

# Sustainable School Design

Urban&Civic, in collaboration with North Northamptonshire Council, are bringing to life the next phase of education space at Priors Hall Park with the addition of a new 3-form entry Primary School & Nursery.

Located at the heart of Key Phase 1, the school has capacity for 669 pupils and 60 staff and seamlessly integrates into the adjacent landscape and masterplan position to create a unique learning environment for long lasting community and educational impact. The school excels with its focus on sustainable design and construction techniques through focused material selection and betterment on energy performance benchmarks, all of which demonstrate Urban&Civic's commitment to delivering climate-resilient community assets.

## Sustainability Strategy

- Happy & healthy pupils & staff: Creating the best environment for learning with optimised daylight, comfortable acoustics and excellent air quality.
- Sustainable materials: Low-impact materials such as timber and cement replacements have been prioritised to reduce embodied carbon
- High quality design and construction for durability: Incorporating tested solutions and realistic targets to eliminate performance gaps and unnecessary material use.
- Sustainable operations: Energy efficient operation through effective design, on-site renewables and robust detailing for real-world long term energy savings.
- Water efficiency: No potable water is used for landscaping and reducing run-off to municipal drainage system for more sustainable waste management.

## Design Philosophy & Performance

Research supports the use of exposed timber in learning environments, linking it to improved cognitive function, reduced stress and enhanced emotional well-being. These biophilic design principles contribute to a calm and productive atmosphere for pupils and staff. Through championing the principles of PassivHaus, the school targets an Energy Use Intensity (EUI) of 37 kWh/m<sup>2</sup>/year which is well below the Department for Education's benchmark of 52 kWh/m<sup>2</sup>/year for new schools. A fabric-first approach has been adopted, with high performance insulation and airtight construction techniques resulting in a low space heating demand of just 21 kWh/m<sup>2</sup>/year and thermal comfort all year round.

The project aligns with Urban&Civic's Net Zero ambitions, focusing on minimising energy demand, eliminating fossil fuel-based heating and maximising on-site renewable energy generation. The building is fully electric, utilising high-efficiency air source heat pumps and mechanical ventilation with heat recovery (MVHR) throughout. A large roof-mounted solar PV array is expected to generate 100% of the school's annual energy demand, supporting aspirations towards its Net Zero Carbon operation.



- Values**
- Integrity
  - Justice
  - Love
  - People
  - Idea
- Capitals**
- House
  - People
  - Nature
  - Handshake
  - Tree
  - Hand