

Sustainability and Wellbeing: From beehives to building fabric

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Sustainability and Wellbeing: From beehives to building fabric



Royal Veterinary College



London Metropolitan University

Challenges





London Met

60% carbon reduction in 7 years!

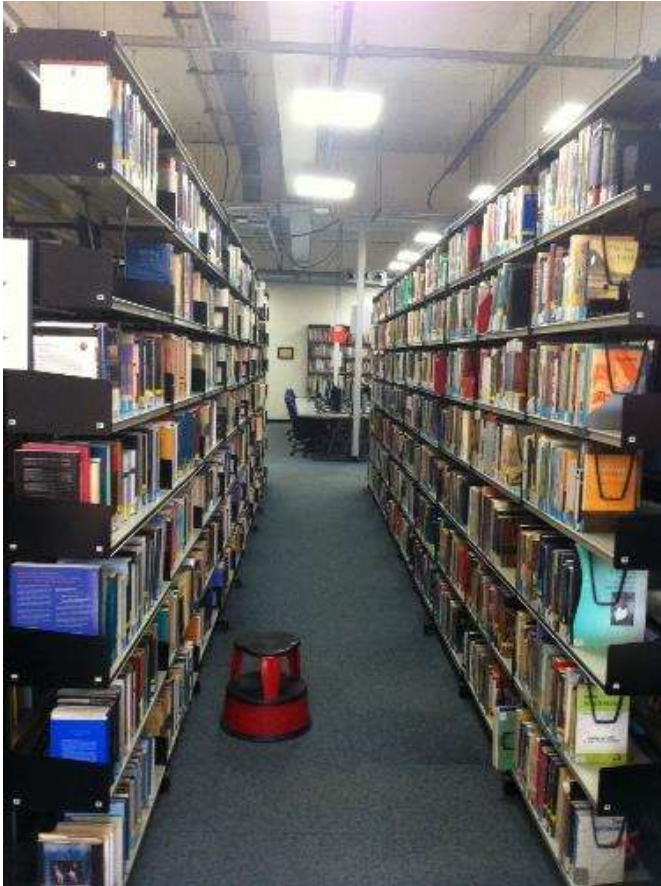
Learning Centre Lighting

- › Funding for Carbon Management Plan – proved savings could be made.
- › Engaged with Maintenance team to access additional spend, first joint project.
- › Project grew from lighting to replacement ceiling tiles with insulation.
- › Lighting selection – key to feel of library.
- › Set up lighting lab then viewed fittings in situ.
- › Zoned work to keep library open.
- › Reduced running costs by 55%.

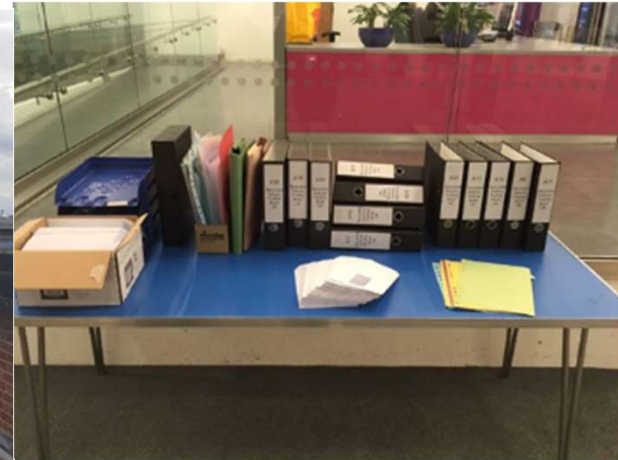
Learning Centre Lighting



Learning Centre Lighting



Library Projects



Waste



LONDON METROPOLITAN UNIVERSITY



Hungry? Want to help reduce food waste too?

Download the Too Good To Go app now to grab a magic box for £1.50! See times and locations below:

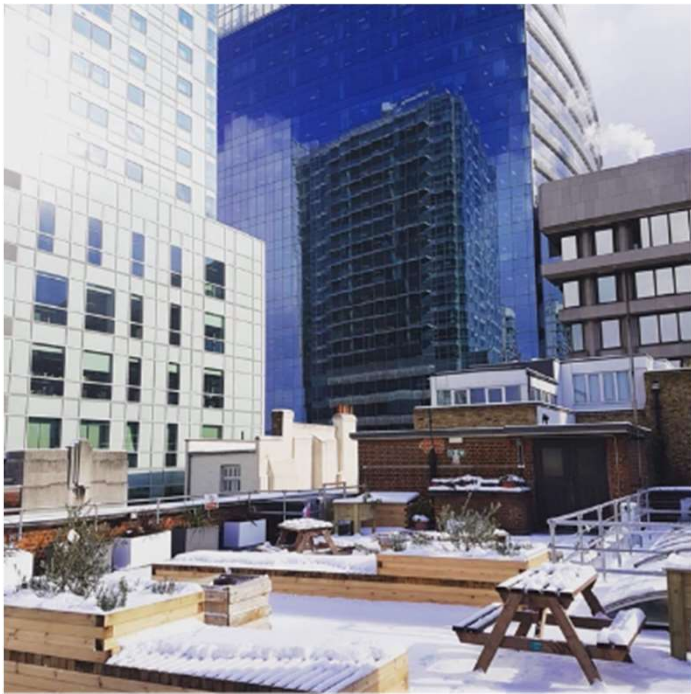
The Junction	2.45pm – 3.30pm
Highbury Canteen	2.30pm – 3pm
Costa Blue Met Lounge	3pm – 3.45pm
Costa Moorgate	3pm – 3.45pm
The Atrium	2.30pm – 3pm

Available on the App Store | GET IT ON Google Play

Engagement



Biodiversity in the City



Biodiversity in the City



Biodiversity in the City



Biodiversity in the City



Biodiversity in the City





RVC

New Library



New Library Building



- A life cycle assessment of the embodied carbon was undertaken prior to construction to provide advice on reducing the carbon impact of the building.
- Renewable energy in the form of air source heat pumps has been used. Heat pumps use the warm air from outside and use it to heat the space. They even work when it is cold. They are very efficient and for every 1 kWh of electricity use they produce 3-4 kWh of heat.
- The building has been designed to achieve a better Energy Performance Ratio than required by building regulations.
- Lighting in the perimeter areas has daylight dimming and all other lights have motion sensors. All lighting installed is LED.
- The building has energy monitoring so that we can see the usage every half hour to identify any areas we can reduce consumption.

New Library Building

- The building has been designed with a high thermal mass to reduce the need for electricity to be used for cooling. Free cooling is used overnight using the exposed thermal mass.
- Air handling units are controlled via CO₂ sensors to ensure the speed of the fan matches the room demand. They are also controlled through the Building Management System to run only when the building is occupied.
- All wood specified has Programme for the Endorsement of Forest Certification (PEFC) to ensure it has come from a sustainably managed source.
- The floor coverings have been manufactured using 100% renewable energy. The carpet tiles contain at least 60% recycled content. The lino flooring contains a minimum of 40% recycled content
- Ground granulated blast furnace slag (a waste product) was used in the cement to reduce the carbon impact of the concrete production and provides increased thermal mass to reduce the need for cooling.



Furniture!



Library Engagement

- › Regular books sales of old stock.
- › Donate books to vet school in Ghana.
- › Shifted to e-journals so less paper waste.
- › Re-use packaging.
- › Introduced bins for harder to recycle waste streams like pens.



Reducing Waste



- Theatre hats.
- Reusable kennel pads – 40% reduction, save £7,000 per annum.
- Printing names on tunics that can be taken off with a spray.
- Jacket potato bar.
- New salad boxes – 90% less plastic

Waste as a Resource

- Left over veg used in soup.
- Coffee grounds given away.
- Fruit peel used in water.
- First aid kits nearing end of shelf life sent to Ukraine appeal.
- Pallets from deliveries given away for upcycling projects.
- 20 bikes donated to Herts Disability Sports Foundation.
- Old uniforms given to Duxford.
- To date, 12 tonnes of furniture has been reused saving £41,000.
- Pilot of plastic lab waste collection which pelletised and made into new items.



Finding homes for everything we can!



Freecycle



- Last year gave out over 100 lab coats, 100 boiler suits and 30 pairs of wellies for new students.
- We kit out Summer school and local school visitors.

RVC – Farm



- 6 hectares of wildflowers
- The farm has joined the Countryside Stewardship scheme. They have reduced their ploughing rate and man-made fertiliser usage. To prevent the runoff from soil, fields are always planted.
- Camera trapping.
- We have signed up to Farming for Carbon and Nature looking at more sustainable ways to farm. Part of the programme will be looking at soil samples to see how much carbon is captured in the soil which will help work out the balance for net zero carbon.
- Next – silvo pasture, new woodland, vineyard?!

Local Food

- Egg shed
- Turkeys
- Honey
- Wreaths
- Sheep wool
- Milk vending machine coming soon!



RVC biodiversity – staff engagement



What next?

- Retrofit Accelerator.
- Waste tender – hard to recycle items.
- Biodiversity Action Plan – volunteering.
- Green Impact.
- Sustainable travel options.
- Net Zero by 2040.



Thank you!

