

06. Technical Considerations

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Transport and Access Strategy

The Reserved Matters proposals are supported by a Transport Statement and School Travel Plan prepared by Stantec, which confirm that the school, sports pitch and allotment uses have been designed to integrate with the wider One Horton Heath movement strategy. The site occupies a central position within the wider development, with good opportunities for pupils, staff and visitors to walk, cycle and scoot from surrounding residential areas. These movements will be supported by Foxwood Road, continuous shared footway/cycleway links, enhanced pedestrian and cycle crossings, and connections to the wider PRow and active travel network.

Vehicular access will be taken from the approved Secondary Internal Distribution Road via a single access point, leading to an internal mini-roundabout which separates movements to the primary school staff car park and the sports pitch car park. The primary school car park will be restricted to staff use only, with no parent drop-off or pick-up permitted from the school frontage or Foxwood Road. Instead, the proposals support a Park and Stride approach, using nearby parking at the sports pitch and future local centre to reduce congestion, discourage informal stopping on Foxwood Road, and improve safety around the school entrance.

The primary school will provide parking for 53 staff vehicles, together with 63 pupil scooter spaces, 32 pupil cycle spaces and 7 secure staff cycle spaces. The sports pitch will provide 82 car parking spaces (with additional 9 overflow parking spaces; 91

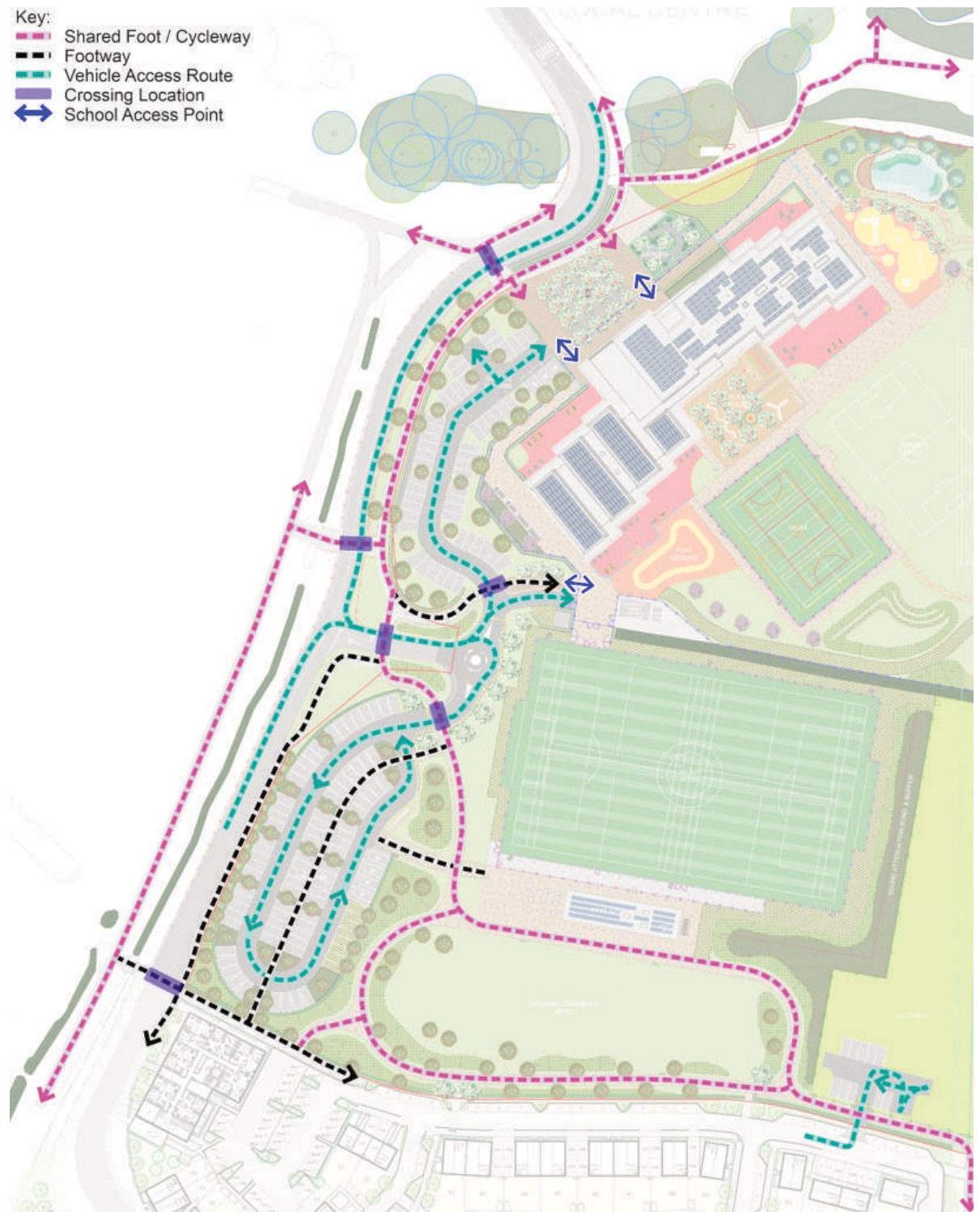
spaces in total), including disabled bays, and cycle parking close to the pavilion. A separate 10-space car park will serve the allotments, accessed from the Upper Acre parcel. Electric vehicle charging infrastructure will be provided in accordance with Eastleigh Borough Council standards and Building Regulations requirements.

The School Travel Plan sets out a package of measures to encourage sustainable travel from the outset of occupation. Its aims include promoting healthy lifestyles, supporting a sustainable community, increasing awareness of travel choices, and encouraging walking, cycling, scooting, public transport and car sharing as alternatives to single-occupancy car travel. Interim targets seek to reduce pupil car travel from 29% to 19% by Year 7, while increasing pupil active travel from 63% to 69% and sustainable travel from 71% to 81%. For staff, the Travel Plan targets a reduction in car driver mode share from 73% to 63% by Year 7, alongside increases in active and sustainable travel.

A Travel Plan Coordinator will be responsible for implementing, promoting and monitoring the Travel Plan, with baseline surveys undertaken following occupation and targets reviewed as the school grows. This is particularly important given that the school may be occupied in phases, initially as a 2FE school with preschool provision before expanding to a 3FE primary school. The phased occupation provides an opportunity to embed sustainable travel behaviours early as the wider One Horton Heath community develops.

The access strategy prioritises safe pedestrian and cycle movement, with a main arrival plaza to the school, multiple pupil access points, shared-use routes and controlled crossing points. Servicing, refuse collection and emergency access have been tested through swept path analysis, demonstrating that refuse vehicles, delivery vehicles, minibuses/coaches and emergency vehicles can access, turn and leave the site safely in forward gear.

Overall, the Transport Statement and School Travel Plan demonstrate that the proposed development can be safely and efficiently accommodated within the approved One Horton Heath highway network. The proposals promote active and sustainable travel, manage school-related vehicle movements through Park and Stride arrangements, provide appropriate parking and cycle storage, and include a monitored Travel Plan framework to support long-term changes in travel behaviour.



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Drainage Strategy

The proposed surface water drainage strategy has been prepared by Stantec to support the Reserved Matters Application for the 3FE Primary School, adjoining sports facilities, green infrastructure, allotments and associated SuDS works. The strategy responds to the outline planning permission and addresses the requirements of Condition 61 relating to sustainable drainage.

The existing site is grassland with no known drainage system. Ground levels fall from a central high point, naturally dividing the site into Northern and Southern catchments. Existing overland flows discharge towards ditches which ultimately drain to the Moorgreen Brook.

In line with the SuDS hierarchy, part of the school roof runoff will be collected in a proposed 125m³ rainwater harvesting tank within the north-west car park for non-potable use. Infiltration is not proposed as the primary drainage method due to the site's ground conditions and groundwater levels. Remaining runoff will be positively drained to the proposed Strategic Internal Distributor Road surface water drainage network via two surface water spurs.

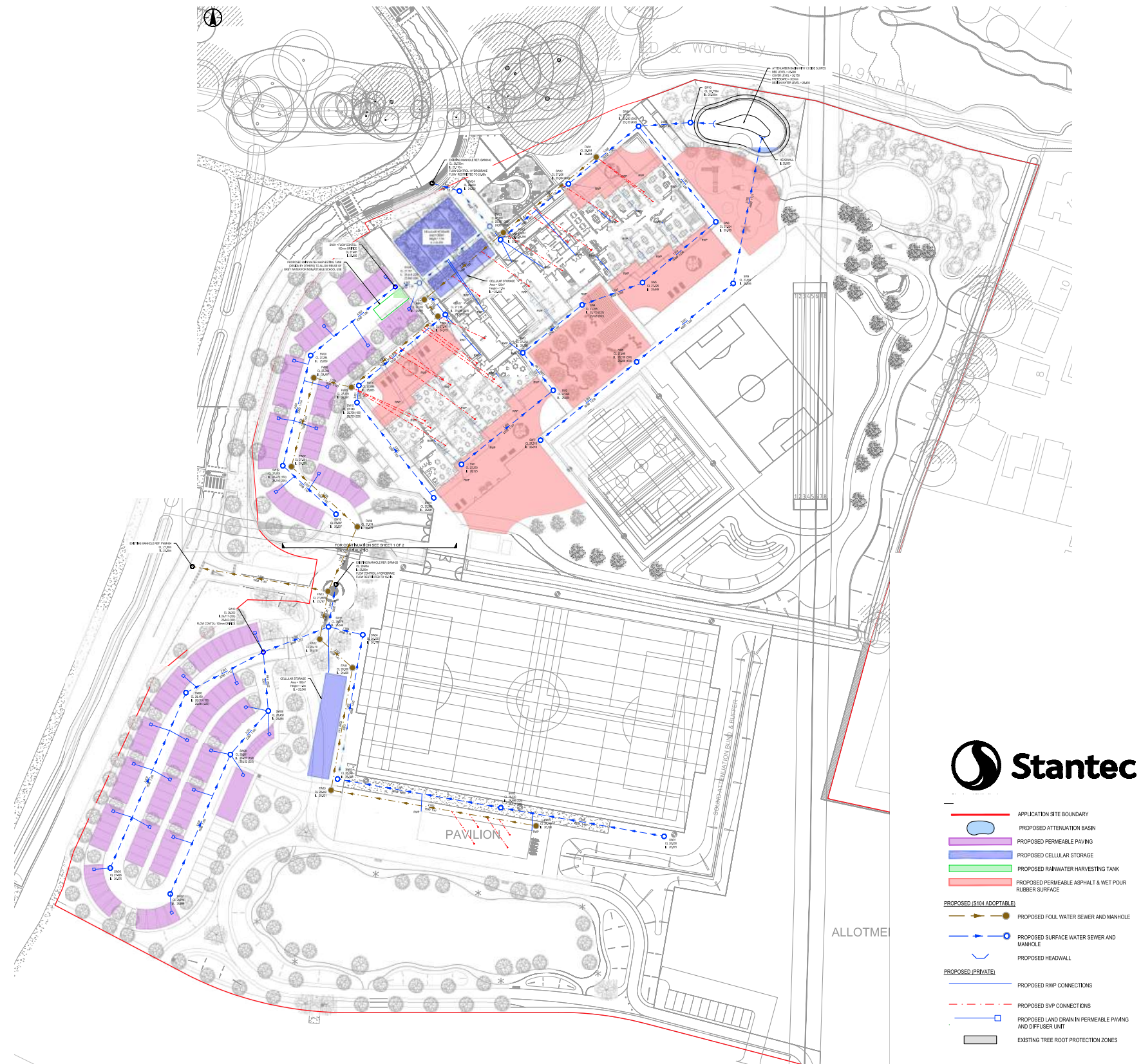
Discharge will be restricted to the rates agreed at outline stage: 25.37 l/s from the Northern catchment and 15.01 l/s from the Southern catchment. Flows will be conveyed through the wider drainage network to the Local Centre SuDS attenuation basin to the north-west of the school site, identified as Pond G.

The system has been designed to operate with no flooding for events up to the 1 in 100-year storm plus 40% climate change allowance, and has been sensitivity tested against a 45% climate change allowance with no flooding predicted in either catchment.

The SuDS management train includes rainwater harvesting, permeable paving, rain gardens, tree pits, bioretention areas, cellular storage, piped drainage and attenuation basins. These features provide surface water attenuation, water quality treatment, interception, amenity and biodiversity benefits. The CIRIA Simple Index assessment confirms that the proposed SuDS treatment train provides adequate pollution mitigation before discharge.

In response to residents' comments about flooding near the allotment boundaries, exceedance flows have been considered. Flows from the southern network will be directed towards open space and the allotment edge, with any excess runoff conveyed south along the Upper Acre access road and intercepted by the proposed ditch network.

The piped sewer network within the school site is proposed to be adopted and maintained by Southern Water, with private drainage and SuDS features maintained by an Eastleigh Borough Council appointed contractor. Further details are provided in the accompanying Stantec Surface Water Drainage Strategy, May 2026.



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Acoustic Strategy

Primary School

The acoustic strategy for the proposed Horton Heath Primary School has been developed to ensure that the scheme achieves appropriate internal and external noise standards in accordance with Building Bulletin 93 (BB93), BS 8233:2014, BREEAM and Sport England guidance. A detailed environmental noise survey was undertaken over a seven-day period in September 2025 to establish the existing acoustic environment and inform the design of the building envelope, ventilation systems and external sports facilities.

The assessment confirmed that the proposed school can achieve BB93 internal ambient noise criteria through a hybrid ventilation strategy incorporating natural ventilation with NVHR units and rooftop ventilators. External noise levels across the site were found to be relatively moderate, allowing standard façade constructions and conventional double glazing to provide sufficient sound insulation performance. Minimum façade performance requirements include glazing rated to 27 dB Rw and non-glazed elements to 40 dB Rw. The assessment also confirmed that summertime overheating ventilation requirements can be achieved using openable windows without exceeding BB93 upper noise limits.

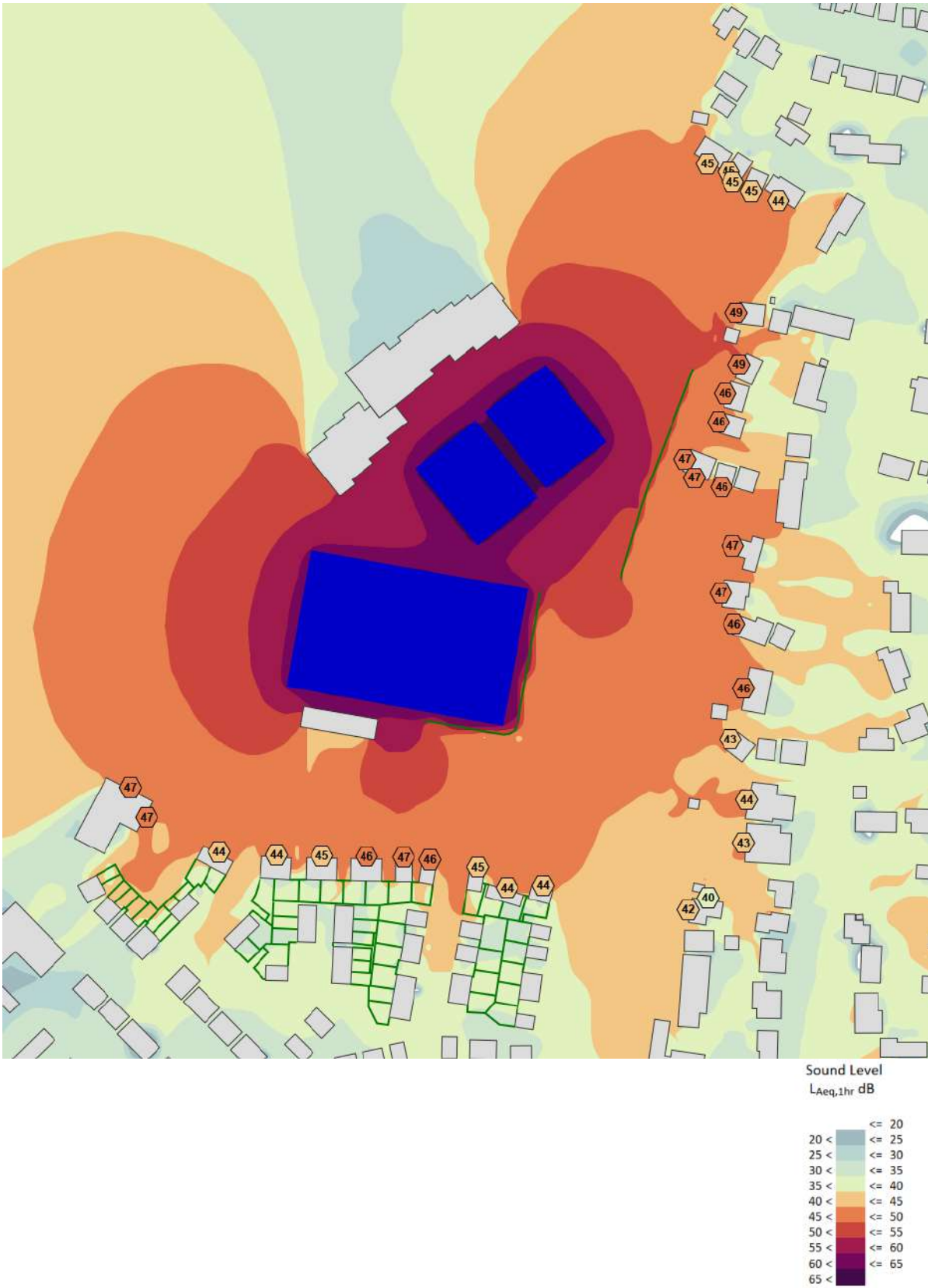
Mechanical plant associated with the development will be controlled through specific noise emission limits derived from measured background sound levels and BREEAM POL05 criteria. The strategy requires all external plant to operate at least 5 dB below prevailing background noise levels at the nearest residential receptors, thereby safeguarding neighbouring amenity. Further detailed assessment will be undertaken at the technical design stage once final plant selections and locations are confirmed.

The Sport Pitches

An assessment of the proposed 3G sports pitch and MUGAs was also undertaken to evaluate potential impacts on nearby residential properties. Acoustic modelling demonstrated that, with the incorporation of proposed mitigation measures including landscaped acoustic bunds and acoustic fencing up to 3 m in combined height, noise levels at neighbouring receptors would remain within recognised guideline thresholds. The 3G will be operating until 10pm while the use of the school pitches will be restricted to 7pm.

The mitigation strategy has been integrated with the wider landscape design to balance acoustic performance, visual quality and operational requirements. Overall, the assessment concludes that the development can achieve suitable acoustic conditions for both future school users and surrounding residents.

Further details are provided in comprehensive Environmental Noise Assessment document prepared by Stantec.



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Energy & Sustainability Strategy

Primary School & Sport Pavilion

The sustainability strategy for the proposed school and pavilion is built around a holistic approach to reducing environmental impact, combining energy efficiency, low-carbon technologies, and responsible resource use.

The design follows the “Lean, Clean, Green and Seen” energy hierarchy, prioritising demand reduction through a fabric-first approach with high insulation, airtightness, and optimised glazing, before introducing efficient systems and renewable technologies.

Low-carbon systems such as ground source heat pumps for the school, air source heat pumps for the pavilion, and photovoltaic panels for both buildings are proposed to significantly reduce operational emissions, targeting Net Zero Carbon in operation and achieving an overall carbon reduction of approximately 79% compared to the baseline.

Passive design measures—such as natural ventilation, solar shading, and daylight optimisation—are integrated to minimise energy demand while maintaining comfortable internal environments.

Site Wide Sustainability

Beyond energy, the strategy addresses wider sustainability objectives including climate resilience, resource efficiency, and environmental protection.

Measures include sustainable drainage systems for flood management, water-efficient fittings and potential rainwater reuse to reduce consumption, and the use of low-impact, responsibly sourced materials to minimise embodied carbon.

The scheme also promotes sustainable transport, reduces pollution through an all-electric design and low-VOC materials, and incorporates biodiversity enhancements to ensure no net loss of habitats. Overall, the development targets a BREEAM ‘Excellent’ rating, demonstrating a comprehensive, policy-aligned approach that supports low-carbon operation, efficient resource use, and a healthy environment for building users.

BREEAM

The proposed primary school is targeting a BREEAM UK New Construction Version 6.1 “Excellent” rating. The BREEAM pre-assessment prepared by SRE indicates that the scheme is currently capable of achieving a score of 79.39%, subject to the detailed design, procurement and construction stages maintaining the targeted credit strategy.

The assessment is being undertaken as a “Fully Fitted” education assessment, reflecting the intended scope of the school building and internal fit-out. The BREEAM strategy therefore forms an integrated part of the design process rather than a separate or retrospective certification exercise.

The BREEAM approach supports the wider sustainability objectives of the project by addressing a broad range of environmental performance categories, including management, health and wellbeing, energy, transport, water, materials, waste, land use and ecology, and pollution.

In particular, the current pre-assessment identifies strong performance in relation to:

- Management, including project brief development, stakeholder consultation, commissioning, handover and aftercare;
- Health and wellbeing, including visual comfort, thermal comfort, acoustic performance and security;
- Energy, including reduction of energy use and carbon emissions, energy monitoring, external lighting and low carbon design;
- Transport, including travel planning and sustainable transport measures;
- Water, including reduced water consumption, water monitoring and leak detection;
- Materials, including life cycle assessment, responsible sourcing, durability, resilience and material efficiency;
- Waste, including construction waste management, operational waste, adaptation to climate change, and design for disassembly and adaptability;
- Land use and ecology, including ecological risks and opportunities, management of ecological impacts, ecological enhancement and long-term ecological management; and
- Pollution, including local air quality, surface water management, night-time light pollution and refrigerants.

The BREEAM pre-assessment confirms that the relevant minimum standards for an “Excellent” rating are being targeted. These include responsible construction practices, commissioning and handover, aftercare, reduction of energy use and carbon emissions, energy monitoring, water consumption, water monitoring, responsible sourcing of construction products and operational waste.

The proposed BREEAM strategy is closely aligned with Eastleigh Borough Council's policy requirement for non-residential development above 500 sq.m to achieve BREEAM “Excellent”. It also supports the wider project objectives of reducing operational energy demand, improving occupant wellbeing, embedding climate resilience, minimising resource use and delivering a robust, adaptable and long-life public building.

Further details are provided in comprehensive suite of documents prepared by SRE.

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External Lighting Strategy

An External Lighting Strategy has been prepared for the Primary School, Sports Facilities and Allotments by RHB to support the Reserved Matters submission and respond to Condition 24 of the outline planning permission.

The strategy has been developed to provide a safe, secure and welcoming external environment while minimising light spill, protecting residential amenity and avoiding adverse effects on sensitive ecological receptors, including bats and other crepuscular or nocturnal species.

The lighting design has been assessed using DIALux modelling and has been prepared with reference to the Institution of Lighting Professionals guidance for the reduction of obtrusive light, together with relevant Bat Conservation Trust and ILP guidance on bats and artificial lighting.

The site has been classified as Environmental Zone E3, reflecting its suburban context within a well-inhabited rural / urban settlement. The lighting approach balances the operational requirements of the school, sports facilities, car parks, pedestrian routes and cycle routes with the need to protect darker ecological corridors and boundary habitats.

External lighting will be provided through a coordinated combination of lighting columns, bollards and building-mounted luminaires. Proprietary shields, directional optics and controlled luminaire distribution will be used where required to reduce upward light, glare and light spill. All luminaires and components will be suitable for the local external environment.

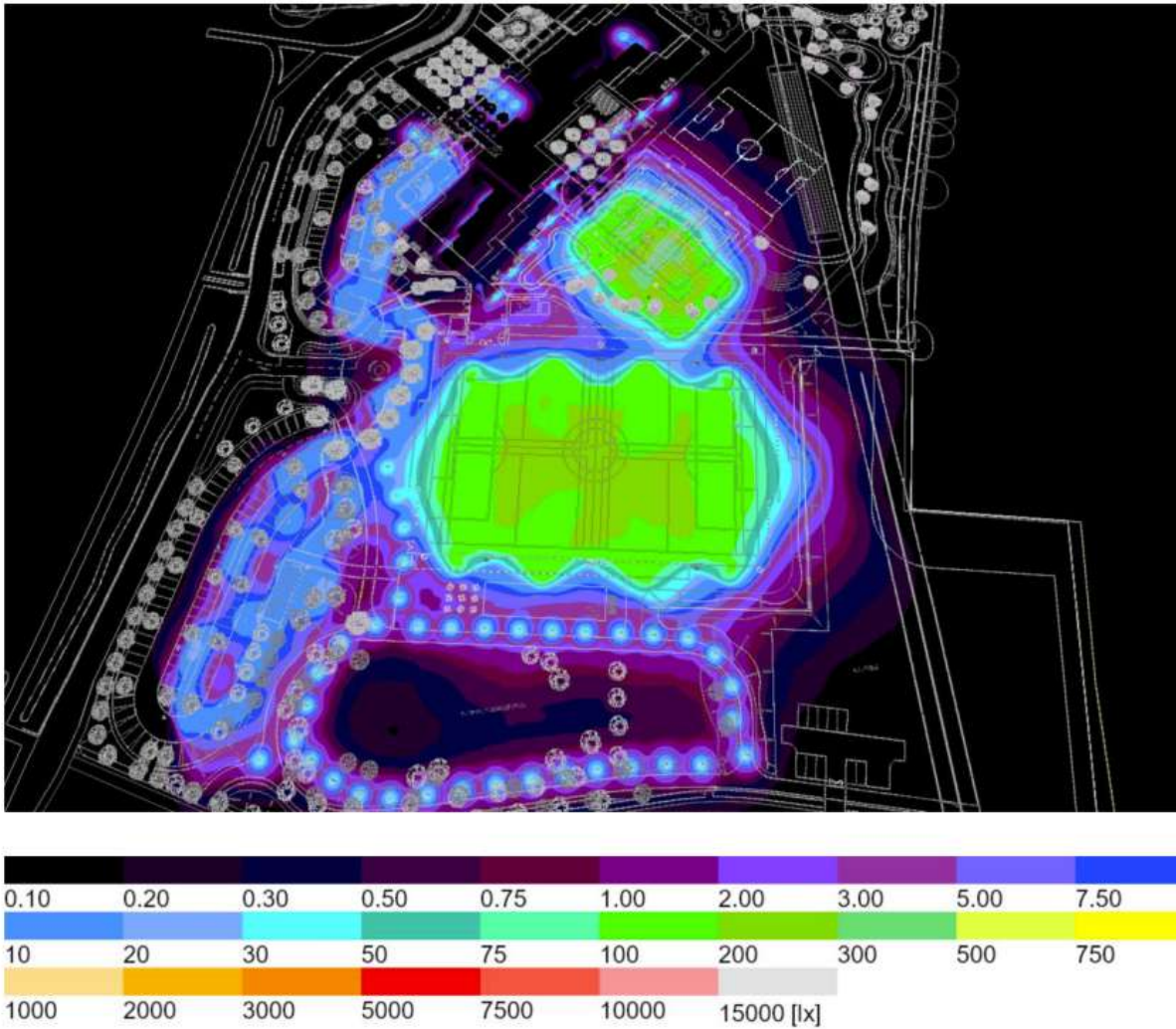
Public realm lighting will use LED amber light sources to reduce effects on dark skies and ecological receptors. Building-mounted lighting will use warm white colour temperatures of 3000K or less, with particular care taken where lighting is directed towards darker corridors or sensitive ecological areas.

The lighting calculations demonstrate that the proposed scheme achieves the required maintained illuminance levels for key functional areas. Pedestrian routes and cycle routes achieve minimum average maintained illuminance levels above the 10 lux target. Parking areas and the roundabout achieve levels above the 5 lux target. The MUGA achieves an average maintained illuminance of 228 lux, and the 3G pitch achieves an average maintained illuminance of 188 lux, meeting the required standards for their intended use.

Ecological protection has been central to the lighting strategy. The modelling demonstrates very low light levels within sensitive areas, including a maximum of 0.018 lux horizontal and 0.095 lux vertical within the ecological buffer, and a maximum of 0.15 lux horizontal and 0.005 lux vertical within the bat commuting area. This demonstrates that light spill into sensitive ecological areas has been minimised.

External lighting will be controlled by photocells and time switches to limit unnecessary operation. Lighting to the main building facing darker corridors will generally switch off at 20:00 in summer and winter, with provision for later switch-off at 22:00 where community use requires it.

The strategy demonstrates that the proposals provide an appropriate balance between safety, security, accessibility, sports use, placemaking and ecological protection. The lighting design will support the safe use of external spaces while ensuring that light spill, obtrusive light and impacts on neighbouring properties and sensitive habitats are appropriately controlled.



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Residential Amenity

The proposals have been developed with careful regard to the amenity of existing residents to the east of the site and future residents within the Upper Acre development to the south. Residential amenity has not been considered as a single isolated issue, but as an integrated design consideration informing the layout, landscape strategy, access arrangements, lighting, drainage and operational management of the school, sports facilities and allotments.

Layout

The site layout provides an appropriate separation between the most active external uses and nearby residential receptors. The school building is positioned to the north of the site, close to the Local Centre, while the sports pitches and community facilities are arranged to the south in accordance with the outline masterplan. Sensitive edge treatments, including retained hedgerows, landscape buffers, acoustic bunding and open space, help mediate the relationship with existing homes to the east and future homes to the south.

Noise Impact

Noise has been assessed through the Environmental Noise Assessment. The acoustic strategy addresses potential noise from school activity, external play, sports use, community use, arrivals and departures, parking, servicing and plant.

The 3G pitch and MUGA have been modelled with mitigation incorporated into the design, including landscaped acoustic bunds and acoustic fencing up to 3m in combined height. These measures are integrated with the landscape strategy to reduce noise impacts while maintaining a high-quality visual and public realm setting. Mechanical plant will also be controlled through specific noise limits to safeguard neighbouring amenity.

Light Impact

The lighting strategy has been designed to provide a safe and secure environment while minimising obtrusive light and protecting residential and ecological receptors. Lighting is focused on areas where it is required for safety, access and operation, including pedestrian routes, parking areas, the school frontage and sports facilities.

Directional luminaires, shields and controlled optical distribution will be used to limit glare, upward light and spill beyond the areas requiring illumination. Lighting will be controlled by photocells and time switches, with building-mounted lighting facing darker corridors generally switching off at 20:00, or 22:00 where required for community use.

Traffic

Traffic, transport and parking have been addressed through the Transport Statement and School Travel Plan. The access strategy prioritises safe pedestrian and cycle movement, with direct routes to the school entrance, cycle and scooter parking, controlled crossing points and clear links to the wider One Horton Heath movement network.

Parent drop-off is accommodated within the southern shared parking area, with safe pedestrian routes onward to the school. This arrangement helps manage peak-time activity and reduces pressure on the immediate school frontage. Staff, visitor, community, sports and allotment parking are separated and integrated within the landscape to reduce conflict and visual impact.

The Travel Plan will be implemented by a Travel Plan Coordinator and includes measures to encourage walking, cycling, scooting, public transport and car sharing. This will support long-term behavioural change as the school grows from initial occupation to full 3FE operation, helping reduce reliance on private car travel and associated amenity impacts.

Drainage

Drainage and flood risk have also been integrated into the design. The site lies within Flood Zone 1, and the proposals are supported by a Flood Risk Assessment and Surface Water Drainage Strategy.

SuDS features, including rain gardens and attenuation measures, are incorporated within the landscape to manage surface water sustainably, reduce flood risk and support biodiversity and amenity. These measures form part of the wider green infrastructure network and help ensure that the development does not increase flood risk to neighbouring land or future residential areas.

Overall, the proposals demonstrate a coordinated approach to residential amenity. The combination of considered land-use arrangement, acoustic mitigation, controlled lighting, managed access and parking, sustainable travel measures, landscape buffers and integrated drainage ensures that the school, sports facilities and allotments can operate successfully alongside existing and future residential uses.



CG Artist Impression: View towards the school square from PROW path to the north of solar farm

07. Summary

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The Reserved Matters proposals for the Primary School, Sports Facilities and Allotments present a high-quality, landscape-led and placemaking-focused development that fully aligns with the aspirations of the Outline Planning Permission, the approved Parameter Plans and the One Horton Heath Design Code. The proposed Horton Heath Primary School has been carefully designed to create a high-quality civic building at the heart of the wider One Horton Heath development.

The proposals respond positively to the approved outline permission, the Design Code, the wider masterplan strategy, ecological and infrastructure constraints, sustainable movement objectives, and extensive pre-application consultation feedback. Together, the scheme establishes a welcoming, inclusive and accessible educational environment while making a significant contribution to placemaking, community identity and the wider public realm.

In addition, the proposals deliver a series of well-designed and accessible community spaces that provide lasting benefits for both existing and future residents. The integration of the sports facilities, allotments, landscaped public realm and pedestrian-friendly routes supports opportunities for recreation, social interaction and healthy lifestyles, while also encouraging sustainable movement throughout the wider development. These spaces strengthen connectivity across One Horton Heath, promote active travel and create an attractive and cohesive environment that enhances community wellbeing and long-term place quality.

The development successfully balances educational functionality, civic presence, landscape integration, sustainability and long-term adaptability, ensuring that the proposals are both robust and responsive to the site and its wider planning framework. Accordingly, the Reserved Matters proposals represent an appropriate and well-considered form of development that should be fully supported.





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