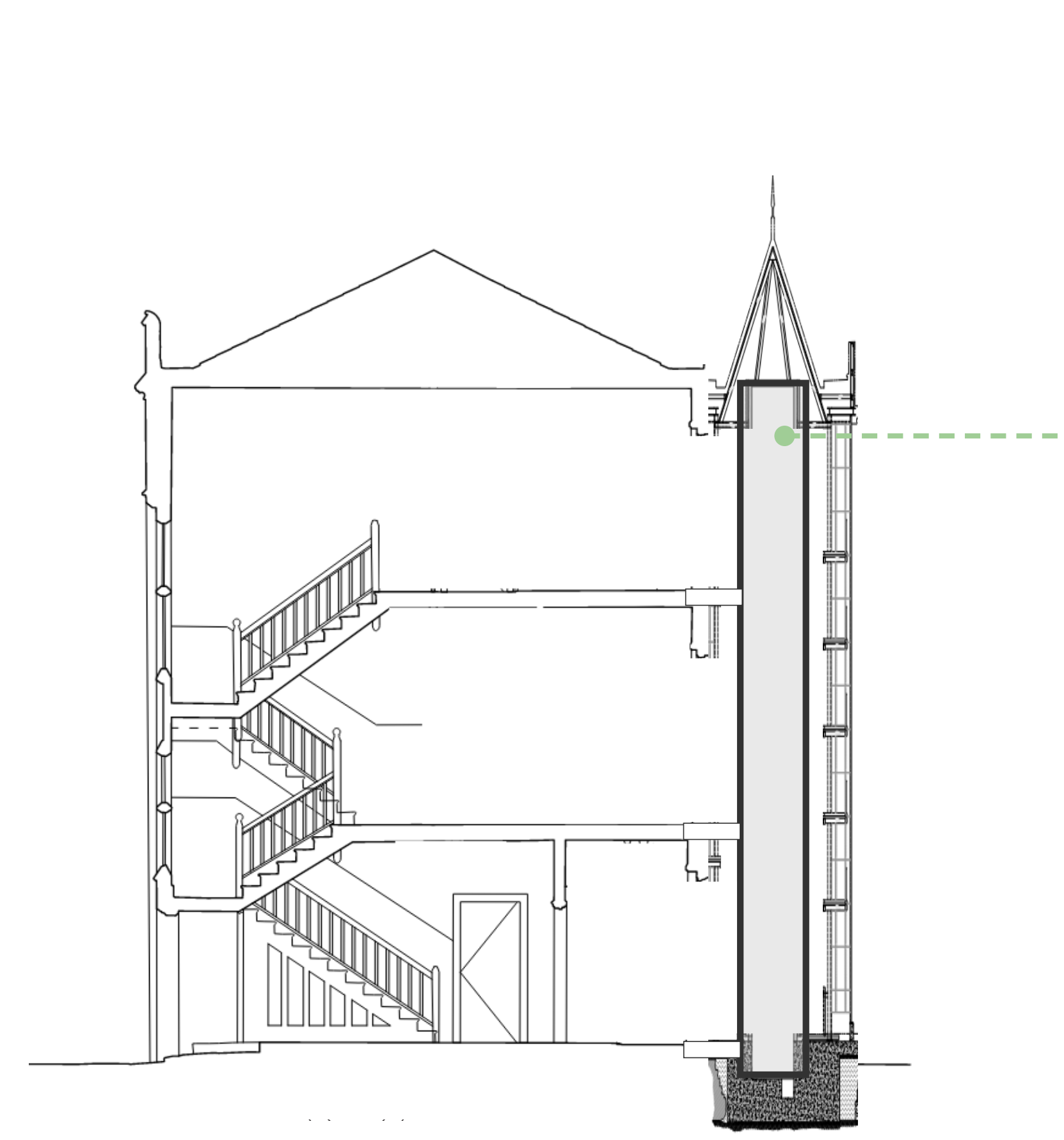
## FIT OUT

We are proposing to discretely open up the internal floor plate through the use of archfit-out is recommended to include elements of biophilia throughout. The lighting should all be LED and PIR controls, circadian lighting and task lighting should all be considered. The furniture used should either be re-used from the current office provision or should be refurbished. Any materials installed should be low VOC materials, and the supply chain of those materials should also be looked into.

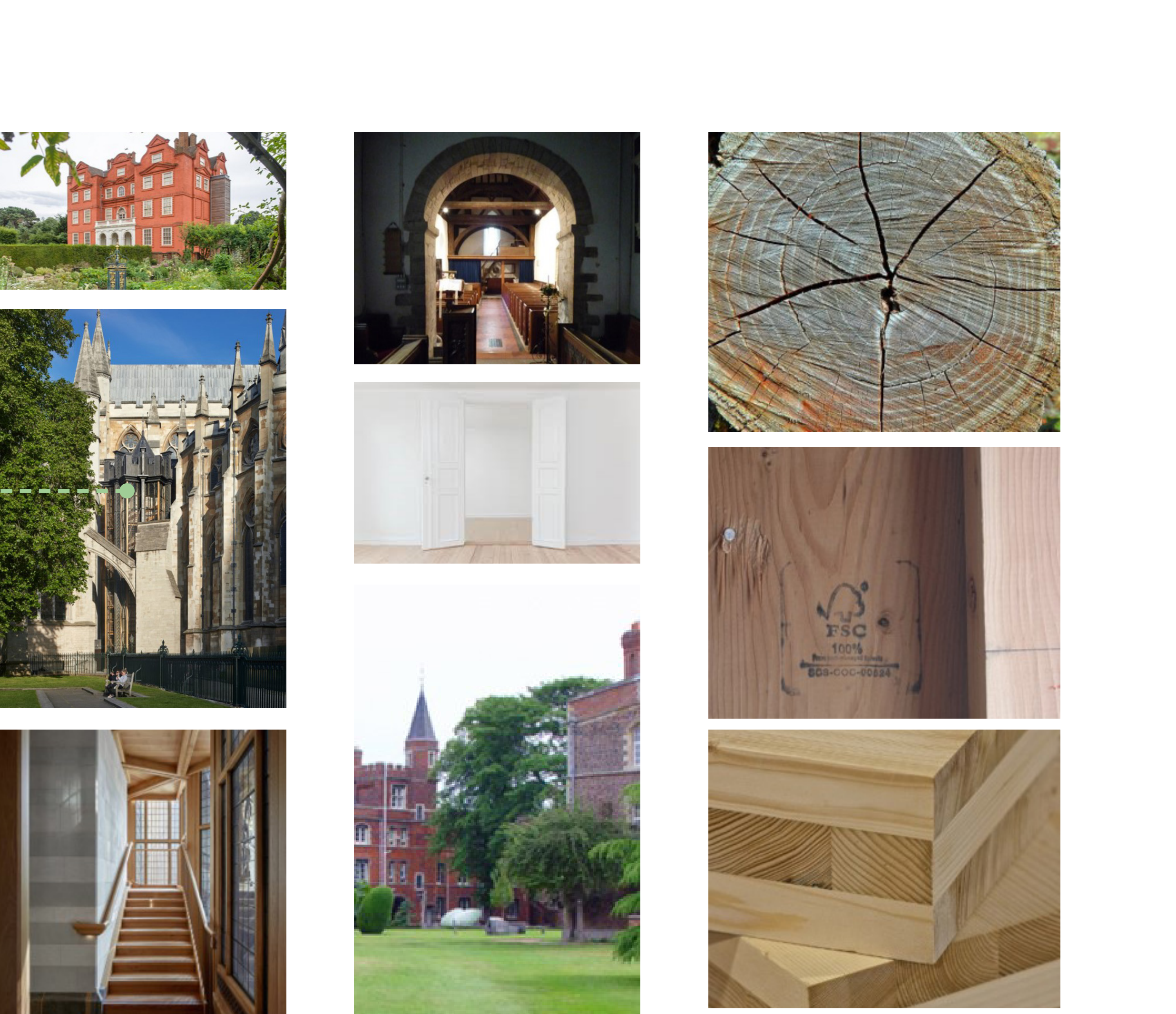


## BUILDING DESIGN

We are proposing to discretely open up the internal floor plate through the use of archways to provide a more open plan feel, whilst preserving the character of the building. Bathrooms are included on each floor with showers being provided on the ground floor. To enable disabled access to the upper floors we are recommending the installation of an external lift shaft in keeping with the design of the building, such as that which has been installed at Westminster Abbey. The lift shaft is proposed to be made from sustainable CLT material, and the lift itself will incorporate energy recovery technology.



## WASTE & TRANSPORT



Westminster photographer: Alan Williams. Image courtesy of Westminster Abbey. Structural Engineer: Price & Myers

### Advancing Net Zero

A World Green Building Council global project

**WorldGBC definition:** A net zero carbon building is highly energy efficient with all remaining energy from on-site and/or off-site renewable sources

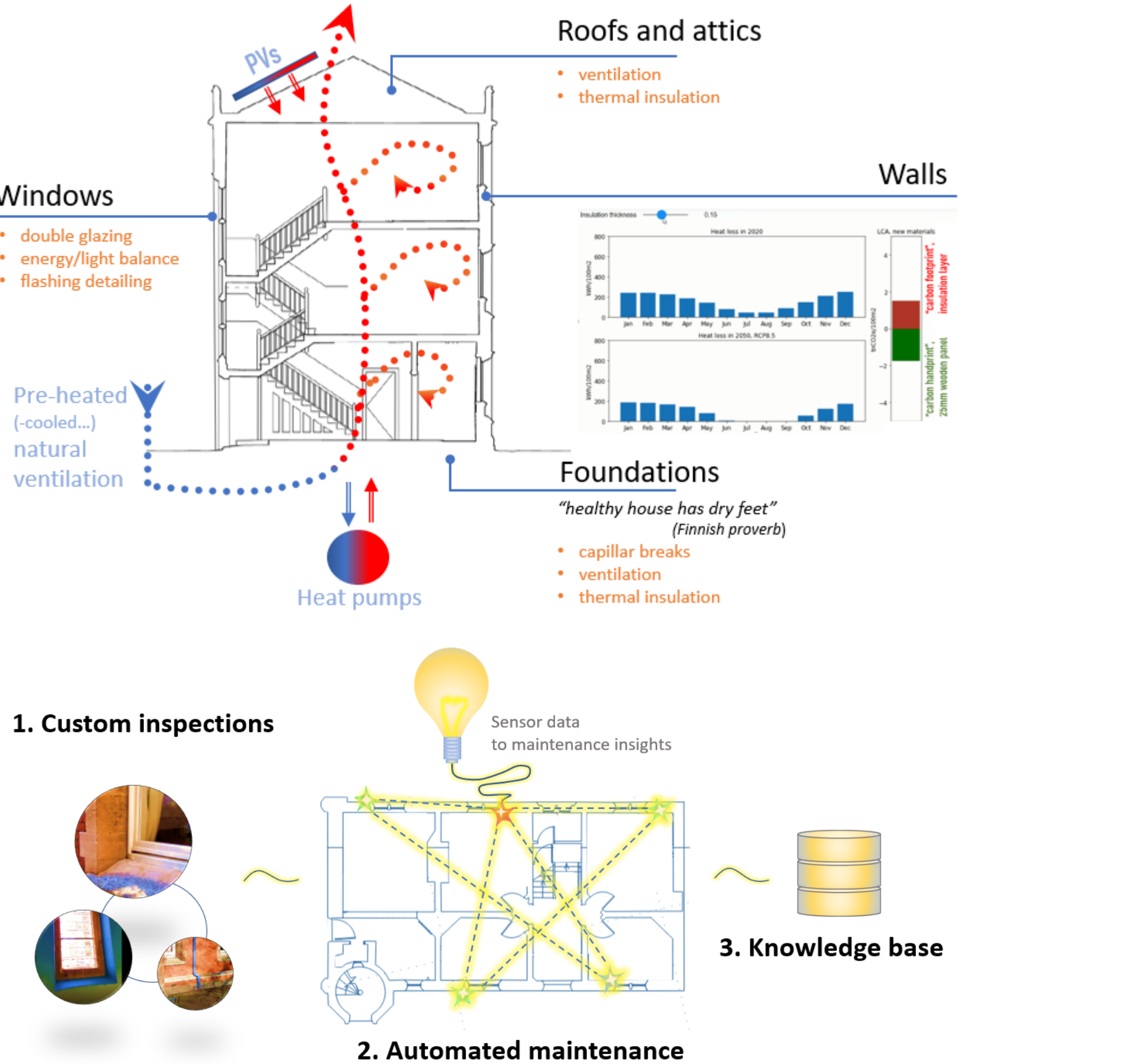
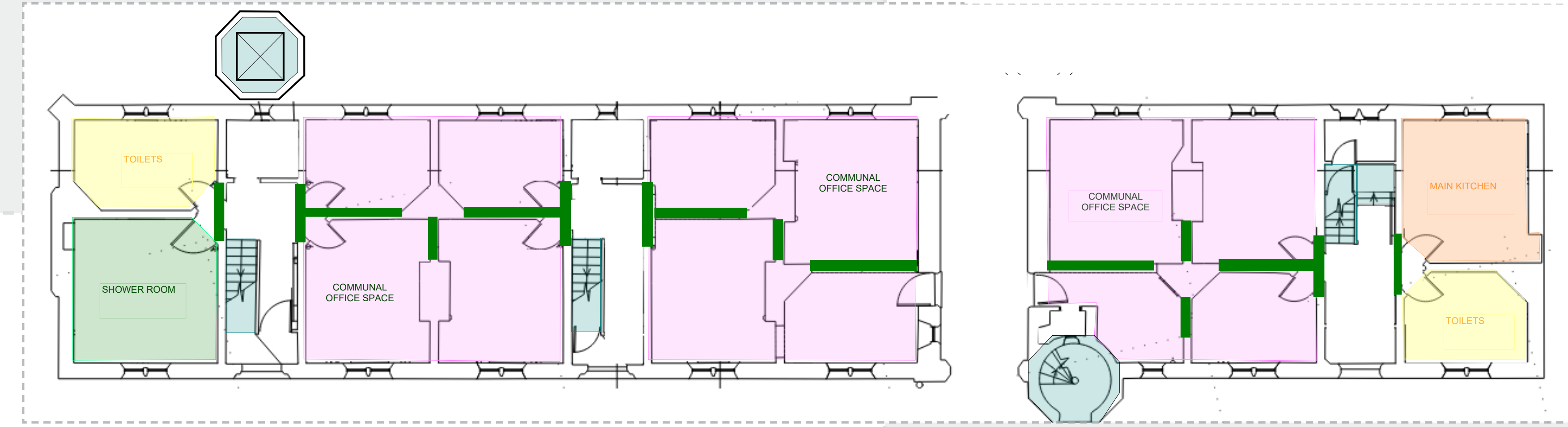
**2050:** 100% of buildings must operate at net zero carbon

Scope	Metric	Interim Targets			Paris Proof Targets
		2020-2025	2020-2030	2020-2035	2035-2050
Whole Building Energy	kWh/m <sup>2</sup> (NIA)/year	160	115	90	70
	kWh/m <sup>2</sup> (GIA)/year	130	90	70	55
	DEC Rating	D90	C65	B50	B40



To improve the energy performance of the building internal insulation will be installed throughout and the windows will be replaced with streamlined single pane double glazed windows. In addition, it is proposed that a ground source heat pump will be installed, along with solar panels on the roof and on the car ports within the car park. Rain-water recycling is also recommended. To gather sufficient energy data to monitor the colleges progress towards net zero, smart meters and sub-meters are recommended. Smart building technology is also suggested to help maximise the efficiency of the operation of the building, and a gamification project is suggested as a way to promote behaviour change.

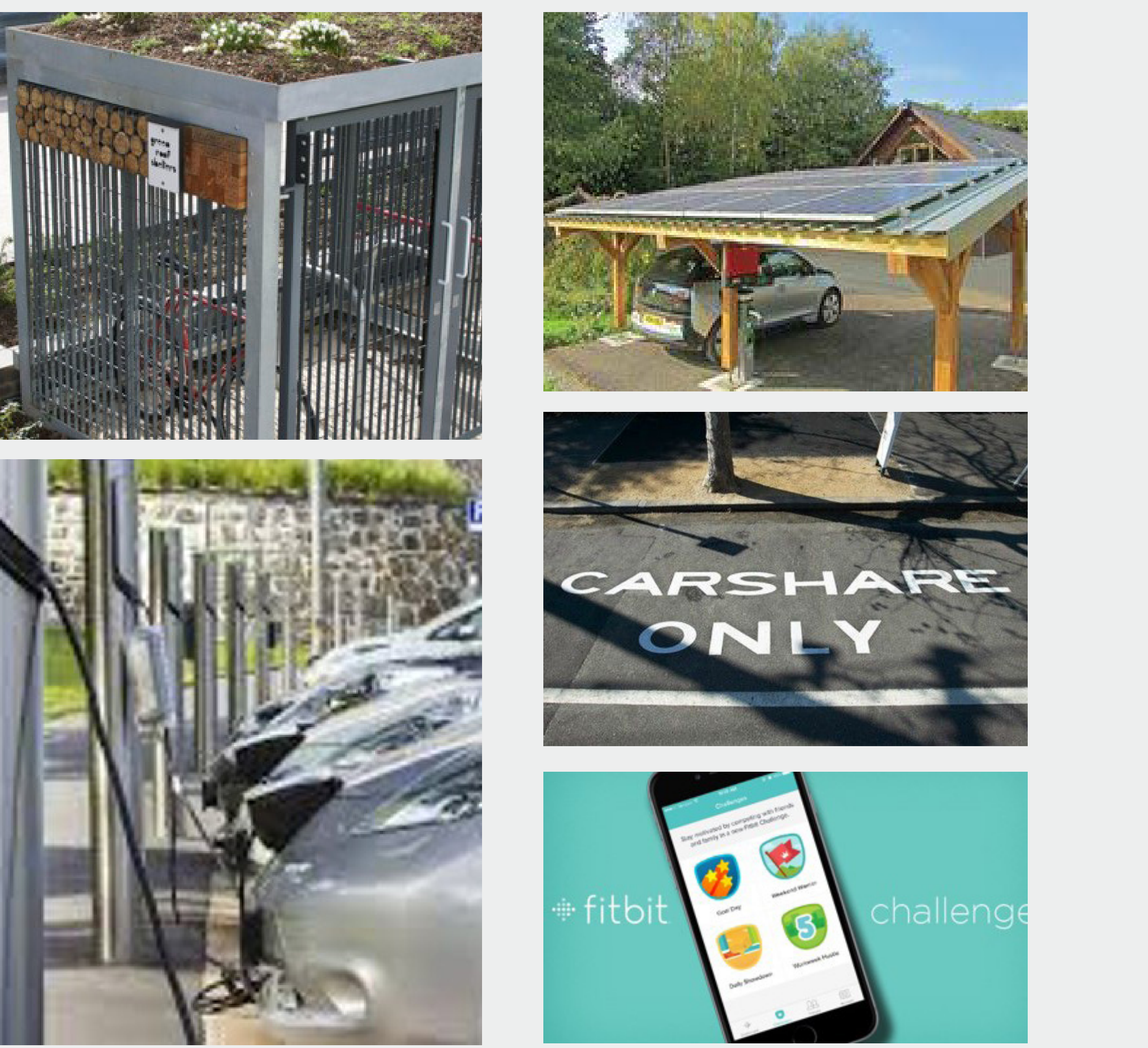
## ENERGY AND RESILIENCE



To improve the energy performance of the building internal insulation will be installed To ensure accurate and reliable waste data we propose the use of sensor technology. The sensors are installed into the bins and measure the fill level which is then converted to a volume measurement.

We recommend enlarging the current cycle storage and making it lockable. Within the car park install a solar PV car port with integrated car chargers. Include dedicate car-pooling spaces at the front of the car park. Instigate step challenges to promote walking.

## WASTE & TRANSPORT



## ENERGY AND RESILIENCE