## APPENDIX C - Operation & Maintenance Manual Content

|  |  |
| --- | --- |
| **Operation & Maintenance File Template** | |
| **Cover** | Project Title/Building Number/Job Number/Date/Version Control Data |
| **Contents** | The manual will contain the following information, in order listed below |
|  | 1. Project title |
|  | 1. Construction and design team’s details (address, telephone, fax) |
|  | 1. Details of specialist suppliers or sub-contractors (address, telephone, fax) |
|  | 1. Emergency call-out details (Normal hours and out of normal hours). |
|  | 1. Block plan of building indicating utility service entry points if applicable. |
|  | 1. Sheet containing an Index of the Contents of the manual. |
|  | Original specification and a summary of any changes to the specification |
|  | Description of systems - Include principles of operation, design criteria, design temperatures and air changes. |
|  | Plant & Equipment Inventory – This should include manufacturer’s address, telephone and email details.  This section should include the fixed asset insurance valuation. |
|  | Maintenance & Operational Requirements – This section should include:  Details of planned preventative maintenance work with a full description of the preventative maintenance task and the recommended frequency in order to maintain all warranties.  Schedule of plant that requires periodic statutory inspection.  Schedule of estimated life-cycle replacement for major items of fabric and plant.  Cleaning strategy for all floor and other surfaces that will require routine cleaning and periodic deep-cleaning.  Details of training and instruction for operational and maintenance staff.  Details of metering  Details of BMS |
|  | Manufacturer’s literature (indexed) including electric supply, controls and ancillaries. |
|  | As-built drawings (indexed and formatted as described in sections 4-6) |
|  | Architectural details (including fabrication details, specialist installations, lintel and ironmongery, key schedule and suiting details) |
|  | Structural details |
|  | Mechanical and electrical system details |
|  | Specialist systems (including fire alarm, emergency lighting, access control, intruder alarms, CCTV etc.) |
|  | External works details |
|  | Services details – Location of utilities and services, metering details, information from the statutory authorities, data/fibre optic cables, buried services, foul and surface water drainage, underground features etc. |
|  | Commissioning results (indexed) relating to all items of mechanical and electrical plant and systems. This should include test results, certificates, witness testing etc. |
|  | Other test sheets, including the results of statutory test and inspections, e.g. electrical test certificate, legionella test results, pressure test sheets and boiler test certificates, combustion test. |
|  | Warranties and Spares. This section should include details and copies of warranties and spares provided for all elements of the building fabric, mechanical and electrical systems & plant, fittings & equipment etc. |
|  | Health & safety and emergency procedures, including residual hazards and specific decommissioning procedure.  This section should also include location specific risk assessments for all plant rooms and roof areas that need to be accessed for maintenance procedures. |
|  | Environmental Information:  This section should include designed environmental performance data, details of energy modelling undertaken at design stage, details of low and zero carbon technologies installed, full details of any technical energy saving systems.  Copy of EPC Certificate  Details of any environmental impact assessments, waste disposal records, including records for all hazardous waste disposed of by the project. |