Roberts Limbrick

Millom Leisure Centre

10930-RL-XX-ZZ-RP-A-P6000

Design & Access Statement

Client:	Cumberland Council
Author:	Jack McCulla / Luke Ellis / Teresa Hazelwood
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00 Contents

01 Introduction

1.1 Introduction

This Design and Access Statement has been prepared by Roberts Limbrick (RL) on behalf of Cumberland Council in support of the Full Planning Application for the development of a Leisure Centre at Millom School to help progress the Councils associated Towns Fund application.

1.2 Project Brief

The brief has been to provide a new leisure centre that meets the needs of the local community. The facilities are to include new health and fitness facilities, including a swimming pool and changing village, multipurpose activity studio, fitness gym and four court sports hall.

In addition, the facility will create a valuable social hub with the inclusion of a community cafe and new changing provision that will meet requirements for both the new indoor facilities and existing external facilities.

Externally the parking is to be extended to serve both the existing school and community hub and the new Leisure Centre.

1.3 Site Surveys and Assessments

In support of this planning application, the following investigative surveys and assessments have been submitted, please see planning submission. Supporting information includes;

- Topographical survey
- Utilities search
- Ecological assessment and Bat activity survey
- Arboricultural Survey
- Flood Risk Assessment
- Transport Assessment
- Noise Impact Assessment
- Landscape Impact Appraisal
- Sustainability Statement
- Ground investigation report
- Sport England Pre-App Assessment
- Public Consultation

This Design and Access Statement and associated existing and proposed drawing set will demonstrate the new scheme in relation to the above surveys and assessments.

1.4 Project Team

Client

CUMBERLAND COUNCIL
The Market Hall
Market Place
Whitehaven
CA28 7JG

Delivery Partner

ALLIANCE LEISURE
Regus Centre 54
The Quadrant
2430/2440 Aztec West
Bristol
BS32 4AQ

Project Manager

COHESION CONSULT LTD.
Clarendon House
Clarendon Terrace
Leeds
LS27 7QT

Principal Designer

GREENWOOD PROJECTS
2 Trent Wally Rd,
Lichfield,
WS13 6EG

Architects

ROBERTS LIMBRICK LTD.
The Carriage Building
Bruton Way
Gloucester
GL1 1DG

Structural & Civil Engineer

FURNESS PARTNERSHIP
The Paper Hall
Anne Gate
Bradford BD1 4EQ
Tel. 01274 392092

MEP Engineer

CGP | MEP
The Building Society
55 Whitfield Street
London
W1T 4AH

Quantity Surveyor

Press & Starkey
3rd Floor, West Wing
Rosanne House, Parkway
Welwyn Garden City
AL8 6HG

02 Assessment of Site Context

2.1 Site Location and general characteristics

The proposed leisure centre and car park is to be located to the northern end of the town of Millom, on Cumberland Council owned land. The site comprises part of the existing Millom Secondary School and Sixth Form, Millom Community Hub and car park.

The north-western and western boundary is defined by Salthouse Road (A5093). Residential properties border the site to the south-western and northern ends and line the opposite side of the A5093. The south-eastern boundary is defined by the Cumbrian Coastline Railway Line. The site boundary wraps around an area of vegetation in the centre of the east boundary.

2.2 Demolitions

The proposed development is situated in an area of the site where the former swimming pool was located and the current location of an existing outdoor school changing facility for the outdoor pitches, due to be demolished as part of the scheme. The existing car park is to be enlarged by the removal of an existing unused groundskeeper bungalow and garden.

Aerial Photograph

2.3 Access to the Site

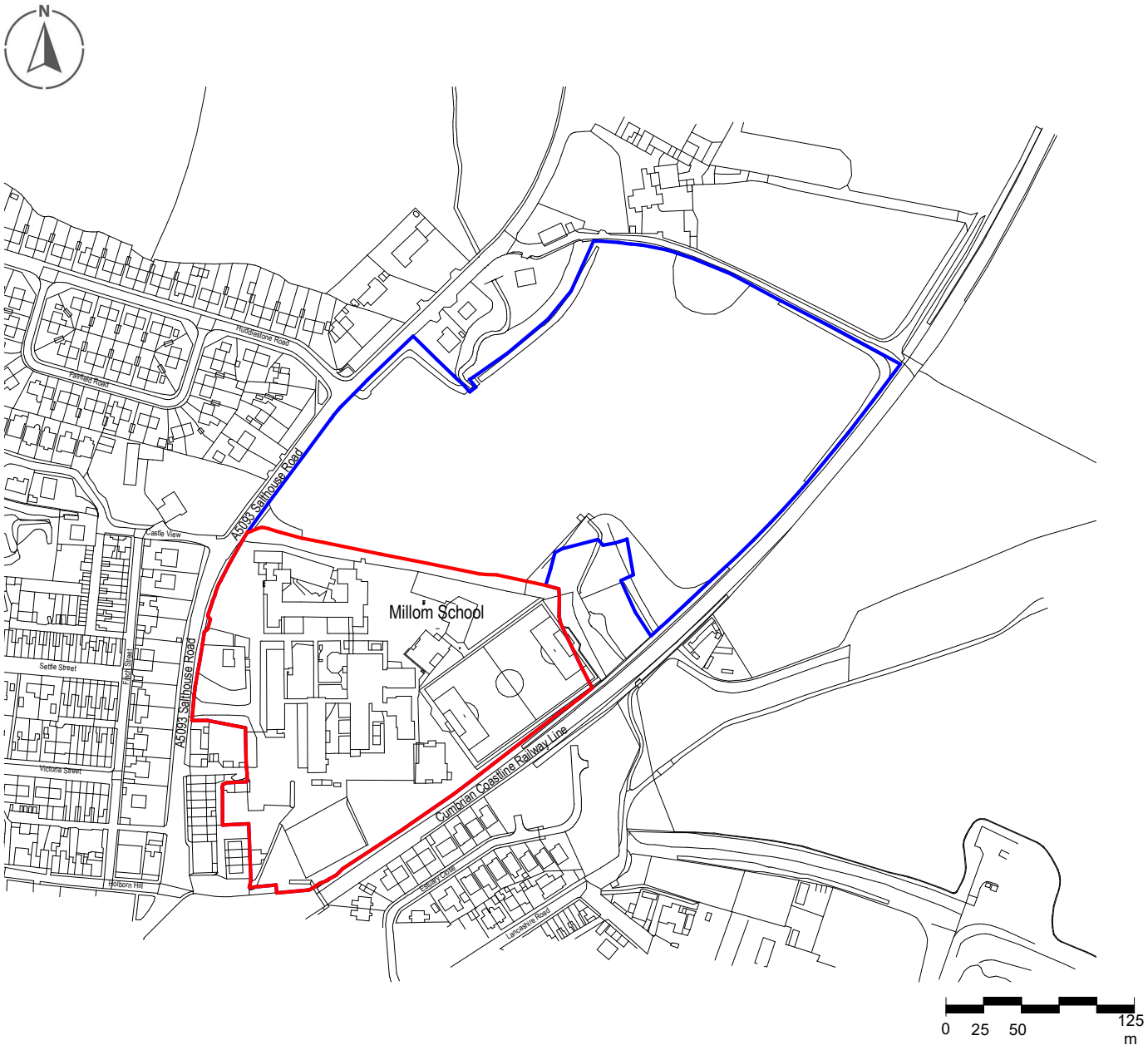
Access to the proposed building is along a road north of the Millom hub via the main school site entrance and through the existing school and hub's car park.

2.4 Existing Facilities

An existing school gymnasium will be sectioned off from the existing school buildings and incorporated into the new facility. The existing building is well used and in need of refurbishment.

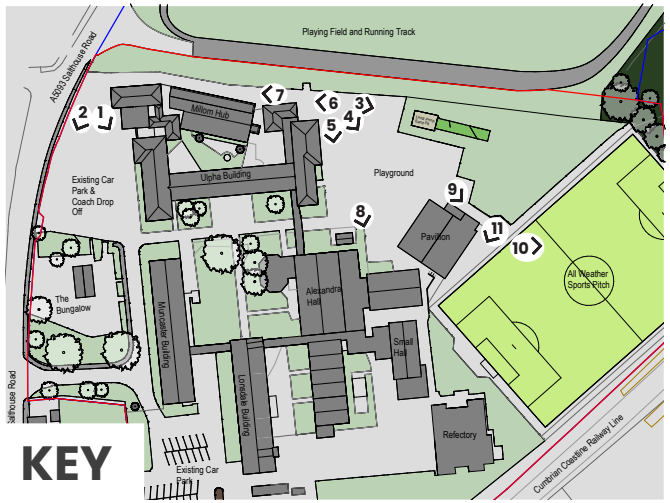
There is an existing astro pitch to the south-east of the site that has existing drainage issues to its northern most corner. The surface and drainage of the pitch is in need of improvement and refurbishment.

An existing long jump will be relocated from its current position towards the astro pitch. There is a northern playing field where there is an existing cross country and athletics running track which will remain.



Indicative Site Red Line Boundary

2.5 Site Photographs

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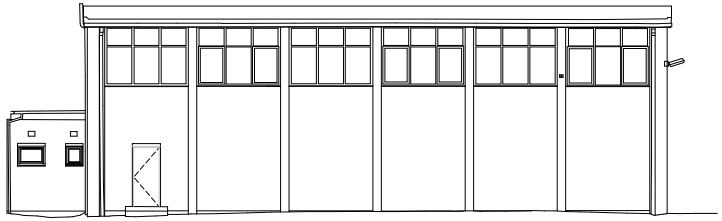
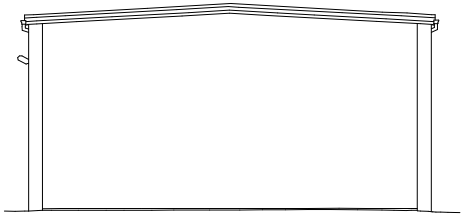
2.6 Existing Gymnasium Photographs

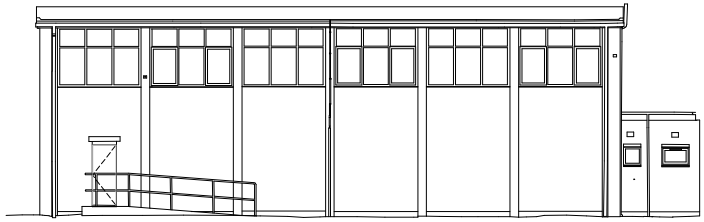
2.7 Existing Gymnasium Drawings



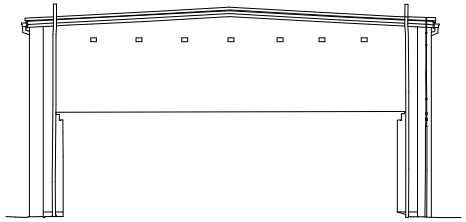
Existing Gym Elevation A



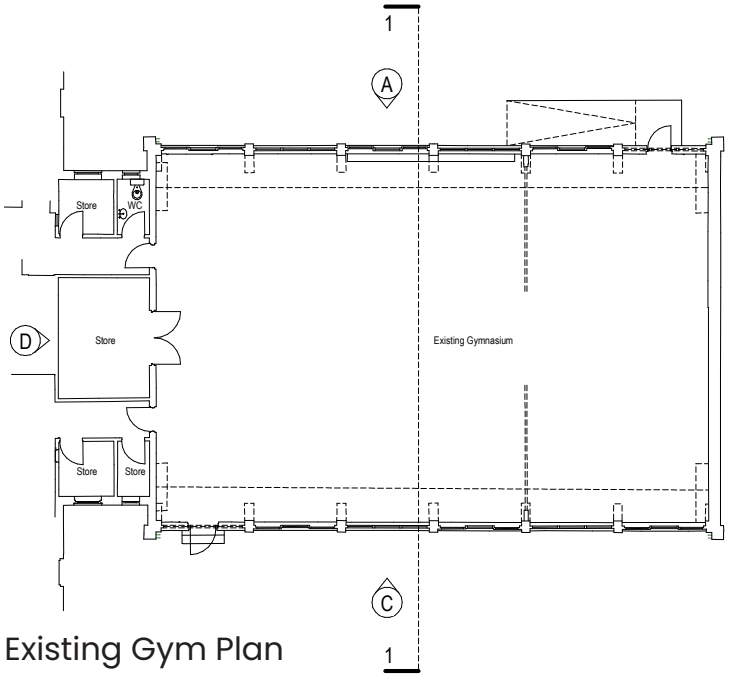
Existing Gym Elevation B



Existing Gym Elevation C

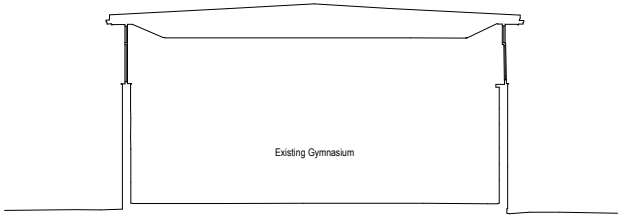


Existing Gym Elevation D



Existing Gym Plan

B



Existing Gym Elevation A

03 Consultation

3.1 Pre-Application

A formal pre-application consultation was submitted to the then Copeland Council and a detailed response was issued on 9/06/22 with reference PAA/22/0077. This response came in the form of a summary letter from the Planning and Place team at the then Copeland Borough Council. Please refer to Section 09 Appendices for the full letter.

3.2 Flood Risk & Drainage

As part of the pre-application advice, it was requested that a Flood Risk and Drainage Strategy was prepared to accompany the planning application due to the site being located adjacent to areas of flood zones 2 and 3 as determined by the council's GIS layers. As such Geol Consultants carried a Flood Risk Assessment which concluded that the proposed development complies with local policy and is not subject to significant flood risk nor does it increase on the cause of flood. Please refer to Geol Consultants Ltd Floor Risk Assessment - GEOL 22 – 8471.

A drainage strategy has also been prepared by Furness Partnership which illustrates the proposals for surface and foul drainage from the proposed development. Please refer to Furness Partnership's Drainage strategy report and subsequent proposals.

3.3 Highways

The pre application response has requested a transport assessment to be carried out to be submitted with the Planning application. SK transport Ltd. Has therefore assisted in preparing an travel assessment which includes an interim travel plan and a series of tracking layouts to illustrate how a series of vehicles including coaches for school pick up and drop and delivery vehicles and waste refuse trucks can navigate the proposed access routes and car parking arrangement.

The extended Car Parking area over the former groundskeeper bungalow, as part of the development includes additional marked out parking provision for disabled parking, electric charging spaces (with future provision), motorcycle parking and public cycle parking located adjacent the building under the entrance canopy.

Please refer to SK Transport planning ltd travel assessment and associated interim travel plan and swept path analysis layouts.

3.4 Ground Conditions

It has been identified during the Pre application that the site is not within a coal mining area, however the southern section of the school land is known to have been occupied by a brick works and clay pit. Therefore a phase 1 desktop survey is required to be submitted with the planning application. Geol Consultants have were appointed to carried out the Phase 1 and also Phase 2 Ground Investigation Reports

Please refer to GEOL Consultants Ltd Phase 1 and 2 Investigation reports.

3.5 Ecology and Nature Conservation

The pre-application advice identified that the school site and the surrounding land is listed as an area where there is potential for natter jack toads. As a result, an Ecology assessment is required to accompany the planning application to address the occurrence of wildlife and highlight any need for mitigation measures from the addition of the new leisure centre if impacted. Therefore, ERAP Ecology have carried out an assessment to supplement the planning application.

Please refer to the ERAP Ecology Report - 2023-044 19.06.23.

3.6 Arboricultural

As the proposals include extending the car park area over the existing groundkeeper's bungalow and garden area, it includes the removal of several trees and shrubs. It has therefore been requested that an Arboricultural survey is prepared and submitted with the application. As such, Bowland Tree Consultancy Ltd. have carried a survey and produced an assessment of the proposals and advised on reducing the impact of the development on RPAs of the trees towards the entrance of the site.

Please refer to BTC Ltd's Arboricultural assessment and associated layouts.

3.7 Landscape Impact Appraisal

It has been accepted that the impacts of the landscape are likely to be minimal given the proposed development will be within the existing school compound and will be viewed in connection with the existing building groups. Nevertheless, a landscape strategy has been developed in order to soften viewpoints of the complex from out side the site boundary.

Please refer to section 6 of of this Design and Access statement.

3.8 Impacts on Residential Amenity

The pre-application response made reference to the site being flanked by residential properties and then consideration is essential in terms of the impact the development may have on the residents. Therefore, a noise assessment has been carried on the site and the proposals are designed to minimise the impact of noise pollution. Please refer to Hoare Lea noise impact assessment.

In addition, an external lighting strategy has been prepared to accompany the planning application keeping in mind the impact of any new lighting within the development site whilst also ensure safe lit passage for users of the leisure centre.

3.9 Sport England

The development of the new leisure centre on school playground area and the nature of the scheme is that of indoor sporting activities as well as changing provision for the use of the external sports pitch. It has been requested that early consultation with Sport England is essential and as such early engagement was made which subsequently resulted in a Sport England pre-application submission.

Please refer to appendices 7.2 for the Sport England pre-app response.

3.10 Public Consultation

Extensive consultation with the local community and other stakeholders and community groups have taken place to assess the need for the residents of Millom in terms of sporting activity facilities available. The results from the public consultation have informed the development of the detailed brief in terms of the activities that the new leisure centre will accommodate and also the process for selecting the site.

Please refer to Appendix 7.3 for the Public Consultation as prepared by Strategic Leisure.

04 Design Proposals

4.1 Introduction

Use

The proposals are for a new community leisure centre in Millom to facilitate and encourage participation in physical activities for the local community and to upgrade and add to existing leisure facilities for Millom Secondary School. The internal and external spaces are designed to be flexible, simple and low-maintenance but also robust and attractive.

The site and floor plan have been designed to be accessible and provide a range of facilities and opportunities for users of all abilities to promote active lives and interactions.

The location of the building within the existing school site has been carefully considered to allow easy access for the public, whilst not impacting on school security and child safeguarding. This location also has minimal impact to existing school facilities, only resulting in the demolition of an existing changing block where updated changing provision will be accommodated within the new building.

The new facilities proposed are summarised as follows:-

- 8 x 15m Swimming Pool
- 18 x 34.5m Sports Hall
- Fitness Gym
- Multipurpose community activity studio
- Male & Female Group Changing Facilities (34 stations)
- Wet Changing Village
- Indoor / Outdoor Felxible Group Changing
- Acc. WCs, Changing Places, Male & Female WCs
- Ancillary areas i.e. storage, plant, filtration
- Extended parking provision - Accessible - EV - Cycle - Motorcycle

Layout

The emphasis of the current proposals has been to develop flexible, multi-purpose spaces that can be used for a variety of fitness activities to get the best value for money and future-proof the scheme. Key aspects are the inclusion of suitable storage and proper consideration of the performance aspects of the design, such as ventilation and lighting, to ensure spaces are comfortable and well lit for various activities.

The sports hall will accommodate community level badminton, basketball, netball, volleyball and 5-a-side football as well as a wide range of studio type community activities.

The proposals include a number of activity spaces. This includes a 8 x 15m pool with mixed wet changing village. Also included are a 25 person multi-purpose studio, multi-purpose sports hall and a 50 person fitness suite housed within the refurbished, existing gymnasium. The Hall can be divided into 2 spaces via a divider curtain/net. These sporting spaces are supported by the gender separated group changing.

The reception area and cafe provide social spaces that offer viewing into the activity areas as well as allowing the centre to become a more adaptive community asset. The floor plan has generous circulation and ample accessible provisions making it a universally usable building. While stores, plant and filtration are located throughout the plan to meet the buildings operational needs.

Appearance

The external walls are a combination of high quality composite cladding colours. A light grey colour encloses the building on all sides above 3m to allow the building to blend in with the sky. A feature colour cladding is then proposed in certain key areas below , up to 3m to provide an external frontage, and highlight key areas within the building.

The entrance lobby, reception and multipurpose space incorporates large external glazing providing active building frontage and allowing daylight into the public spaces. Skylights are proposed in key locations to provide more natural daylight into the heart of the building.

The entrance lobby, canopy and external signage provides a clear entrance point for users approaching the building from the car park and footpath.

Landscape / Boundary

The scheme proposes external hard and soft landscaping as shown on the site plan. The scheme intends to utilise the existing car park area and extend to facilitate the additional leisure facility in terms of the overall parking provision. To accommodate the additional parking, the existing disused grounds keeper bungalow and garden will be demolished.

The scheme reinstates the existing long jump facility to the west of the new facility allowing easy access from the 3G pitch and outdoor changing facilities.

The existing astro pitch is proposed to be resurfaced and converted to a 3G pitch with upgraded drainage and engineered flood defences.

Environment

The facilities have been designed to be highly sustainable and are to incorporate specific measures which meet client priorities. The building strives to maximise the use of natural day-lighting and minimising the use of fossil fuels and other natural resources via the provision of air source heat pumps, heat recovery units and photo-voltaics, see energy and sustainability statement.

4.2 Structural and Civil Summary

Structural Design Drivers

The main drivers governing the structural design solutions are:

- Large roof span over fitness areas & Pool Hall
- Open plan fitness suite
- Lateral stability of building frame
- Coordination with the existing building structure

Substructure Proposals:

The following design solutions have been suggested within the Site Investigation reports:

Typical foundations within the single storey extension

Conventional shallow strip and pad footings taken down through the made ground and based within the natural material should prove adequate. The foundations should be based at a minimum depth of 0.9m below finished ground levels and can be designed to a maximum allowable bearing pressure of 100kN/m2.

When considering future car parking areas and ground bearing slabs, based on the results of the insitu DCP tests, a design CBR value of 4% can be adopted for the shallow compact made ground and natural strata, where these materials are to be used as an undisturbed subgrade at approximate formation level.

Ground Floor Slab

Ground bearing reinforced concrete slabs are the preferred solution and will be acceptable on the site utilising a 200mm slab on well compacted Type 1 as required and laid on a geotextile membrane. Any soft spots should be dug out and replaced with lean mix concrete.

The superstructure for the proposed leisure centre building comprises a single storey braced steel framed structure over the reinforced concrete ground floor slab. The main structural design feature of the building are the open plan fitness areas.

Roof Structure

The proposed system for the roof structure comprises of structural metal deck to supporting the roof build up and finishes. The deck is supported the steelwork roof members.

There is a parapet around the perimeter of the extension roof. There is an entrance canopy comprising steelwork cantilever frame and lightweight decking roof.

Ground Investigation Summary

Please refer to Phase 1 and Phase 2 reports.

Drainage

The existing site extends over the existing playground hardstanding at Millom School. The site used to house a now demolished swimming pool and existing changing block.

The proposed developments involves demolishing the existing external changing and constructing a new single storey leisure centre facility on the site. The existing car park will be remodelled to suit the finalised building proposal.

The site is in flood zone 1 and has a low risk of flooding from the river or sea, according to EA flood maps. The site is not at risk of flooding from other sources, such as reservoirs.

The surface water discharge from the proposed development will be made up from the following elements: Building roof area, paved areas around the new development, Access roads and Car parking bays.

The recommended surface water discharge hierarchy set out in the CIRIA SuDS Manual is to utilise soakaways, or infiltration as the preferred option, followed by discharging to an appropriate watercourse. If these options are not feasible then the final option is to discharge to an existing surface water sewer, followed by discharge into a combined public sewer.

Infiltration testing was completed however the infiltration data noted within the excavations in the front area was not suitable for soakaways. Therefore a SuDs attenuation system is to be implemented in this area.

To the northeast of the site the strata had good infiltration rates so soakaways are to be implemented here.
Porous Pavements: - Porous/permeable surfaces are proposed for the car park construction as they can provide an effective way to reduce the flow rate of surface water runoff and give the necessary 2-stage treatment required to remove hydrocarbons prior to discharge into the receiving water body.

A pre-development enquiry has been submitted to confirm whether they have any assets adjacent to the site boundary. This drainage strategy has been developed on this basis. No issues were found in the responses back from United Utilities. Formal approval to connect into the public drainage network will be agreed through the submission of an S106 application.

Carbon Reduction

At Furness Partnership, we understand that as structural engineers we have a huge responsibility to mitigate carbon emissions within the built environment. We calculate the embodied carbon in our structural solutions as standard practice, both early on and at key stages of the project journey. This allows the client to make quantified decisions towards carbon reduction.

We follow the following process to achieve embodied carbon reduction in our designs:

The following strategies were used to achieve this reduction:

- Low cement concrete specifications
- Modification of the cladding design to reduce secondary steel used
- Re-use of existing structure where possible
- Improved ground conditions to reduce sub structure
- Optimising the efficiency of design to reduce steelwork

We use these principles at the beginning of the design process to not only design an efficient structural design but as low carbon option as possible.

4.3 MEP and Sustainability Summary

Mechanical Services

The primary heat source for the building will be roof mounted air source heat pumps. These units will extract low grade heat from the outside air and feed the heating coils in the new roof mounted air handling units.

The proposal is for 4 roof mounted air handling units, Pool Hall, Changing Rooms, Front of House areas and Sports Hall. Supply and Extract Air will be provided to these areas by galvanised steel ductwork with ceiling mounted supply and extract diffusers. The pool hall supply air will be by ceiling suspended fabric air socks.

The gymnasium will be ventilated by high level heat recovery ventilation units to allow the gym to be operated independently of the main building if required. Front of House areas and the gym will be heated and cooled by VRF air conditioning units. These will be connected to roof mounted external condensing units by refrigerant grade copper tube.

A new cold water supply will serve a cold water storage break tank located in the plantroom serving all potable cold water outlets via a cold water booster set. A separate cold water supply will be taken from the new incoming supply to serve the pool water plant. This supply will be via a separate CAT 5 booster set.

A roof counted air source heating unit will proved high grade heat to a hot water calorifier mounted in the plantroom. This calorifier will supply hot water to all wash hand basins, sinks and showers via copper tube and fittings.

A new BMS control panel will be located in the plantroom to control the new systems.

Electrical Services

A new electrical supply will be provided to a new sub-station adjacent to the building. From here a supply cable will be taken to a new main switch panel located in the plantroom. From here submain cables will be taken to local distribution boards to serve separate areas. These distribution boards will serve the electrical requirements for the area served.

New LED lighting will be provided throughout. This will be a mixture of ceiling mounted recessed fittings, down lights, batten fittings and wall lights suitable for the are being served. External Lighting will be provided by a mixture of wall lights and column mounted lighting as appropriate.

A new type L1 fire alarm system will be installed throughout with Annunciation will be a combination of integral sounder bases and wall mounted sounders as appropriate. An air sampling aspiration system shall be allowed to the pool hall. All fire exit doors are to be linked to the main fire alarm panel and reception to raise an alarm should the door be opened. Verbal and visual annunciation will be provided throughout the building.

A TV cable backbone system will be provided to the server room thereafter distribution will be by coax cabling to TV positions. All aerials, dishes, cabling and distribution systems to be provided along with surge protection where the above cables enter the building. Coax cabling will be provided from the server room TV system to each piece of fitness equipment as required by specialist.

A PA system will be provided allowing announcements and background music to be made around the leisure centre.

A CCTV system will be provided consisting of fixed internal intended to cover areas shown on strategy layouts. CCTV cameras will be connected to head end equipment via power over ethernet cabling back to the server room where head end equipment will be located.

An intruder detection system will be provided throughout the leisure centre utilising a combination of dual technology sensors and door contacts.

A new access control system will be provided (by others) throughout the centre to doors indicated on strategy layouts. Containment, power, fire alarm interface, and data wiring to comms cabinet shall be provided, with access control equipment provided by the Client..

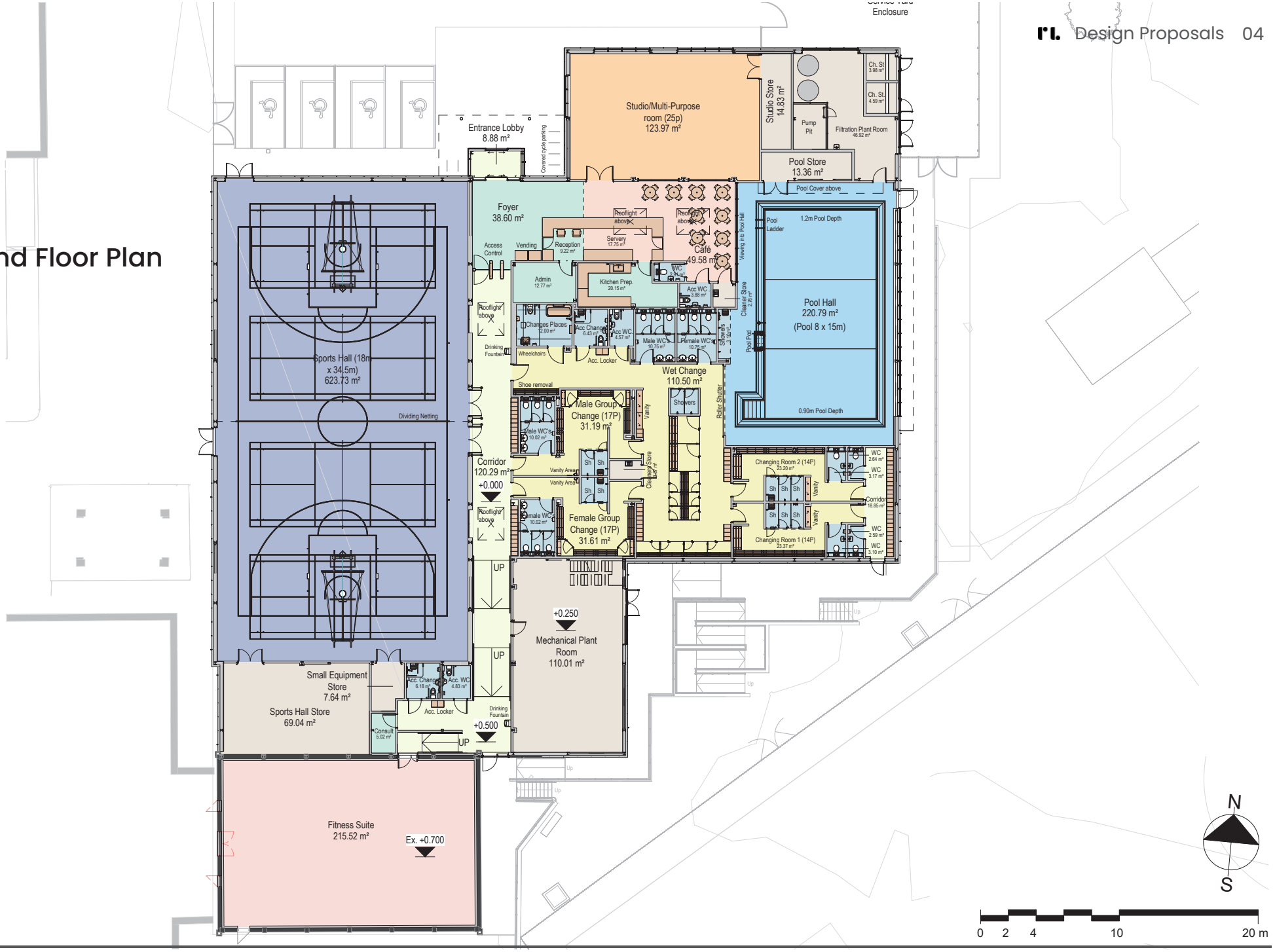
A new pool alarm system will be installed to the pool. The system will consist of mushroom style buttons and local key reset with sounder/beacons in each pool area and sounder/beacon within reception area at the pool alarm panel.

A new roof mounted photovoltaic array will be provided. The size and output of the array will be 25kWp, 100m² as shown on the architects layouts.

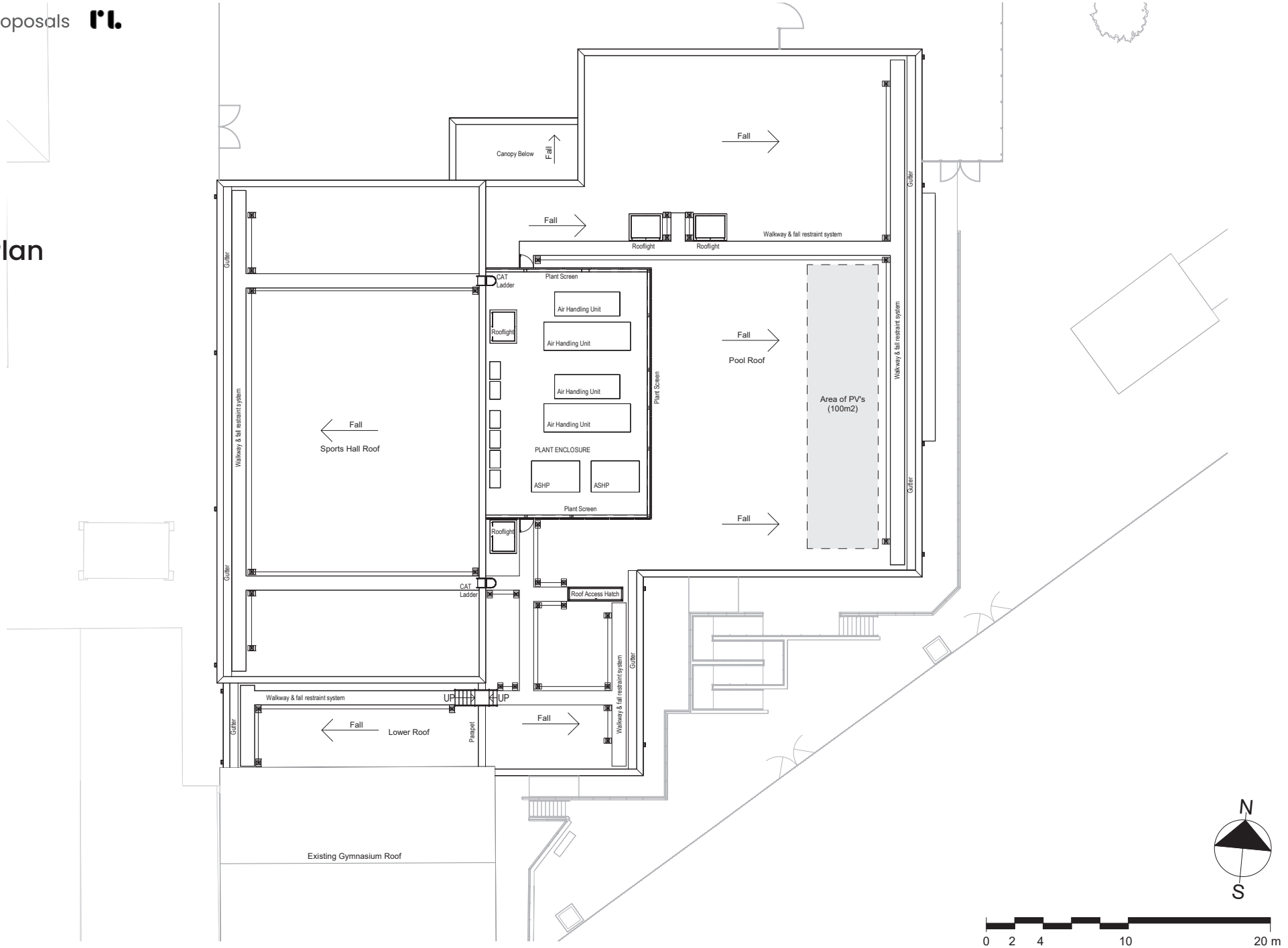
4.4 Site Plan


Playing Field and Running Track
A5093 Salthouse Road
New pedestrian path & fence
New fence
Millom Hub
Ulpha Building
Playground
New substation
Fenced Service Yard
Relocated Long Jump
All Weather Sports Pitch
Alexandra Hall
Small Hall
Muncaster Building
Lonsdale Building
Refectory
Coach Drop Off
Reconfigured 67no. standard parking spaces. (with min. 7no. EV charging spaces & 7no. spaces with provision for future EV charging)
Existing 40 Parking Spaces
Extended playground area
Cumbrian Coastline Railway Line
0 5 10 25 m
N
S
Site Boundary
Ownership Boundary

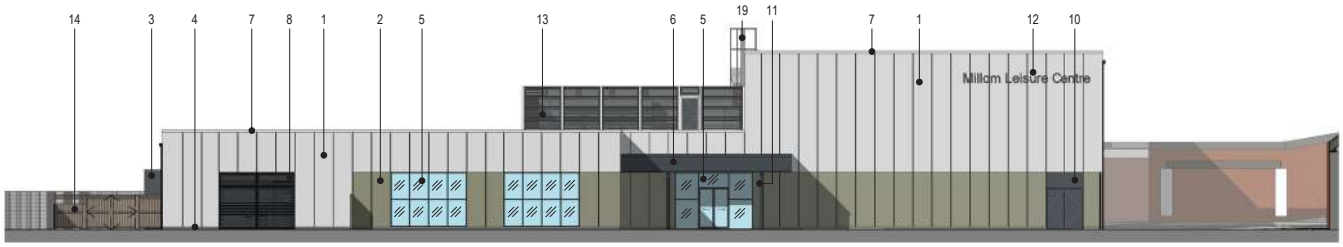
4.5 Ground Floor Plan



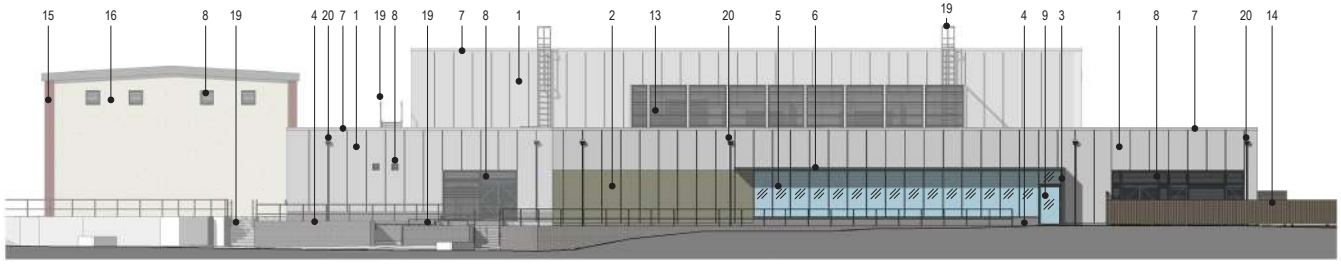
4.6 Roof Plan


Canopy Below
Fall
Fall
Fall
Rooflight
Rooflight
Walkway & fall restraint system
Gutter
CAT Ladder
Plant Screen
Air Handling Unit
Rooflight
Air Handling Unit
Fall
Pool Roof
Area of PV's (100m2)
Walkway & fall restraint system
Gutter
Air Handling Unit
Air Handling Unit
Plant Screen
Fall
Sports Hall Roof
PLANT ENCLOSURE
ASHP
ASHP
Plant Screen
Fall
Rooflight
Gutter
Walkway & fall restraint system
CAT Ladder
Roof Access Hatch
Gutter
Walkway & fall restraint system
UP
UP
Fall
Lower Roof
Parapet
Fall
Existing Gymnasium Roof
N
S
0 2 4 10 20 m

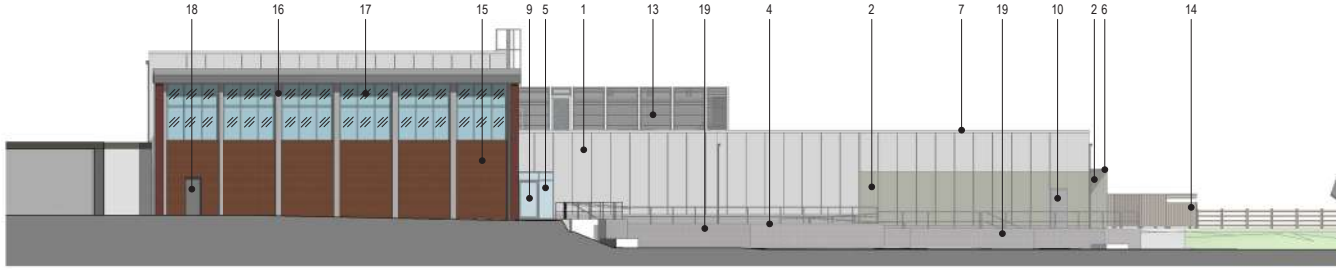
4.7 Elevations



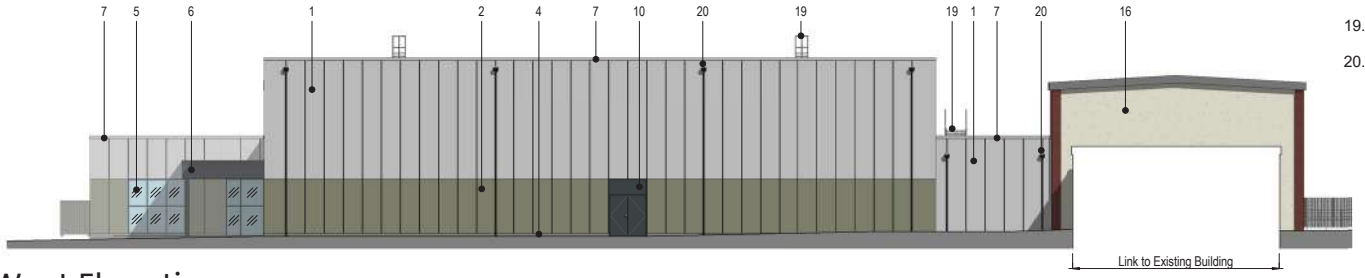
North Elevation



East Elevation



South Elevation



West Elevation

Materials Legend:

1. Composite Cladding Panels - Silver Grey
2. Coloured Composite Cladding Panels
3. Flat Sheet PPC Aluminium Cladding - Anthracite Grey
4. Brickwork - Dark Grey Engineering Brick Plinth
5. PPC Aluminium frames double glazed curtain walling - Anthracite Grey Frames
6. Canopy Flat Sheet PPC Aluminium Cladding - Anthracite Grey
7. PPC Aluminium Cappings/flashings - Silver Grey
8. PPC Aluminium louvres and louvred doors - Anthracite Grey
9. PPC Aluminium framed double glazed external doors - Anthracite Grey
10. PPC Aluminium framed solid external doors - Anthracite Grey
11. Feature Columns - Anthracite Grey
12. Indicative Building Signage
13. Roof plant / plant screen in Anthracite Grey, shown indicatively
14. Service yard enclosure - close boarded timber fence 1.8m high
15. Existing Gymnasium brickwork repointed and replaced where required
16. Existing rendered walls / piers re-painted
17. Existing Gymnasium windows replaced with PPC Aluminium double glazed frames - White Frames
18. Existing Gymnasium escape foor replaced with PPC Aluminium framed solid external doors - Anthracite Grey
19. External ramps and steps, with galvanised balustrading and handrails.
20. PPC Aluminium downpipes & hoppers - Anthracite Grey

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