

Belle Vue Park Café and Toilets / Changing Place Facility

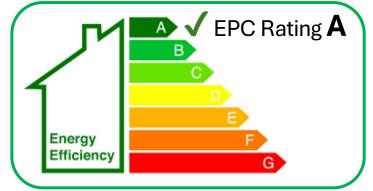
A Sustainable and Environmentally Friendly Building



5.6 kWp roof solar PV provides up to **4,700 kWh** of electricity per annum - sufficient to run the air conditioning unit at the café continuously for **65 days**



- √ Air source heat pump (ASHP) and containment
- √ The specification of sanitary fittings and appliances meet the BREEAM Wat01 minimum requirements for an 'Excellent' rating
- ✓ Wildlife sensitive lighting to support biodiversity and species habitats
- ✓ Planters and rainwater collection to manage water and provide a resource for local gardening groups at Belle Vue Park
- ✓ Simplified Building Energy Model (SBEM) calculated on monthly carbon dioxide emissions and energy used by a commercial building given its construction, geometry, building use, lighting equipment and HVAC
- √ Enhanced cycle storage
- √ Removal of existing inefficient WC block



Whilst the Belle Vue facility is a smaller scale at 120m^{2,} research completed by Herriot Watt University found that a 1000m² building built through modular construction produced **40**% **fewer emissions**, which equated to 26,000 tonnes of CO² saved, equivalent to 7,030 vehicles taken off the road for a whole year, or planting over 160,000 trees



Benefits of Modular Construction

- Minimum 60-year durability
- Modules are built to meet or exceed the same regulations as traditionally built buildings
- Less waste materials can be recycled within the offsite assembly process leading to more accurate construction
- Time savings site works, foundations and off-site fabrication are concurrent reducing considerably the time and disruption on site. Delays or damage from weather reduced by factory-controlled setting and storage
- Costs are reduced from subcontractor overheads due to efficient assembly processes
- Increasing modular application to wider range of construction projects – healthcare, education, offices, residential, catering and kitchen and bespoke buildings

