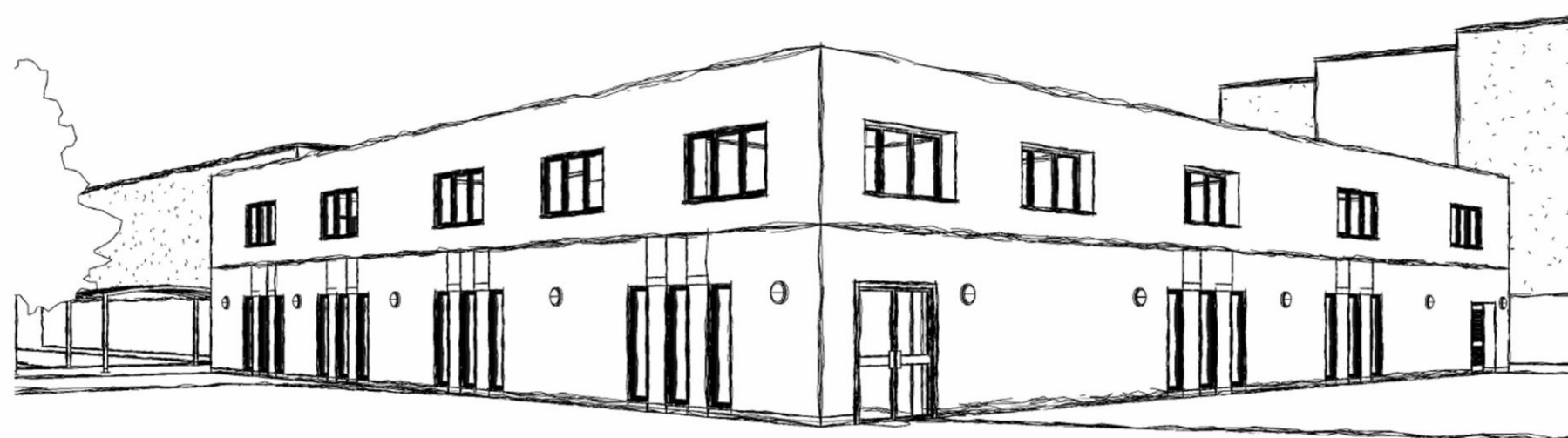
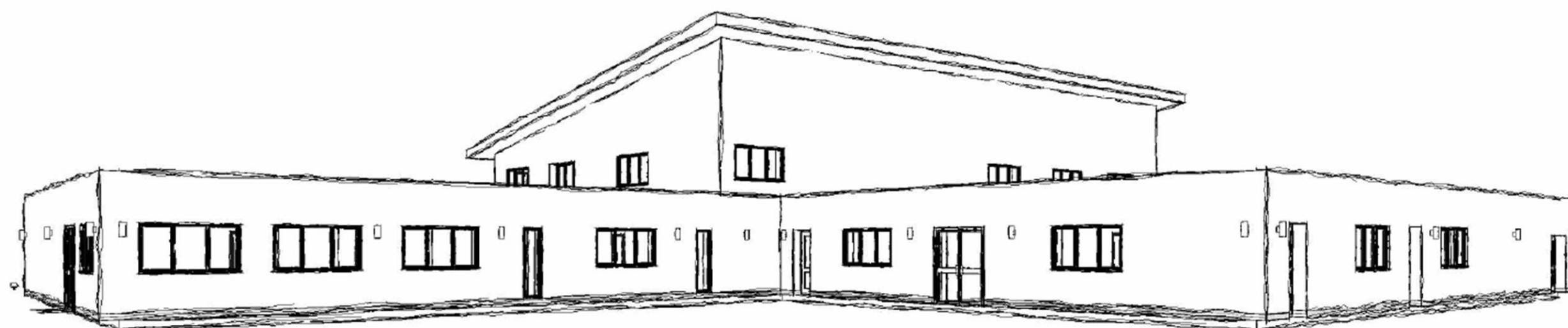




MANCHESTER COMMUNICATION ACADEMY

Harpurhey, Manchester

August 2023 – Design & Access Statement

CONTENTS

- 1.0 Introduction
- 1.1 Executive Summary

- 2.0 Existing
 - 2.1 Existing Site
 - 2.2 Opportunities and Constraints
 - 2.3 Facilities Analysis

- 3.0 Concept and Scheme Development
 - 3.1 Concept and Scheme Development
 - 3.2 Developed Options

- 4.0 Proposed Design
 - 4.1 Pre-Planning Proposals
 - 4.2 Material Palette
 - 4.3 Proposed Interiors
 - 4.4 Proposed Landscaping
 - 4.5 Site Considerations

- 5.0 Environmental Standards Statement
 - 5.1 Energy Efficiency
 - 5.2 Renewable Energy
 - 5.3 Environmental Design
 - 5.4 Water Management
 - 5.5 Waste & Construction Management
 - 5.6 Biodiversity

1.0 Introduction

1.1 Executive Summary

Lancaster Maloney Martin Limited have been appointed by the Greater Manchester Academies Trust to deliver an expansion scheme at Manchester Communication Academy located in Harpurhey, Manchester. The proposals consist of two new build blocks to accommodate additional pupil numbers in-line with Manchester City Councils plan to address urgent need within the local community for increased school places due to local developments increasing the local population.

LMM are delivering the scheme acting as Principal Designer and Contract Administrator for all RIBA Stages 0-7. This document follows the submission of a business case which was issued to MCC on 26 May 2023.

This Design & Access Statement outlines current proposals for the development of the site, currently occupied as landscaped/hardstanding areas to the School. The intention behind this statement is to consolidate information from Stage 1 to 3 providing an overview of the key decisions made during the design process, developing into a formalized design ready for submission of planning application and progression to RIBA Stage 4 Technical Design Stage.

Within this statement, we include the architectural design from initial concept to proposed strategy and provide brief overviews on the strategies employed for designed options, materials selection, interior design and sustainability considerations.

Key Dates:

Stage 1 submitted to GMAT:	22 February 2023
Stage 2 submitted to MCC:	31 March 2023
LMM Appointed to Stage 7:	25 July 2023
Submission of Pre-Application to MCC:	28 August 2023



ARIAL VIEW OF MANCHESTER COMMUNICATION ACADEMY EXISTING SITE & CONTEXT

2.0 EXISTING SITE & CONTEXT

2.1 Existing Site

The existing school site is a split site with the main school located to the South of Lathbury Road with the school changing rooms and MUGA pitch located to the North within a predominantly residential area. To the North boundary of the school is a Primary School (Manchester Communication Primary School), to the West A664 bypass (Rochdale Road) and to the South and East existing residential housing estates.

The main school was constructed in 2009 as part of the basic need fund and is three storeys consisting of steel frame construction clad externally with a combination of profiled metal sheets and facing brickwork. A later extension was completed to the dining hall which is a glazed extension of portal frame construction.

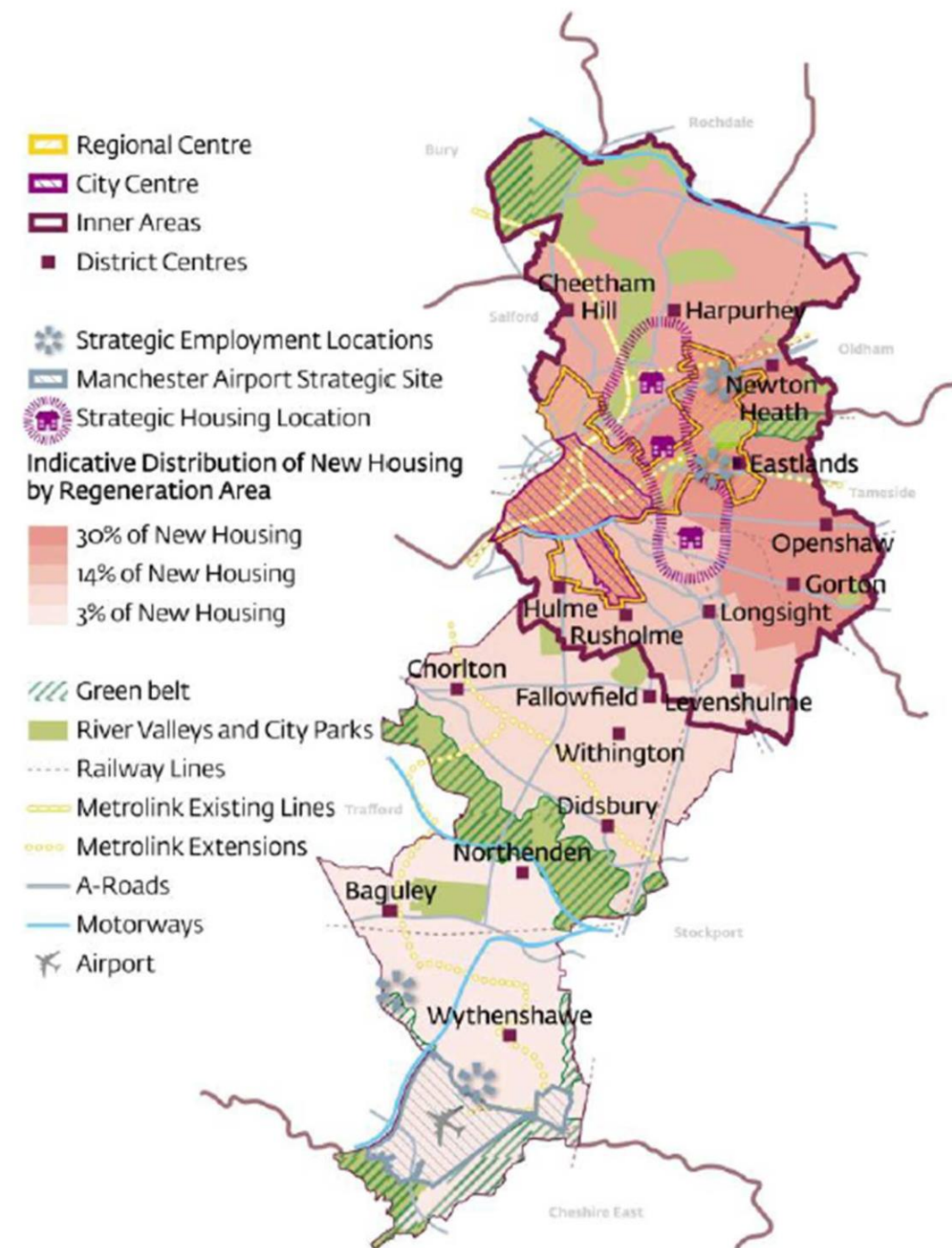
The objective of this project is to extend the existing accommodation to increase the schools published admissions number (PAN). When originally constructed the school had a PAN of 180 students per year group (900 pupils total) which over the years - with small alterations to the existing site – has increased to 240 pupils per year group (1200 pupils total). Due to the educational need for school places in the area MCC asked all schools to submit proposals for expansion. Manchester Communication Academy submitted proposals to increase the PAN to 300 per year group (1500 pupils total) including two bulge classes which the school accommodated at the request of the council from September 2023.

The proposals form part of a strategy to ensure MCC can meet the Manchester Core Strategy 2012 – 2027 document which outlines a target to:

“Maintain level at 100% for GP surgery, a primary and secondary school, an employment area, and a major retail centre”

With continued growth and population statistics released from the Office of National Statistics (ONS) this target is currently failing with a portion of school children who will not have available school places from 2024 resulting in increased travel time to an available school place. Manchester City is identified as the highest risk for this occurring with a risk rating 10/10 one of four cities in the country identifying the level of need for education facilities to expand.

Within the same document, 7.1 – Key Diagram indicates a spatial representation of the core strategy and vision of MCC of how the city will develop through 2012 - 2027. One of the key strategies laid out by MCC within the document are that schools are developed in East Manchester with access to sporting facilities as this is a regeneration area which has been targeted for housing development. This has created increased pressure on local schools emphasizing a need for increased social benefits within the region which extends to education. Manchester Communication Academy is located within East Manchester as shown in the diagram, directly within the area where community hubs will be required due to shared housing and additional 30% new housing being considered, many of which have been constructed or are currently under construction.

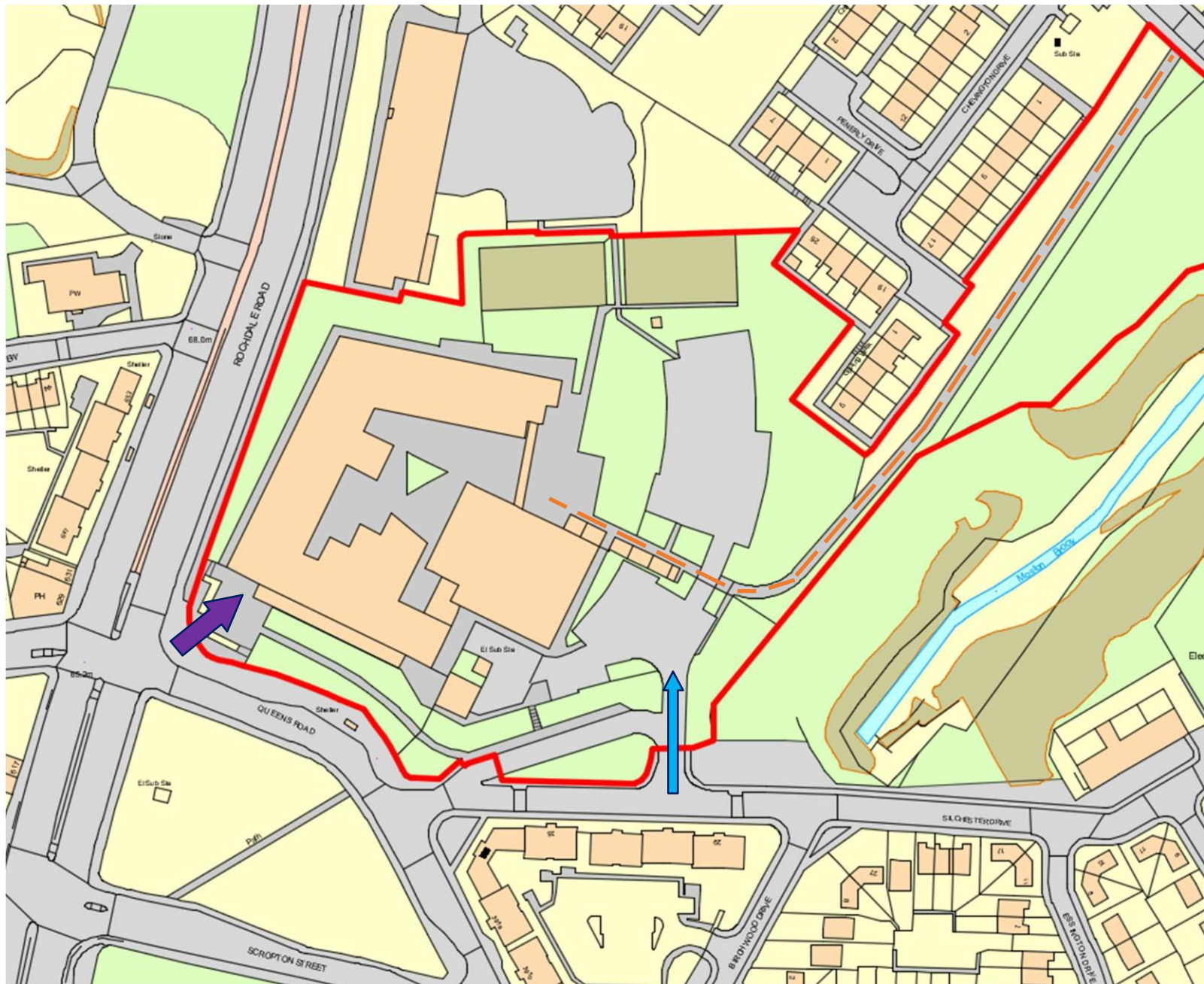


MANCHESTER CITY COUNCIL KEY DIAGRAM
MANCHESTER CORE STRATEGY DOCUMENT 2012 - 2027

2.0 EXISTING SITE & CONTEXT

2.2 Opportunities and Constraints

As part of the RIBA Stage 2 Report site opportunities and constraints were explored to determine the best course of action to minimise the impact of the school expansion on green spaces and local residents.

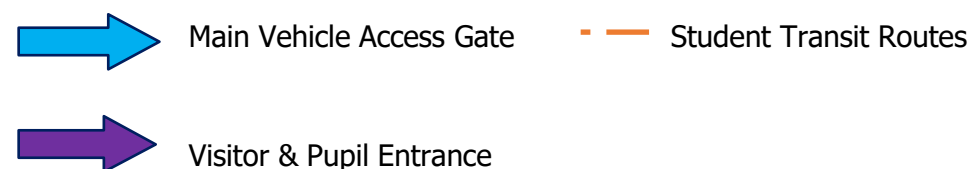


The school is located on an ample sized site, with good road networks and public transport links. The entrance is located on the corner of Roachdale Road and Queens Road as shown on the adjacent plan. The main vehicle access is located off Silchester Drive leading directly onto the school's car park for staff and visitor use.

The main site is limited for opportunities for various reasons which are discussed later within the document on as part of the scheme development within Section 3.

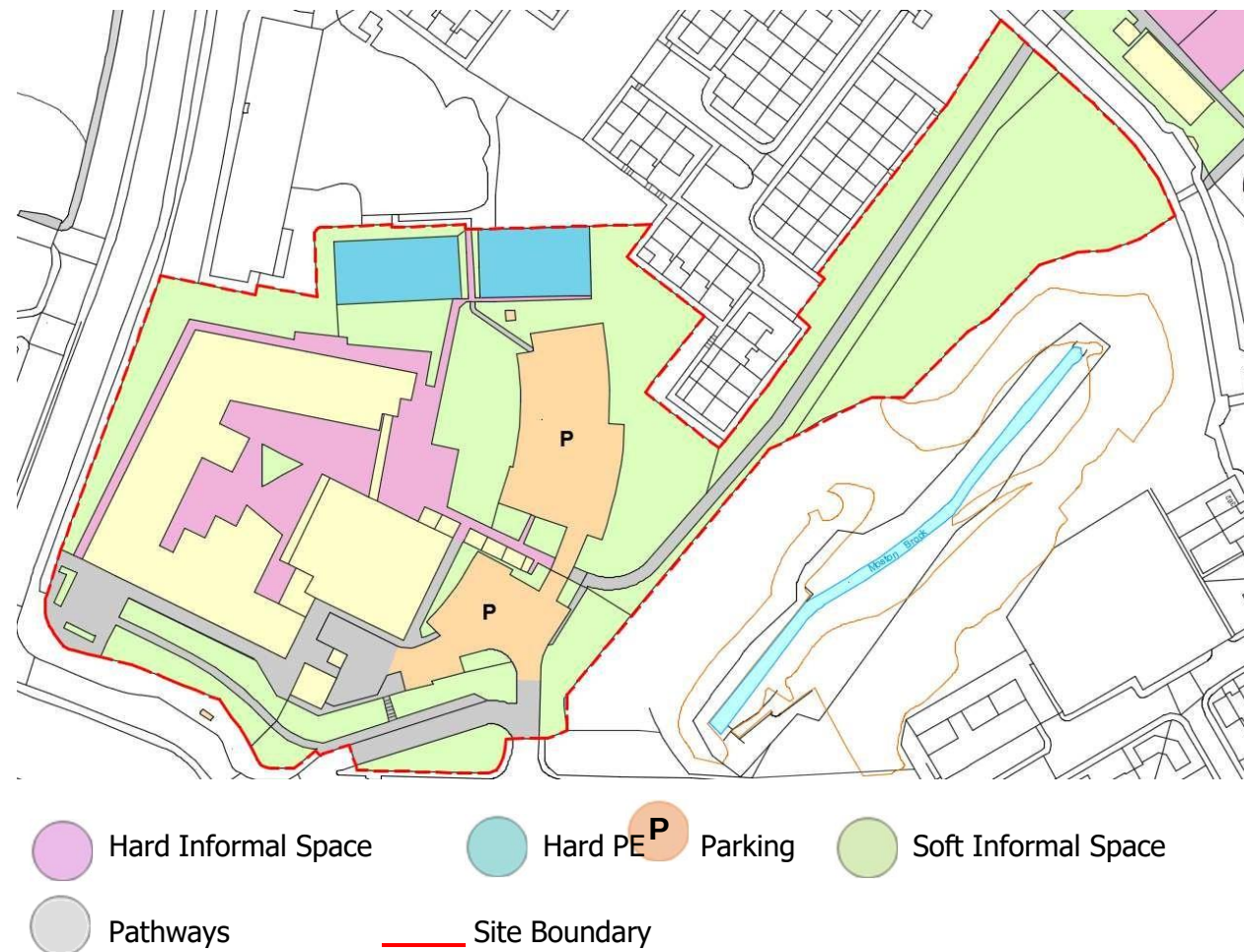
As the site is located within a predominantly residential area the impact of any expansion must be considered for local road networks and surrounding properties to limit any disruption to local amenity. Relevant pre-site investigations will be undertaken and submitted as part of the planning pre-application process.

The main constraint for the school is that the school is split over two sites which can be difficult to manage during class change. This is a key consideration when looking at the potential options as part of the expansion.



2.0 EXISTING SITE & CONTEXT

2.3 Facilities Analysis

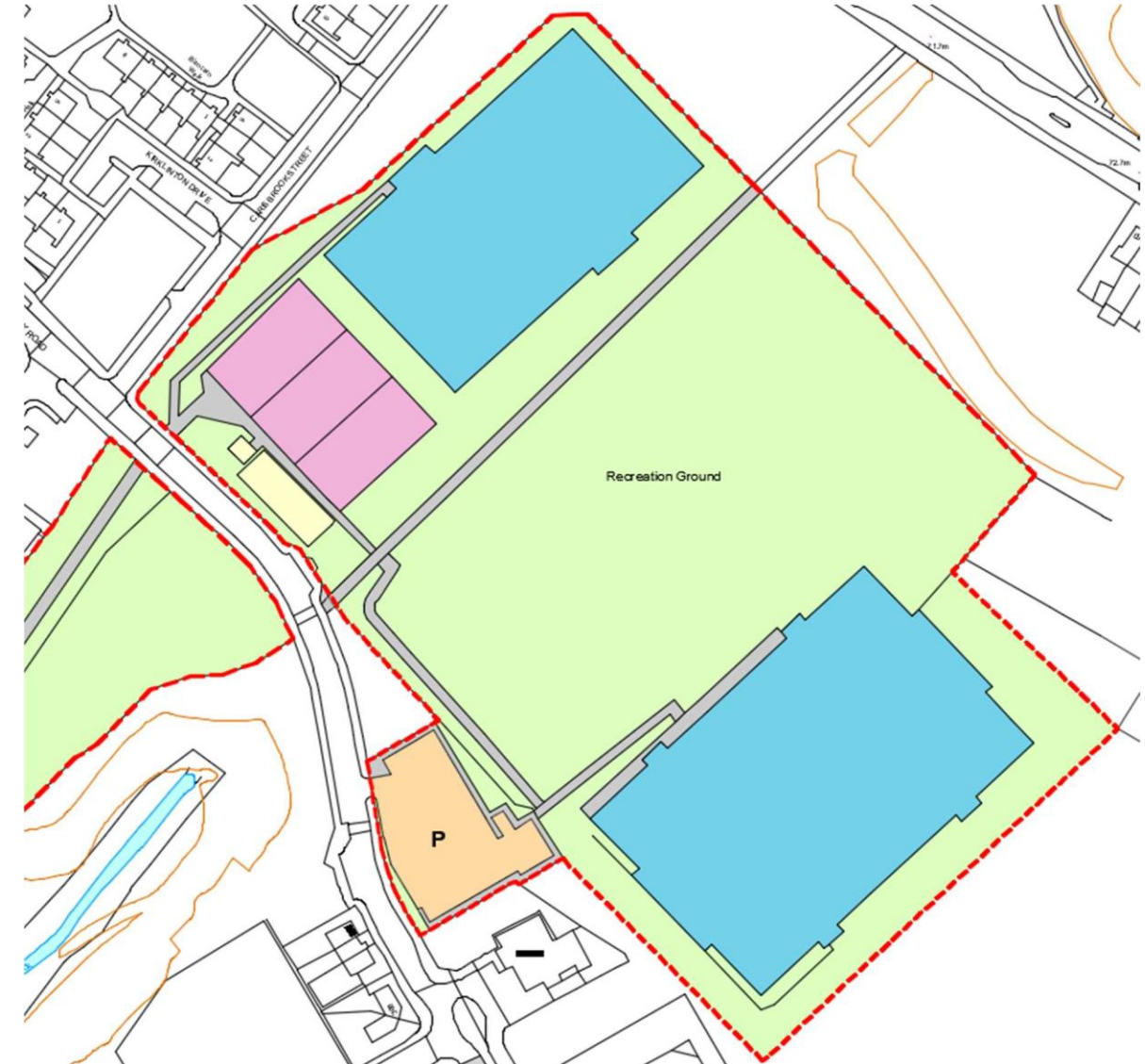


EXISTING SITE AREA: LANDSCAPE STRATEGY – MAIN SITE

Prior to commencing with design proposals an analysis of the existing school facilities was completed and compared with DfE Guidance more specifically conformity with BB103 Area Guidelines for Mainstream School Requirements. A general overview and findings of the BB103 comparison are shown below:

General Overview

- The overall existing site is approximately 75,202m² / 7.5202Ha
- The total open space of the existing site is approximately: 58,456m² / 5.8456Ha
- There are two car parks - one to the East of the main site for staff and visitors and one south of the north site which is approximately: 4,290m² / 0.4290Ha
- The existing hard informal space equates to approximately: 4,753m² / 0.4753Ha
- To the north of the main site and northwest and southeast of the North Site there are a total of four MUGA pitches used for Hard PE lessons with a total area of: 9,943m² / 0.9943Ha
- The remaining site area is a combination of soft informal space and pathways for visitors, staff and students.



EXISTING SITE AREA: LANDSCAPE STRATEGY – NORTH SITE

BB103 Comparison

The results show that the school compares favorably to the requirements set out within BB103 for the majority of sections however, there is a shortfall in usable hard informal space for promoting healthy play through recreational sports for the proposed 1500 pupil places. It must also be noted that 210m² of the hard informal space within the current 4,753m² is on the North Site which is not readily accessible due to the site being across a road which cannot be supervised during break times.

Note: We have not assumed any float or habitat areas within this analysis.

2.3 Facilities Analysis



As can be seen on the existing layout plans, the school was designed with an open plan format which over time has been reconfigured to create individual classrooms. These alterations were undertaken as the acoustics of open plan did not create a suitable learning environment with noise pollution passing between classrooms.

By relocating the practical science labs this will allow for teaching spaces to be created within the main block ensuring subject areas can remained grouped in-line with DfE Guidance.

EXISTING GROUND FLOOR LAYOUT PLAN

2.0 EXISTING SITE & CONTEXT

2.3 Facilities Analysis

- General Teaching Classrooms
- Learning Resource
- Storage
- Staff & Administration
- Non-Net Area



EXISTING FIRST FLOOR LAYOUT PLAN

EXISTING SECOND FLOOR LAYOUT PLAN

3.0 Concept and Scheme Development

3.1 Scheme Development

Option 1 – Internal Alterations

Following the completion of the BB103 Analysis (Area Guidelines for Mainstream Schools) it was identified that there is significant shortfall of area to accommodate the additional pupil places totalling 1,605m². This is predominantly in practical science spaces, general teaching spaces and support spaces.

Upon analysis of the existing school layout certain internal alterations could be completed to increase effective teaching space however, there was still a significant shortfall in area (circa 1,125m²) which means additional floor area is required.

As such this option has been discounted.

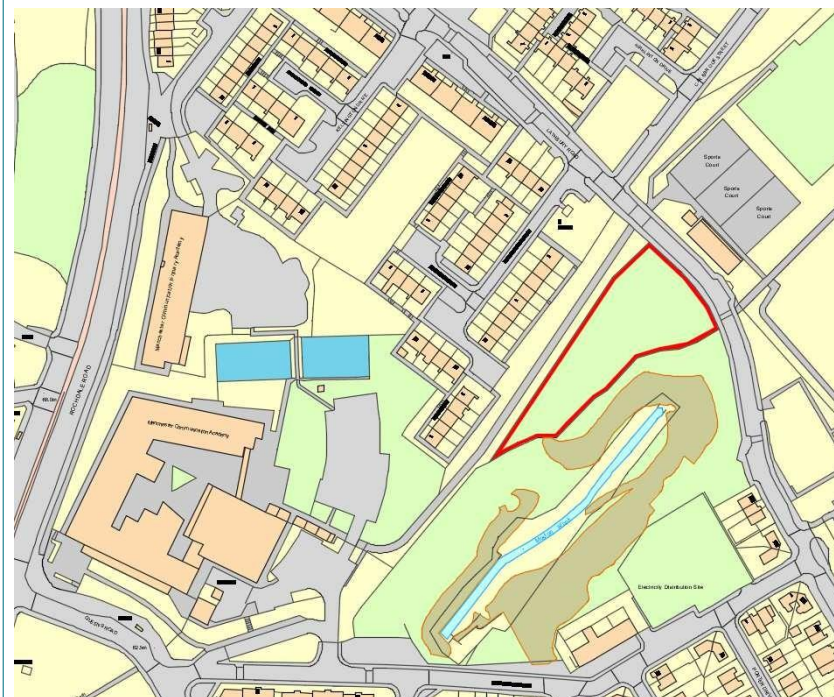
Option 2 – Wasteland

As the internal alterations have been discounted areas for potential extension/expansion were explored. Due to the existing buildings layout extension could not be achieved for the full floor area without significant alterations which would disrupt the flow of the school leaving an end product that does not meet DfE (Department for Education) Guidelines.

To fit the required facilities into a single block a three-storey new build would be required. An area of wasteland was identified to the North-East of the main site as shown on the below excerpt as a potential location for the Block.

After completing preliminary ground investigations, it was found the land was unsuitable due to stability reasons with the land falling away dramatically in level towards the water course. In addition, a three-storey block would impact on the privacy of the housing estate to the West of the proposed site.

Following the findings and site implications this option has been discounted.



Option 3 – Split Site [Preferred Option]

The results of Option 2 identified that a single block is not an option and as such smaller new build blocks would be more suitable.

The School carried out an assessment and found that a Year 7 Block received positive feedback to introduce children to Secondary School providing a transition space.

With this information a secondary site utilising the condemned tarmac area on the north site was identified as a suitable location for the Y7 Transition Block alongside a Science Block on the main school site. As Year 7 are being relocated along with Science Labs from the Main Block, areas can be re-configured internally to create additional general teaching space.

The proposed science block would be two-storey which would have minimal impact on the surrounding properties and the Y7 Block would be a combination of single and two storey with both sites meeting demand as required for teaching spaces.



3.0 Concept and Scheme Development

3.2 Developed Options



PROPOSED GROUND FLOOR LAYOUT PLAN



PROPOSED FIRST FLOOR LAYOUT PLAN

Year 7 Block – Option 1

The first option was to maximise the development area by creating a two-storey block including for all necessary spaces for Year 7 allowing the Block to be stand alone including for ICT rich classrooms, drama studio, dining hall, kitchen etc.

In addition to the above, the Academy Trust requested a base within the Year 7 Block for all Trust staff which would be independent from the school which can be seen on the first floor.

Once completed, the block had a gross external floor area of 3,070m² which was substantial and two storey in form. It was felt that due to the location within a residential area the block should be cut back to the minimum requirements.

After reviewing the initial budget costings and further discussions with both the client and design team, this option was discounted.



PROPOSED GROUND FLOOR LAYOUT PLAN



PROPOSED FIRST FLOOR LAYOUT PLAN

Year 7 Block – Option 2

To cut down the overall area creating a more suitable massing, a curriculum analysis was completed which identified that frequency of use would be low to learning resource areas and so were removed with existing areas in the school being proposed for use when required.

After further consideration with the school, it was decided that although not ideal (due to having to cross the road to the main site) the dining facilities could be removed with the dining hall on the main site being used for lunch times and breaks.

To reduce the overall height of the block the Trust offices were relocated to the ground floor providing a reduced external floor area of 2,385m².

Although this option is an improvement, the design team felt that the massing of the site was still not suitable and the building should be reduced further in size.

3.0 Concept and Scheme Development

3.2 Developed Options



Year 7 Block – Option 3 - [Preferred Option]

It was decided that the Trust offices within the existing building would be re-configured at a later date to accommodate the Trust staff which meant that the offices could be omitted from the Year 7 Block.

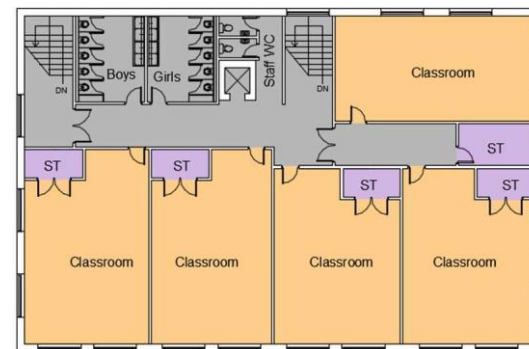
The block was reconfigured to a streamlined option using spaces such as the Hall for multiple purposes e.g. assemblies and drama classes to maximise the frequency of use within the block.

This meant that an optimal balance of specialist and general teaching classrooms could be sought allowing for minimal transitions to the main block whilst still allowing introductions to the main site.

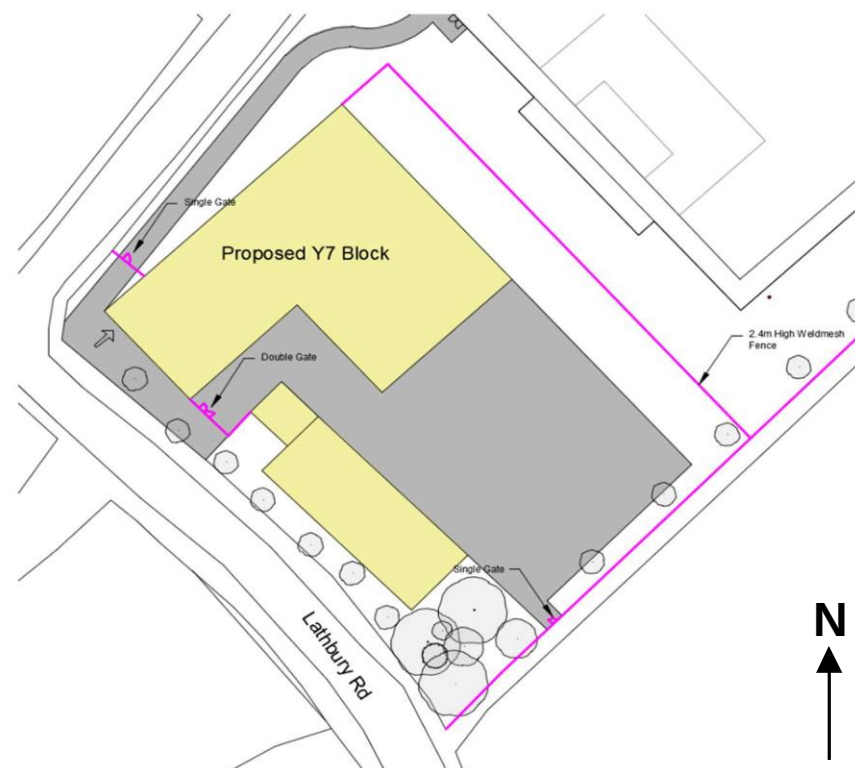
Upon review this option best suited the needs of the client and met initial benchmark costings.



PROPOSED GROUND FLOOR LAYOUT PLAN



PROPOSED FIRST FLOOR LAYOUT PLAN



PROPOSED SITE PLAN

Conclusion on Y7 Design

Having come to a final option which suited the massing of the site and provided essential teaching spaces only the block was placed on the site facing the road allowing for use of the existing zebra crossing which connects the two sites.

A section of hardstanding was added to the south west of the Block to act as a hard informal space making up for the shortfall on the main site allowing the Y7 pupils to use this space during break times.

In-line with DfE safeguarding guidance a 2.4m high perimeter fence has been added to the site to both secure the site and stop interaction between the general members of the public.

The site as a number of sapling trees already present to the site which will be retained as to not affect the street scene of Lathbury road and retain suitable soft landscaping to the site.

3.0 Concept and Scheme Development

3.2 Developed Options

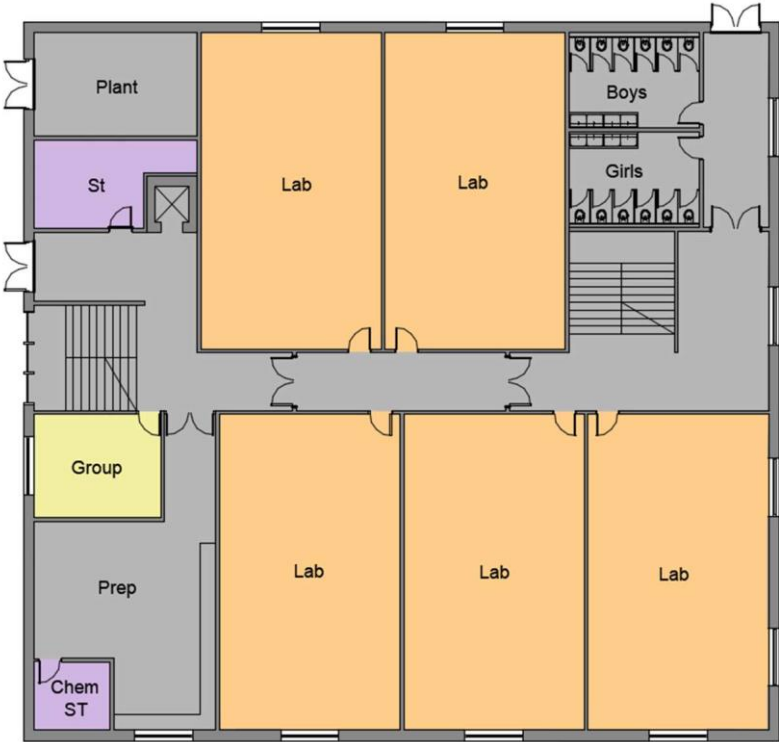
General Teaching Classrooms

Learning Resource

Storage

Staff & Administration

Non-Net Area



PROPOSED GROUND FLOOR LAYOUT PLAN



PROPOSED FIRST FLOOR LAYOUT PLAN

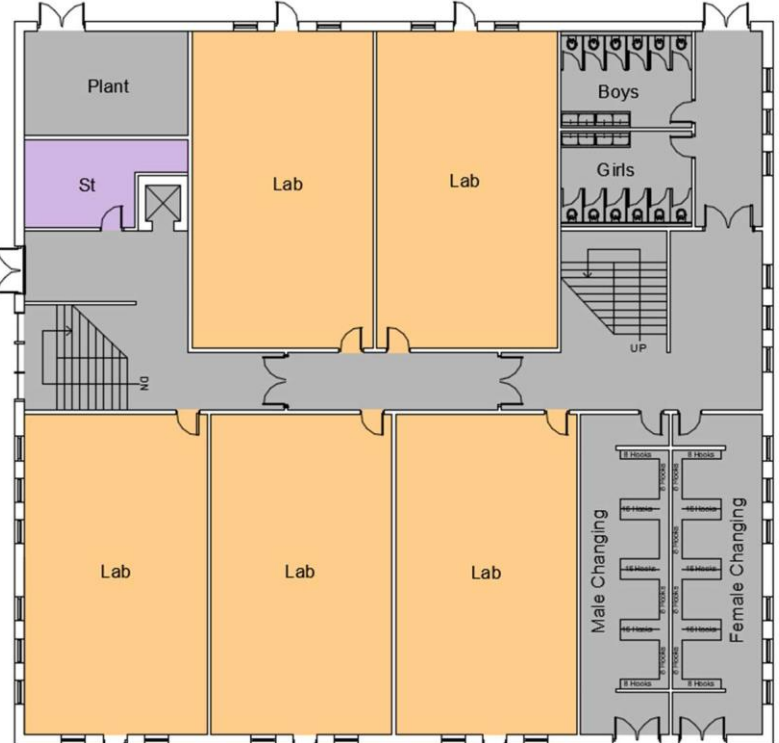
Science Block – Option 1

It was clear from the BB103 analysis what the requirements for the Science Block were which amounted to additional practical space.

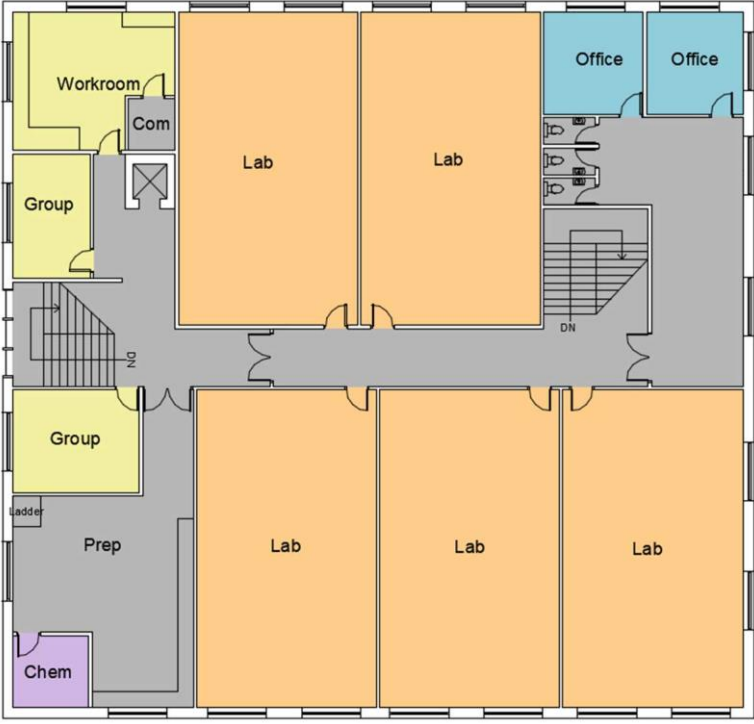
The first option included for multiple practical science labs, staff workroom, prep room and toilet facilities. Within a two-storey building with a similar base design as the main block utilising a combination of facing brick and profiled wall cladding.

Once the curriculum analysis had been completed it was identified that although BB103 recommended 11no additional labs the school’s frequency of use based off the curriculum showed that only 10no were required.

As such this option was discounted.



PROPOSED GROUND FLOOR LAYOUT PLAN



PROPOSED FIRST FLOOR LAYOUT PLAN

Science Block – Option 2 – [Preferred Option]

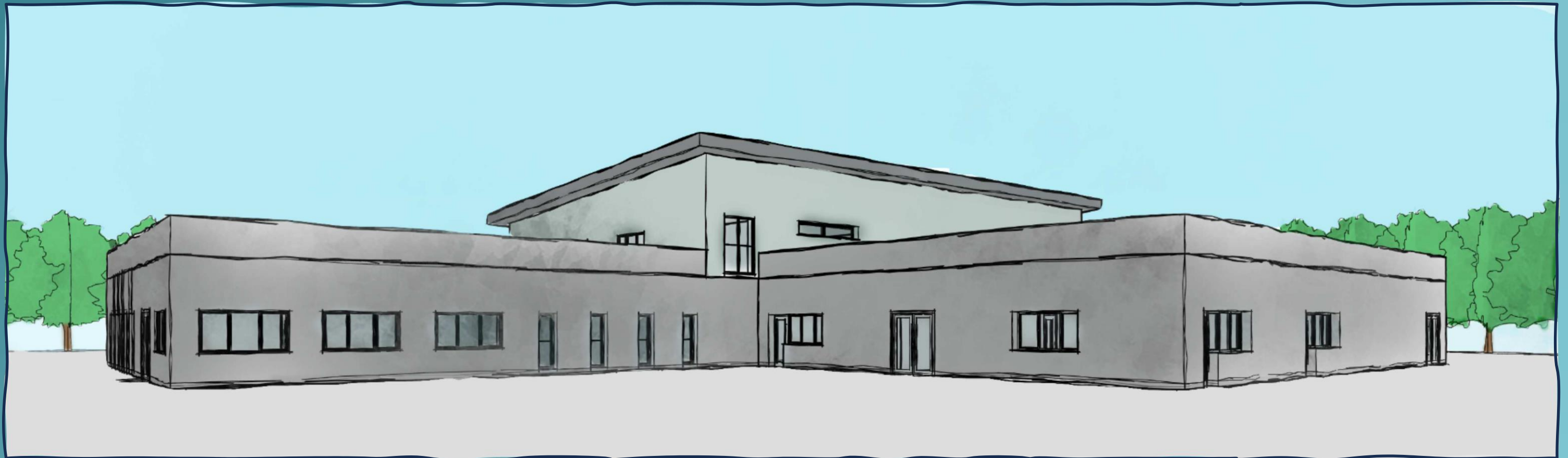
This option has the same form as the first in terms of material selection and design. The internal layout has been altered to reflect the fundings with 1no science lab removed.

As part of the curriculum analysis, it was discovered that the existing changing facilities within the school would have a high frequency of use 112%. This identified that school does not have adequate changing facilities and with the chosen location of the Science Block being next to the Sports Hall and a science lab being removed a changing room has been added to create additional facilities as required to accommodate the additional pupil numbers.

This option met the client’s requirements and initial benchmark costings and as such is the preferred option.

4.0 Proposed Design

4.1 Pre-Planning Proposals



Sketch of Year 7 Block as viewed from the proposed playground

4.0 Proposed Design

4.1 Pre-Planning Proposals



VISUAL RENDER VIEW FROM LATHBURY ROAD



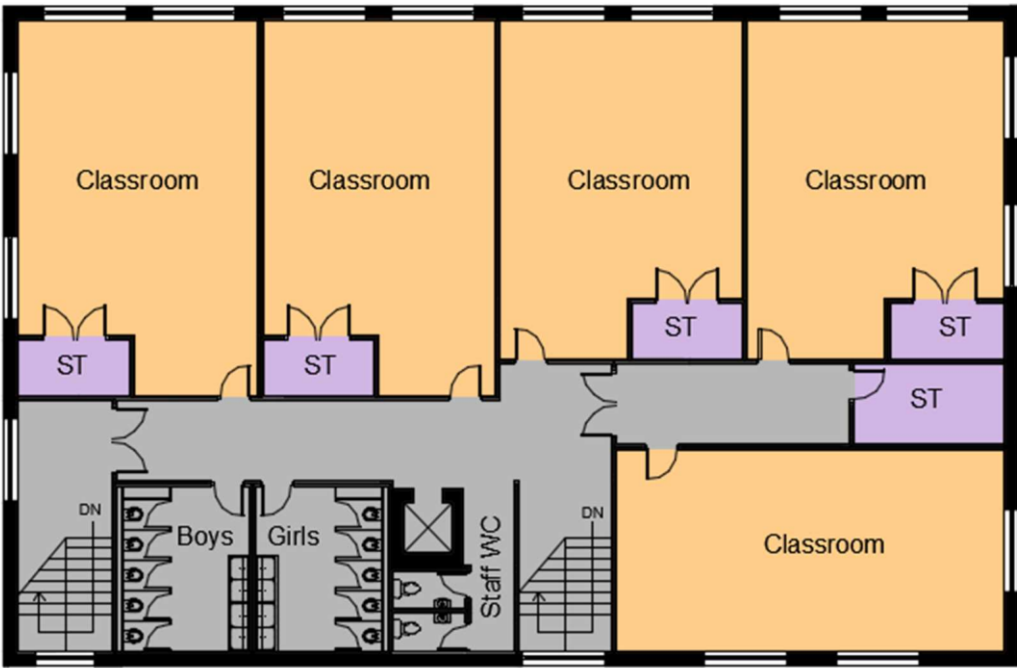
VISUAL RENDER VIEW FROM CARISBROOK STREET

4.0 Proposed Design

4.1 Pre-Planning Proposals



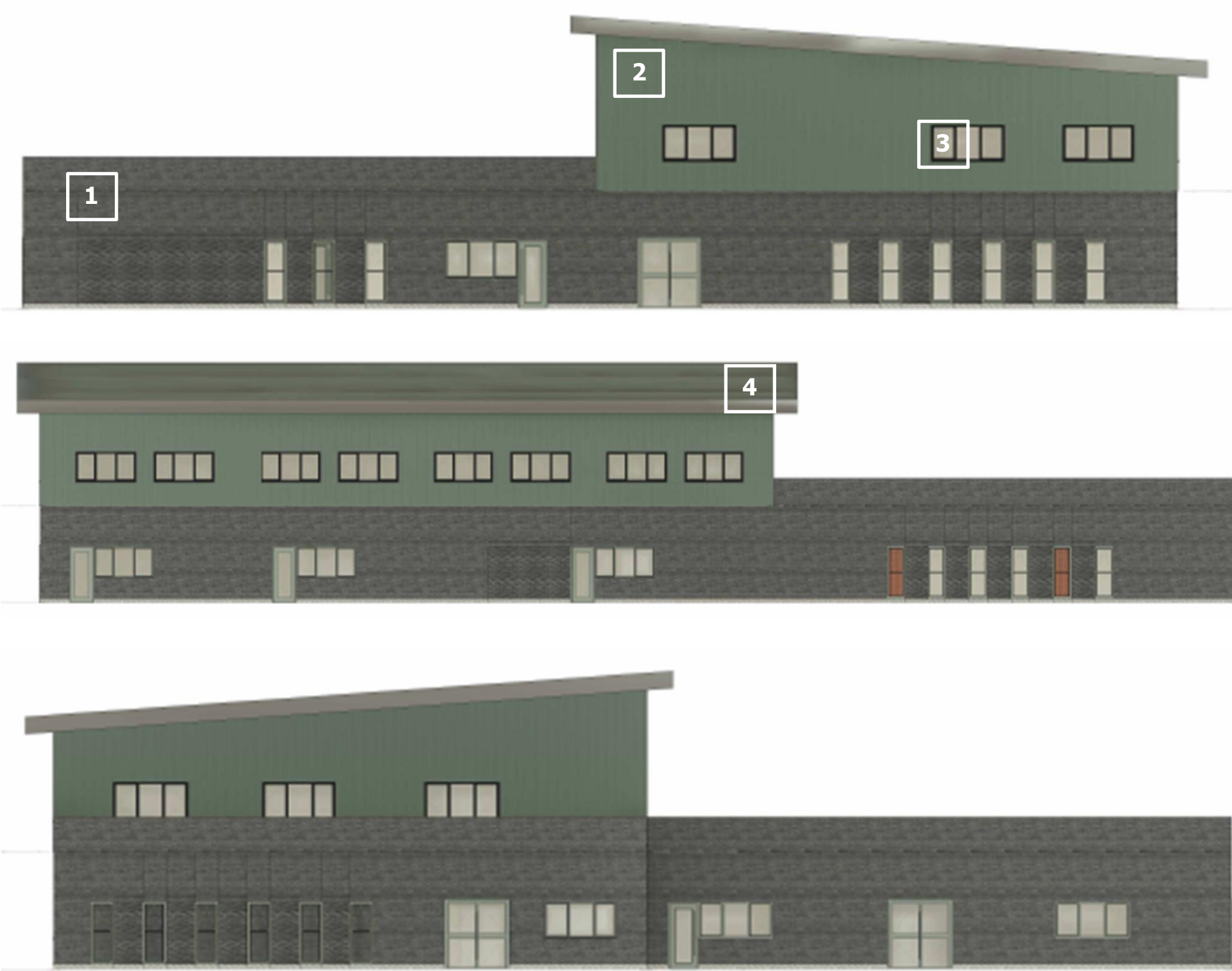
PROPOSED GROUND FLOOR LAYOUT PLAN
Y7 BLOCK



PROPOSED FIRST FLOOR LAYOUT PLAN
Y7 BLOCK

4.0 Proposed Design

4.1 Pre-Planning Proposals



- 1 Grey Brickwork
- 2 Profiled Sheet Cladding
- 3 Aluminum Windows and Doors
- 4 Metal Profiled Roof Sheets

PROPOSED ELEVATIONS
Y7 BLOCK

4.0 Proposed Design

4.1 Pre-Planning Proposals



Sketch of Science Block as viewed from the existing school

4.0 Proposed Design

4.1 Pre-Planning Proposals



VISUAL RENDER VIEW FROM MAIN BLOCK



VISUAL RENDER VIEW FROM CAR PARK



VISUAL RENDER VIEW FROM MAIN BLOCK

4.0 Proposed Design

4.1 Pre-Planning Proposals



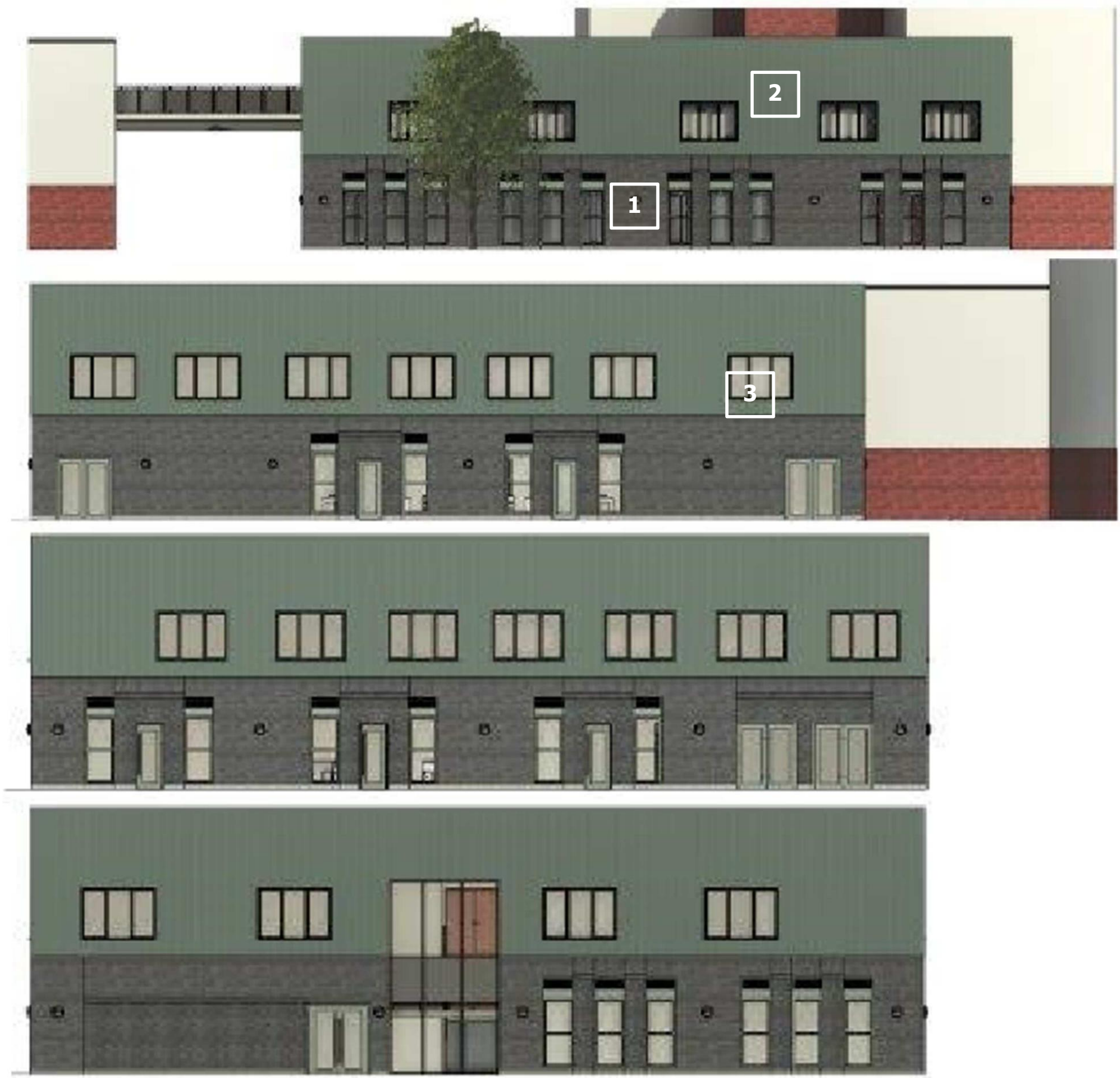
PROPOSED GROUND FLOOR LAYOUT PLAN
SCIENCE BLOCK



PROPOSED FIRST FLOOR LAYOUT PLAN
SCIENCE BLOCK

4.0 Proposed Design

4.1 Pre-Planning Proposals



- 1 Grey Brickwork
- 2 Profiled Sheet Cladding
- 3 Aluminum Windows and Doors

4.0 Proposed Design

4.2 Material Pallet Options

Pallet Option 1 – Grey Brick with Green/Grey Cladding



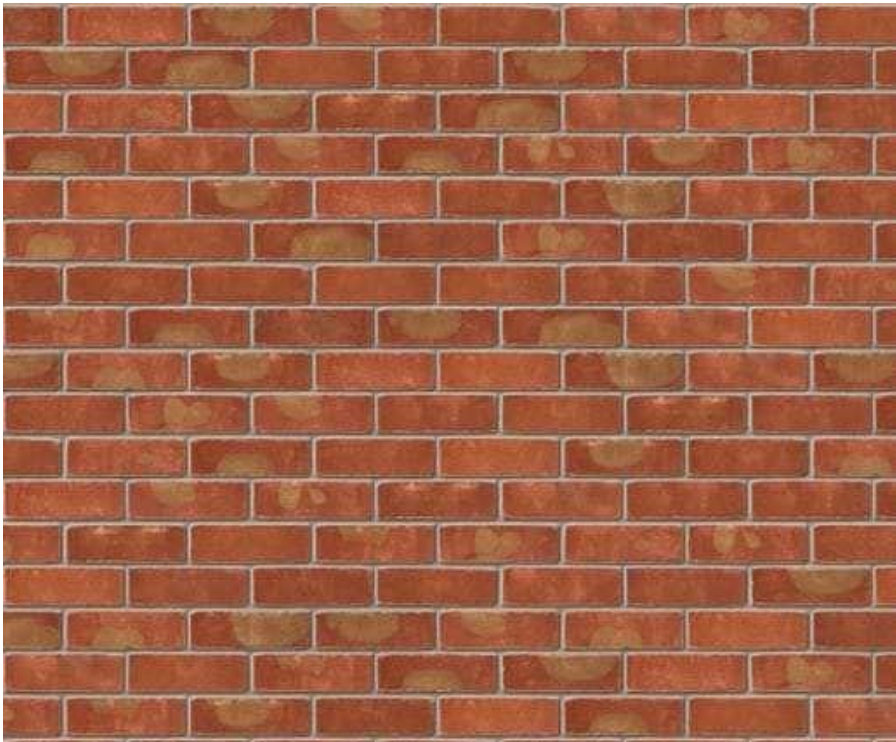
Grey Brick Texture in Stretcher Bond

Pallet Option 2 – Blue Brick with Black Cladding

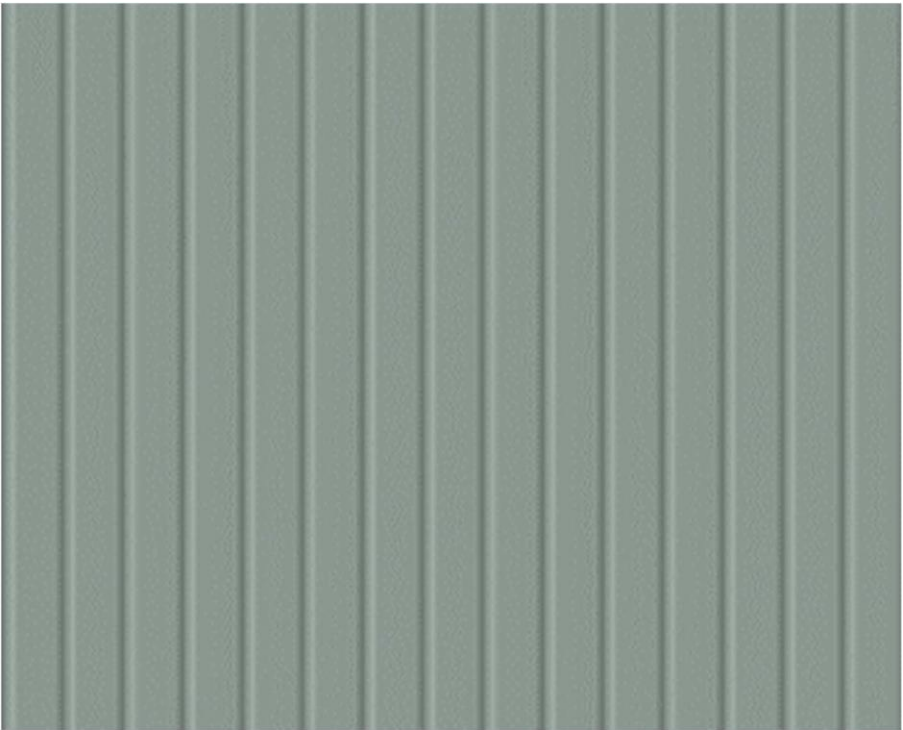


Blue Brick Texture in Stretcher Bond

Pallet Option 3 – Red Brick with Light Render



Red Brick Smooth Texture in Stretcher Bond



Green/Grey Profiled Cladding Sheet



Black Profiled Cladding Sheet



Light Uniform Render

4.0 Proposed Design

4.2 Material Pallet Options

Chosen Materials – Pallet Option 1

The school is a landmark within the local community and as such the materials selected set a clear identity from the wider residential developments whilst maintaining a clear relationship and connection through the use of masonry.

There is precedent for the material pallet with the nearby NERIC (North England Robotics Innovation Centre) Building located 3 miles from the school which has a similar material pallet as shown within the photos to the left.

Aside from the material pallet to break-up large expanses of brickwork, brick patterning has been introduced as shown within the images to the right within recessed sections between windows and over door openings.



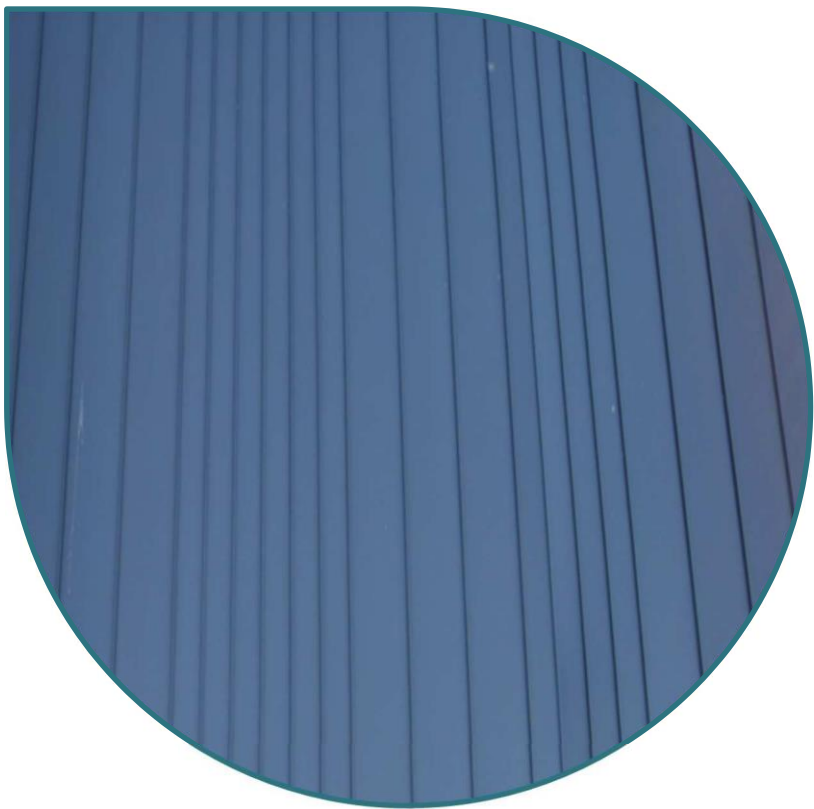
NERIC Building located 3 miles from School



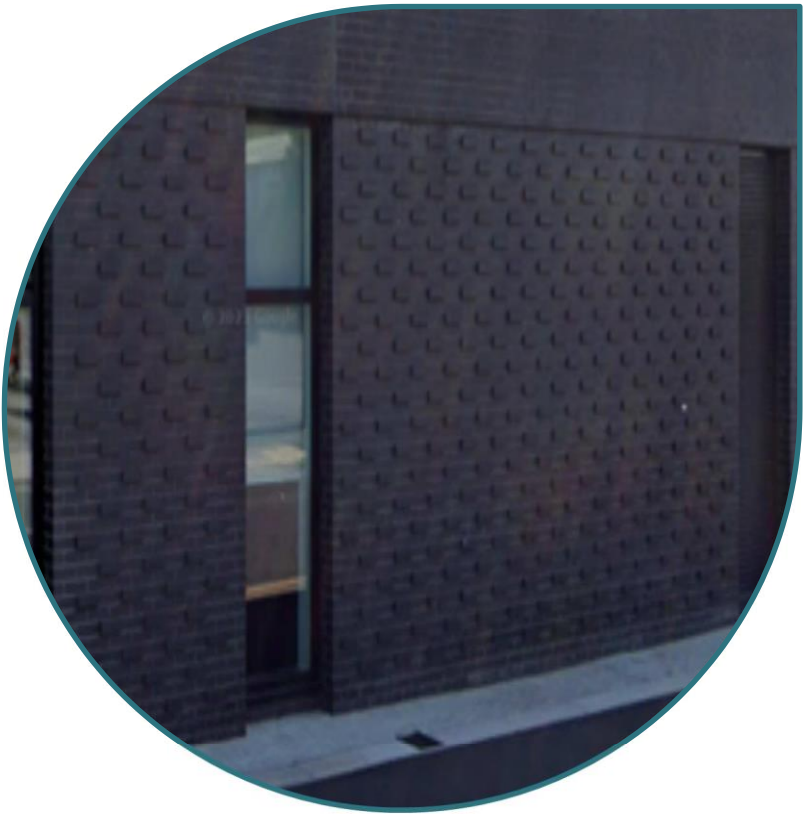
NERIC Building located 3 miles from School



Brick Patterning



Profiled Metal Sheetting



Recessed brick paneling

4.0 Proposed Design

4.3 Proposed Interiors



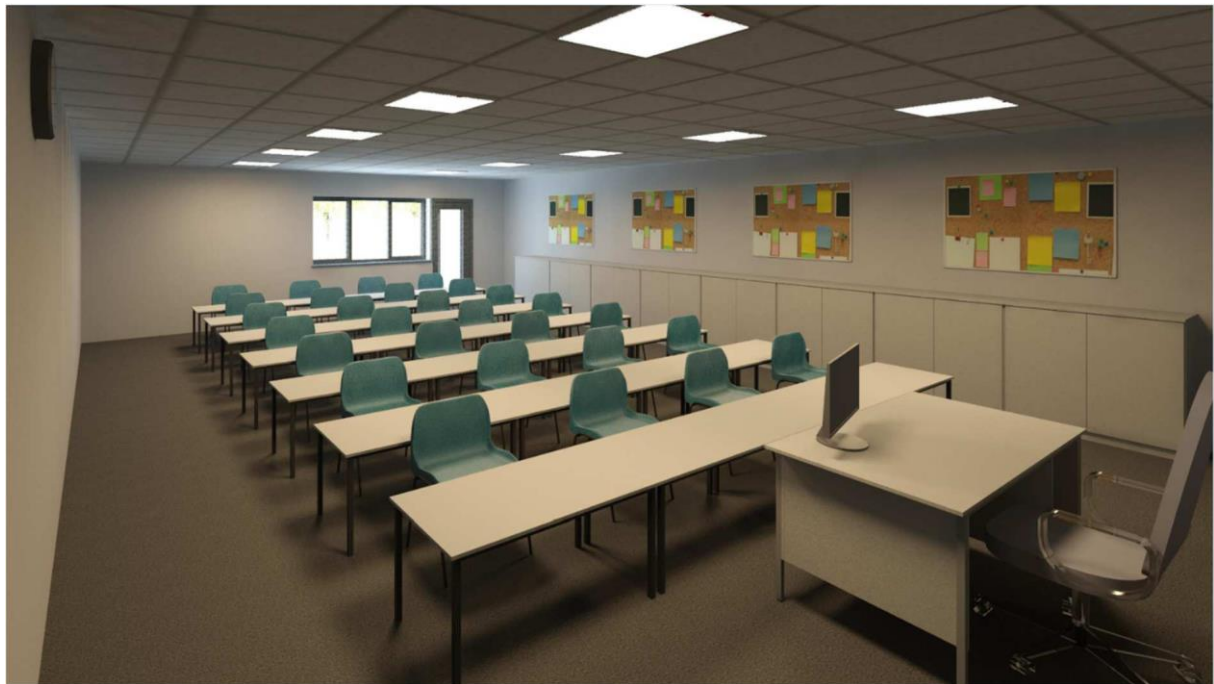
INITIAL SKETCH CONCEPTS LABORATORY
SCIENCE BLOCK



INITIAL SKETCH CONCEPTS OF CLASSROOM
YEAR 7 BLOCK



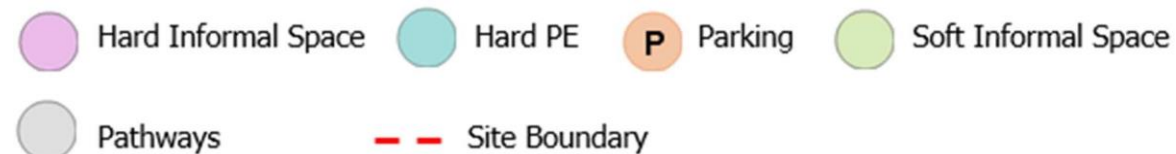
RENDERED VISUAL OF LABORATORY
SCIENCE BLOCK



RENDERED VISUAL OF CLASSROOM
YEAR 7 BLOCK

4.0 Proposed Design

4.4 Proposed Landscaping



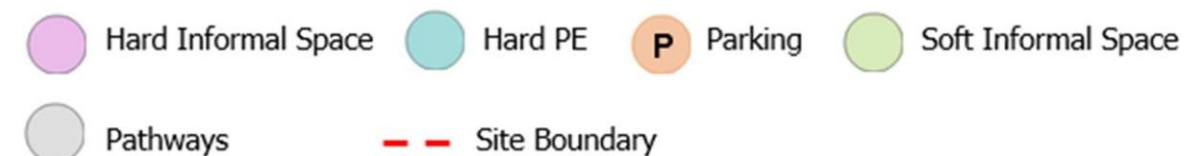
PROPOSED LANDSCAPING – MAIN SITE

When compared with the existing site analysis within Section 2.3, the main site area does not change aside from the new science block and associated hard standing. A small section of hard informal space has been created to ensure adequate hard standing during break times as a result of the additional pupil numbers.

To the North Site, the condemned hard standing has been removed and replaced with the new Year 7 Block and associated playground. Perimeter fencing has been added to meet DfE safeguarding guidelines with adequate space for break/lunch time activities.

The proposed general overview is shown but in summary the below changes have been made:

- Open space reduced by 2,026m² / 0.2026Ha
- Hard informal space expanded by 80m² / 0.0080Ha
- Total soft informal space reduced by 799m² / 0.0799Ha



PROPOSED LANDSCAPING – NORTH SITE

General Overview

- The overall existing site is approximately 75,202m² / 7.5202Ha
- The total open space of the existing site is approximately: 56,430² / 5.6430Ha
- There are two car parks - one to the East of the main site for staff and visitors and one south of the north site is which is approximately: 4,290m² / 0.4290Ha
- The existing hard informal space equates to approximately: 4,833m² / 0.4833Ha
- To the north of the main site and northwest and southeast of the North Site there are a total of four MUGA pitches used for Hard PE lessons with a total area of: 9,943m² / 0.9943Ha
- The remaining site area is a combination of soft informal space and pathways for visitors, staff and students.

4.0 Proposed Design

4.5 Site Considerations

Staffing Requirements

The school has a surplus of teaching staff which means that only supporting staff are needed for the expansion. The current plan is to recruit six members of non-teaching staff to support in administrative tasks and teaching support. The table below shows the schools current staffing number with the proposed.

Existing Staff		Proposed Staff	
Teaching	Non-Teaching	Teaching	Non-Teaching
99	169	99	175

Car Parking

The site currently has two car parks available for use, one is located on the main site and has 90 car parking spaces plus 12 accessible parking bays. The second is located by the north site with 60 car parking spaces plus 4 accessible parking bays. In addition, the main site has three cycle shelters which house 120 cycle spaces.

By planning guidance educational facilities must provide one car parking space per teaching staff and one for every three non-teaching members of staff. By the calculation the school must provide 157 car parking spaces for staff.

The school currently has a private bus lay-by which is disused as the school is not served by private bus or coach. It is proposed that this area is repurposed using chevron parking to create 18 additional car parking spaces bringing the total to 158 car parking spaces.



Bus Lay-By

Sporting Benefits

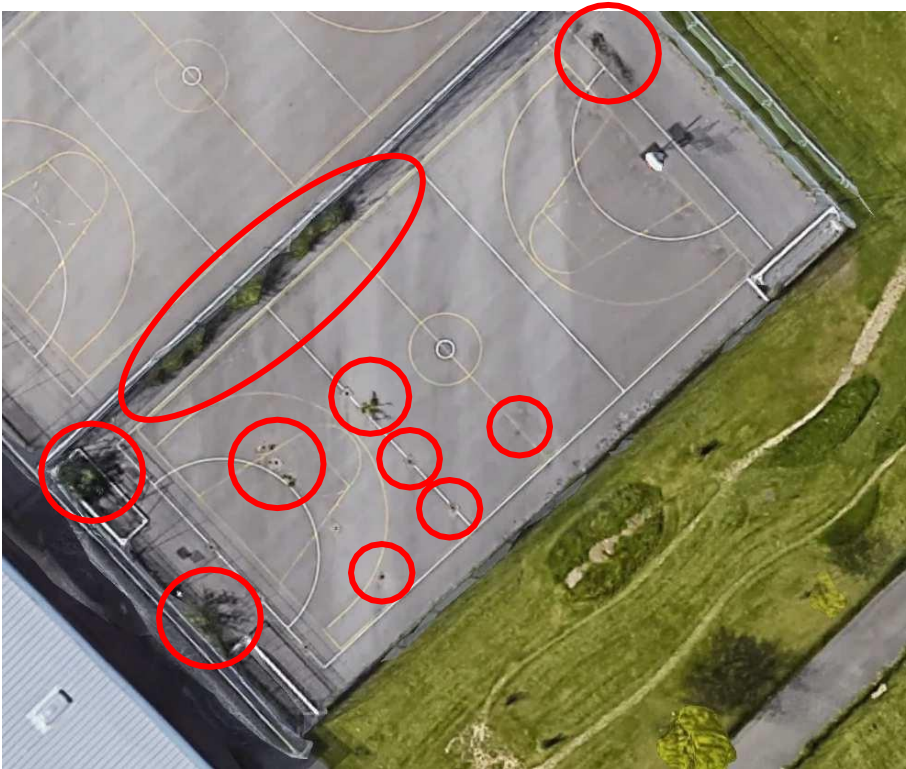
The school’s offers an extensive sporting provision to both students and the local community. On the main site the school facilities include:

- 2no Multi Use Games Areas
- Sports Hall
- Drama Studio

The North Site is the main sports site including:

- 1no Artificial Football Pitch (not FA approved size)
- 2no Grass Football Pitches
- 1no Artificial Football Pitch (FA approved size)
- Long Jump Pit
- Changing Pavillion
- Pump Park
- 2no Basketball Courts (not currently used)

As can be seen on the proposed site layout plan, the Y7 Block is proposed to be constructed within the location of the pump park and 2no disused basketball courts. As mentioned above, the Academy/Trust have considered all options available on the site to not diminish any existing sporting provision. The pump park and 2no basketball courts are not currently used by students or the local community. The pump park has been put out of action due to the Academy being unable to gain insurance for the area due to high risk along with the condition of surfacing. The 2no basketball courts cannot be used due to the surface being in poor condition as shown on the excerpt below.



Condemned Courts

4.5 Site Considerations

The school are heavily invested within the local community with the school offering extensive community use to facilities (sporting and otherwise) boasting 1,900 visitors weekly attending thirty-five different clubs across seven days a week. Eleven football clubs currently use the school's football and MUGA pitches for training including but not exclusive to:

- Collyhurst Youth JFC
- Monston Valley JFC
- Manchester North End FC
- Manchester Football Club
- Manchester Bulls

The school also allow access to its Sports Hall, Drama Studio and Activity Studio for Sports and Leisure including:

- Community Badminton (two sessions per week)
- Cheatham Hill Volleyball (25 members)
- ABC Female Boxercise (one session per week)
- Sikh Martial Arts (50 members)
- Community Yoga (one session per week)
- Army Cadets (Collyhurst detachment – 27 members)

In addition to this the School also offer accommodation to educational and cultural learning clubs and arts clubs (theatre).

The school have a 3G turf pitch which does not meet current FA regulations on the Y7 Block site (image below) which has reached the end of its serviceable life.

As part of the expansion scheme the pitch will be renewed in accordance with FA standards (enlargement with pathways and storage) improving sporting provision. Currently the local community football clubs cannot use this pitch as it is not the correct dimensions to classify as a "full size" pitch. Once the works are completed all clubs have expressed interest in using the pitch for training and fixtures in the future.

To make the pump track available for use to the local community, there are discussions underway with Manchester Active to relocate the track to Manchester Youth Zone who are open to housing the track and can obtain the correct insurances for out of hours usage.

The Year 7 Block playground will be situated over the two condemned netball/basketball courts which are currently unused due to safety concerns. This new surface will create an area of physical activity improving the current hard standing arrangements.

Discussions are currently being held with Manchester Active and Manchester City Council for the school to create and maintain a community playzone within the school site. Details are being confirmed but it is planned that the playzone will be installed as part of this project creating further community use on the site.



North Site Artificial Football Pitch

5.0 Environmental Standards Statement

5.1 Energy Efficiency

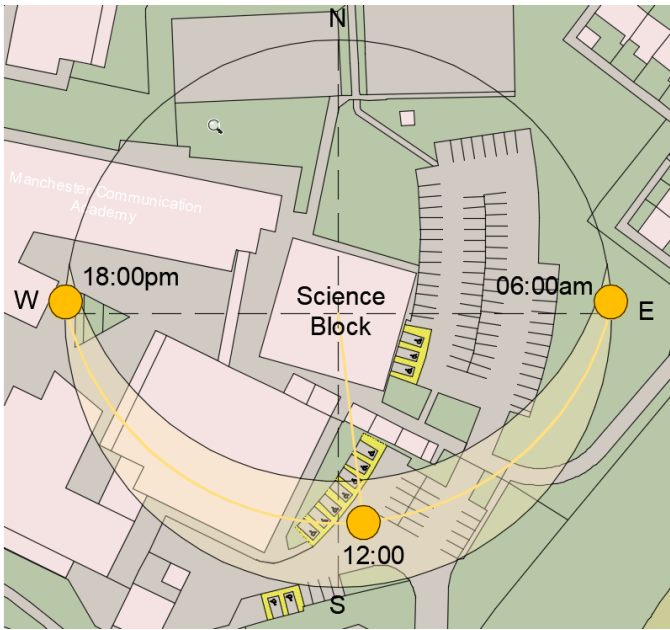
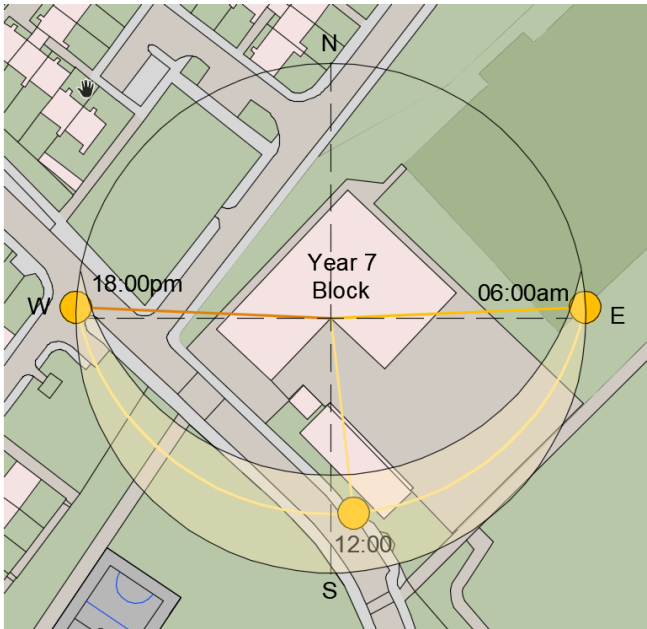
The building has been designed to increase energy efficiencies wherever possible by selecting materials and components which have high thermal efficiencies which reduces CO2 emissions by at least 25% more than the requirements of Building Regulations: Approved Document L2B 2006 as Part 1 Policy E1.5 and Guide to Development in Manchester - Supplementary Planning Document and Planning Guidance (SPD). This has been achieved by implementing the following design principles:

The performance of the building fabric and fixed building services will achieve the below overall standards of energy efficiency:

Fabric Element	U-Value
Walls	0.19 W/(m²K)
Floors	0.17 W/(m²K)
Pitched Roofs	0.16 W/(m²K)
Flat Roofs	0.18 W/(m²K)
Windows	1.5 W/(m²K)
High Usage Entrance Doors	2.82 W/(m²K)

In addition to the above building fabric design principles, energy efficient building services have been chosen both mechanically and electrically to heat and power the building along with energy generation from solar panels located on the roof of the building. The buildings primary source of heat generation will be from air source heat pumps located externally within a fenced enclosure, high efficiency fan convectors have been selected for heat emission within the building to improve thermal convection and in-turn thermal efficiencies of the building.

High efficiency LED lighting with absence detection, daylight sensors and dimming controls will be installed to ensure that energy usage will be kept to a minimum within the building wherever possible. The site layout has been included within the design principles to maximise the use of natural light, as indicated on the sun calculations below, three elevations will receive natural daylight at all times with windows positioned strategically to maximise natural light.



5.2 Renewable Energy

As previously mentioned solar arrays will be incorporated into both buildings to generate power for air source heat pumps which will in-turn generate heat for the buildings. In addition to the new installations, the main block of the school is heated via air source heat pumps which are also powered by a solar array with battery storage which can be used as a backup should exceptionally adverse weather conditions occur. The final site energy demand for the school utilise renewable energy sources which equates to 60% of the site energy demand being generated by sources on-site.

5.3 Environmental Design

When selecting materials for the projects, wherever reasonably practical materials must achieve a BRE Green Guide Rating of A+ which represents the best environmental performance / least environmental impact. The primary materials of the building have been specified from recycled sources with high content of future recyclable opportunities.

5.4 Water Management

The water management plan has been submitted with this planning application, a revised drainage solution has been included to ensure that surface water run off is kept to a minimum to protect waterways and local sewer systems. Calculations have been undertaken which have determined that attenuation tanks are not required with permeable solutions being used where hardstanding has been introduced to promote natural filtration to soakaways.

5.5 Waste & Construction Management

The Principal Contractor will setup recycling centres within the construction site with a waste management strategy which allows for separation of materials into categories for recycling at waste collection sites. A target has been set for this project to achieve at least 60% recycling of waste materials used as part of the construction process. The waste collection area will be located within the contractor’s compound which will be accessible from a temporary roadway for recycling vehicles to collect waste.

5.6 Biodiversity

In line with UDP Part 1 Policies E2.3 and E2.4 an ecological appraisal and Biodiversity Assessment has been completed by an ecologist which has been appended to this document. The results determined that the existing habitat opportunities on-site are poor with most areas being poorly moderated grassland and developed land with sealed surfaces. It is proposed that as part of this development habitats are created including:
Urban – Developed Land; Sealed Surface
Grassland – Modified Grassland
Hedgerows
Trees
The above habitats will create a bio-diversity net gain of 0.22 habitat units (10.81%) which meets the requirements of planning policy and legislation.