# ARTS UNIVERSITY BOURNEMOUTH

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ENVIRONMENT COMMITTEE: 14 OCTOBER 2022

**Environmental Management System: annual report 2021-2022**

As part of its commitment to sustainability and net zero the University has developed a Sustainability and Net Zero Programme that sets out its priorities and targets for environmental sustainability.

The Plan owned and monitored by Environment Committee, reports progress to the Vice-Chancellor's Group of the Board of Governors.

AUB has ISO14001:2015 and EcoCampus Platinum certification.

There are six immediate areas of focus

- **Minimising emissions and utility usage**
- **Sustainable Resource Management**
- **Reducing emissions associated with travel**
- **Managing the estate efficiently**
- **Promoting biodiversity and Fairtrade**
- **Developing staff and student awareness and engagement**

**Progress Report 2021-2022**

**Introduction**

Arts University Bournemouth achieved ISO14001:2015 and EcoCampus Platinum certification in January 2020.

This is the annual progress report discussed at Environment Committee meeting October 14th, 2022 and recorded within this document.

The report will cover the following agenda:

1. Actions from previous management reviews

2. Progress towards Environmental Objectives

3. Environmental performance
    a. Findings from internal audits
    b. Findings from evaluation of compliance including compliance status
    c. Findings from external audits
    d. Status of corrective actions

4. Changes in external and internal issues relevant to the EMS, the needs, and expectations of interested parties, compliance obligations, significant environmental aspects and risks and opportunities.

5. Communications including complaints

6. Resources for the EMS

## 1. Actions from previous management reviews

The 2020/21 EMS review raised no actions.

**Progress towards environmental objectives**

Sustainability and Net Zero programme covers the objectives. Below is more specific update on associated projects.

5.1 Net Zero Targets and Projects

| Emission Source | Target | Project | Date | Baseline tCO$_2$e | Approx. tCO$_2$e Saving |
|---|---|---|---|---|---|
| Gas | 0% emissions | Install Heat pumps | 2030 | 502.488 | 502.488 |
| Electric | 0% emissions | Maintain renewable energy through REGO or PPA | 2030 | 641.601 | (*) 641.601 |
| Vehicle fleet | 0% (onboard) emissions | Electric vehicles | 2030 | 12.923 | 12.923 |
| Operational waste | 25% decrease (tonnes weight) | Investigate waste streams and reduction opportunities through behaviour change and procurement | 2030 | 5.597 | 1.079 |
| Water | 18% reduction (m3) | Behaviour change, waterless toilets | 2030 | 5.925 | 1.066 |
| Wastewater | 18% reduction in water (m3) | Behaviour change, waterless toilets | 2030 | 12.193 | 2.195 |
| Commuting | Reduce 48% | Behaviour changes and travel incentives | 2025 | 1,045.690 | 461.040 |
| T&D | Electricity projects | Electricity projects | 2030 | 55.809 | 11.195 |
| | | | | | |
| | | | **Baseline Total tCO$_2$e** | | 2,282.226 |
| | | | **Savings tCO$_2$e** | | 1,633.587 |
| | | | **2030 Total tCO$_2$e** | | 648.639 |

**Table 1.** Net zero inventory – market-based reported. (*) heat pumps will increase electric use but calculated as minus from gas use due to REGO – emission saving is market-based net zero inventory exclusively and zeroed for location-based Sustainability pathway below.

## 5.2 Sustainability - Energy and Water

| Focus Area | Target | Project | Date | Baseline tCO₂e (unless stated otherwise) | Approx. tCO₂e Saving |
|---|---|---|---|---|---|
| Gas | 0% emissions | Install heat pumps to replace gas boilers | 2030 | 502.488 | 502.488 |
| Gas | 0% emissions | Change cooking heat from gas to electric | 2025 | Not known | Saving already counted (SAC) |
| Electric | 0% emissions | Maintain renewable energy through REGO or PPA | 2030 | 641.601 | (*) 0 |
| Electric | 8% reduction (kWh) | Investigate, encourage, and promote behaviour changes | 2030 | (641.601)<br><br>2,510,176.056 (kWh) | 51.328<br><br>200,814.084 (kWh) |
| Electric | Increase PV power input by 50% by 2025 and across all available roof space by 2030 | Extend PV provision throughout campus | 2025 and 2030 | (641.601) | 3.085 (2025) |
| Electric | Investigate benefits. | Introduce battery technology for electric storage in buildings | Investigate benefits by 2025 | N/A | N/A |
| Electric | 10% reduction (kWh) | Investigate ISO5001 implementation | 2025 to complete (begin 2023) | (641.601)<br><br>2,5101,176.056 (kWh) | 64.160<br><br>251,017.605 (kWh) |
| Electric | Reduce printers throughout campus 40% | Decreasing the number of printers to lower energy and paper use | Aiming for 40% reduction in printers by September 2023 | (641.601) | TBC |
| Electric | Migrate 15% of AUB systems (virtual & physical) | Moving to cloud storage will lower energy use from system use and cooling requirements | 2025 | (641.601) | TBC |

| | | | | | |
|---|---|---|---|---|---|
| Electric | AUB computer base to at least 60% laptops | Reduce desktop computers (personal and suites) and replace with laptops | 2023 | (641.601) | TBC |
| Monitoring | Purchase SMART monitoring technology | Purchase or acquire use of energy and water monitoring software | September 2023 | 648.957 (electric and water only) | 64.896 (based on10% saving) |
| Water | 8% reduction (m3) | Reduce water use through behaviour change | 2030 | 5.925 and 17,222m$^3$ | 0.474 and 1,377.76m$^3$ |
| Water | 10% reduction (m3) | Install non-water urinals and toilets (investigate chemical use) | 2024 | 5.925 and 17,222m$^3$ | 0.592and 1722.2m$^3$ |
| Wastewater | 18% reduction in water (m3) | Behaviour change, waterless toilets | 2030 | 12.193  17,222 m3 | 2.195 tCO2e  3,099.960m3 |
| Water | Investigate potential to use grey water for toilet flushing or other potential water flushing requirements | Harvest rainwater | 2023 target to have investigated possibility of water harvesting | TBC | TBC |
| | | | | | |
| | | | | **Baseline Total tCO₂e** | 1162.207 |
| | | | | **Savings tCO₂e** | 689.218 |
| | | | | **2030 Total tCO₂e** | 472.989 |

**Table 2. \*** Saving is net-zero only, and not deducted from Sustainability total. Totals in blue are repeat baseline data and not included in total. An increase in emissions from electricity associated with transition to heat pumps will subsequently change the total.

5.3 Sustainable Resource Management

| Focus Area | Target | Project | Date | Baseline tCO₂e (unless stated otherwise) | Approx. tCO₂e Saving |
|---|---|---|---|---|---|
| Waste | 25% reduction (t weight) | Investigate waste streams and associated | 2030 overall reduction 12% by 2025 | 5.597 tCO2e  202.17t (weight) | 1.079 tCO2e  50.55t (weight) |

| Focus Area | Target | Project | Date | Baseline tCO₂e | Approx. tCO₂e Saving |
|---|---|---|---|---|---|
| Waste | 20% food waste reduction | Investigate food procurement, portion size, increase food waste capture, increase food giveaway schemes | 2026 | 6.464t (weight) | SAC<br><br>(0.028 tCO2e and 1.294t (weight)) |
| Waste | Recycling rate 65% (adjust for accommodation waste) | Waste audit, procurement opportunities, education | 2030 | 59% | SAC<br><br>11t (weight) of waste going to energy from waste |
| Waste | zero one-use coffee cups on campus | Restrict one-use coffee cup use to visitors, Open Day, or other-special events and only served from one eatery | Advertise/ communicate from September 2023 no longer using one-use coffee cups. Sell AUB reusables in all AUB coffee outlets | TBC | TBC |
|  |  |  |  |  |  |
|  |  |  | **Baseline Total tCO₂e** | 5.597 | |
|  |  |  | **Savings tCO₂e** | 1.079 | |
|  |  |  | **2030 Total tCO₂e** | 4.518 | |

**Table 3.** Sustainable Waste Management. Blue data is repeated baseline data and not included in total.

<u>5.4 Travel</u>

| Focus Area | Target | Project | Date | Baseline tCO₂e (unless stated otherwise) | Approx. tCO₂e Saving |
|---|---|---|---|---|---|
| Travel | Zero staff car commuting emissions | Car permits to include off-set | September 2023 | 461.040 | 461.040 |

| Travel | Reduce staff car use by 8% | Other travel incentives | 2025 | 461.040 | SAC 6.521 tCO2e |
|--------|----------------------------|-------------------------|------|---------|-----------------|
| Travel | Zero emissions for AUB fleet vehicle | Replace Fiat 500 with EV (or hydrogen) vehicle | 2022 | 2.644 | 2.644 |
| Travel | Zero emissions for AUB fleet vehicle | Replace Ford Crew with EV (or hydrogen) vehicle | 2029 | 1.459 | 1.459 |
| Travel | Zero emissions for AUB fleet vehicle | Replace Renault Van with EV (or hydrogen) vehicle | 2029 | 1.311 | 1.311 |
| Travel | Zero emissions for AUB fleet vehicle | Replace Smart Car with EV (or hydrogen) vehicle | 2023 | 1.444 | 1.444 |
| Travel | Zero emissions for AUB fleet vehicle | Replace i30 with EV (or hydrogen) vehicle | Replace with electric vehicle if technology supports long distance travel by road | 2.028 | 2.028 |
| Travel | Zero emissions for AUB fleet vehicle | Replace i800 with EV (or hydrogen) vehicle | 2029 | 1.213 | 1.213 |
| Travel | Zero emissions for AUB fleet vehicle | Replace Luton Van with EV (or hydrogen) vehicle | 2029 | 1.163 | 1.163 |
| Travel | Zero emissions for AUB fleet vehicle | Replace Relay with EV (or hydrogen) vehicle | 2029 | 1.661 | 1.661 |
| Travel | Zero emissions of AUB bus fleet | Electrification of the bus fleet (by contract negotiation) | 2035 | TBC (Sept 2022) | TBC (Sept 2022) |
| Travel | Data capture | Obtain flight data through | September 2023 | N/A | N/A |

| Travel | Data capture | Obtain rail data through automated procedure | September 2023 | 1.78 | N/A |
|---|---|---|---|---|---|
| Travel | Data capture | Obtain hire vehicle data through automated procedure | September 2023 | N/A | N/A |
| Travel | Delivery emissions | Keep using current calculation until further clarity on procurement | On-going | 41.290 | TBC |
| Travel | Data capture | Obtain overnight stay data for emission calculation | September 2023 | N/A | N/A |
| | | | | | |
| | | | **Baseline Total tCO$_2$e** | 517.033 | |
| | | | **Savings tCO$_2$e** | 473.963 | |
| | | | **2030 Total tCO$_2$e** | 43.070 | |

**Table 4.** Travel. Blue data is repeated baseline data and not included in total.

5.5 Sustainable Campus

| Focus Area | Target | Project | Date | Baseline tCO$_2$e (unless stated otherwise) | Approx. tCO$_2$e Saving |
|---|---|---|---|---|---|
| Food | Improve healthy options and lower associated emissions year on year | Improve sustainable, ethical, and healthy eating options in eateries | On-going | N/A | Student survey and food audit/assessment |
| Buildings | Refurbishments to existing buildings to raise energy, heat, and water efficiency | Existing buildings will need refurbishment to lower energy, heat and water costs and improve efficiency and net zero | Refurb report 2025/26 | 648.957 (electric and water only) | TBC |

| Buildings | All new builds to be at least one of net-zero, BREEAM, or WELL standard | Eliminates potential net-increase from campus expansion | 2022 | 648.957 (electric and water only) | No increase from campus expansion or refurbishment |
|---|---|---|---|---|---|

**Table 5.** Sustainable Campus. Blue data is repeated baseline data and not included in total.

5.6 Biodiversity

| Focus Area | Target | Project | Date | Baseline $tCO_2e$ (unless stated otherwise) | Approx. $tCO_2e$ Saving |
|---|---|---|---|---|---|
| Biodiversity | Demonstrate year on year net-biodiversity gain | Increase biodiversity net-gain through various projects | On-going | Set a baseline | Use a net-biodiversity gain matrix for 2024 onwards |
| Pollinators | Set a percentage target to increase pollinator friendly ecology and habitats to mitigate against the ecological crisis | Introduce, improve pollinator friendly ecology | On-going | Set a baseline | Use a net-biodiversity gain matrix for 2024 onwards |
| Hedgehogs | Obtain hedgehog friendly campus status | Work towards gold certification over the next three years | December 2024 gold certification | No certification | Gold certification |

**Table 6.** Biodiversity

5.7 Social Justice

| Focus Area | Target | Project | Date | Baseline $tCO_2e$ (unless stated otherwise) | Approx. $tCO_2e$ Saving |
|---|---|---|---|---|---|
| Governance | Ensure all AUB policies reflect net zero commitments | Assess all policies to ensure | | No policies checked | All policies assessed |
| Palm Oil | Reduce / eliminate uncertified palm oil use | AUB signed up (11/21) so an initial analysis will set a baseline | Catering – September 2022 and then new target for | Non-signatory | Signatory |

| | | and then target improvements | other contracts | | |
|---|---|---|---|---|---|
| Fairtrade | Maintain Fairtrade certification | Re-certify every two years | 2022, 2024, 2026, 2028 and 2030 | Uncertified | Certified |
| Procurement | Contract tender procedures consolidated. Data capture started for 'other' procurement | Investigate emissions and social justice issue's upstream in the supply chain | 2022 and ongoing to 2030 | N/A | Data capture and calculations will move aspects into other categories and net zero inventory |

**Table 7.** Social Justice

Student and Staff Engagement

| **Annual Planner Engagement 2022/23** |
|---|
| Beryl Bike Recycling Art Installation Workshop |
| Fairtrade Flower Workshop – Women's History Month |
| Beach Cleans |
| Net Zero Decarbonization Strategy Lecture |
| Student Sustainability Awards |
| Madeira Road Rewilding Garden Project |
| Life in Plastic Exhibition |
| AUB Human |

**Table 8.** Annual planner for student and staff engagement. These projects are predetermined as taking place in 2022/23 but does not include engagement events that will be planned and held during this timeframe. Progress is reported in the 2022/23 annual Sustainable and Net Zero report

5.8 Emission Inventory – Net Zero

| **Emission Source** | **Baseline** | **Projects Saving** | **2030** |
|---|---|---|---|
| Gas | 502.488 | 502.488 | 0 |
| Electric | 641.601 | 641.601 | 0 |
| Vehicle Fleet | 12.923 | 12.923 | 0 |
| Operational Waste | 5.597 | 1.079 | 4.518 |
| Water | 5.925 | 1.066 | 4.859 |
| Wastewater | 12.193 | 2.195 | 9.998 |
| Commuting | 1,045.690 | 461.040 | 584.650 |
| Transmission and Distribution | 55.809 | 11.195 | 44.614 |
| **Total** | **2,282.226** | **1,633.587** | **666.12** |

**Table 9.** Net Zero, Market-Based reported, inventory

5.9 Emission Inventory - Sustainability

| **Emission Source** | **Baseline** | **Projects Saving** | **2030** |
|---|---|---|---|
| Gas | 502.488 | 502.488 | 0 |
| Electric | 641.601 | 118.573 | 523.028 |
| Vehicle Fleet | 12.923 | 12.923 | 0 |
| Operational Waste | 5.597 | 1.079 | 4.518 |

| | | | |
|---|---|---|---|
| Water | 5.925 | 1.066 | 4.859 |
| Wastewater | 12.193 | 2.195 | 9.998 |
| Commuting | 1,045.690 | 461.040 | 584.650 |
| Transmission and Distribution | 55.809 | 11.195 | 44.614 |
| **Total** | **2,282.226** | **1,110.559** | **1,171.919** |

**Table 10.** Sustainability, Location-Based reported, inventory

## 2. Environmental performance
## 3.
a) Findings from internal audits

Alex Hobbins (EcoCampus) conducted the internal audit on 31/08/22. It summarized:

*An internal audit of the Arts University Bournemouth's (AUB) environmental management system (EMS) was conducted to determine the extent to which it conforms with the requirements of ISO14001:2015. The system continues to provide an effective level of control of environmental risk and meets the clause requirements.*

The audit raised one Minor Non-Conformance and four *Opportunities for Improvement* that have now been actioned/corrected.

Below are the findings from the internal audit:

| Date | Assessor | Recommendation | Action | Date |
|---|---|---|---|---|
| 08/22 | Alex Hobbins | It is recommended that the future legislation and other requirements includes voluntary commitments such as: - Being a 'Champion' for the Dorset Sustainable Palm Oil Community project. - Participating in Hedgehog Friendly Campus - Fairtrade status. | Have entered the commitments into the Compliance Obligations Register | 08/22 |
| 08/22 | Alex Hobbins | It is recommended that when the Environment Policy is next reviewed it includes the university's commitment to achieve Net zero | Net Zero text will be put into Environment Policy at next review | Commitment to do 8/22 and actual undertaking 02/23 |

| Date | | | | Date |
|------|------|------|------|------|
| | | emissions by 2030. | | |
| 08/22 | Alex Hobbins | The Roles and responsibilities spreadsheet is fully up to date. However, it is recommended that it is updated to include the 'Net Zero Task Group' | Net Zero Task Force information now on Roles & responsibilities spreadsheet | 08/22 |
| 08/22 | Alex Hobbins | Containers of waste chemicals (dyes) were stored on the ground within the hazardous waste compound, with no secondary containment such as a bund or drip tray. The bund was full of waste paint tins. | New waste container for empty waste containers in waste compound along with an extra bund. Expanding the waste compound needs to be considered due to more WEEE waste from campus halls | 08/22 |
| 08/22 | Alex Hobbins | It is recommended that the hazardous waste store is emptied, and the container for waste paint tins reinstated. In addition, the flammables cupboard should also be emptied. | We were waiting for collection which had been requested. | 08/22 |

b) Findings from evaluation of compliance including compliance status

The Environment and Sustainability Manager evaluated the EMS system 08/22 for compliance with version control update. The compliance obligations register updated monthly with any new legislation monitored.

Risks and opportunities reviewed as part of the document review process.

c) Findings from external audits

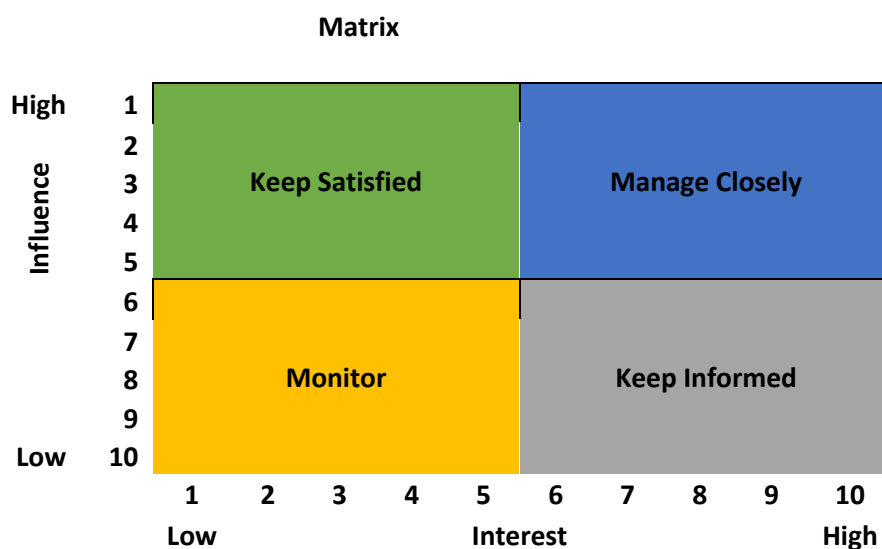| Date | Assessor | Recommendation | Action | Date |
|------|----------|----------------|--------|------|
| 10/21 | Khaled Belgasmi | Procedure 4.1.1 may benefit from | The procedure has ben updated to be more specific as | 10/21 |

| | | | | |
|---|---|---|---|---|
| | | being more specific about what is monitored, how frequently and when it is reported. At present this information is split across other procedures. | per recommendation | |
| 10/21 | Khaled Belgasmi | The evaluation of compliance is not currently documented. AUB may benefit from documenting the evaluation of compliance i.e. what evidence was reviewed to confirm compliance. | Evidence review has now been added to Compliance Register | 10/21 |
| 10/21 | Khaled Belgasmi | The progress bar within the audit schedule had not been updated since 2019. However, the GANTT chart and dates for audits had all been updated correctly. | GANTT chart updated to 2025 | 10/21 |
| 10/21 | Khaled Belgasmi | The management review report stated that there were no opportunities for improvement. However, the institution is doing lots of things to improve. It may be beneficial to document these ideas and discussions even if some are not implemented. | Opportunities for improvement were deemed to relate solely to the EMS rather then more generic. Will include henceforth. | 10/21 |
| 10/21 | Khaled Belgasmi | Procedure 4.5.1 may benefit from more clearly explaining that the process for recording non- | Updated to be clearer | 10/21 |

| | | | | |
|---|---|---|---|---|
| | | conformities is different and distinct from the process for recording environmental incidents. | | |
| 10/21 | Khaled Belgasmi | The non-conformance log was missing some information. This had been raised at the recent internal audit. AUB have elected to correct this issue going forward rather than back-dating. | This is now included in the non-conformance log | 10/21 |

d)  Status of corrective actions

All actions/ findings from internal and external audits have been actioned/corrected. Evidenced in the Non-Conformance Log and this review.

4.  Changes in external and internal issues relevant to the EMS, the needs, and expectations of interested parties, compliance obligations, significant environmental aspects and risks and opportunities



**Matrix**

| Keep Satisfied | |
|---|---|
| Bournemouth University | Neighbour |
| Suppliers | Suppliers |

| | |
|---|---|
| Medical/volunteer | Student Services |
| Accommodation owners | Accommodation owners |
| Police | Police |
| Water utility companies | Water utility companies |
| Energy utility companies | Energy utility companies |

| Manage Closely | |
|---|---|
| Students | Students |
| Staff | Staff |
| Board of Governors | Board of Governors |
| Suez | Waste |
| BCP | Local Authority |
| Local businesses & residents | Local businesses & residents |
| Morebus | Bus transport |
| Mazaars | Auditors |
| Architects | Architects |
| AUBSU | AUBSU |
| HESA | HESA |
| People & Planet | People & Planet |
| DEFRA | DEFRA |
| Derwent FM | FM contractor |
| Fairtrade | Ethical framework |

| Monitor | |
|---|---|
| Chartwells | Catering |
| Contractors | Builders |
| Contractors | Maintenance |
| Visitors | Visitors |
| Institution societies | Societies |
| Ofs | Ofs |
| Central Government | Central Government |

| Keep Informed | |
|---|---|
| Prospective students | Prospective students |
| UK Research Councils | UK Research Councils |
| Higher education associations | Higher education associations |
| Environment Agency | Environment Agency |

Compliance Obligations – Environment and Sustainability Manger reviewed with two members of Environment Committee.

Interested Parties - Environment and Sustainability Manger reviewed with three members of Environment Committee.

Environmental Aspects - Environment and Sustainability Manger reviewed with two members of Environment Committee.

Risks and Opportunities – Environment and Sustainability Manger reviewed with two members of Environment Committee.
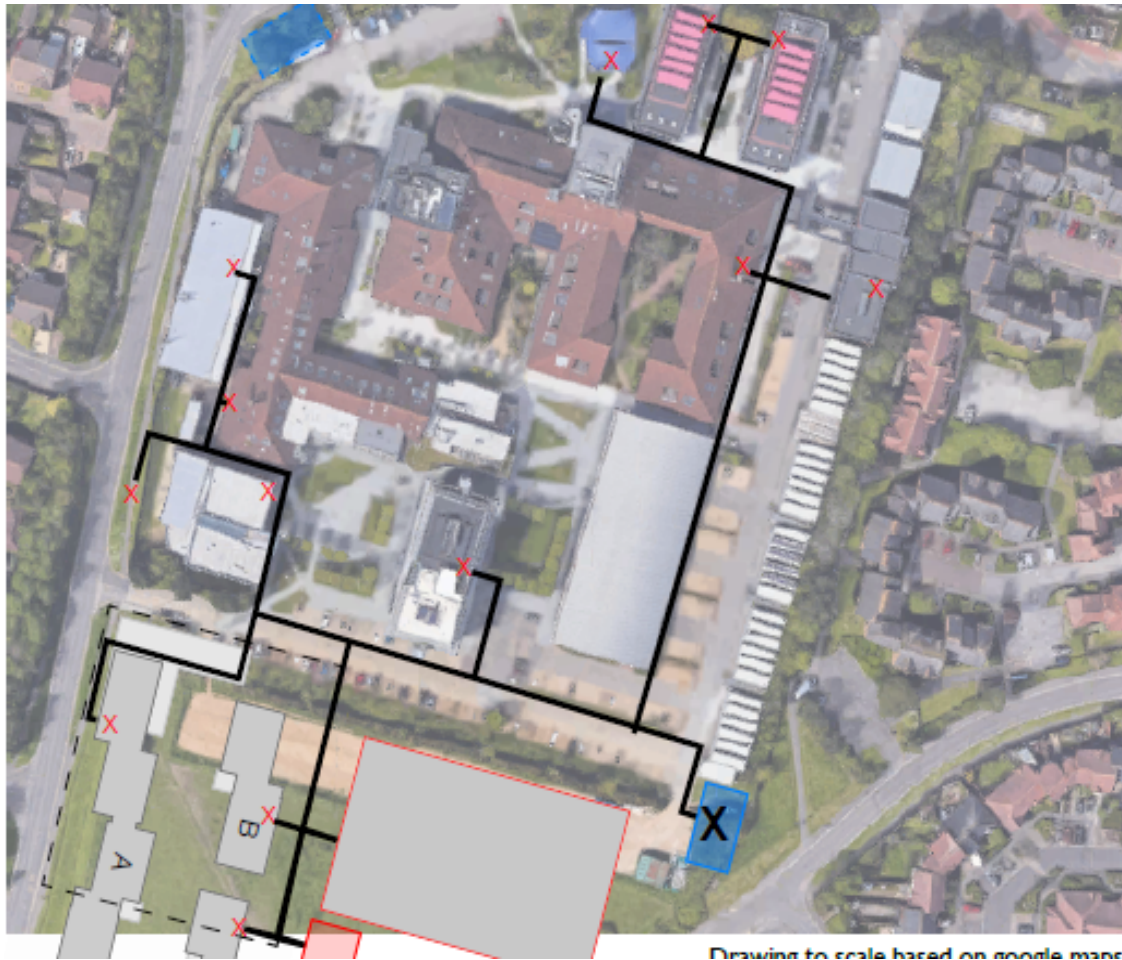
All relevant documents to be provided to committee and any points raised stated here:

5. Communications including complaints
a) Communication channels include stories on the AUB website, Campus Services Instagram page and AUB Environment page.
b) AUBSU Greenzine
c) TV screen showing environmental information available at the Arts Bar.

6. Resources for the EMS

   AUB has allotted funds towards an internal and external audit for 2022/23

7. Opportunities for improvement

- AUB Sustainability and Net Zero Programme
- New builds or refurbishments net zero
- AUB Off-setting rules
- Creative environment – Fairtrade project and AUB Human etc.
- Rewilding project
- Wildflower garden
- Hedgehog Friendly Campus
- Sustainable Palm Oil Champion
- Travel to AUB online system, new lower emissions bus fleet
- Net Zero Task Force webinars
- Fairtrade recertification
- Salix funding application

8. AOB

Drawing to scale based on google maps