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EXPLANATION

Design & Access Statement

Proposed IRM Extension To John Dalton Tower Manchester Metropolitan University



Manchester Metropolitan University

FDG fairhursts

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1.0 Masterplan Context

The proposed IRM extension scheme has been included in the context of the new Manchester Metropolitan University All Saints site Masterplan, submitted by John McAslan and Partners.

The need to produce a masterplan followed the challenges faced by MMU shared by most Post war urban universities i.e. Campuses clogged and/ or fragmented, low quality additions, a fraying of academic image.

The masterplan carried out appraisals of the existing accommodation and proposed a series of new buildings which would turn the All Saints site into MMU's core campus, delivering strong educational and operational benefits as well as the potential to create new and energising urban and cultural connections with the surrounding communities.

The masterplan is not only concerned with changes to the estate but also the perception of the university and its contribution to the life of Manchester as a whole. Implicit in that aim is to redefine MMU image as an internationally recognised, increasingly research led profile.

One of the key proposals is for new gateway buildings at the John Dalton site, and the IRM extension will help to facilitate and support these new developments. It will free up key areas especially around the existing workshops, which are low grade buildings and largely obsolete, for the proposed new Hollins Faculty amongst other proposals.

It will also help to enhance the research reputation of the University, as it is intended to house facilities for this world class Institute for research into human movement.

2.0 Brief

As part of the Masterplan for the development of the All Saints Campus, the University has decided to relocate one of their world-renowned research Institutes – the IRM (Institute for Research into human Movement) to this campus. This will provide large benefits in terms of links with other departments within the University, and also with the large surrounding population centres.

Accommodation has already been allocated to the IRM within the John Dalton Tower, however there is also a need for additional space with higher ceiling heights to contain large equipment for testing various activities.

A site was identified adjacent to the JD tower that could provide a Physical link to the existing facilities, while providing a highly visible façade on one of the main entry routes to the JD campus. The location reflects the desire of the University to highlight the prestigious research facilities, while emphasising the close interlinking of academic research and teaching aspects.

The design of the building needs to reflect the different functions contained, and the disparate requirements to both advertise the facility and yet main privacy for some of the buildings users. The building has been designed to allow in natural light at high level, while providing the facility to black out areas for specific experimentation.

The building also needs to provide different environments for various functions, from large, high spaces to more intimate consulting and family waiting rooms.

3.0 Existing Site

The site is located adjacent to the entrance into the John Dalton Tower building as part of the paved pedestrian approach and main access onto the JD campus from Chester Street.



Figure 1 View looking South

The site slopes gently away towards Chester Street with the surrounding buildings forming 2 of the boundaries.

It is a highly visible location on the Chester Street frontage, a focal point for pedestrian entry past the statue of John Dalton.



Figure 2 Statue of John Dalton

Vehicular access is not provided directly to the building except for emergency access. The existing vehicular access off Chester Street to the John Dalton Tower building will be utilised, with pedestrian access being via the Tower building from the JD Central 'Street'.

The character of the site surrounding the development is as follows:-

To the west of the site is the John Dalton Tower building, recently refurbished with copper coloured rain screen cladding to the service risers on each end of the building, and a mid grey aluminium curtain walling system framed and highlighted with vertical emphasis to the grid module.



Figure 3 John Dalton Tower

To the south of the site is the John Dalton Central 'Street', another new building clad with dark grey aluminium cladding system incorporating large panels of glazing at ground level.



Figure 4 John Dalton Central 'Street'

To the east of the site the paved area leads to the grassed lawn around the Statue of John Dalton, and the older parts of the John Dalton Central building, where exposed concrete columns and fascia frame a further dark grey cladding and glazing system.



Figure 5 John Dalton Central

To the north of the site the paving slopes away to an open boundary with Chester Street.



Figure 6 Boundary with Chester Street

4.0 Proposed Building Location

The extension will be located at the junction of the JD tower and JD Central buildings, retaining current pedestrian and Fire Access routes across the remaining paved areas to the JD Central access.

Existing hard landscaping will be retained around the building.

Refer to location plan.

5.0 Site Conditions

Site investigation report regarding the ground conditions will be forwarded once completed.

6.0 Proposed Building height

The proposed building height was influenced by:-

- The requirements to accommodate the equipment used in the research areas.
- The desire to relate to the adjacent 2 storey JD Central building and to the first 2 storeys of the JD Tower building to which it is linked.

7.0 Disabled Access Strategy

The new building is to be designed in accordance with the Local Authority document Design for Access 2 and Part M of the Building regulations in order to meet the requirements of the Disability Discrimination Act both internally and externally.

The design will include the following provisions:

- Passenger lift access to all floors via the lifts in the JD tower and JD Central buildings.
- Level threshold to all doors including the main entrance
- Fully compliant disabled wc accommodation to both levels within the JD tower and JD Central buildings.
- Automatic entrance doors to the JD tower and JD Central buildings and suitable ironmongery throughout.
- Colour contrast throughout.
- DDA friendly signage.
- DDA width access to all rooms

8.0 Building Operation and Management

The building design has been developed in close liaison with the University Science & Engineering Faculty and will provide support facilities for the IRM function in the John Dalton Tower.

The Usage of the Building is split between Research, and Consulting areas, and the design takes full cognisance of the requirements for safe separation of these different functions.

The use of the building will be controlled by the current operational systems in force in the University as a whole, and specifically by the Technical team who will be accommodated within the Building.

The building will generally operate around an 8am - 6pm standard working day; however the running of long-term experiments may result in operation outside these hours. The nature of the experimentation does not generate high noise volumes and is unlikely to cause any disruption to areas outside the University campus.

9.0 Servicing

The building will be serviced via the JD Tower, as this is the only vehicular access route.

Deliveries will not be frequent (once or twice a month) or involve large vehicles, and will be managed as part of the current University strategy.

The nature of the functions carried out in the building is not expected to generate large volumes of waste. Waste storage is provided within the JD Tower building for general rubbish which will be collected by the cleaning contractor as part of the University waste management system.

Rainwater will be disposed of via roof gullies linked to the Campus mains drainage system.

It is envisaged that the regular maintenance of the building will be limited generally to window cleaning. With adequate hard landscaping around the building, this would allow for safe ladder and mobile platform access as appropriate in accordance with the University maintenance strategy.

10.0 Security

The design has been forwarded to the Architectural Police Liaison Officer with the intention that it would achieve a Secured by Design accreditation on completion.

The building provides the following features to aid security.

- All ground floor access will be controlled by digital locks and/or swipe card access, controlled via the Building Management system.
- All windows be glazed using security laminated doubled glazed units, these are alsogenerally at high level.
- Externally the building will be covered by the Campus CCTV security system, which is manned 24hrs every day.
- External lighting will be positioned so that there is good visability around the building and no dark areas.
- The facades are generally flat with no concealed recesses.

11.0 Elevational treatment

A number of existing buildings surround the IRM extension, displaying an extensive palette of materials and finishes.

It was felt important to relate to this palette, particularly to the John Dalton Tower to which it is linked.

With this in mind, the primary elements of Green Copper rainscreen cladding, grey polyester powder coated window frames and grey masonry plinth have been utilised.



Modelling to the façade has been achieved by the use of the expressed rendered 'exoskeleton' which emphasises the modular vertical features on the JD Tower elevations and the other surrounding buildings.

This also helps to relate the building to the rectilinear plan form of the surrounding building, whereas the building itself picks up on the curved form of the service risers to either end of the Tower building. This curved form will draw Visitors in toward the 'Street' entrance without making the space feel unduly enclosed.



High level and roof glazing will be used to introduce natural light to the building, and also borrowed light into the existing JD Central 'Street', while still providing the necessary privacy for the Users.

12.0 Landscaping

The landscaping around the building is intended to fit into the strategic pattern proposed by John McAslan Partnership i.e. in enhancing linkages to Chester Street.

The immediate perimeter of the building is proposed to be hard paved.

13.0 Sustainability

The University has a robust sustainability policy which aims to capture the spirit of an excellent BREEAM rating building where possible despite the financial/ practicality constraints.

Although the nature of this building suggests this may be difficult as it is an extension, it is proposed that all practical steps should be taken to ensure that all elements of the building would be low energy

Amongst other issues which will be addressed, the following steps will be taken towards this aim:-

- The thermal performance of the external envelope will be super insulated where possible.

- Natural ventilation will be used wherever possible.

- Mechanical and Electrical systems will be designed to be as energy efficient as possible.