****

**ESTATE & FACILITIES**

**Project Briefing Document**

**Section 1 – General Building Design Guide and Specifications**

**Issue 13 May 2021**

**Project Ref ......................................**

**Project Name .....................................**

**Project Manager ....................................**

**Consultant /Contractor ...................**

**Date Issue .....................................**

**DOCUMENT MANAGEMENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Ref** | **Revision** | **Author** |
| 05/10/18 | 1 | Final revision | LP |
| 23/10/18 | 2 | Updated with feedback & general issues | MKS |
| 31/10/18 | 3 | Updated with feedback. | LP |
| 01/11/18 | 4 | Updated fire compartmentation | LP |
| 17/05/19 | 5 | Added pest control | LP |
| 04/07/19 | 6 | Room numbering, handing of accessible WC’s and toilet fittings added | MKS |
| 02/08/19 | 7 | EDI, TMV’s, Salto Locks and Clip Frames Added | MKS |
| 15/10/19 | 8 | Room number and floor levels added, and barrier matting amended. Toilet Signs omitted and naming of ‘All Inclusive’ toilets added | MKS |
| 08/11/19 | 9 | Floor coverings reviewed for sustainability & recycling | MKS |
| 23/10/20 | 10 | General review & update | MKS |
| 06/04/21 | 11 | General review and update. | LP |
| 19/4/21 | 12 | Minor updates | MKS |
| 17.05.21 | 13 | ESS changed to Estates & Facilities | MKS |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### CONTENTS

1 Introduction

2 Sustainability

3 Equivalent Products

4 Manufacturer and Reference

5 Related Documents

6 Scope

7 Design Liability

8 Soft Landings

9 Preliminaries

10 Named Contractors

11 Commissioning

12 Demonstrations and Training

13 Defects and Maintenance

14 Compliance with Regulations

15 Manuals and As Built Information

16 COBie Data & BIM

17 Workmanship

18 Equality Act 2010

19 Precedence of Documents

20 Access for Maintenance

21 Fire Compartmentation

22 Communications

23 Suspended Ceilings

24 Floor Coverings

25 Painting/Clear Finishing

26 Windows

27 Automatic Doors

28 Fire Doors

29 Ironmongery

30 Fire Exit Doors

31 Plant Rooms

32 General Fixtures/Panel Cubicles

33 Fitted Kitchen Units

34 Sanitary Appliances and Fittings

35 Plumbing Work

36 Facilities Fittings

37 Design of out of hours study spaces

38 Portable Fire Fighting Equipment and Signage

39 Internal/External Signage

40 Landscaping/Street Furniture

41 Pest Control

42 Environmental

43 Room Numbering

# Introduction

The purpose of this document is to outline the design standards that are acceptable to the University in terms of materials, methods of working and design criteria. The document does not cover all aspects of project design and is primarily concerned with those areas where the University wishes to express a preference and should be read in conjunction with further detailed specifications provided for a project.

Should any deviations exist between the design guides and any information provided by others then this guide shall take precedence and can only be varied with the written permission of the University.

1. **Sustainability**

Designers should also refer to the University's project briefing document on Sustainable Construction Guidance.

1. **Equivalent Products**

Where products and suppliers are named in the document this is with the aim to achieve consistency of materials and components used which benefits future maintenance and replacement when required. Whilst there is a need to control the range of products used the University will consider the use of alternatives to those suggested provided, they are of equal specification and approved by the Project Manager.

Inadvertent omission: Wherever products are specified by proprietary name and the phrase 'or equal and approved' is not included, it is to be deemed included.

The University must approve, in writing, prior to installation any changes to specified products and will not be responsible for the contractors or their subcontractors’ failure to comply with this clause.

1. **Manufacturer and Reference**

Where used in this combination: 'Manufacturer' means the firm under whose name the particular product is marketed. 'Reference' means the proprietary brand name and/or reference by which the particular product is identified.

### Related Documents

This Design Guide forms part of a suite of documents, drawings and schedules which make up the University’s requirements and form part of the Contract Documents.

This Design Guide should be read in conjunction with the other design guides, guidance notes, architects detailed specification (where produced), preliminaries and all other tender/contract documentation.

The contractors shall ensure that all sub-contractors and suppliers are provided with copies of all the documents and the University will accept no responsibility for the contractor failing to supply his subcontractors/suppliers with the correct information.

Copies of the latest briefing/design guide information can be found on the Estates & Facilities website in the ‘contractors’ section.

### Scope

For the avoidance of doubt, unless stated otherwise, the Contractor and/or his subcontractor shall be responsible for the detailed design, coordination, manufacture, supply, delivery/offload, installation, inspection, testing, commissioning, setting to work and demonstration to the University of all works indicated in this design guide, other design guide and guidance notes and all associated documents which form part of the Contract Documents.

1. **Design Liability**

The contractor and subcontractor will accept full responsibility for all aspects of the design regardless of whether or not the University has identified a product and/or supplier. Any concerns with the design must be brought to the University’s attention during the detailed design stages and alternatives agreed.

1. **Soft Landings**

The contractor and the subcontractors will be expected to attend workshops with the design team and University stakeholders to establish the brief, refine the design and agree the final scope of work.

The contractor and his subcontractor will be required to adopt the University’s soft landing procedures as set out in Guidance Note 100 (GN100) and as set out in the contract preliminaries

The University is committed to Soft Landings and the contractor and subcontractors are required to fully engage in the process.

1. **Preliminaries**

The contractor and subcontractors are required to comply with the requirements of the contract preliminaries.

1. **Named Contractors**

Certain work is to be carried out by the University’s named suppliers and/or incumbent specialist maintenance contractor, and their details should be confirmed with the University prior to placing any orders.

The specialist contractor will be employed by the contractor as a domestic subcontractor and shall not be considered a nominated or named subcontractor and the contractor will be responsible for all aspects of the specialist’s works.

The contractor shall not be permitted to employ alternative specialist without the written permission from the University which must be received before placing any orders and the University will not accept any responsibility for the contractor’s failure to comply with this requirement.

1. **Commissioning**

All systems shall be commissioned correctly and witnessed by the Project Manager or other nominated University representative.

If the contractor fails to invite the University representative to witness any commissioning, then he may be asked to recommission the system at no cost to the University.

1. **Demonstrations and Training**

The contractor and subcontractors shall ensure that they allow for demonstrating and training the users in the operation of the systems. There should be a minim of three training sessions at differing times/days to cover any shift patterns.

The training should be recorded, and copies included within the building manual.

1. **Defects and Maintenance**

Unless stated otherwise in the contract preliminaries (where produced) the contractor shall include within his contract for a 12 month defects liability period and shall identify his costs for carrying out the first 12 months routine maintenance and servicing as recommended by the manufacturer of the equipment.

The defects and maintenance period shall commence on the date of practical completion for the building or section and not the date of installation.

### Compliance with Regulations

The services installation shall comply with all relevant standards and guidance documents, including but not limited to the following:

* British (BS) and European (EN) Standards and Codes of Practice
* International Standards (ISO)
* Building Regulations
* BSRIA documentation
* Requirements of Statutory Authorities
* Local Byelaws and requirements of Local Authorities
* Regulations under the Electricity at Work Act 1989
* The Health and Safety at Work Etc. Act 1974
* [The Provision and Use of Work Equipment Regulations 1998](http://www.legislation.gov.uk/uksi/1998/2306/contents/made)
* COSHH Regulations
* Equality Act 2010
* Current Water Regulations
* CDM Design & Management Regulations 2015
* All other relevant Local and National Regulations

The current version of the above requirements and regulations applicable at the time of tender (date of submission) shall be used unless stated otherwise.

1. **Manuals and As Built Information**

The contractor shall provide the as built information in accordance with Guidance Note 30 (GN30)

1. **COBie Data & BIM**

To be confirmed by Estates & Facilities Project Manager or University lead..

1. **Workmanship**

Workmanship shall be in accordance with the mechanical and electrical engineers specific project specification, where appointed, otherwise shall comply with all current regulations, guidance and all be in accordance with industry standards, current at the time of tender.

1. **Equality Act 2010**

All installations shall comply with the provisions of the Equality Act, with regard to fixing heights, refer to the University’s Standard Fixing Heights document.

Accessible WC’s and cubicles shall be set out in accordance with the relevant British Standard, Part M of the Building Regulations. Where there is a conflict in the design/layout clarification must be obtained from the University.

1. **Precedence of Documents**

Unless noted to the contrary the precedence of the documents will be as follows

* Contract
* Architects detailed specification (where produced)
* NU Design Guide
* Contract Preliminaries

1. **ACCESS FOR MAINTENANCE**
   1. **General**

The contractor shall make allowance for compliance with the University's Access for Maintenance Strategy as set out in Guidance Note 103 (GN103)

The contractor must ensure that all the subcontractors co-ordinate their installations, especially in relation to access to equipment for maintenance. i.e. ceiling grids under items of equipment that require regular (2 or more times per year) must be fully demountable and that following trades shall not obstruct the removing of access panels or the like.

The contractor must ensure that access requirements must comply with the relevant H&S legislation, regulations, guidelines, ACOP's or the like applicable at the time of the tender.

Any queries must be raised with the PM/PEPS/Principal Designer before the work is undertaken and the University's comments/agreement must be obtained in writing.

Any additional costs or subsequent modifications required to allow maintenance to be completed will be the contractor's responsibility.

* 1. **Access Hatches**

The main contractor will coordinate the work of all the subcontractors and ensure that the location of access hatches is fully coordinated, these should be adequate to service or access the equipment in the void.

The main contractor to liaise on site with the PEPS to review and agree the location of access hatches

Hatches to be locked with an University suited plant room key

* 1. **Access Equipment**

The contractor shall take account of the University's current methods and procedures when designing the building. Access should take account of any existing access equipment provided for the particular building or any equipment that is being purchased through the building contract.

The design should make due allowance for any specific access equipment i.e. clear door openings or floor loadings.

Access arrangements must also be realistic and cost effective and have minimal effect on the operations of the building.

It is not acceptable for the contractor to state that access will be via a scaffold, as the erection and dismantling of such a scaffold may be cost prohibitive for routine maintenance and may be disruptive to the operations of the building.

If an item of plant is critical to the operation of the building it should be positioned in such a manner that it can be replaced with little or no shutdown time for the operations of the building.

1. **FIRE COMPARTMENTATION**

**21.1 Fire compartmentation**

The main contractor shall ensure that fire stopping and compartmentation is completed in accordance with the current legislation, building regulations and fire strategy for the building. At handover of the building the contractor shall provide a written statement confirming that all the fire stopping and compartmentation is installed correctly. The PEPS will be invited to inspect and sign off all areas before they are closed off, otherwise the contractor may be asked to open up the works, at their cost, to demonstrate compliance with this clause.

**21.2 Fire stopping**

The contractor shall ensure that any fire stopping disturbed as part of their works is reinstated immediately on completion of the work in that section. Photographs should be provided to record that the work has been carried out. The University’s instruction should be sought if there is any doubt about the materials or method of fire stopping to be employed. Any existing breaches of the fire stopping should be brought to the University’s attention and instructions obtained on how to proceed. The use of fire foam and fire resistant mastic should not be used without the written permission from the University and then shall only be used in accordance with the regulations and manufacturer’s recommendations.

**21.3 Fire prevention**

The Contractor is to take all reasonable precautions to avoid the outbreak of fire particularly in work involving the use of naked flames. Such work should be examined at short intervals immediately following its completion. Before any works of maintenance, adaptation or extension to existing buildings or services are carried out or connections to existing services are made, the Contractor is to discuss his proposals with the University's Fire Officer responsible for fire precautions to ensure that any fire hazards in the works are known fully to both the Contractor, the Project Manager and University Fire Officer.

**21.4 Automatic fire detection**

The Contractor shall install a temporary automatic fire detection system in the site areas which are not covered by existing fire detection systems. The system must be capable of dialling the University security control centre or other number (designated by the University) to alert them that there is a fire. The Contractor shall ensure there are sufficient detectors to cover the whole work area and they shall adapt it as necessary as the work proceeds. Detectors shall be covered during the day and uncovered as the contractor leaves site. The fire detection system shall have battery backup and be tested each month.

**21.5 Fire evacuation**

Fire escape routes must be kept unobstructed and if necessary, illuminated at all times.

The Contractor is to provide and maintain suitable portable extinguishers which are to be readily available, particularly when work necessitates the use of naked flames in roof spaces, service voids and other similar locations having a high probability of fire. The degree of care to be taken and attention to be given by the Contractor with regard to fire precautions are to be in general accord with Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation, ninth edition, October 2015.

In the event of a fire alarm activating in a building where a contractor is working, they must evacuate the building. Contractors must check that the workforce (including all subcontractors' personnel) are all accounted for, and they must report their findings to the University staff in charge. On no account should any person re-enter the building until they have been told it is safe to do so by the University staff in charge. This rule applies equally to contractors working on roofs or outside a building. A contractor discovering a fire must activate the fire alarm and must call the fire brigade. They must also report their findings to the University staff in charge. University fire-fighting equipment may be used by contractors to tackle small fires only

**21.6 Fire Pager**

Supply install and commission a Lifeline Px-100 fire alarm pager system, compatible with the existing campus wide systems. See electrical specification for further details.

**21.7 Disable Refuge Communication System**

Supply install and commission a Deaf Alerter refuge intercom system, compatible with the existing campus wide systems. See electrical specification for further details.

**22. COMMUNICATIONS**

All communications by designers with University personnel must be agreed with the EsTates & Facilities Project Manager. Where references are made in this document regarding contact with University personnel, the Estates & Facilities Project Manager will set up meetings and coordinate at each relevant stage of the RIBA Plan of Work.

1. **SUSPENDED CEILINGS**

Ceiling systems and components generally to BS EN 13964.

Suspended ceilings would normally be a 600 x 600 mm lay in grid type. Design of the ceiling grid needs to take into account access required to services above and clearance for integrated light fittings. The layout of the grid must align with the lighting design and choice of luminaries. Ceiling grids need to be coordinated with the access requirements for future maintenance. i.e. not main tees under equipment that needs regular access. Concealed grids and ceiling plank systems with limited access should be avoided unless there is a specific design requirement and the Head of Maintenance has agreed to their use.

Generally mineral ceiling tiles should be used as manufactured by Armstrong UK\* or equal and approved. Choice of tile for circulation areas, offices and teaching areas should be led by cost and future availability. Armstrong Dune tiles are commonly installed in these areas.

\* Products should have a Green Rating Guide of A, preferably A+ and manufacturers should have a takeback/recycling scheme.

Laboratory areas, clean rooms, kitchens and humid areas will need to be assessed and an appropriate tile such as Armstrong Bioguard, Hygiene, Hydroboard or equal and approved specified. Acoustic properties may also need to be considered in some areas.

Acoustic rafts should be avoided below ceiling mounted equipment that needs regular access for maintenance.

Lights, detectors or grilles should not be placed in tiles that have to be removed for access for maintenance

1. **FLOOR COVERINGS**

Carpet; in general carpet tiles are the preferred option. Designs and colours to be taken from an agreed range from the following manufacturers or equal and approved: Forbo Flooring Ltd, Desso Ltd. Products should be from the suppliers mid-range of carpets and come with a 5 year warranty and the supplier should have a recycling or take back scheme.

Heavy duty entrance matting to be considered for all main entrances and should extend a suitable travel distance, preferably a minimum of 5m, to prevent soiling to other floor coverings. Primary matting to be Heckmondwike Dreadnought and Battleship/Hippo for the secondary matting.

Vinyl flooring or similar; generally sheet flooring is the preferred option. Designs and colours to be taken from an agreed range from the following manufacturers; Altro Ltd, Polyflor Ltd, Tarkett Ltd or equal and approved.

Products should have a Green Rating Guide of A, preferably A+ and manufacturers should have a takeback/recycling scheme.

When specifying sheet flooring, stone or ceramic tiling etc, the areas should be assessed for slip hazards and a product selected with the manufacturers appropriate slip-resistance value. Cleaning details must be provided when selecting materials.

Where sheet flooring is fitted in bathrooms, shower rooms, wet rooms etc. it should extend underneath all sanitary goods, baths, showers etc. and ideally have a coved or sealed skirting detail.

Where an underlay is required under carpet tiles or vinyl 6 mm plywood should be used.

Floors in plant rooms, subject to location in the building, should be tanked and have adequate falls to drainage taking into account the equipment and services within the room.

1. **PAINTING/CLEAR FINISHING**

Standards generally to BS 6150 2006

Products generally are to match those already used on the University Campus and colours taken from an agreed palette from BS/Ral colour ranges.

Paint products to be obtained from Crown Paints Ltd, Dulux Trade Paint or other equal and approved manufacturer.

Walls in heavy duty areas requiring cleaning should be finished with acrylic eggshell, washable matt or similar products.

Colour contrasts should be considered by the designer to accommodate the requirements of the Equality Act (DDA).

Escape routes; subject to the wall and ceiling construction and previously applied finishes consideration should be given to the application of flame retardant coatings.

Painters shall not caulk the gap between dado trunking capping and walls

1. **WINDOWS**

Performance

Provide independent certifications that all components comply with specified performance requirements

Replacement window installations to BS 8213-4

Wood windows to BS 644

Steel windows to BS 6510

Aluminium windows to BS 4873

PVC-U windows to BS 7412

Where possible all windows to be manufactured to the 'Secured by Design' standard BS 7950

Windows to be fitted with an integral adjustable restrictor to limit the opening width to max 100 mm.

Where possible window design is to allow for cleaning to be carried out from the inside.

Windows to be manufactured to achieve a minimum performance of Band C on the EU energy ratings scale or a U value of 1.6 W/m2K

1. **AUTOMATIC DOORS**

Standards generally to BS 7036.

All doors shall be a normal/standard size, oversize doors will only be used with the written permission of the University.

Safety sensors to be installed to doors to detect any objects in the operating field and stop the motion of the door and return it to its original position.

Emergency stop devices and adequate means of isolation from sources of energy to be provided to all doors.

Full door height finger guards should be fitted on door leaves with auto operators.

Motion sensors for opening the doors on approach may be required when specific DDA requirements of BS 8300/2009 need to be met.

A breakout facility should be included in the specification that allows doors to be opened manually in an emergency.

The control, switching and locking of automatic doors to be agreed with the University prior to manufacture. All doors, including inner lobby doors, should be capable of being manually locked.

All external doors fitted as part of the same project should have all locks keyed alike but not part of any master system and obtained from ASL Master Locksmiths

Automatic slider doors shall be capable of being linked to the University access control system, (currently Chubb C4) to allow for automatic/remote locking. The slider doors must be fitted with a locking mechanism that engages when the door is closed and prevents the doors from being forced open.

1. **FIRE DOORS**

Fire doors generally to comply with BS 8214/2008 and tested in accordance with BS 476-22.

All fire doors should be clearly and permanently marked with their declared fire resistance with a colour coded label or plug.

Doors frames are to be fitted with brush smoke seals rather than rubber and in pairs of doors the seals are to be fitted in the opening leaf to reduce the amount of seal taken out for locks, keeps, bolts or the like.

Intumescent door packers should only be used in accordance with the manufacturers’ recommendations. Gaps around door frames are to be packed out with fire rated material to the same rating as the wall/door.

The use of Fire Foam and Fire Resistant Mastic should not be used without the written permission from the University and then shall only be used in accordance with the regulations and manufacturer’s recommendations.

Ideally, all fire doors should be supplied as complete door sets. Test certificates should be provided and indicate that the door has been tested as a complete assembly.

Closing forces for fire doors should be in accordance with the recommendations set out in BS EN 1154.

Where there is a conflict between the closing force required for a fire door under BS EN 1154 and the opening force requirement of Approved Doc. M then consideration should be given to the use of electromagnetic hold open or low energy door operators.

All doors to stores, comms rooms and plant rooms (not risers) to have full height vision panels.

1. **IRONMONGERY**

Generally all door furniture is to be in accordance with the Equality Act 2010 (formerly DDA), Approved doc M and BS 8300.

Choice of ironmongery is to be consistent with that already fitted on the campus and generally obtained from an agreed range from Assa Abloy, Laidlaw Solutions Ltd. Dorma UK, NHN or other equal and approved.

Door closers shall be fitted with a delay action where the use of the building requires trolleys or the like to be taken through the door. i.e. Laboratory or Catering areas.

Door closers, where fitted shall be on the inside of rooms/lobbies and not on the public corridor side of the door.

Accessible toilets or the like that open onto corridors or other common areas hall be fitted with rise/fall hinges so they self close

*Note: toilet signs/symbols shall not be installed as part of any ironmongery package they will be included as part of the general building signage carried out by the University*

All lock cylinders would normally be obtained from ASL Master Locksmiths.

There will be exceptions to this where other manufacturers' suited cylinders are fitted in a building. In these cases, the existing suites should be matched, Assa Abloy and Union are the other main cylinder manufacturers currently installed on Campus.

Common suites exist across the University campus for common user rooms such as NUIT Comms rooms, cleaners stores etc. and any new provision must be added to these suites.

All external doors shall not be part of any master key system, but shall all be keyed alike,

Plant rooms, risers and roof access doors shall be fitted with a Salto standalone electronic lock. These shall be supplied, installed and commissioned by a Salto approved contractor and added to the existing plant room access control system. Door grouping shall be agreed with Estates & Facilities Head of Maintenance prior to commissioning.

Internal doors shall have an electronic euro cylinder. External doors shall have an ironmongery and lock that is compatible with the door system and suitable for the level of security required

1. **FIRE EXIT DOORS**

Shall be fitted with escape hardware that has been certified to BS EN 1125

Fire doors should be provided with an external knob override facility and the locks shall be suited to an existing University lock suite or keyed alike with all the building external doors

1. **PLANT ROOMS**

Doors to LV switch rooms that have the capacity to connect a generator shall be provided with a ‘cat flap’ arrangement to allow cables to be connected but the doors to remain securely locked.

Plant room doors shall be fitted with an electronic lock as noted above.

Louvres to plant rooms shall be mechanically fixed or have strapped to prevent the louvres from being removed. Suitable fly mesh shall be fitted to the inside of all louvres.

1. **GENERAL FIXTURES/PANEL CUBICLES etc**

Toilet cubicles, vanity units and IPS panelling to be manufactured from a moisture resistant MDF (or equivalent) core and faced with High Pressure Laminate (HPL).

Consideration to be given to manufacturing cubicles in a solid grade laminate in areas of heavy use or higher humidity such as sports area changing rooms.

There shall be a contrast in colour between the toilet door and the cubicles and all ironmongery shall comply with the equality act. Hat & coat hooks shall be provided to each cubicle

IPS panels shall be designed to comply with the manual handling regulations and to be such that one operative can remove it safely within the confines of a toilet cubicle.

Hinged panels to be provided where plant other than cisterns are located behind i.e. water heaters laboratory benches and similar to be manufactured from 22 mm Trespa solid laminate on metal frames.

Laboratory under bench and wall furniture generally to be manufactured from – carcass Melamine faced MDF, doors Laminate faced MDF.

1. **FITTED KITCHEN UNITS**

Units generally to be manufactured to BS 6222-2 and -3, and BS EN 14749.

1. **SANITARY APPLIANCES AND FITTINGS**

WC fittings are to be to DEFRA WC suite performance specification or equivalent approved by the relevant water company.

Generally, sanitary ware should be manufactured by Armitage Shanks/Ideal Standard although other equal and approved will be considered.

Basin taps should be self closing or IR controlled and preferred manufacturers are Armitage Shanks, Dart Valley Systems, Reliance Water Controls or equal and approved.

Shower Units – shower pods are the preferred option to the installation of separate components and the units currently installed in the University are manufactured by either Taplanes of Harrogate, Douglas James Ltd, Hull. Ensuite bathroom pods as manufactured by Taplanes of Harrogate or equal and approved.

Shower mixer valves to have thermoscopic controls as manufactured by Kohler Mira Ltd or Reliance Water Controls or other equal and approved.

Accessible WC’s shall be provided in accordance with Approved Document M and the designers/contractors shall, where practical, provide right- and left-hand transfer on alternate floors.

Access doors in soil and waste pipes shall be installed at changes in direction and suitable access hatches in walls and ceilings should be provided

Cistern overflows must discharge into the WC pan, all other over flows must have an overflow that is easily visible or create a nuisance without damaging the fabric of the building

1. **PLUMBING WORK**

Solvent welded fittings are now preferred and particular attention should be made to falls of pipework runs.

Isolating valves to be fitted to all outlets or group of outlets. Access to valves must not be blocked by other fittings/equipment or the likes of the IPS support framework.

All redundant pipework, equipment and brackets must be removed during refurbishment works.

Mains isolating valves serving a project area should be refurbished or renewed as required.

Access for future maintenance of services must be provided for in the design of systems and waste systems should have appropriate access points for cleaning.

Urinals to have flush control units fitted.

Works shall be installed in accordance with the Legionella ACOP current at the time of tender. Isolation valves shall be fitted close to tee’s to allow legs to be isolated and drained

Thermostatic mixing valves should only be fitted to showers and/or accessible sinks they are NOT required to normal wash hand basin or sinks. The contractor shall supply fit ‘caution very hot water’ signs to hot water outlets not fitted with a TMV

1. **FACILITIES FITTINGS**

Hand drying facilities to be supplied and installed by the contractor shall be Initial VERDEdri hand drier, in areas of low footfall the Initial F5 Eco Dryer can be used.

Normally the soap and toilet tissue dispensers are provided free of charge for the contractor to fit

1. **DESIGN OF OUT OF HOURS STUDY SPACES**

Refer to the design brief for out of ours study spacesthis can be found on the Estates & Facitieswebsite.

1. **PORTABLE FIRE FIGHTING EQUIPMENT AND SIGNAGE**

The University’s current service provider for the supply and maintenance of portable fire fighting equipment is Safe and Sure Limited.

New projects should allow for a review of the provision. Plans should be provided to the University Fire Safety Officer who will advise on provision of equipment and position of signage. Revised details to be sent to the University project manager/lead for inclusion on the maintenance asset register.

1. **INTERNAL/EXTERNAL SIGNAGE**

The University has an approved design and policy for internal and external directory and general signage which is to be used for new projects, this can be found on the Estates & Facilities website.

The contractor shall only include statutory signage that complies with current legislation and matches any existing signage within the building. All other signage will be ordered direct by the University.

*Note: toilet signs/symbols shall not be installed as part of any ironmongery package they will be included as part of the general building signage*

**39.1** **All Inclusive Facilities**

Trans and non-binary people would like consistent toilet signs for toilets that are “gender neutral” or open to all genders. The use of a stick figure sign with half a dress, half trousers does not reflect gender identity appropriately and can cause confusion. ‘Gender neutral’ is not an inclusive term.

All University and NUSU toilets to use consistent labelling with printed signs stating ‘All Gender Toilet’ or ‘All Gender and Accessible Toilet’

**39.2** **Clip Frames**

The contractor shall supply and fit the following clip frames:

Red A4 frame in Landscape orientation adjacent to all manual fire alarm break glass points to hold the fire action notice. The notice will be placed in the frame by the University

Silver A4 frame in Portrait orientation adjacent to each SAMS (student attendance monitoring) point

Silver A3 frame in Portrait orientation in seminar rooms adjacent to the AV/Teaching point

Silver A4 frame in Landscape orientation in meeting rooms adjacent to the AV equipment

Silver A2 frame in Portrait orientation in seminar rooms adjacent to entrance or at location to be agreed with the University

1. **LANDSCAPING/STREET FURNITURE**

The University has guidance documents which provide a definitive guide to approved palette of landscape, street furniture and paving materials which are to be used on all future projects. Details can be found within the Estates & Facilities briefing document on the Estates & FacilitiesWebsite.

1. **PEST CONTROL**

Consideration should be given to the requirement of preventative pest control measures. In particular bird control, to eliminate or deter pest birds from landing, roosting and nesting in open areas, voids or on plant/equipment created as part of the project.

**42. ENVIRONMENTAL**

The University has an Environmental Sustainability Policy and Strategy, details can be found within the briefing document on the Estates & Facilities website.

1. **ROOM NUMBERING**

Each space that has a door shall be give a unique room/space number to enable space allocation. Rooms within rooms shall take the outer room reference and have a sub designation of A, B, C etc.

Inclusive toilets of a common corridor shall be classed as rooms off rooms and have an A, B, C, designation with a discrete door number on the top left hand corner of each door.

Room numbers shall ‘flow’ round the building in a logical sequence to assist with wayfinding. Numbers shall not jump and be out of sequence.

Lifts will have their own unique reference in line with numbering across Campus.

On new buildings, the floors shall be levels or floor and must not be mixed. i.e Levels 1,2 3.. would have the ground floor as Level 0.

All room numbering MUST be agreed with the Estates & FacilitiesProject Manager prior to final as built drawings or test certificates being produced and the later shall refer to the agreed room numbers/space names. This also applies to fire alarm addresses or the like.

1. **SERVICING & MAINTENANCE**

The contractor shall allow for service and maintenance visits for all non M&E items the first 12 months following Practical Completion.

This shall include, but not limited to, automatic doors, moveable walls, roller shutters.

The servicing shall be carried out in accordance with the manufacturer’s recommendations and/or to comply with legislation.

The maintenance of all M&E plant and equipment shall be carried out by the M&E contractor and included within their tender costs.