

Sustainability Statement

Proposed Activity Hall and Health and Fitness Suite for Community on Solid Ground, Manley Park Community Centre, Whalley Range, Manchester, M16 0AS

Introduction

A new build Activity (Sports) hall and Health and fitness suite is to be located in the grounds of Manley Park Community centre.

The purpose of this brief report is to outline the strategy for the sustainability of the proposed buildings. The design of the fabric and mechanical and electrical services is compliant with Approved Document L2A (2013) of the Building Regulations.

BREEAM

There is no requirement for the sports hall to be BREEAM rated.

Sustainable use Strategy – Design Elements Services

- Mechanical ventilation to Activity Hall and fitness suite: A heat reclaim ventilation unit with thermal efficiencies of approximately 75 -80% will be installed
- Natural ventilation to main Activity hall and Fitness suite via manually controlled operable windows.
- Heating To Be Designed Air Source Heat Pump System To Hetas Rules Etc.
- Ventilation To Be Compliant With Sports England Requirements
- Emergency Lighting + Exit Signs Scheme To Fire Officers Approval + Bs En 150 7010 And Bs 5266
- Surface Water: Rainwater To Be Taken To Existing Via Proprietary System, Color Matched To Panels + Roof
- 100mm Thick Concrete Slab, Double Reinforced Power Floated to A Smooth Finish Ready To receive Ssuk Pulastic Sports Hall Floor Classic 110
- All On Visqueen 1200 Dpm On Min 50 Sand Blinding On 200 Insulation On 150 Consolidated H/Core.
- 2250 Upvc Drainage system
- All Electrical Work To Be Designed, Tested + Installed To I.E.E Reg's By Nic/Eic Approved Contractors + Certified In Accordance With Part P Of Approval Document
- Fire Alarm + Detection System To Be Linked To Existing + Updated To Current Standards To Bs 5839
- Low Level Glazing To Be Toughened/Laminated Safety Glass To Class A B.S. 6206 1981 In All Panels 1500 To F.F.L
- Roof Materials To Be Kingspan "Ks1000 Rw Trapezoidal With Anthracite Finish 'U' Value – 14
- Walls Kingspan Ks900 Mr (Awp) Micro – Rib Colour 'Anthracite' Internal Finish – 'U' Value – 22

- High-efficiency, gas-fired boiler already installed
- Gas fired radiant heating to the main sports hall.
- Boiler plant will be a single unit that will also combine to serve domestic hot water.
Thermal efficiency of boiler plant will be approximately 95-97%.
- Re –use and extend existing gas supply.
- Re –use and extend existing water supply.
- A simple energy efficient control system will be used to monitor and control natural ventilation to sports hall. In addition, control of the heating system will be provided to ensure it is only operated to suit set point / time constraints of the organization.
- The electrical services will be designed and installed to current CIBSE and British standards with energy-efficient controls in accordance with part L2A of the 2013 building regulations.
- Electrical distribution will be provided from MCCB panel board with sub-metering on all lighting and power distribution boards to comply with L2A of the building regulations.
- High-frequency fluorescent lighting will be provided throughout to comply with part L2A to a giving a minimum performance of 60 lumens per circuit watt.
- Lighting controls will be provided in the form of PIR movement sensors wired for absence detection to all areas excluding the main sports hall.
- Emergency lighting will be provided to comply with BS 5266.
- External lighting will be provided to walk way areas to comply with CIBSE LG7 requirements with time-clock and photocell controls.

Fabric

- New materials will be sustainably sourced and recyclable where practical: for example aluminum cladding and curtain walling/window frames.
- New fabric will be robust with low maintenance demands and a long service life.
- The building envelope will be highly insulated and air-tight to reduce heat loss.
- New drainage will separate foul water from surface run-off.