



The Hinckley SCHOOL

Replacement STEM Building

Design and Access Statement

March 2023

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P02 - Updated Plans. 10th March 2023

SENSE OF SPACE



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4.0 SUMMARY

1.1 Brief Overview

Reds10, Sense of Space, Jones King Partnership, MAC Consulting and DHA Planning have been commissioned by The Department for Education (DFE) and The Futures Trust (The Trust) to prepare and submit a full planning application for a new school building at Hinckley School.

The project forms part of the DFEs School Rebuilding Programme, a national Framework to replace ageing and deteriorating school buildings at the end of their usable life. At Hinckley School three of the main teaching blocks fall into the category and require replacement.

Hinckley School is a Secondary School located in the east of Hinckley. The School has a pupil population of 1050 and is not increased by this proposal. The new classroom building will provide STEM focused teaching spaces for the school.

The proposed new building is located in the north west corner of the school site where the existing Art + DT building is located. This location has been identified as the site with the least impact upon the existing school, its boundaries, utilities and landscaping.

The design has developed through analysis and evaluation of key issues surrounding the proposal with close involvement with the school and consultation with the Local Authority and public.

This Design and Access Statement sets out the architectural design intentions of the proposals and should be read in conjunction with the proposal drawings and other support documents / statements.

The proposal comprises of:

- A new 3500m² part 3-storey STEM focused classroom building providing teaching and support spaces.
- Demolition of four existing classroom buildings.
- A temporary 1020m² two-storey classroom building providing accommodation for pupils during the construction phase.
- Reconfiguration of external play areas following the demolition of the existing buildings.

1.2 Application Description

Demolition of five school buildings and the construction of a new three-storey school building with associated landscaping, external canopies and external play area. To include the construction and siting of a temporary teaching block and temporary staff car park during construction

2.0 CONTEXT AND EVALUATION

2.0 CONTEXT AND EVALUATION

2.1 Site Location + Context

The application site is located at Hinckley School to the east of Hinckley town centre. The school is set within a largely residential area of Hinckley.

The school site is bounded by suburban residential areas to the north and east with the main access off Butt Lane. To the east is Hinckley Golf course and to the south is the Birmingham to Peterborough Railway line. Beyond these is open countryside and the M69 Motorway.

The blue line boundary identifies the ownership boundary of the school including the playing fields, car parking and main access from Butt Lane.

The application site (identified in red) consists of the area to the north east of the site where the new building will be constructed and an area of the existing fields which will accommodate the temporary school building for the duration of the construction.

The school site boundary is 18.4ha and the application boundary is 4.95ha.



Site Location

- 1. The Hinckley School
- 2. Hinckley Golf Course
- 3. Hinckley Rose Primary School
- 4. Queens Park
- 5. Town Centre

2.2 Local Context and Character

Hinckley School is located to the south of Butt Lane to the east of Hinckley Town Centre. The areas around the site are predominantly residential housing with a variety of styles of properties.

There are areas of typical inter-war semi-detached properties and areas of most recent development. The properties are generally low density 2 storey houses with a mix of red brick and white render.

The older developments typically have large private gardens with wider roads and pavements. The newer developments are slightly higher density with small garden spaces and narrower access roads.

The residential areas are located to the north and west of the site with the open fields / golf course to the east and south of the school site.

In the immediate vicinity there are few commercial buildings / developments so the school has a unique character in the area in terms of its scale, massing and appearance.

The existing school is well screened from the adjacent neighbours with mature and dense hedgerows / trees on the boundaries. The natural topography of the area also limits the visual impact of the school site on the local context.

Overall the school has a limited impact on the local character .



Woodland Road



Olympic Way



Butt Lane

2.3 Existing Site + Buildings

The Hinckley School site is approximately 18.4ha and includes the main building accommodation to the north east and the playing fields extending to the west and south.

The school has developed as a series of interconnected teaching blocks generally single and two-storey in nature. The main car park areas are located close to the entrance alongside the main access routes into the site.

Adjacent to the school buildings is a flood-lit artificial grass pitch and hard-sports courts. Social spaces are provided between the school buildings.

The main vehicle and pedestrian access to the school is from Butt Lane and an additional pedestrian access to afforded from Woodland Road to the south.

Site Selection

The siting of the new building was selected following analysis and consideration for other areas around the school site.

The playing fields were discounted as the permanent loss of grass sports pitch would be unacceptable on a statutory level but also unacceptable for the school curriculum.

The existing hard play areas located between the existing buildings don't offer significant space for the required footprint of the new building or provide a safe working area for the contractor.

The existing car parks were considered but would present very difficult management issues for the school during construction and place the new teaching accommodation in front of the main reception / visitor entrance to the school.

With the buildings already identified for demolition this led to an option to split the demolition into two phases and construct the new accommodation on the footprint of an old building. In order to do this temporary



Site Location Plan

accommodation would also need to be provided. The benefits of locating the new building on the site of the existing DT and Art block are:

- Limited impact on the existing school during construction - the development site can be separated from the existing school.
- Upon completion the school campus remains contained and interconnected in the north east

corner of the site.

- No permanent impact on the sports fields or hard courts.
- Temporary accommodation located on an area of amenity grass with limited impact on the sports provision.



School Site Plan

- 1. Development Site**
The existing buildings are proposed to be demolished in 2 phases. Phase 1 will remove block D allowing the new building to be built on site.
- The second phase will remove blocks B, C and E and complete the external landscaping.
- 2. Neighboring properties**
Close to the north of the development site are established residential properties which look over the site. Care will be taken to minimize the impact on these houses.
- 3. Site Access**
After an initial site visit the construction site access has been considered with two pinch points identified.
- 4. Dorothy Goodman School**
DGS occupies 'Block A' on school site. This will be in close proximity to the main delivery route.
- 5. Temporary Accommodation**
Area of playing fields highlighted as a preferred location for the temporary classroom accommodation to replace Block D.
- 6. Public Footpath**
An existing public footpath runs to the north and east of the school site.

2.0 CONTEXT AND EVALUATION

Existing Buildings

Records of the school in Hinckley can be traced back to 1629 but the school on its current site was opened in 1963. Since then it has been extended and altered a number of times over the years as the requirements for the school have developed.

The buildings are predominately single storey with some two-storey accommodation. Due to the piecemeal development of the site there is a mix of both pitched and flat roofs resulting in a varied roofspace across the site.



Existing Main Hall Building

The predominant facing material is brick with areas of solid curtain wall panels. Window frames and panels are a mix of red and white which reflected the schools former branding colours.

The buildings to be demolished are located to the north of the site and are at the end of their usable lifespan with poor thermal performance and out-dated services and utilities.

Consideration was given to refurbishing the existing buildings but the technical challenges of bringing them up to modern standards of building (fire, thermal + acoustic) and school design (layout, space + FF&E) meant that replacement offers the most effective solution.



Existing Buildings and Massing



2.0 CONTEXT AND EVALUATION

Boundaries + Secureline (highlighted in orange)

As with the majority of school sites Hinckley School has a site boundary and then an internal secureline. The site boundary can and is made secure at the end of a school day but visitors are able to enter the site and have access up to the main entrance / reception of the building.

Beyond this the secureline represents the area that is only accessible to pupils, staff and accredited visitors (i.e signed in at reception).

The securline at Hinckley School runs from the main entrance building across the back of the car parking areas to Blocks A and W before linking to the northern boundary of the school.

To the south it runs from the corner of the reception building around the back of the car parking and across the front of the playing fields and connects to the main boundary adjacent the site entrance.

The proposed development (including the demolition of Block B) will maintain and re-create the secure boundary of the school to keep the existing access and visitor arrangements at the school. The new building will be located within the secureline of the school.

Pedestrian Access + Public Right of Way

The main pedestrian access to the school is from Butt Lane with a secondary pupil only access across the sports field from Woodland Road.

Entering from Butt Lane visitors have access to the main reception building while pupils are able to cross the securline into the social spaces around the school buildings.

To the immediate north of the site a public footpath runs against the school boundary between the school and the houses on Bradgate Gardens. This footpath follows the eastern boundary of the school on the golf course.

Vehicle Access + Parking

Vehicle access to the site is limited to Butt Lane with a large junction that leads to the bus bays, staff parking and visitor parking areas.

From the car parking areas maintenance and emergency access is provided around the school campus with controlled access gates and intercoms.

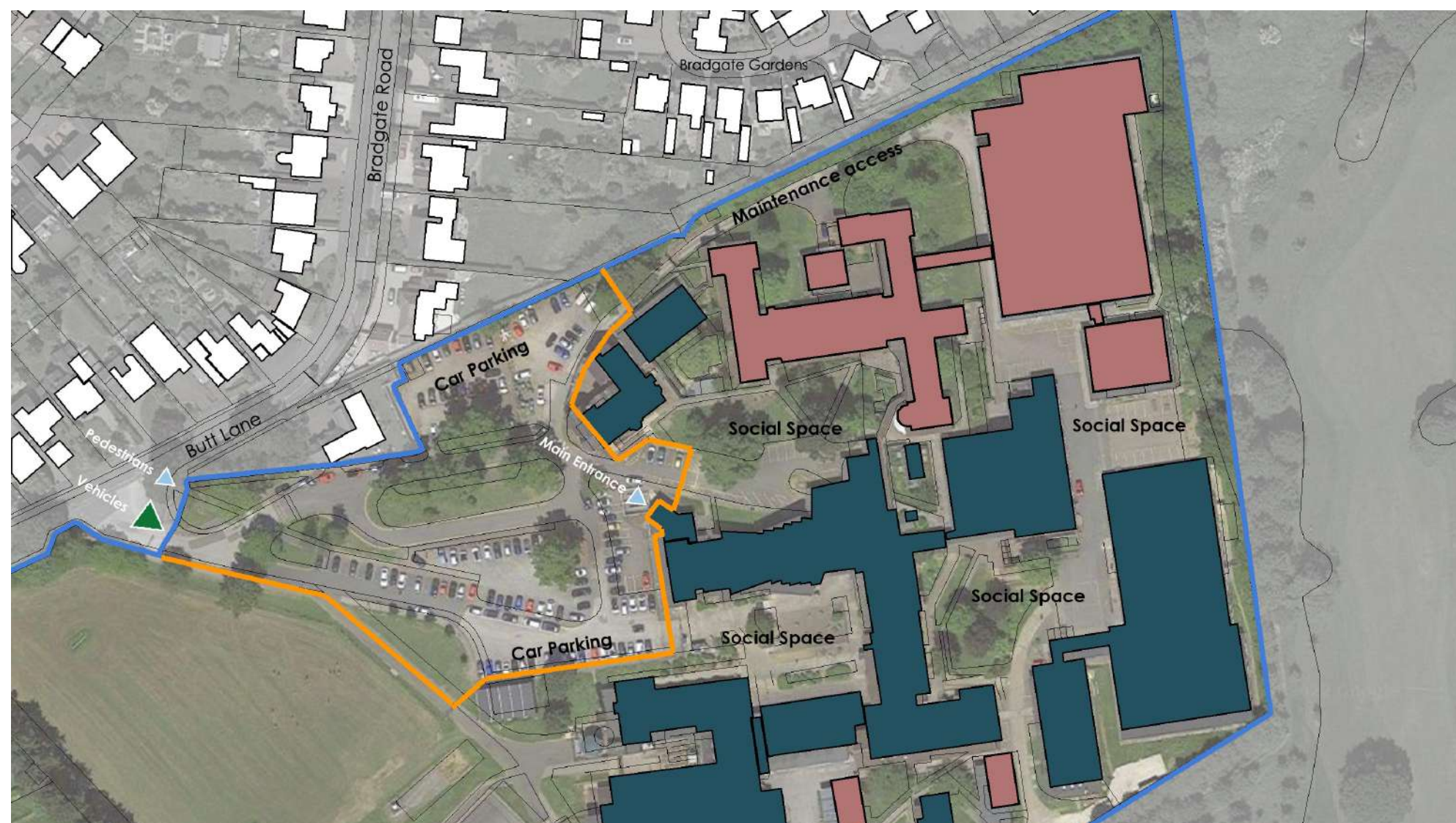
The completed development will not result in an increase in pupil numbers or staff numbers and therefore will have no impact on the level of parking provided on site, however as part of the construction phase, existing parking spaces will need to be temporarily relocated, and will be reinstated once the development is completed.

The proposals have no impact on the parking and will maintain the existing service / emergency routes around the site.

Playground and Social Space

The principle playground and external social spaces at the school are located between the existing buildings and through the use of the hard PE courts.

The proposals will increase the areas available for social space as the footprint of the proposed building will be lower than the demolished buildings. The new landscaped areas will provide additional social space for the pupils at the school.



Existing Site Access

Trees, Ecology + Landscape

Identified on the existing and proposed site plans are areas of existing soft landscaping and trees. The application is supported by a Tree Survey which has identified the key protected trees on the development site and their root protection areas. The landscape design will reflect these protection areas and designed to avoid them.

The site boundaries immediately to the north and east of the development are well developed hedgerows with a mix of dense shrubs and mature trees. These provide important screening of the site both looking in and out. As such they will be maintained and protected by the development proposals.

The application is also supported by an ecology report which recommends an increase in the bio-diversity across the site as part of the proposals.

This can be achieved through a variety of methods including areas of meadow grassland, specific habitat areas, water features and green roofs on the proposed building. The most appropriate methods will be adopted within the proposals.

Topography

The natural topography of the area of Hinckley generally slopes down from the north to the south. Across the Hinckley School site level areas have been created for the different buildings and sports pitches.

Locating the proposed building on the footprint of a demolished building ensures that a level area is available for the new building and the immediately adjacent landscaping.

Specifically around the development site there is banking up to the boundary to the north and the ground banks down to the boundary on the east. Between the existing Blocks B and D there is a level change of approximately 4.0m which will need to be incorporated into the landscaping scheme.



Site Bio-diversity

2.4 Planning Policy Context

The scheme has been prepared in accordance with the Hinckley and Bosworth Core Strategy, Allocations and Development Management Document and the National Planning Policy Framework

Detailed consideration and analysis of the applicable planning policies are covered in the Planning Statement document.

The National Planning Policy Framework (NPPF)

Government planning policy is provided by the National Planning Policy Framework (NPPF, 2021) which sets out the Government’s policies on a range of planning issues, alongside its companion National Planning Practice Guidance (NPPG) which provides more detailed guidance on the policies set out in the NPPF.

Government policy within these documents attaches great importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities.

It identifies that Local Planning Authorities (LPAs) should take a proactive, positive, and collaborative approach to meeting this requirement, and to development that will widen choice in education. The NPPF requires LPAs to give great weight to the need to create, expand or alter schools.

Furthermore, the Government’s Policy Statement regarding schools (August 2011) sets out the Government’s commitment to support the development of state-funded schools and their delivery through the planning system, stating that

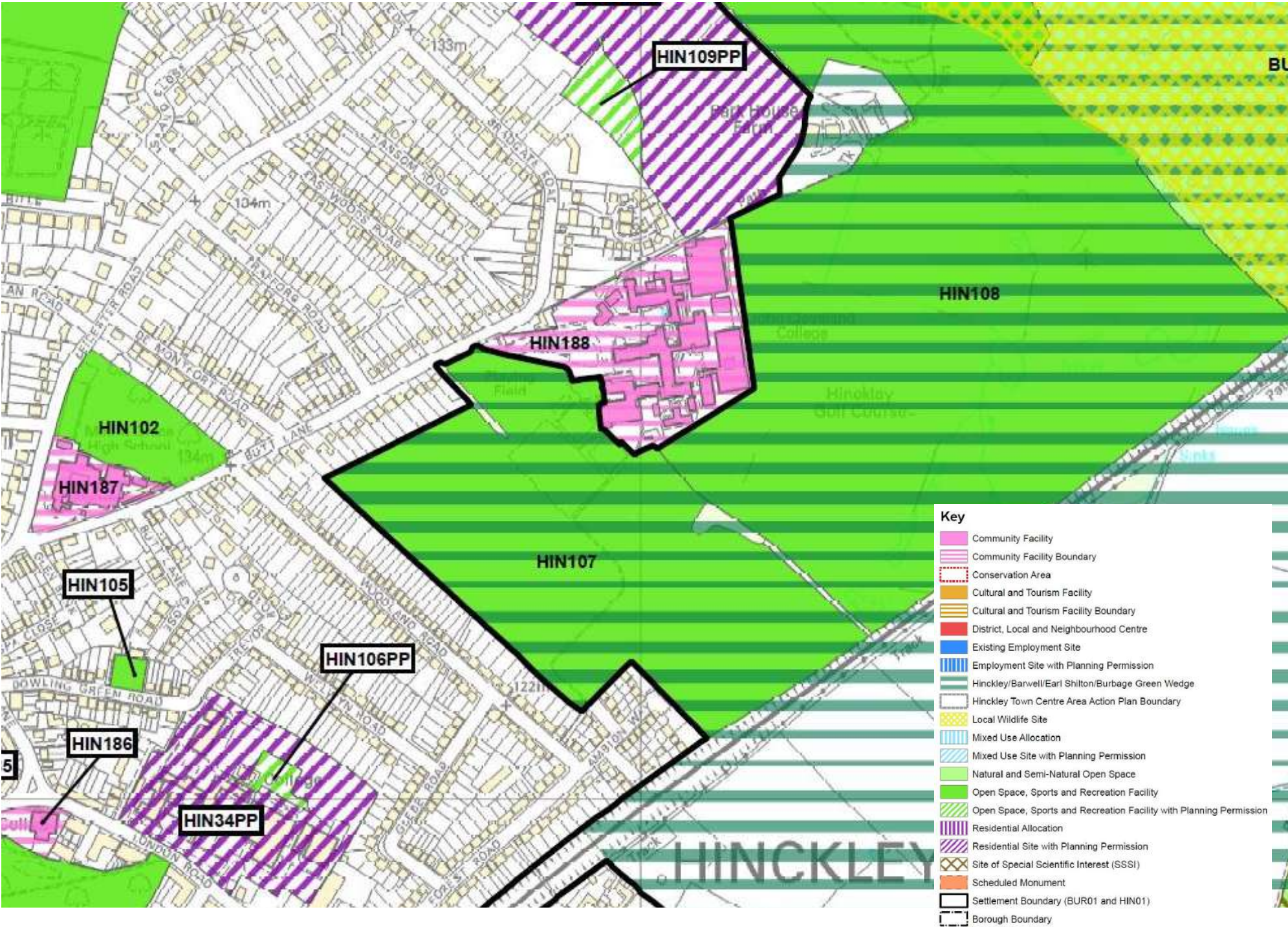
“It is the Government’s view that the creation and development of state funded schools is strongly in the national interest and that planning decision makers can and should support that objective in a manner consistent with their statutory obligations.”

Local Policy Maps

The Local Policy map highlights that the school is allocated as a Community Facility and the playing fields and adjacent land to the east are within ‘Green Wedge’ boundaries and allocated as ‘Open space, Sports and Recreation facilities’.

These allocations are important to the character of the area and facilities available to the local community. The development will maintain these allocations and aim to have limited to no impact on them.

This is further discussed in the supporting Planning Statement.



Local Policy Plan

2.5 Planning History + Adjacent Applications

Searches into the planning history have identified a number of approved application relating to the school site. These are summarised below:

20/01373/CLP | New Perimeter fence to part of the school boundary for safeguarding. APPROVED.

20/01157/FUL | New Perimeter fence to part of the school boundary for safeguarding. WITHDRAWN.

18/01018/FUL | Erection of a single storey modular classroom. APPROVED

18/00282/FUL | Single Storey front extension including external ramped / stepped access to Sixth Form reception. APPROVED

17/00527/FUL | Installation of external ramp, steps and associated railing and exterior alterations and cladding on corporate services centre. APPROVED

17/00323/FUL | Double mobile classroom block (retrospective). APPROVED

14/00489/FUL | Erection of biomass boiler with associated access. APPROVED

13/00445/FUL | Erection of two biomass woodchip boilers. APPROVED

The planning history highlights how the school has developed to meet the increasing demand for school places and modernisation of facilities.

This has been achievable under the relevant planning policy at the time and the proposed scheme represents a similar scenario whereby the school needs to develop to meet the requirements of the DFE and the local community.

2.6 Design Consultation

The design has been developed in close consultation with The DFE and The Trust to ensure it meets their school specific brief and the DFE Output Specification.

Initial proposals were presented to Hinckley and Bosworth Borough Council through a Pre-Application Submission. Local Ward Councillors have also been engaged as the proposals have developed.

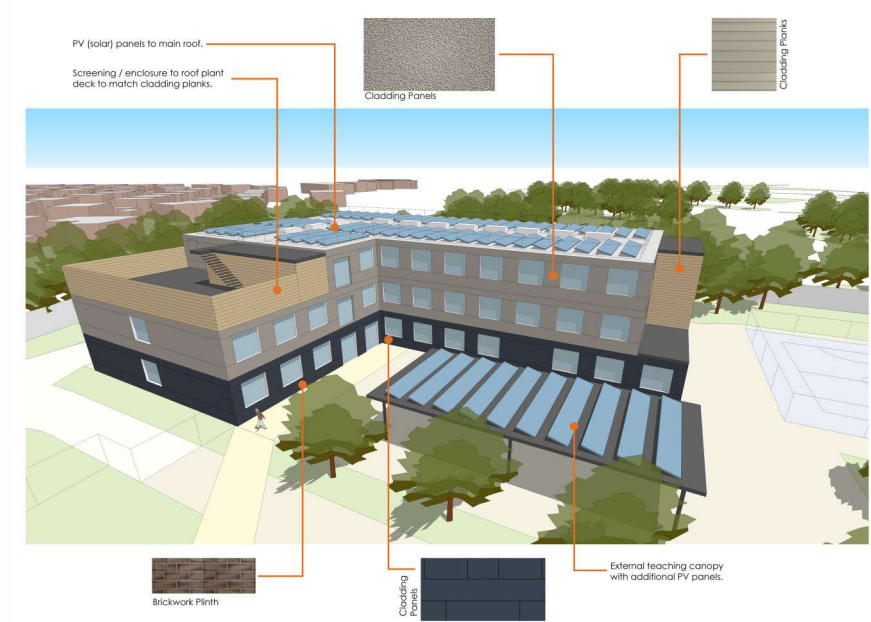
Finally the general public and pupils / parents of the school have been consulted through a Public Consultation event held online and in person.

Further information is available in the Statement of Community involvement and Planning Statement.

Pre-Application Submission and Feedback

A formal Pre-Application (22/10137/PREMAJ) was submitted in late September 2022 with feedback received from the case officer on 31st October 2022.

The application included the principles of the development with the demolition noted, amount of new development and the schedule of accommodation. Initial proposals for external materials and elevations were included but these have developed through the design process.



Extract from Pre-App Document

The key feedback from the consultation:

Principle of Development

The proposal would result in the re-use of a Brownfield site for community use in accordance with Policies DM1 of the SADMP and the overarching principles of the NPPF. The principle of the development is therefore acceptable subject to all other material considerations.

Design and impact on the character of the area

By virtue of the indicative scale, layout, design and appearance, and subject to satisfactory details being received, the proposal is likely to have no adverse visual impact and enhance the character and appearance of the surrounding area in accordance with Policy DM10 of the SADMP and the Good Design Guide SPD.

Impact upon residential amenity

Subject to satisfactory details being received the proposal is unlikely to have a significant impact on residential amenity in compliance with Policy DM10 of the SADMP and the Good Design Guide SPD.

Highways and parking

The Local Highway Authority were consulted as part of the Pre-App and requested for the full application clarification on any changes to the pupil or staff numbers as a result of the proposals.

The scheme includes no change in the staff or pupil numbers and therefore the proposal will have no significant impact on parking or highway safety.

Flood Risk and drainage

HBBC Drainage were consulted as part of the Pre-App and require that a sustainable drainage approach is adopted in the proposal to help relieve the existing surface water drainage system in the area.

Subject to the details being provided the proposal is unlikely to have a significant impact on floor risk and drainage.

Ecology

Leicestershire County Council Ecology would be

2.0 CONTEXT AND EVALUATION

consulted as part of the full application and anticipate receiving Ecological Surveys to support the application and a demonstration that a biodiversity net gain can be achieved.

Temporary Accommodation / Sport England

Sport England have been consulted as part of the pre-application consultations. The temporary accommodation is proposed to be located on an area of under-used playing field.

Following the completion of the works and the removal of the temporary accommodation a reinstatement strategy can be put into place and return the playing fields back to their previous use / quality.

The feedback concludes:

“The proposal would likely result in a sustainable form of development, resulting in the efficient re-use of a Brownfield site. The principle of the development is therefore likely to be acceptable in compliance with Core Strategy Policy 1 and Policies DM1 and DM25 of the SADMP.

Subject to satisfactory details being received the proposal is likely to have a minimal visual and complement the character and appearance of the surrounding area in accordance with Policy DM10 of the SADMP and the Good Design Guide SPD.

Subject to satisfactory details being received the proposal is unlikely to have a significant impact on residential amenity subject to suitable noise assessments or parking and highway safety in compliance with Policies DM10, DM17 and DM18 of the SADMP

The feedback also included a detailed validation checklist for the scheme. These documents are all provided as part of the submission.

Public Consultation

A public consultation event was held at the school on Wednesday 1st Feb 2023. Local residents, councillors and pupils / parents were all invited to the event with a local leaflet drop, letters to parents and direct invites via email.

The invites included a link to an online presentation and comments section for people to provide any feedback on the scheme or ask any questions.

<https://www.reds10.com/hinckleyacademy>

The website attracted 21 site visits within January and February. No comments have been received via the website.

The public consultation evening attracted four individuals and one family of 3.

Of the above, three are parents of children within the school, one local resident with no school involvement and the family live nearby and raised a concern about the impact of traffic associated with the construction works. Overall, there were no negative comments about the building and external works. All but the family appeared to support the proposals. There was an expectation and desire for this to have happened sooner.

The family were mainly interested in the potential impact on their own property and access due to their concerns about construction traffic and the effects of double parking on the routes approaching the school.

The benefits of offsite fabrication were explained in this respect and how vehicle movements would be limited and controlled and how much better such an approach would be when compared with traditional construction.

The application will be supported by a Construction Environment & Management Plan



Public Consultation Evening

2.7 Evaluation Summary

The Context and Evaluation section has highlighted and identified the criteria which the proposal should respond to.

The key issues are:

- Replacing the existing ‘end of life’ teaching spaces at the School with a new, efficient classroom building for the pupils at Hinckley School.
- Having no impact on the adjacent Green Wedge through the appropriate siting of the building.
- Having limited or no impact on the adjacent residential neighbours.
- Maintaining the existing access and security arrangements at the school.
- No increase in pupil or staff numbers.
- Providing an appropriate temporary accommodation solution for the duration of the construction works.

3.0 DESIGN

3.0 DESIGN

3.1 Design Overview

The application drawings demonstrate how the issues identified in the context and evaluation section can be interpreted into an appropriate design for the new STEM classroom block at Hinckley School.

The new school building and site alterations have been designed to provide a modern and functional school building that has a simple architectural language with logical and repetitive elements for ease of construction.

3.2 Use

As an existing school the site is designated F1 Learning and non-residential institutions - F1 (a) Provision of education.

The replacement building will maintain this use and be solely used for educational purposes. Therefore no change of use is required within this proposal.

3.3 Amount

Application boundary (red line) =	4.95ha
Ownership / Leasehold (blue line) =	18.4ha
Existing building footprints to be demolished =	5,100m ²
New building footprint =	1,325m ²
New building gross internal floor area =	3,550m ²
New building gross external area =	3,800m ²
Temporary Building Footprint =	525m ²
Temp building gross internal floor area =	1,020m ²
Temp building gross external area =	1,120m ²

The application includes the demolition of six existing buildings. As part of the DFE Framework these have been identified as beyond their useful lifespan and unviable for conversion / refurbishment so are therefore proposed to be demolished and replaced.

The diagram below highlights the buildings to be demolished.

Blocks B+C.

Brick faced single storey classroom building (Science) with pitched roof. Residential scale to the buildings designed to reflect the local character. The building sits in an elevated position above blocks D + E.

Total 1,770m² footprint

Block D + E.

Predominantly single storey DT, Art and food classroom

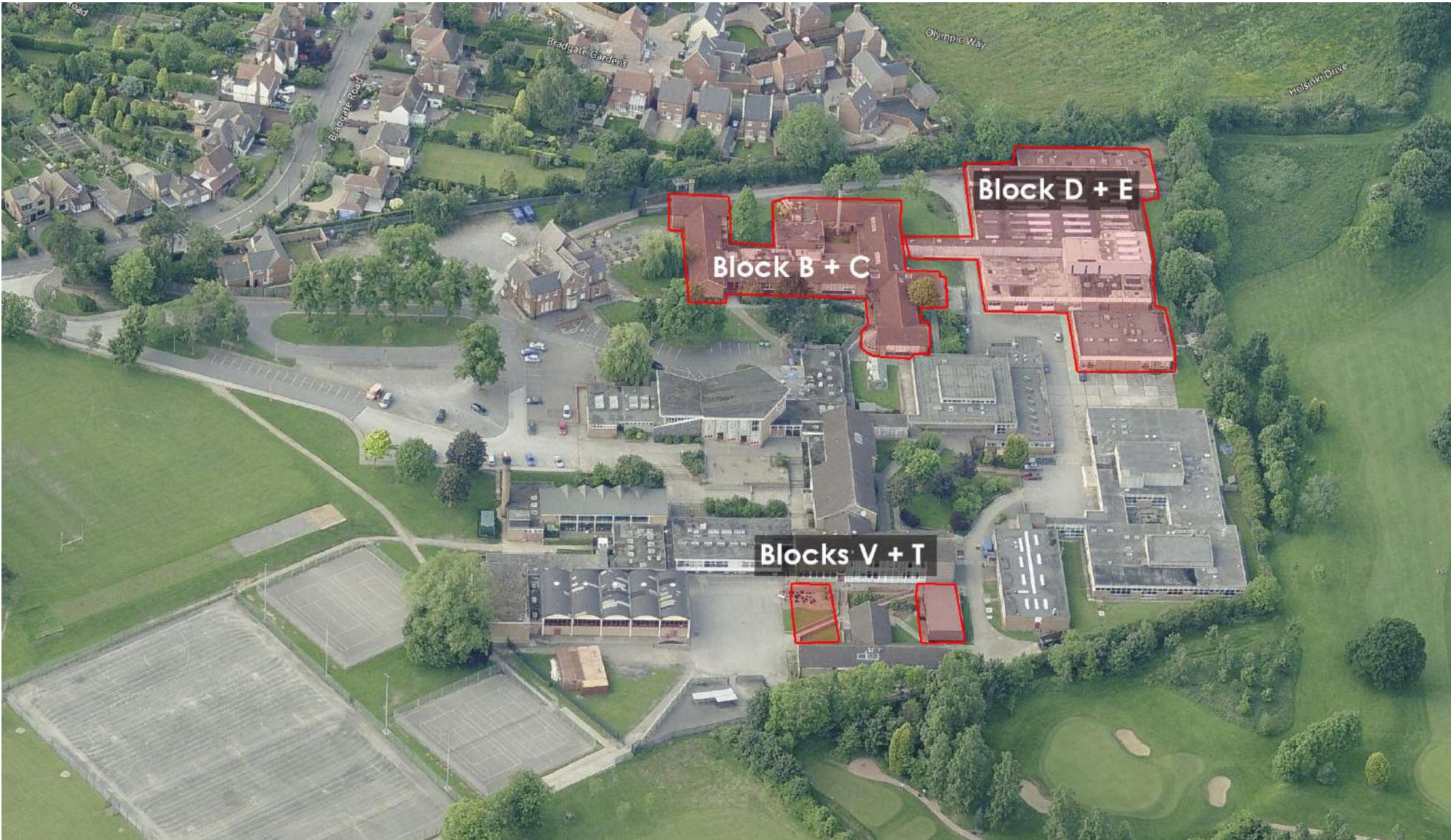
building with flat roof and first floor bridge link back to block B. The building features a saw-tooth roof design with level eaves / facias concealing the pitched roof behind. This creates a larger volume ground floor which suited the DT classroom design at the time of construction.

Total 3,060m² footprint

Existing Cabins. Blocks V + T

2No Lightweight modular single storey classroom buildings built to accommodate overflow teaching spaces.

Total 270m² footprint.



Site Demolition

3.0 DESIGN

3.4 Site Layout + Massing

Policies in place ensure that new development should complement or enhance the character of the surrounding area with regards to scale, layout, density, mass, design, materials and architectural features.

Following the demolition the new building will be the largest on site but has a significantly smaller footprint than the buildings that are being demolished resulting in an increase in green space on the site.

With a smaller footprint than the existing the new building has been positioned further to the south than the existing Block D. This increases the separation distance between the northern elevation and the northern boundary of the site boundary improving the outlook from the neighbouring properties.

In addition to the reduced footprint and moving the building away from the boundary the north-west corner of the site also features decreased site levels further mitigating its visual impact on the rest of the school site and the immediate neighbours to the north.

The proposed upper playground and green habitat/ social areas would take the place of existing buildings on higher ground adjacent the new building and reducing the built form of this area of the site from the neighbouring dwellings to the north.

Although the building would be slightly taller than the existing building and neighbouring school buildings the additional height will have limited negative visual impact from the public vantage points and neighbouring dwellings.

The scale and massing of the proposal aims to have no adverse visual impact and enhance the character and appearance of the surrounding area in accordance with local policies.







Impact Upon Residential Amenity

Careful consideration has been given to ensure that the development do not harm the amenity of neighbouring residential properties. The diagrams below show the general massing on site before and after the new development is complete.

The northern elevation of the building would have the potential to adversely impact neighbouring amenity of the dwellings to the north on Bradgate Gardens and Olympic Way, specifically 11 Bradgate Gardens and 108 Olympic Way.

The proposed building is taller than the existing however it is set back further from the properties, with the two-storey

element now 34 metres from the rear elevation of 11 Bradgate Gardens (previously 27m), and the three-storey element now 30m from the south (side) elevation of 108 Olympic Way (previously 18m).

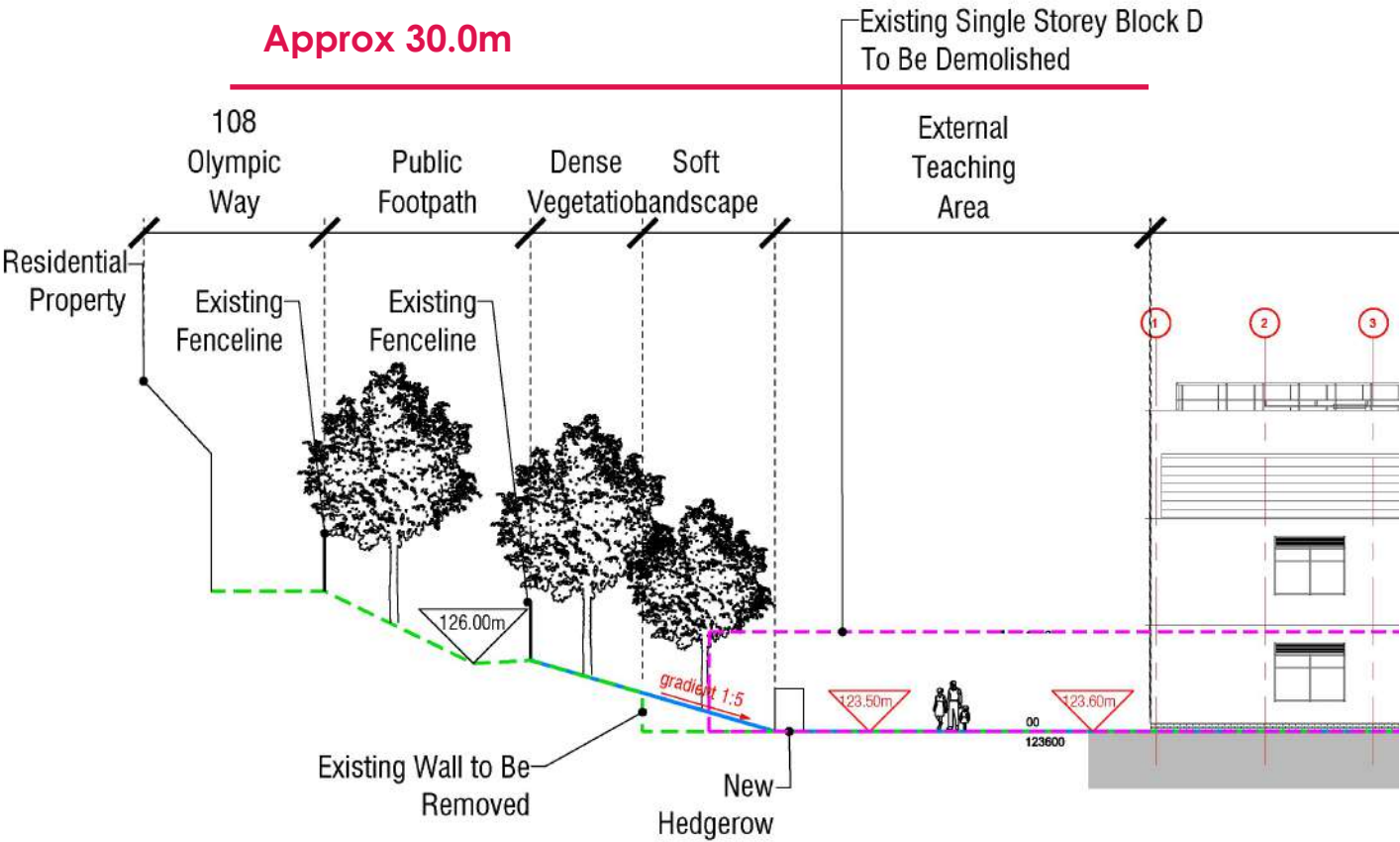
Also separating the building from the dwellings is a mature belt of tall, well-established trees (not shown on model). This belt of trees help to further screen the dwellings from views of the building.

In terms of any overbearing impacts potentially arising from the additional height of the building, it is considered that the separation distance and screening between the proposed building and nearest residential dwellings

would mitigate this and result in no adverse or unacceptable impact.

The proposed separation distances meet the requirements / standards of local policies and accepted principles of development.

There are no additional dwellings in the vicinity which are at risk of experiencing amenity impacts as a result of the proposal.



Separation Distances

Views from Bradgate Gardens

Existing

Proposed

3.5 Building Layout + Schedule of Accommodation

The internal layout has been developed and designed using DFE standards for layouts and space requirements.

Split over three-storeys the teaching accommodation is divided into teaching departments with associated storage and staff admin spaces.

The diagram below demonstrates the breakdown of the spaces between teaching, staff + admin, LRC, storage and non-net areas. Overall the GIFA equates to 3550m2.

The following pages show the layout of the building. The building features an L-Shaped plan with central corridor space and teaching accommodation either side.

Ground Floor.

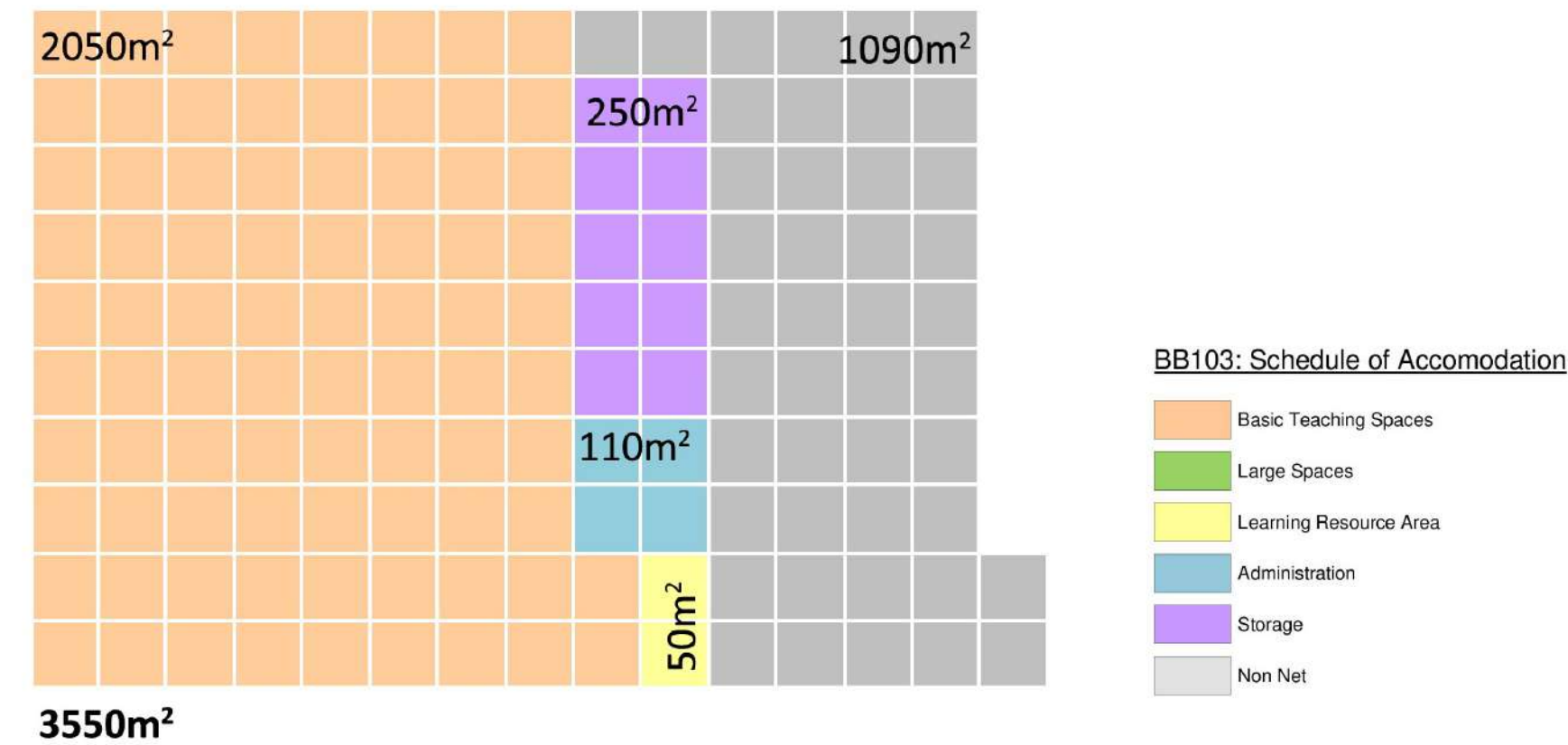
- 2No DT Workshops.
- 1No Textiles Classroom
- 2No Art Classrooms
- 2No Food Classrooms
- Student base + intervention room.
- Prep and storage rooms to serve the teaching spaces.
- Staff admin spaces.
- Central WC core
- Plant rooms.

First Floor.

- 2No ICT Classrooms.
- 6No Maths Classrooms.
- 4No Science Labs
- Satellite Science prep room
- Staff admin spaces
- Student intervention room.
- Central WC core

Second Floor.

- 5No Science Labs
- 2No Specialist Science Labs
- Main Science Prep Room
- Staff Admin spaces
- Pupil WC spaces.
- Plant room
- Roof Access.

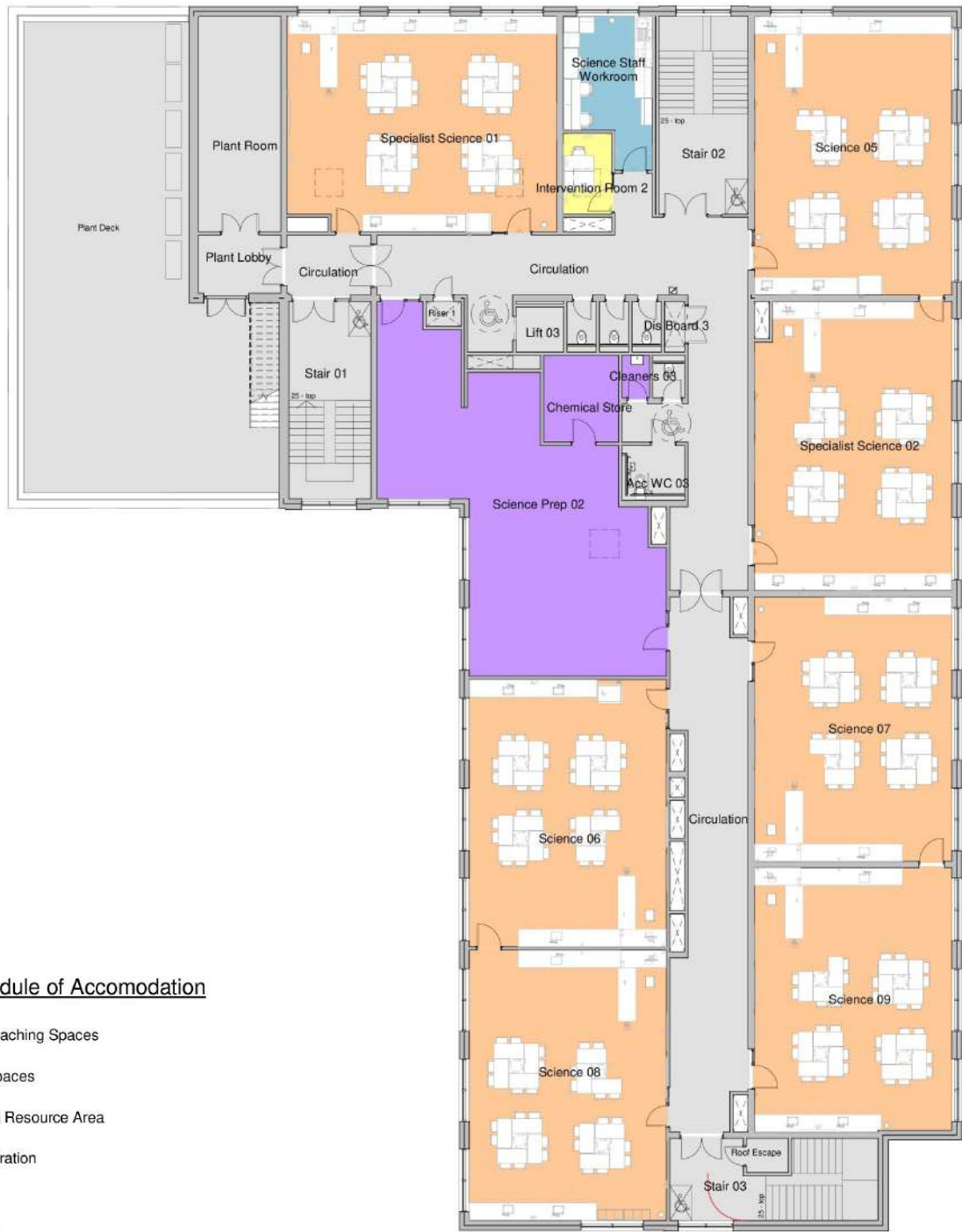


Typical Classroom



BB103: Schedule of Accomodation

- Basic Teaching Spaces
- Large Spaces
- Learning Resource Area
- Administration
- Storage
- Non Net



Second Floor Plan



Roof Plan



Typical ICT Classroom



Typical Science Classroom

3.6 Appearance + Materials

The appearance of the replacement school building has been designed to provide a new, modern and smart building through the use of robust materials and a simple architectural language with logical and repetitive elements for ease of construction.

The elevation treatment is split between the ground and upper floors expressing the horizontal axis of the building.

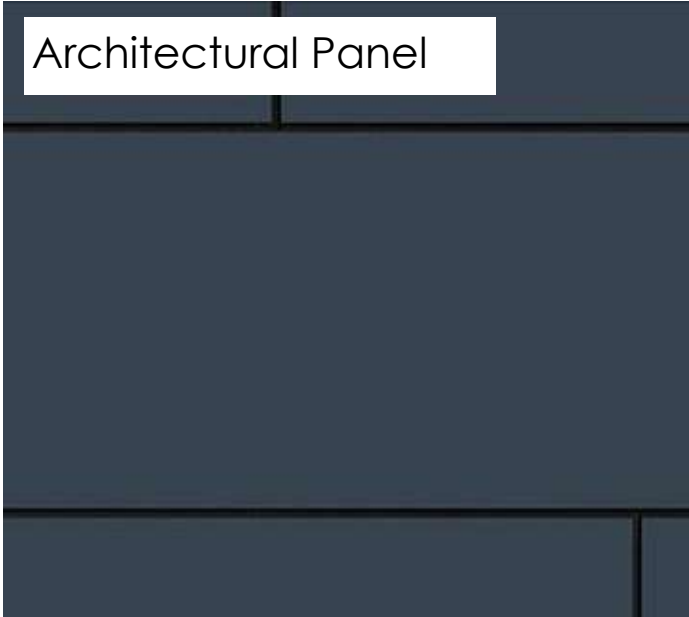
To breakup the massing feature cladding is proposed to the staircores to express vertical elements of the building.

See drawings 2101 and 2102 for further details.



Architectural Panel

Cladding Panel at upper levels.



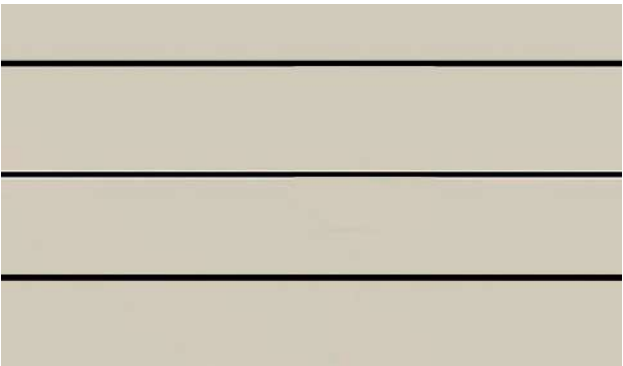
Architectural Panel

Cladding Panel at low levels.



Timber effect cladding

Feature Cladding Planks



Feature cladding at low level



RAL 1019



RAL 7016

Colour to frames, cills etc



Integrated louvres



Aluminium windows



South Elevation



Masonry plinth.

3.0 DESIGN

3.7 Landscape

The proposed site plan has been developed through an iterative process of design and review through Client Engagement Meetings (CEMS) with the DfE, their technical advisors and The Futures trust.

The design has evolved through exploration of the most effective spatial arrangements of key external features and their relationship to both the school buildings and wider external spaces.

The key features of the proposed site plan include the following:

- New school building located in the northeast corner of the site replacing Block D .
- Level access routes to building entrance and exit points will be provided via paving, ramps and stairs from retained teaching blocks and external features.
- Increased level of greening across the site with soft landscaping replacing demolished building areas to provide a biodiversity net gain.
- Cooling benefits are provided to the site through increased vegetation around the building perimeter, strategic tree planting and a biodiverse green roof.
- External canopy shelters providing both shade and structure for PV Units.
- Increased playground provision encouraging physical activity and providing safe external spaces for informal activities and outdoor teaching.



Landscape Plan

Access and Parking

The primary access to the site is from the existing vehicular and pedestrian access points off Butt Lane. Existing staff parking provision shall be retained. No changes are proposed to the existing access arrangements at the external perimeter of the school.

The siting of the proposed building will utilise existing access routes around the site for both pedestrians and vehicles. This will serve, deliveries, refuse collection and emergency vehicles.

A new internal secure line treated with a weldmesh fence will separate playground areas from the vehicle access routes.



Example Weldmesh Fence

Landscaping

The proposed landscape arrangement offers the most effective spatial arrangement of key features taking account of primarily of multiple site constraints in the positioning of the new teaching block in the northeast corner of the site.

A paved playground space will be created immediately adjacent to the new building containing an external canopy and enclosed by a new native hedgerow.

The area of demolished Block B at the upper level of the site shall be landscaped with a central playground contained within surrounding soft landscape including existing mature trees, a new wildflower meadow, rain garden and amenity planting.

The existing trees on site shall be retained with additional native tree planting proposed around the new block and playground areas to provide shelter, shade and seasonal interest.

Outdoor teaching areas will be covered with 3 external canopies providing shelter and shade as well as functioning as a structure on which to install additional PV solar panel units that are required to ensure the building can meet its net zero sustainability targets.

All paved areas will be softened through feature planting areas incorporating an ornamental mixture of flowering shrubs, grasses and herbaceous accent planting. Flat grass seeded areas will provide further area for both teaching and soft informal social space during break times. These areas will feature specimen trees planted to provide shade and visual interest whilst further softening the appearance of the adjacent paving, canopy structures and buildings.

Overall, the development proposal aims to fit within the character of the surrounding school setting and enhance the local environment by using local materials and style in keeping with the area. It would also bring increased

habitat opportunities and biodiversity through increased site greening.

Site Greening

The DfE specification for a new school building states that “Sites shall demonstrate an increase in the level of greening across the site to achieve a biodiversity net gain”.

In order to determine the amount of green cover of a site the DfE proposes that the Urban Greening Factor (UGF) is used in any calculations. The UGF gives a score to different surface types (e.g. sealed surfaces 0, semi natural vegetation 1) which are then multiplied by the area of that surface found on site. The surface type scores are combined and divided by the total site area to give an overall score. The target score is 0.35 for school sites.

The proposed site design indicates a UGF score of 0.367 including areas of green roof, tree canopies, amenity grassland, permeable and sealed paving.

SURFACE COVER TYPE		FACTOR	AREA (m2)
UGF01	Semi-natural vegetation (e.g. trees, woodland, species-rich 1 grassland) maintained or established on site.	1.0	443
UGF04	canopy area of the mature tree	0.8	193
UGF05	Extensive green roof with substrate of minimum settled depth of 80mm	0.7	610
UGF06	Flower-rich perennial planting	0.7	211
UGF07	Rain gardens and other vegetated sustainable drainage	0.7	170
UGF08	Hedges (line of mature shrubs one or two shrubs wide)	0.6	176
UGF09	Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	260
UGF12	Amenity grassland	0.4	1449
UGF15	Permeable paving	0.1	2059
UGF16	Sealed surfaces	0	794
TOTAL AREA OF WORKS			6365
URBAN GREENING FACTOR			0.367

Green Roof Selection – a semi-intensive biosolar green roof system is proposed which incorporates a biodiverse selection of versatile plants that will grow both around and in the shaded areas beneath the roof mounted PV units, greatly increasing the vegetated area across the building roof.

BB103 External Areas Assessment

Building Bulletin 103 (BB103) sets out non-statutory area guidelines for buildings and grounds in mainstream school settings.

The site area is split into three main categories:

- Net site area, which is the usable site area available to pupils.
- Non-net site area, which supports the functioning of the site and includes the footprint of buildings and access areas such as paths, roads and parking.
- Supplementary area, which is used for non-school or support functions such as specially resourced special needs facilities.

The net site area is further divided into the following five categories of outdoor space:

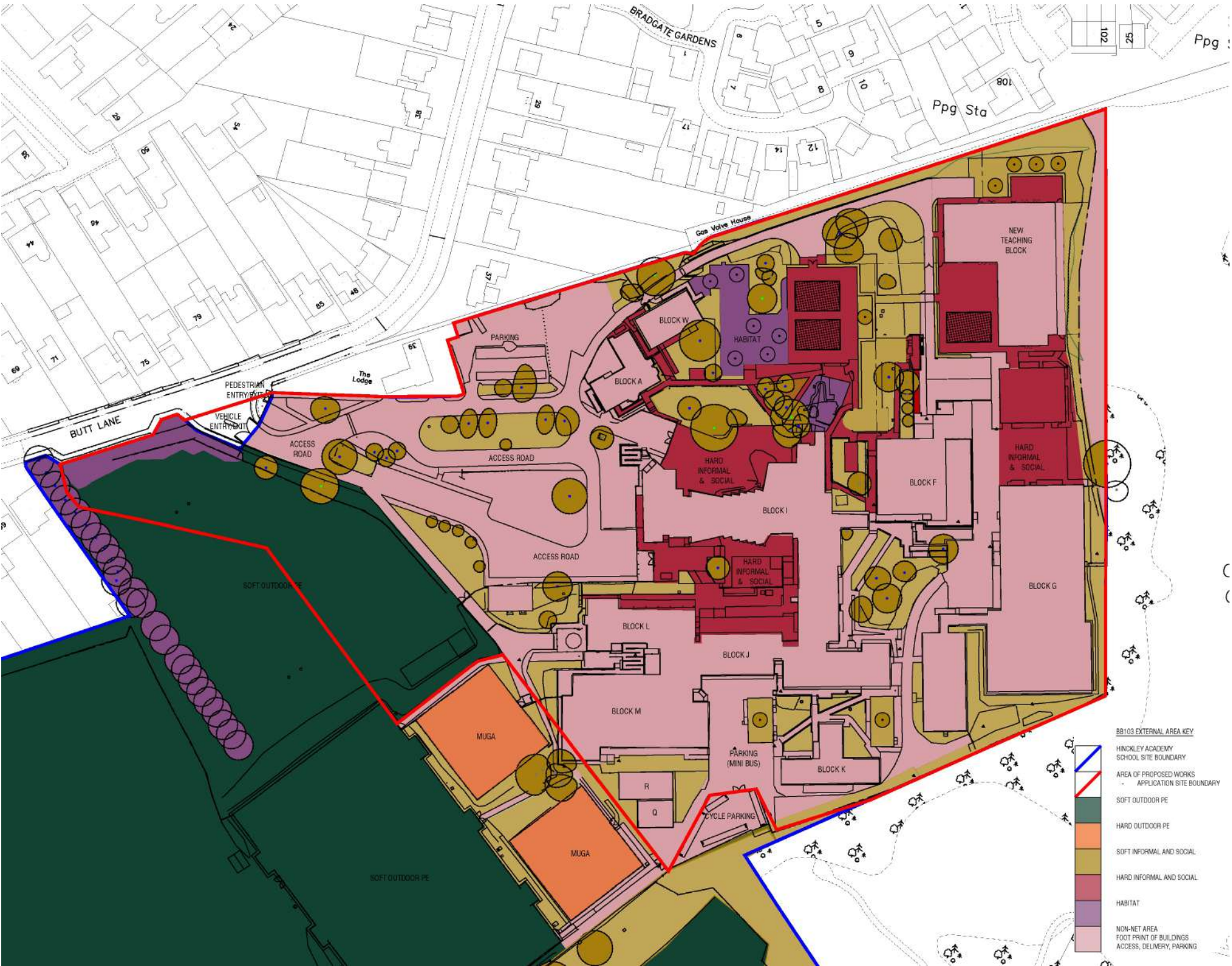
- soft outdoor PE
- hard outdoor PE
- soft informal and social area
- hard informal and social area
- habitat areas

At Hinckley the proposed replacement building footprint is smaller than the existing teaching blocks to be demolished which results in an increased amount of Net Site Area in the categories of:

- soft informal and social
- hard informal and social
- Habitat

Consequently, the Non-Net Site Area, (which is the external parts of the site not used for teaching or social e.g. roads, paths, building footprint etc) will be reduced by an equivalent amount.

HINCKLEY SCHOOL		BB103 Areas (m2)			
		Minimum Required	Pre-Development	POST-DEVELOPMENT	Variance
1. Soft outdoor PE		56750	116897	116897	60147
2. Hard outdoor PE		2575	2134	2134	-441
3. Soft informal and social area		3500	40739	41752	38252
4. Hard informal and social area		1650	3692	6732	5082
5. Habitat		725	5538	6222	5497
Float		8050	0	0	-8050
Net Site Area		73250	169000	173737	100487
Non Net Site Area		8250	12959	8222	-28
Gross Site Area		81500	181959	181959	100459



BB103 Area Plan

Biodiversity and Ecology

The following habitat types were recorded within the application site:

- Amenity Grassland;
- Scattered broad-leaved trees
- Intact species-poor hedgerows
- Hardstanding
- Buildings
- Open Water

Habitat Retention and Protection: The development proposals have been designed to allow for the retention of all existing notable habitats including grassland, scattered broadleaved trees, hedgerows and open water.

Habitat creation has been proposed across the site including:

- Species rich amenity grassland
- Standard Native Tree Planting
- Species Rich Hedgerows
- Biodiverse Extensive Green Roof

The retention of the existing habitats and proposed habitat creation shall deliver an 11.94% biodiversity net gain to the site through the reduction in the building footprint and sealed surfaces being replaced with soft landscaping through amenity grassland, trees, shrubs and a designated habitat area.

Biodiversity Impact Assessment – Existing Habitats (Pre-Development)				
Phase 1 Habitat	UKHabs Habitat	Area (ha)	Description	Value (Biodiversity Units)
Area Based Habitats				
Hardstanding	Urban – developed land/ sealed surface	1.5	The application site houses a school and is made up of buildings, hardstanding, comprising tarmac playground and sports courts, a car park and pathways.	0
Buildings	Urban – developed land/ sealed surface	2.7	16 Buildings are located on site	0
Amenity Grassland	Grassland – Other neutral grassland	11.5	The amenity grassland on the site is considered to be of low ecological value due to the regular management.	46.00
Scattered broad-leaved trees	Broadleaved woodland	1.85	Broad-leaved scattered trees are located at several points around the site. The trees are particularly located adjacent to and in between the buildings on site. Some trees were present around the grassland within the north and south-west of the site.	18.5
Intact species-poor hedgerows	Native Hedgerow	0.63	Intact species-poor hedgerows were located within the site's northern boundary and along the eastern boundary. This habitat is considered to be of good ecological value and has the potential to support breeding birds and commuting and foraging bats.	1.46
Open Water	Ponds	0.02	A pond (waterbody) is located in the centre of the site.	0.1
	TOTAL AREA (ha)	18.2	TOTAL SITE BASELINE	66.06

Biodiversity – Outline Habitats (Post-Development)			
Proposed Habitat Creation	Biodiversity Index	Area (ha)	Value (Biodiversity Units)
Area Based Habitats			
Buildings	Urban – developed land/ sealed surface	1.13	0
Hardstanding	Urban – developed land/ sealed surface	1.5	0
Amenity Grassland	Grassland – Other neutral grassland	11.5	46.00
Scattered broad-leaved trees	Broadleaved Woodland	2.4	21.0
Intact species-poor hedgerows	Native Hedgerows	0.63	1.46
Native Species Rich Hedgerow	Native Hedgerows	0.18	1.38
Wildflower Meadow	Lowland meadow	0.77	3.64
Swale	Urban – swale	0.01	0.03
Green Roof	Urban – Biodiverse Green Roof	0.06	0.34
Open Water	Ponds	0.02	0.1
	TOTAL AREA (ha)	18.2	TOTAL SITE POST DEVELOPMENT
			TOTAL SITE BASELINE
			TOTAL % NET CHANGE



Landscape Materials

The external landscape materials are reflected on the landscape plans and consist of a mix of hard + soft materials with new tree planting and amenity planting.



Vehicle /pedestrian paving - Grey/ black asphalt



Amenity Planting - Sound and Scent



Amenity Grass Seeding - Playing Fields



Amenity Planting - Visual and Seasonal Interest



Tree Planting - Shade and Screen



Amenity Planting - Sound, Movement and Touch

3.0 DESIGN

Noise and Air Quality

Planting shall be used wherever possible around the perimeter of the new school building to improve air quality and improve site cooling of larger paved areas. The retention of existing mature trees on site as well as new tree and hedgerow planting offers green acoustic screening of noise from playground areas as well as improving air quality.

Native trees, hedgerows, amenity planting beds and a green roof will maximise the opportunity to improve air quality throughout the site.

External Canopy Design

The DfE specifies that the development must incorporate low and zero carbon technologies including photovoltaic (PV) panels.

The building roof is the main area of provision (218 PV Panels) with a further 180 PV units provided via the external canopies of the outdoor teaching area to the west of the building.

The solar canopies will provide shelter and shade to the teaching area alongside energy generation for the school building.

Solar canopies are proposed each housing 60 PV units. The PV units will be fitted to a steel frame mono-pitch structure of 3.0m minimum height to prevent climbing opportunities and provide satisfactory aspect to maximise sunlight capture.

The steel frame shall be galvanised and coated in Anthracite Grey RAL 7016 to match the tone of the building.



Canopy Examples

3.8 Sustainability

As part of the DFE Framework Hinckley Academy is being developed with sustainability principles as the main driver for the design. The school building is proposed to achieve Net Zero Operational Carbon utilising a fabric first approach.

A core principle of the approach the DFE are taking with replacement buildings is to ensure that they achieve Net Net Zero Operational Carbon. These standards and targets are comparable to BREEAM Excellent and the following page sets out how the DFE Output Specification requirements deliver a building comparable to BREEAM Excellet.

The fabric first approach is followed by on-site renewable technologies including Air Source Heat Pump systems for heating and domestic hot water, as well as photovoltaic panels as part of a bio-diverse green roof.

Energy Hierarchy

The proposal will be designed with the principles of the Energy Hierarchy, whereby energy and carbon are minimised through passive means such as fabric improvements and hybrid ventilation. Thereafter, low-zero carbon and renewable technologies are implemented where appropriate.

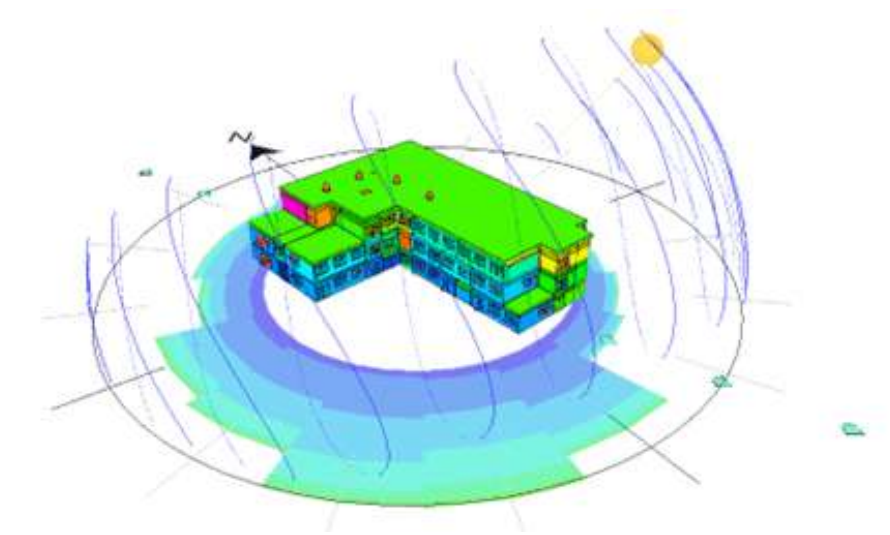
Air Quality Modelling

Acoustic and air quality modelling has been undertaken to ensure the building meets all school performance requirements and will not be impacted by its proximity to local roads or buildings. Carbon dioxide sensors will be located within all classrooms to help monitor and control internal air quality.

Building Envelope

Hinckley Academy has been designed to achieve Net Zero Operational Carbon for regulated and unregulated energy, through a thermally efficient building envelope, all electric services and an on-site solar photovoltaic array.

The school building has been designed and modelled in line with the principles of the Energy Hierarchy so to provide a future proofed, sustainable, and comfortable environment for the pupils and staff. The image below shows the current thermal model for the proposed school building.



Energy associated with space heating has been minimised by a highly efficient fabric, airtight structure, and careful thermal bridging strategy all of which are achieved through robust offsite construction.

Natural Daylight

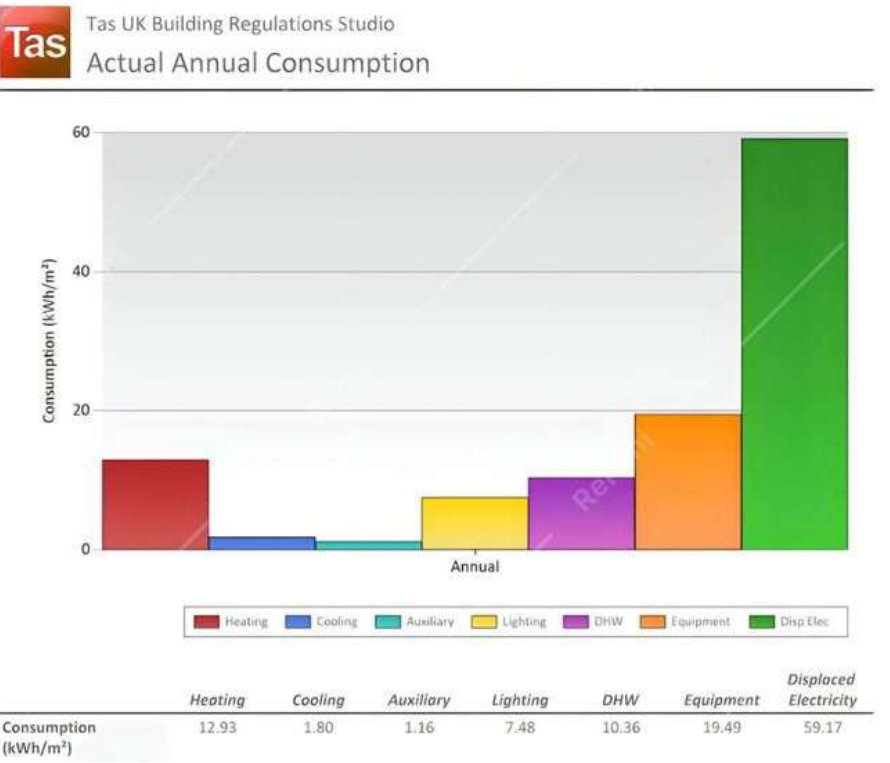
All the teaching spaces, offices and communal areas have been designed to achieve high levels of natural daylight utilising Climate Based Daylight Modelling. Achieving high levels of natural daylighting will not only reduce the energy demand for lighting, but it improves the wellbeing for pupils and staff.

Ventilation

Ventilation throughout will be hybrid, supplemented by openable windows, or mechanical heat recovery ventilation, to maintain a comfortable environment in terms of air quality and acoustics.

As part of the detailed design n assessment of Embodied Carbon shall be undertaken. Reds10 utilise PAS 2080 to evaluate whole life cycle of the carbon used on projects which promotes reduced carbon with the building being assessed at RIBA Stages 4 & 6.

The anticipated energy use of the building is indicated below, based upon Part L2 methodology.



BREEAM

The proposed replacement block at Hinckley Academy will be designed and constructed in accordance with the Department for Education's Output Specification 2021 (OS2021). This document, which includes Technical Annex 2J (Sustainability), has been recently updated to mandate the highlight standards in sustainable design.

The full document is freely available to download from the gov.uk website, but please see below for a summary of how OS2021 meets or exceeds the minimum requirements of BREEAM 'Excellent' (New Construction, Version 6 – 2022):

Man 03 Responsible construction practices: Reds10 always registers sites with Considerate Constructors Scheme and are currently targeting a score of 40. Reds10 most recent sites have achieved a score of 39.

Man 04 Commissioning and handover: OS2021 requires a detailed schedule of commissioning/testing and a building user guide to be produced.

Man 05 Aftercare: Part A (General Conditions) and Technical Annex 2F (Mechanical Services) of the OS2021 set out the commissioning and aftercare procedures Reds10 are required to undertake in the 12 months following completion. These align with the requirements of the commissioning-implementation credit.

Ene 01 Reduction of energy use and carbon emissions: OS2021 requires Operational Energy and Carbon to be calculated to demonstrate that Net Zero Carbon in Operation (at handover) is achieved. BREEAM only requires this level of performance when an Outstanding rating is targeted.

With reference to Thermal Comfort, the DfE Output Specification 2021 requires the building to be assessed utilising a 2080 weather file however BREEAM New Construction only requires weather files up to 2050 to be assessed for naturally ventilated buildings and 2020 for mechanically ventilated buildings. It can therefore be seen that the DfE Output Specification is mandating a

higher level of performance for the building than BREEAM New Construction.

Ene 02 Energy monitoring: The sub-metering of end-use categories credit here is covered by the requirements of OS2021 Technical Annex 2H(Energy).

Wat 01 Water consumption: OS2021 Technical Annex 2A (sanitaryware) sets requirements such as effective flush volume of toilets, and litres/min flow rate for wash hand taps, which will satisfy the improvements over baseline performance as required for these credits.

Wat 02 Water monitoring: To satisfy Criterion 1 a water meter is provided in accordance with BS EN 14154-1

Mat 03 Responsible sourcing of construction products: 100% of the timber and timber based products used on the project will be 'Legal' and 'Sustainable' as per the UK Government's Timber Procurement Policy in line with Criterion 1.

Wst 03 Operational Waste: As this is replacement block project, the waste management strategy of the existing school will remain unchanged and is outside the scope of this project.

The above are the minimum credit requirements for BREEAM Excellent, in addition to this an overall score of 70% in other credits will be required. From BREEAM Assessor input on previous Reds10 projects, it is highly likely that this will be achieved via compliance with the full DfE Output Specification and Technical Annexes, along with Reds10 other certifications such as Considerate Constructors Scheme and ISO 140001.

Reds10 also engage the services of a BREEAM AP to assist with this process. On all of Reds10's Department for Education projects, a detailed embodied carbon assessment is undertaken at design stage as part of our ongoing PAS 8020 strategy.

3.9 Access Statement

The scheme has been designed to meet the requirements of Building Regulations Approved Document Part M and the Equality Act 2010. These requirements are met through the following provisions:

Pedestrian Access.

Existing pedestrian access remains from Butt Lane and Woodland Road to the south. Once on site pedestrians either visit the School Reception or if they are pupils are able to enter the secureline. The new building is located entirely within the secureline of the school.

Access to the new building is via existing pedestrian routes via external staircases and ramps throughout the school campus.

Vehicle Access.

Vehicle access to the school site is unaffected by the proposals with the main entrance on Butt Lane leading to the retained / unaffected car parking spaces.

With no change in the pupil or staff numbers the existing car parking arrangements remain as existing with Part M accessible spaces adjacent the main building entrance.

Vehicle delivery access is afforded to the new building via the maintenance road running on the north boundary of the school site. This road leads to a turning head adjacent the DT Workshops.

Emergency + Maintenance Access.

Existing emergency access to the school site is unaffected by the proposals. Access to the new building can be gained via the

access road on the north boundary of the site that then enters the securline of the school via a controlled access point.

Cyclists.

The school currently has separate staff and pupil cycle storage. With no change in the pupil or staff numbers the cycle storage facilities are unaffected by the proposals.

External Doors.

New door thresholds will all provide level access into the building. All entrance doors will provide a minimum clear opening to meet the building regulations.

Internal Circulation.

Minimum clear widths will be maintained in corridor spaces and internal doors. The corridors provide a minimum clear width of 2.4m which is above the requirements for Building Regulations.

As part of the DFE Output Specification all new school buildings include a passenger evacuation lift. This is proposed in the centre of the building.

WCs

Each storey of the building includes a Part M compliant accessible WC.

The pupil WC suites include ambulant cubicles and enlarged cubicles to suit differing needs of pupils.

4.0 SUMMARY

4.0 SUMMARY

This full application provides Hinckley School with the essential replacement teaching accommodation to meet the requirements of a modern school.

The design has been developed through analysis and evaluation of key issues surrounding the proposal with close involvement with the school and consultation with the Local Authority and public.