

## Specification

### 1 Introduction

The construction of single storey warehouse/production units and external site works including hard standings, car parking, landscaping and drainage.

The approach to design adopts conventional techniques, materials and detailing, and endeavours to provide a flexible 'base building', which will be fitted out by incoming occupiers. The specification outlined provides a baseline from which occupiers can instruct amendments, to suit their needs at minimum additional cost.

The scheme will be designed and constructed in accordance with and within the constraints of all relevant Statutory Instruments, Building Regulations and Codes of Practice.

Where proprietary named products are described, they represent and are indicative of the minimum standards to be incorporated throughout the design and construction of the works. Alternative products/manufacturers of similar quality and performance may be substituted.

Each unit will have its own defined external area of car parking and service yard.

### 2 Substructure

The whole of the substructure/foundation works will be constructed to the Consulting Structural Engineers design.

The production/warehouse floor slab will be designed to carry a maximum superimposed uniform distributed loading of 50 KN/m<sup>2</sup> (1,000 lbs per sq ft); the surface will have a power floated finish and be treated with a surface hardener/dustproofer. The floor will be constructed within tolerances of FM2 Special as defined in the Concrete Society Technical Report No 34 and 10mm from datum with a designed 'U' value of 0.20 w/m<sup>2</sup>°C.

### 3 Production/Warehouse Area

#### 3.1 Structural frame

The frame will be a steel portal frame capable of supporting a general superimposed service loading of 0.25kn/m<sup>2</sup> arising from mechanical and electrical installations, plant equipment and fittings. The frame height will vary but will be a minimum of 10m except at the column line where the stanchion will reduce this to 9.6m at the face of the column, and it will then increase up to the full 10m height 2m from the column face. The height in the centre of the units will be circa 11.5m

The portal frame design will have no internal columns.

All other exposed steelwork will be painted with two coats of white paint.

### **3.2 Roof**

The roof construction will comprise standard built up profiled sheets with white finish galvanised steel liner panel, insulation and an outer profiled sheet finished with 'Corus colourcoat HPS 200 colour 'Hamlet SC RAL 2002'' laid to a minimum pitch of 5 degrees. The whole roof will be constructed to achieve 0.2 W/m<sup>2</sup>C "U" values. Double skin, GRP translucent roof lights to BS 4154 will be provided, equivalent to a minimum of 10% of the internal floor area of the unit

Roof access points and safety line systems will be provided to facilitate safe maintenance operations

### **3.3 External Walls**

Horizontal cladding panels will be of composite construction Kingspan Euro Box Panels or Wave Panels to the lower section (colour Albatross Blue Grey) and to the upper section Kingspan Flat Panel (colour Ocean Blue) all finished internally with a white galvanised steel liner panel

Vertical cladding to the building elevations will be of a composite insulated panel system to provide a U value of 0.3 W/m<sup>2</sup>C.

Internally and up to 2.4m in height a protective fair faced dense concrete block wall painted with three coats of white emulsion paint will be provided.

Protective steel tube bollards will be provided to all units to prevent damage to cladding in vulnerable areas adjacent to the goods entrance doors.

### **3.4 External Doors**

The external level access door size 4.00m wide x 5.00m high will be an electrically operated factory painted insulated sectional steel up and over door.

Where needed, personnel fire escape doors will be steel faced flush security doors in steel frames with a gloss paint finish to match the cladding finish.

### **3.5 Internal party walls**

All internal party walls will be of fair faced dense concrete block painted with three coats of white emulsion paint. Above 2.1m height the party walls will be of metal stud faced with a plasterboard dry lining system, all joints will be taped and the whole painted with three coats of white emulsion paint to underside of roof lining or steel member. The walls will incorporate a sound deadening quilt and security mesh.

## **4 Mezzanine/Office**

### **4.1 Structural frame**

The structural frame to support the mezzanine/office will be designed as an independent structure for a possible imposed first floor loading of 5.0kn/m<sup>2</sup> (100 lb per sq ft)

### **4.2 Upper Floors/Stairs**

The mezzanine/office floor will be a composite floor slab with a power floated finish and be treated with a surface hardener/dustproofer.

Metal with filled treads or Pre-cast concrete staircases will provide access to the mezzanine/office level. Metal Handrails and Balusters will be provided as required by the Building Regulations.

### **4.3 Windows**

Casement windows will be powder coated aluminium triple glazed with low E glass and frames colour RAL 5010. Opening casements are to be evenly and uniformly distributed.

### **4.4 External Doors**

Personnel entrance doors to the front of the units will be steel framed powder coated double glazed doors in powder coated colour to match the cladding finish.

Doors will be fitted with heavy duty overhead closures and multi point security locks.

### **4.5 Internal walls**

All internal staircase division and toilet walls will be of lightweight fair faced concrete block painted with three coats of white emulsion paint. Where indicated at mezzanine/office level internal partition walls will be proprietary metal stud with plasterboard facings.

### **4.6 Internal Doors and Joinery**

Internal doors will be solid core birch veneered faced doors, with painted softwood frames. Where applicable, circulation doors will have glazed vision panels.

Good commercial quality ironmongery to suit the purpose and fire rating of each application will be provided.

All other internal joinery and boxings including window boards and the like are to be MDF board with a white gloss painted finish.

#### **4.7 Internal Mezzanines/Offices**

The internal entrance, staircase and mezzanine/office will be fitted out to office specification as follows

##### **Walls**

Dry lined/plastered and painted with three coats of emulsion paint.

##### **Floors**

Heavy duty carpet floor tile to a PC sum of £20.00/m<sup>2</sup>, complete with all stair nosings and edgings.

##### **Ceilings**

Suspended lay in ceiling system of Armstrong 'Microlook Cirrus' in a white stove enamelled grid. The lay in grid system would accommodate full recessed fluorescent low brightness lighting units to provide a level of 500 lux at a height of 900mm from floor level.

Additional task lighting will need to be provided by the occupier to meet LG3 requirements

##### **Power**

A perimeter three compartment skirting trunking capable of providing all power and communications services will be provided. Power sockets would be provided on the basis of one 13 amp twin socket outlet per 10 m<sup>2</sup> of office accommodation.

General purpose socket outlets will be provided in all toilet and general common areas.

##### **Mechanical Installations**

Office areas will be afforded a comfort cooling system

##### **Fire Alarms**

A fire alarm system will be installed in accordance with BS5839

##### **Additional Toilet Accommodation**

Depending on occupancy levels additional toilet accommodation and cleaners facilities can be provided adjacent to the WC/Shower room finished to a similar level as described elsewhere in this document.

## **5 Mechanical & Electrical Services**

### **5.1 Mechanical Services**

No heating provisions will be installed in the Production/Warehouse however a gas main will be provided and sized to allow future provision of a gas fired heating system based upon achieving 16<sup>0</sup>C with an external ambient of -4<sup>0</sup>C. The gas pipe connection will be valved and plugged for both the mater and extension if required.

A mechanical extract ventilation system will be provided to the ground floor toilet/shower area.

### **5.2 Plumbing Services**

#### **5.2.1 Water**

A metered incoming potable water supply of 28mm diameter will terminate within the general ground floor entrance area of the production/warehouse unit.

#### **5.2.2 Sanitary Ware**

A disabled toilet complete with a shower will be provided at ground floor to meet standard occupancy requirements. The area will to be fitted with white vitreous china (Twyfords or similar) exposed cistern WC with plastic seat and pedestal basin, including disabled fittings to Part M regulations. A shower tray complete with a proprietary shower door will also be provided.

A point of use electric water heater will be installed to the basin and an electric shower and head will be provided in the shower area.

White tiling to form a splash back to the basin and full height tiling within the shower area will be provided.

Welded vinyl covering and coved skirting will be provided to the floor.

### **5.3 Electrical Services**

#### **5.3.1 Power**

Incoming 3 phase electrical supplies will terminate within the general ground floor area of the production/warehouse area at a switchgear panel of suitable size to accommodate power, lighting and heating circuits to ground and mezzanine/office level, with 4 spare ways.

Provision is made based on 120 watts/m<sup>2</sup>, which will provide for a unit with a ground floor area of 1,000 m<sup>2</sup>, 180KVA with 255amps per phase.

Electrical supplies will be of sufficient capacity to provide comfort cooling to mezzanine/office areas.

Power circuits are to be provided by the incoming occupier

### **5.3.2 Lighting**

Lighting to the production/warehouse to be by the incoming occupier.

Pendant lights to achieve a lighting level of 150 lux will be provided to toilets, and common staircase areas.

## **6 External Works**

### **6.1 Service yards/Access Roads**

Service yard and access road will be designed to accommodate HGV vehicles up to 44 tonnes on 6 axles, with a maximum axle loading of 10.50 tonnes as permitted on EC roadways, and shall have surface suitable for the abrasion characteristics of HGV use.

### **6.2 Car Parking**

Car-parking bays and service yards will be delineated by suitably painted markings

### **6.3 Footpaths**

Footpaths will be of interlocking concrete block pavements.

Fire escape paths around the perimeters of the production/warehouse will be washed stone chippings retained by tanalised softwood edging boards and stakes

### **6.4 Landscaping**

A low maintenance soft landscaping scheme will be implemented to satisfy the requirements of the planning permission and to compliment the river walk landscaping scheme.

Two landlord watering points will be provided, located on an agreed external building elevation.

Single sided tubular steel Cycle Shelters 'A series' by Urban Engineering clad with plastisol or transparent cladding will be provided within the landscape to each production/warehouse unit.

An enclosure for refuse bins will be provided to each warehouse/production unit

### **6.5 Signage**

External unit identification signs will be provided

## **6.6 Fencing**

Fencing will be 2.1m high Jackson Fencing blunt top Barbican® steel fencing complete with sliding and swinging gates depending on location.

## **6.7 Drainage**

Foul and surface water drainage systems will be provided

## **6.8 External Services**

Mains gas, electricity, water and two spare communication ducts will be provided to each production/warehouse unit.

Externally floodlights to achieve a lighting level of average 20 lux to the service yard and car parking areas will be provided. This level will be up-rated to 35 lux immediately outside the building with the lighting adjacent the production/warehouse externally fixed to buildings and controlled by photocells with time clock overrides.

The occupier is to make application and arrangement for the connection of the permanent Statutory Services Supply Agreements including meters as required.