



CWC

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consulting

Quay Street, Manchester - Energy Strategy

Energy Statement

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Revision Record

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Contents

1.0	Introduction.....	4
2.0	Work Undertaken to date.....	4
3.0	Tenancy Requirements.....	4
4.0	Key Design Considerations	4
5.0	MEP Specification	5
5.1	Utilities.....	5
5.2	Electrical Services.....	5
5.3	Mechanical Services.....	5
6.0	Environmental Considerations	5

1.0 Introduction

The building was constructed in 1869 for James Booth, carver and gilder, as a workshop. The building has lower and upper ground floors, first floor and second floor with a split level entrance onto Quay Street. The principal elevations face Quay Street and Young Street. The entrance is on Quay Street, there was a secondary goods entrance to Young Street.

The building is constructed of solid masonry brickwork with cast iron columns and timber beams. Windows are aged, double glazed uPVC with some opening lights. The roof construction is slate tiles on a timber frame.

The principal refurbishment elements will address the following issues:

- To design a well-considered refurbishment scheme for the redevelopment of 76 Quay St Manchester to allow occupancy for office based businesses
- To reduce carbon emissions and improve energy efficiency of the building and its services

2.0 Work Undertaken to date

The following reports have been undertaken as part of previous projects:

- Asbestos report
- Structural Engineers Reports
- Timber survey
- Roof Survey
- Heritage Survey
- Measured survey

3.0 Tenancy Requirements

- Office Refurbishment to be based on a floor-by-floor letting strategy to CAT A+, assuming a full fitted and serviced product.

4.0 Key Design Considerations

- Replace all mechanical and electrical services
- Install new windows throughout
- New roof compound for air source heat pumps with access and personnel protection as required

5.0 MEP Specification

All existing MEP installations to be stripped out. New installations to be provided throughout as follows:

5.1 Utilities

- Retain existing electric supply
- Remove existing gas supply
- Retain existing water supply
- Enhance telecoms supplies

5.2 Electrical Services

- New LV panel with sub-mains and earthing to individual Distribution Boards on each tenant's floor, landlord areas and Mech services
- Small power throughout to serve the landlord AND tenant areas
- Direct and indirect suspended lighting throughout office areas, subject to interiors specification
- CCTV to front entrance
- Disabled persons alarms and refuges as required
- L2 Fire Alarm system
- Lightning protection – tbc

5.3 Mechanical Services

- Cold Water Services from existing supply to serve all items of sanitaryware
- Domestic hot water to be provided by electric point of use water heaters and showers
- Heating and cooling – air source heat pumps
- Mechanical Ventilation to the office areas with mechanical ventilation to sanitary accommodation as required. Opening windows to be provided on Young St and Gartside St elevations
- Each floor to be controlled separately by the occupants with a central controller for override etc.
- Above ground drainage to be uPVC, insulated to attenuate unwanted noise

6.0 Environmental Considerations

In order to reduce the carbon emissions from the building the following strategy is to be implemented:

- Replace the windows with good quality doubled glazed units with modern thermally broken frames
- Replace external doors with improved thermal performance units

- Insulate the roof to exceed current building regulations
- Improve the airtightness of the existing building
- Apply sections of insulated plasterboard on selected external walls
- Remove existing gas fired heating equipment
- Install electric point of use water heaters with minimal storage of hot water with consequent reduction of standing losses
- Remove existing lighting and Install LED lighting throughout
- Install air source heat pumps to provide heating to the building

By removing fossil fuels from the heating strategy, improving the thermal performance of the building fabric, adding LED lighting technology and improving the air tightness of the building, the overall carbon emissions for the building will be significantly reduced from current performance.

This strategy not only reduces carbon emissions but reduces running costs for occupiers and makes the building more attractive to the investment market and therefore secures its longer term sustainable credentials.