

# **General Design Requirements**

#### **Room Names & Numbers**

Service and Component Life

New materials will comply with BS 7543 and BS ISO 15686. The design and service life of the building and component parts will be as listed below. Maintenance will be required during this service life, in accordance with the component suppliers' recommendations.

Structural frame	50 years
Structural frame (new structural elements only)	50 years
Cladding – Primary components	60 years
Cladding – Secondary components	30 years
Cladding – Door & ironmongery	10 years
Roof coverings	25 years
Internal wall	25 years
Mechanical & electrical services	

# **Sustainability Standards**

M table 12.A1 (New Plant)

in accordance with CIBSE guide

# **BREEAM**

1 St Giles Square, including the basement is subject to a Bespoke Shell and Core BREEAM 2011 assessment and is required to achieve a BREEAM Very good. As well as BREEAM Very Good they are also required to achieve a minimum 60% of the water credits and 40% of the materials credits.

The design stage certificate shows they are on track to achieve this. SKANSKA have a Post Construction BREEAM tracking Schedule, the majority of these credits have not yet been achieved, but will be reviewed upon the buildings completion. Due to the fact the assessment is Shell and Core only, there are a number of requirements that will be subject to the Tenant within these spaces. A tracker schedule within the Appendix of this document highlights the key condition requirements.

#### **Green Lease**

BREEAM requires the landlord to produce a Green Lease Agreement (a legally binding document) to the tenant to ensure they comply with BREEAM requirements. It is also required to achieve planning requirements in regards to energy performance. A copy of the Green Lease Agreement is in the Appendix of this document.

# **Energy Efficient Systems**

In order to comply with Building Control and planning requirements the tenant must comply with relevant Part L requirements including fit out equipment efficiencies. Refer to the environmental report in the Appendix of this document.

# **Fire Protection**

This document is to be read in conjunction with the fire strategy report. Fire rated steel structure in accordance with the fire strategy report. Refer to SKA-FP-100-Additional Fire Protection to Basement 09 12 2016 & Fire Strategy Report.

# **Design Finishes**

# **Entrance Lobby - Ground Floor**

#### Brief

To provide a hotel lobby with shared access for upper level functions and allow means of escape upper levels to "base build" standards as defined below;

#### **Architectural**

- Base build FFL to soffit: 5.3m nom.
- Base build FFL to underside of bream:
  4.8m nom.
- FFL to ceiling by tenant: 4m nom.
- Occupancy level: Not limited by fire

# Walls

- Fair faced blockwork or unfinished concrete
- Back of fixed curtain wall system cladded with galvanized steel panels

## **Partitions**

- Fair faced blockwork and fire rated plaster board partition to fire lobby
- Shaftwall risers with no finishes. Riser wall to FR 90 min
- Partitions to maintain 120, 90 & 60 fire resistance. Refer to fire strategy report and Orms FR series for locations
- Acoustic requirement: >50dB Rw. Refer to acoustic report annex for location

#### Floor

Unfinished concrete slab

# Ceiling

Exposed galvanised metal deck soffit

#### Doors

- Timber veneer with hardwood frames to fire lobby
- Internal doors to be FR3OS
- External doors fully furnished as part of cladding package

# **Furniture**

N/A

# Signage

Statutory signage only

# Miscellaneous

Temporary steps and guarding where required

#### **Structural**

# **Imposed Load**

Uniform Distributed

Load Incl Partitions Qk 6.5 (kN/m2)
Concentrated Loads Qk 6.5 (kN)

Horizontal Loads on Partitions, Walls and

Parapets Qk 1.5 (KN/M)

Frequency N/A
Response Factor N/A
Criteria A3

# **Superimposed Dead Load**

Load for Floor

Finishes Gk 4.0 (kN/m2)

Nominal Load for Ceiling and Services

over. Gk 0.5 (kN/m2



# 1. Hotel Lobby



<sup>\*</sup>refer to structural engineers allowance for future partitions

# **Design Finishes**

# Mechanical

Temperature: Winter 18 + /- 2

Summer 26 +/- 2

Ventilation Rate

2 ACH (via infiltration from adjacent

spaces)

Occupancy 2 people

# Landlord Installation

 FCU providing heating and cooling installed in ceiling, with all ductwork, grilles dampers etc

#### **Electrical**

Equipment 5W/m2

#### Landlord Installation

- Rising busbar with spare tap offs in local riser
- Minimum fire detection and alarm system. Fire alarm panel.

#### Tenant Installation

- Containment. Metered distribution boards and power supplies to suit fit out
- Modifications/additions to fire alarm and detection system to suit layout (temporary installation required during fit out period)

# Lighting

Lighting Power 20 W/m2 Lighting Level 200 lux

# Landlord Installation

18 +/- 2 — General and emergency lighting including controls

#### Tenant Installation

 Any modifications to lighting including decorative lighting and associated controls to suit fit out

# **Public Health**

Landlord Installation

- No domestic water or drainage connections
- Full sprinkler system including zone valve and sprinkler heads

## Tenant Installation

 Modification of the sprinkler system to suit layout

### Acoustic

For interior noise criteria and any relevant limitations on installed equipment refer to the project acoustic report.

# Security/AV/WiFi

As part of fit out.

#### Lifts

Refer to lift specification.

# **Ground Floor, Stairs and Lift Core Areas**

#### **Brief**

To provide access to upper levels by use of a central core and provide finishes to "common parts" standards to areas within core.

## **Architectural**

Base build floor to floor
 5.650m nom (GL-L1)

3.6m nom (L1-L3)

4m nom (L4-L5)

3m nom (L5-L6)

# Walls

- Blockwork and in situ concrete drylined (taped, jointed and skimmed). Paint required inside stair and to lobby areas. No finishes required on tenant side
- Tenant side to be dry fixed only
- MDF skirtings with painted finish required
- To 120 & 90min. Refer to Fire Strategy Report and ORMS FR series for locations.

#### **Partitions**

- Fire rated plasterboard partitions to form part of enclosure to fire lobby to 120 & 90min. Refer to Fire Strategy Report and Orms FR series for locations.
- Partitions to be fully furnished within lobby
- MDF skirtings with painted finish required

## Doors

- Hardwood frame doors with full high pressure laminate lining to door leaf. Riser doors to be in painted finish.
- Stainless steel ironmongery

- Access control
- Acoustic requirements: 30 db RW to core doors (refer to acoustic report annex for locations)

# **Furniture**

N/A

# Signage

Statutory signage only where required

#### Miscellaneous

N/A

## **Structural**

Lobbies and floor slabs:

Imposed and Superimposed Dead Loads as per adjacent rooms.

#### **Stairs**

Imposed Load:

- Uniform Distributed Load qk 4.0 (kN/m2)
- Concentrated Loads Qk 4.5 (kN)
- Horizontal Loads on Partitions, Walls and parapets
   qK 3.0 (kN/m)
- Can be reduced to 1.5kN/m in hotel/offices

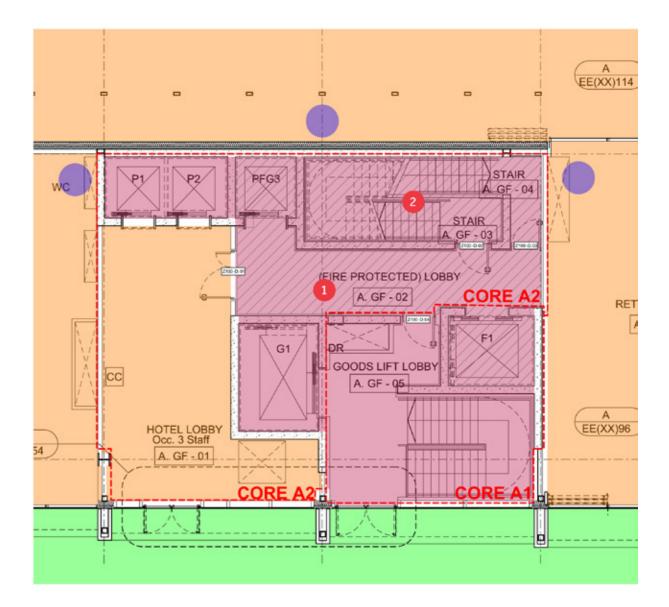
Frequency N/AResponse Factor N/A

- Criteria C33/C35

Superimposed Dead Loads

Nominal Load for Floor Finishes
gk 1.6 (kN/m2)

Nominal Load for Ceiling and Services over gk 0.5 (kN/m2)





- 1. Fire fighting lobby
- 2. Stair core.

# **Ground Floor, Stairs and Lift Core Areas**

# Mechanical

Temperature:

Winter 18 +/- 2
Summer uncontrolled
Occupancy N/A - Transient occupancy only

- Ventilation of stairs via natural infiltration from neighbouring spaces
- Background heating via LTHW to radiators to lowest stair level. No cooling provision.

# **Electrical**

Power:

Small power 5 W/m2

- Containment, distribution boards and power supplies for all landlord's equipment
- Fire detection and voice alarm system

# Lighting

Lighting Power 5 W/m2 Lighting Level 100 lux

All emergency and non-emergency lighting and associated lighting controls to be installed.

# **Public Health**

No provision

# Acoustic

For interior noise criteria and any relevant limitations on installed equipment refer to the project acoustic report.

# Security

- CCTV
- Containment for access control
- Access control to stair core

# Lifts

#### **Brief**

To provide shared lift access for upper level functions and statutory requirements with finishes in accordance with "common parts" definition as noted below and scheduled in the vertical transportation section of this report.

# **Architectural**

FFL to soffit: Reference lift schedule

#### Walls

- Passenger lifts: Bespoke architectural fit out using back painted glass and architectural SS metalwork
- Fit out of full height LED screen required for base build
- Goods lift: stainless steel linish finish
- Fire lift: stainless steel linish finish

# **Partitions**

- N/A

# Floor

- Passenger lifts: Carpet. Contractor to supply tray suitable for 20mm stone.
- Goods lift: Stainless steel checker flooring
- Fire lift: Stainless steel checker flooring

# Ceiling

- Passenger lifts: Monolithic PPC metal ceiling and cove lighting only to design drawings
- Goods lift: Metal PPC finish
- Fire lift: Monolithic PPC metal ceiling and cove lighting only to design drawings

#### Doors

- Passenger lifts: Doors and architrave in stainless steel linish finish. Architrave to be folded metal with scribed internal corners for sharp edge appearance.
   Doors to be FR 60
- Goods lift: Stainless steel linish finish.
   Doors to be FR 60.
- Fire lift: Stainless steel linish finish architrave as passenger lift. Doors to be FR 60.

#### **Furniture**

N/A

# Signage

- Embossed lift numbers on architraves
- Statutory only where required

# Miscellaneous

 Integrated control panel to include LED display screen for floor and media advertisement

#### Mechanical

Typically no provision. Cooling TBC for passenger lift if LED screening ceiling is to be installed.

# **Electrical**

Power supplies as required for lift motor rooms/control rooms

#### Lighting

All internal lighting to be provided by Landlord as part of the lifts package

# **Public Health**

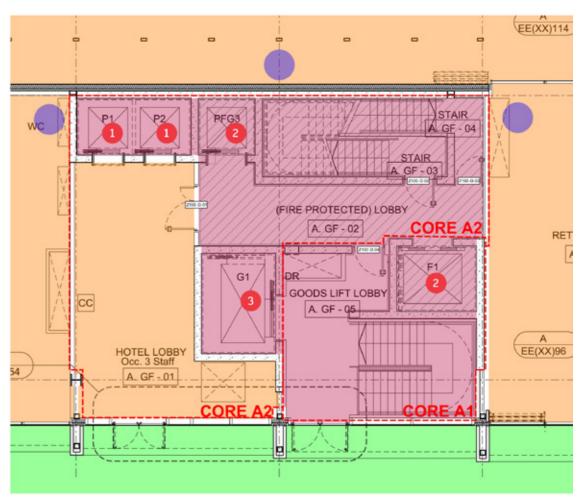
No provision required

#### Acoustic

For interior noise criteria and any relevant limitations on installed equipment refer to the project acoustic report.

# A/V

Digital signage



Ground floor level cycle store



- 1. Passenger lifts P1 & P2
- 2. Fire Lifts FG2, F1

# Restaurant and Dining - Level 6

#### **Brief**

To provide restaurant on Level 6 with on floor kitchen facilities as recommended by catering consultant to "base build" standards listed below. t

## **Architectural**

Base build SSL to Soffit 3.575m nom.

Base build SSL to US of beam 2.37m nom.

FFL to Ceiling 2.9m nom.

Occupancy level 200 people (includes 40 staff)

#### Walls

- Fair faced blockwork or in situ concrete
- Main structure using intumescent paint finish where exposed
- No skirtings
- Back of fixed curtain wall system clad in cementitious board or galvanised steel panels tbc by cladding contractor
- Fire resistance to 120, 90 minutes around core. Refer to Fire Strategy Report and Orms FR series for locations

#### **Partitions**

- Fire rated plasterboard partitions
- Shaft wall around risers to 90min FR
- No finishes required
- Acoustic requirements at risers equal ≥
   55dB RW

#### **Floor**

Exposed concrete slab

# Ceiling

- Exposed metal desk soffit
- Any acoustic panels must be noncombustible type for example (Ecophone Solo)
- Inspection hatches to be provided every 2m within kitchen for cleaning of extract ducting

#### Doors

- Laminate finish with hardwood frames
- Aluminium and stainless steel ironmongery
- Refer to Orms door schedule for details
- Acoustic performance at riser equal 40 dB Rw

#### **Furniture**

N/A

# Signage

Statutory signage where required

#### Miscellaneous

Temporary balustrade guarding around capped penetrations where required

#### Structural

Imposed Load:

- Uniform Distributed Load Including Partitions qk 5.0 (kN/m2)
- Concentrated Loads

Qk 4.5 (kN)

- Horizontal Loads on Partitions, Walls and parapets qK 1.5 (kN/m)
- Frequency >5.0 Hz
- Response Factor
   N/A

Superimposed Dead Load:

- Load for Floor Finishes gk 2.4 (kN/m2)
- Nominal Load for Ceiling and Services over gk 0.5 (kN/m2)

#### Mechanical

Temperature:

Winter 21 + / - 2Summer 24 + / - 2

Ventilation Rate supply per person

Occupancy 5m2 per person, note that as the tenant is installing all ventilation equipment they are not limited by the MEP systems to the design occupancy by the basebuild. The fire strategy limits the floor to 281 people including staff.

10-121/s fresh air

Heating 55kW is provided from central plant, additional heating could be installed by the tenant using their rooftop plant space if required. Subject to planning consent.

Cooling 67kW is provided from central plant, additional cooling could be installed by the tenant using their rooftop plant space if required. Subject to planning consent.

Ventilation The landlord system provides 420l/s of supply air and dedicated exhaust intended for WC areas around the core. This is split 50/50 each side of the lobby, 210l/s to each WC area. If not all this is needed it could be used by the tenant in other areas, lobbies etc. All other ventilation is by the tenant for kitchen and seating areas.

# Landlord Installation:

- Access to intake and extract louvres
- Spatial provision for air handling plant within the 6th floorplate
- Metered chilled water flow and return connection (7/12°C) capped at riser
- Metered LTHW flow and return connection (70/50°C) capped at riser

# Tenant Installation:

- Air handling plant including make-up supply air to serve seating and kitchen areas, kitchen exhaust unit, connected to intake exhaust. Supply and extract ductwork, grilles, dampers, CO2 sensors, insulation controls etc, as required to create a complete working system.
- Extension of the chilled water and LTHW connections to air handling unit coils, and radiators or trench heaters as desired.
- Push fit plumbing is to be avoided where possible due to water damage losses arising from it.

#### **Electrical**

Small power

10 W/m2

In addition to the general small power and lighting allowance an additional 200kW allowance was made for the commercial kitchen area. This was in line with the advice give to Buro Happold by the catering consultant involved in the project pre tender.

# Restaurant and Dining - Level 6

#### Landlord Installation:

- Rising busbar with spare tap offs in local riser
- Minimum fire detection and alarm system
- A 400A 3phase tap off is provided for the L6 restaurant on BB1, metered by the landlord. The tenant is to install DBs as required within their space from this connection.

#### Tenant Installation:

- Containment, metered distribution boards and power supplies to suit fit out
- Modifications/additions to suit fire alarm and detection system to suit layout

# Lighting

Lighting power 18 W/m2 Lighting level 150 lux

# Landlord Installation:

Temporary general and emergency lighting

#### Tenant Installation:

 All lighting including general, emergency and decorative lighting and associated controls

#### **Public Health**

Domestic Cold Water Storage 7 | cover Domestic Hot Water Storage 6 |/cover

 In the tank calculation Buro Happold used 378 covers/day for L6 restaurant. However note that this is just for the central cold and hot water storage volumes in the basement which have a number of other tenants and spaces

- served from them (which are also based on assumptions), so there are large volumes of hot and cold water stored ready for supply to each space.
- The domestic water system design for L6 tenant is based on a 35Ø BCWS connection sized on 78 loading units and a 28Ø DHW connection sized on 51 loading units (BSEN8O6). Loading units represent the diversity used across the system and equate to an approx. design flowrate of 1.2I/s cold and 1.0I/s hot. The system can achieve a max of 2 bar at the top of the riser in level 6 which can be reduced by the PRV on the tenant connection detail as required.

# **Drainage and Grease Separation**

This is listed in the M&E Specification, in line with building regs all kitchens will require grease separation. This is the responsibility of the tenant within their space before connection to the landlord stacks. Landlord drainage connections are provided in the locations shown on the construction drawings (in WC and kitchen area) and any offsets including pumping to get to these locations is the responsibility of the tenant.

# Landlord Installation:

- Metered and capped domestic hot and cold water supplies
- Sprinkler main with zone valve and single sprinkler head

# Tenant Installation:

 Any sanitaryware or water consuming equipment such as glass wash.
 Extension of domestic water services to these items. Any water softening or reverse osmosis water treatment

- required. Trace heating to domestic hot water where required.
- Extension of sprinkler system to suit layout
- Sprinkler system must be designed to BS EN 12845 in order to get sign off for the certification (LPS 1048)

#### Gas

A 210kW (20.2m²/hr) gas connection is provided for level 6 tenant – 80Ø pipe. This is sub metered for L6 tenant by landlord, with a single utility meter installed for the site serving multiple tenants (and landlord heating plant)

#### Acoustic

- For interior noise criteria and any relevant limitations on installed equipment refer to the project acoustic report.
- Acoustic panels can be specified by the Tenant, but the requirement for a noncombustible type (Ecophone Solo or similar) is to be provided.

# Security

As part of fit out

#### Lifts

Refer to lift specification

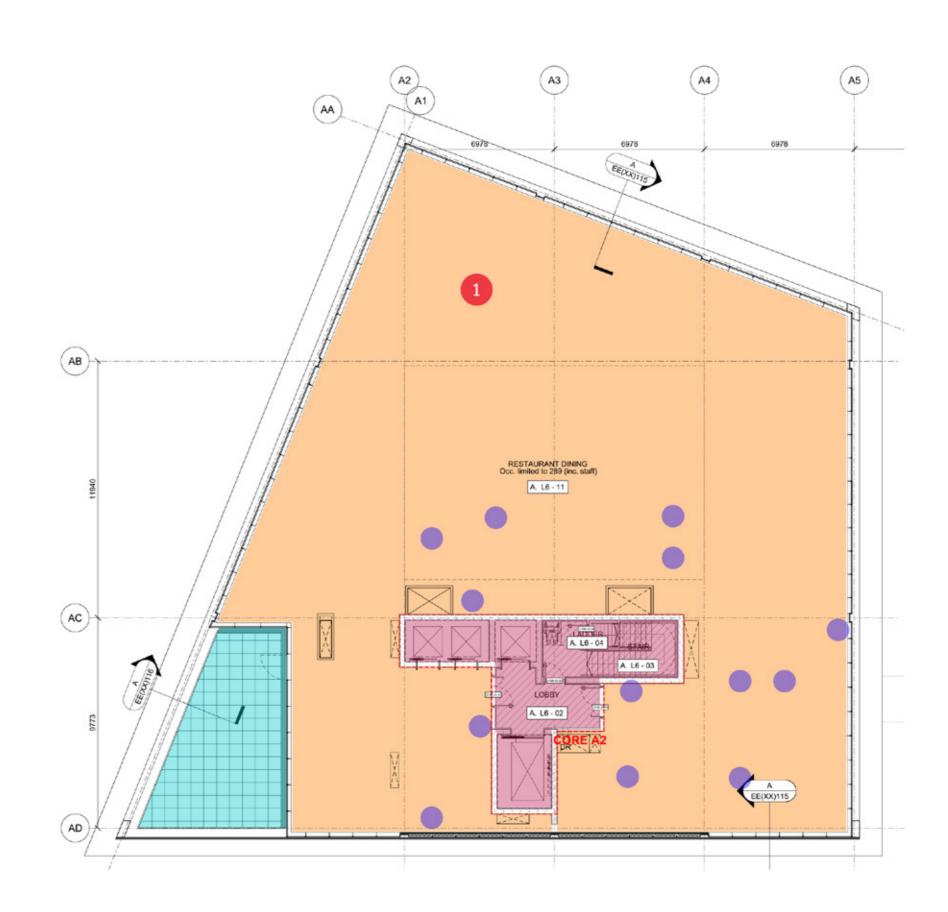
#### AV

As part of fit out

# **Telecoms and Television**

Capped

# Restaurant and Dining - Level 6



Level 6 Restaurant Base Build plan



1. Restaurant with on floor kitchen

# Terrace Space - Level 6

#### **Brief**

To provide outdoor an outdoor terrace to be level with internal floor level to base build standards as described below;

# **Architectural**

Base build SSL to Soffit N/A
Base build SSL to US of beam N/A
FFL to Ceiling N/A
Occupancy level Included in restaurant

# Walls

External façade and glass balustrade as outlined in façade package

### **Partitions**

N/A

#### **Floor**

- Inverted roof system with hot applied waterproofing and rigid insulation suitable for loading and compliant with BREEAM requirements
- Drained concrete pavers on pedestals

# Ceiling

N/A

#### **Furniture**

Not part of basebuild

# Signage

Statutory signage where required

#### Miscellaneous

- Ballast around perimeter
- Integrated emergency lighting at low level
- Electrical and public health services as noted by M&E engineer

#### Structural

Imposed Load:

- Uniform Distributed Load Including
   Partitions
   qk 5.0 (kN/m2)
- Concentrated Loads Qk 4.5 (kN)
- Horizontal Loads on Partitions, Walls and parapets qK 1.5 (kN/m)
- Frequency5.0 Hz
- Response Factor5.0

Superimposed Dead Load: Load for Floor Finishes gk 2.4 (kN/m2)

#### **Power and Water on Terrace**

Power & water to L6 terrace areas – not in the current provision this would need to be looked at by the tenant. There is a bib tap and power on the roof above the restaurant (L7) for tenant plant and PV wash down etc.

# **Electrical**

Landlord Installation:

Rising busbar with spare tap offs in local riser

#### Tenant Installation:

 Containment, metered distribution boards and power supplies to suit fit out

#### **Public Health**

Landlord Installation:

- Capped domestic cold water supplies
- Storm water drainage system

#### Tenant Installation:

 Extension of domestic water services to any bib taps for wash down modifications to terrace drainage system to suit any changes in terrace finishes

# Security

As part of fit out

Level 6 Terrace

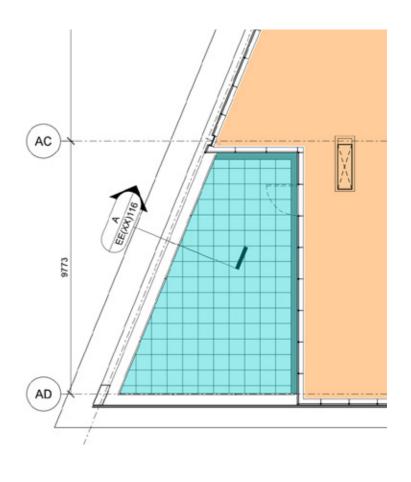
KEY

Base build

Common parts

Capped off Services

1. Outdoor terrace



# **Roof Terrace Space**

# **Photovoltaic Panels**

Imposed Load:

- Uniform Distributed Load qK 0.6m

(kN/m2)

- Frequency

>N/A

- Response Factor

N/A

Superimposed Dead Load:

 Load for PV's and Roof Finishes qK 2.4 (kN/m2)

# Skylight

Imposed Load:

– Uniform Distributed Load qK 0.6m

(kN/m2)

- Frequency

>N/A

Response Factor

N/A

Superimposed Dead Load:

- Allowance for self weight of

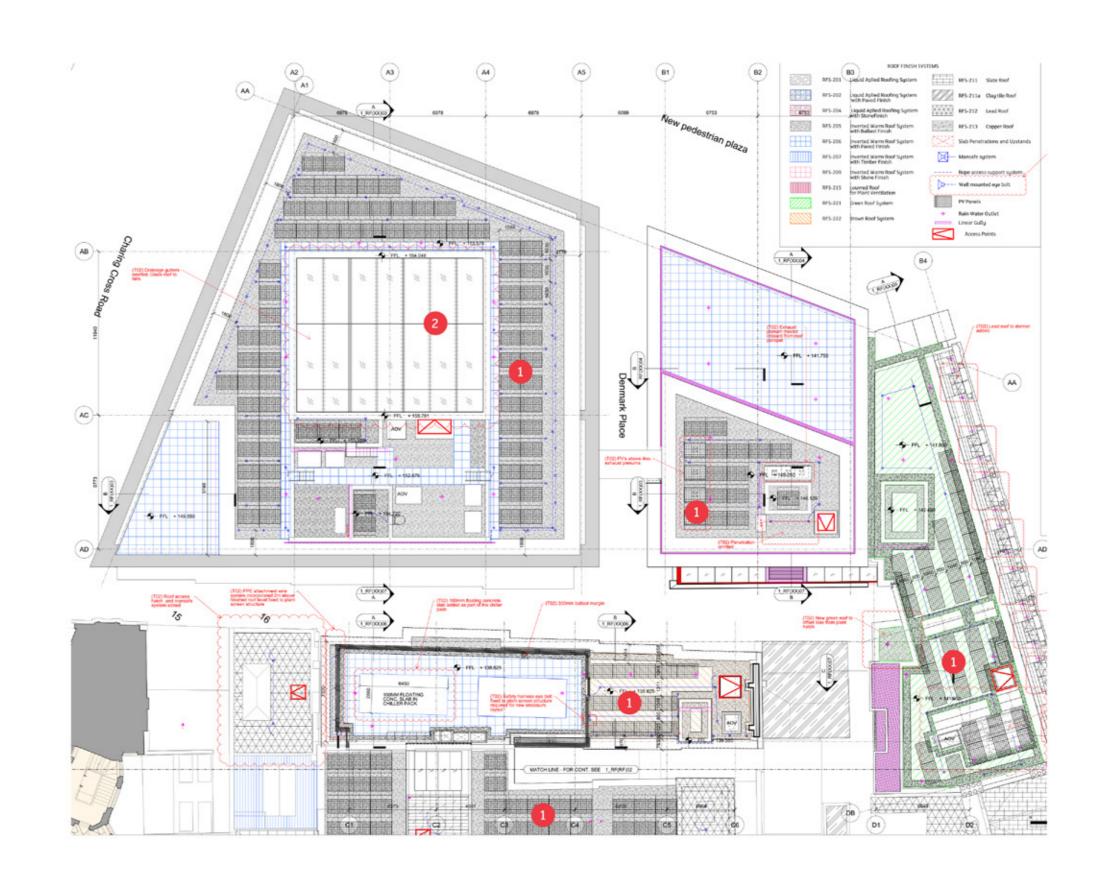
glazing and finishes 1.0kN/m2

Level 6 Restaurant

KEY

Base build

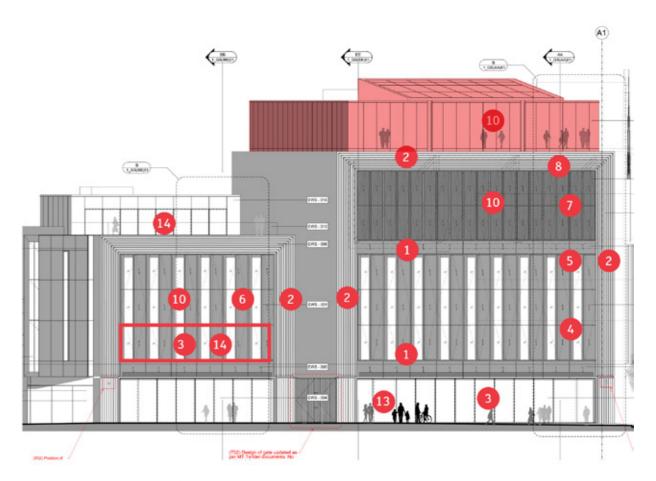
- 1. Photo voltaic panels
- 2. Skylight



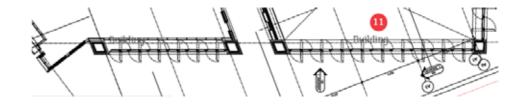
# North Elevation, Design Finishes / Layouts / Shell and Core Services Engineering

- 1. Metal cladding (type EWSOO5) all external metal cladding elements are colour stainless steel with brush finish in vertical direction only to resemble brushed brass. Samples will be investigated with the facade contractor to determine the appropriate specification
- 2. Masonry cladding (type EWSO07/008) to corner legs and level 6 beam is an assembly of blackgranite ribs with polished and honed finish and granite backing. Black mortar jointing and black movement joints shall give a monolithic appearance.
- 3. Bespoke sliding door system with glazed appearance (EWSOO4) ground floor operable Facades to buildings A and B are manually operated sliding panels with concealed top and bottom frames. These retract behind housing units when the buildings are in open condition.
- 4. First floor metal clad beam (EWSOO5) conceals primary structure and louvre operation mechanism, open jointed rainscreen cladding will incorporate supplementary air inlet grille with acoustic attenuation on front face for LED ventilation. Face of beam cladding aligns flush with face of primary louvres when in closed position
- 5. Primary louvres pivot and slide (type EWSOO1)-part glazed triple storey metal clad louvres automatically pivot open and slide to two sides. Metal cladding solid as EWSOO5
- 6. Primary pivot only louvres as type EWSOO1 on 1 St Giles Square except pivot only in operation.

- 7. Level 4 metal clad beam (type EWS 005) smaller in depth than the first floor beam, front face flush with face of primary louvres.
- 8. Small louvres (type EWSOO2) two storey fully clad in perforated metal with solid metal frame and pivoting operation.
- 9. Zone of low level air extract louvres zone of fine architectural louvres for plant room at level 4 integrated into glass curtain walling system.
- 10. Glazed curtain walling system (type EWSO16)-flush structurally glazed facade system featuring an internal PPC metal spandrel to conceal the ceiling plenum recessed behind louvres.
- 11. Steel stubs welded to the primary beam for structural restraint of future sliding LED's screen by fit out contractor. All other structural support by the fit out contractor. Further coordination will be required between the external cladding and fit-out works and design. Refer to Charcoal Blue report for details. Steel stubs as shown in the Structural Engineers drawings
- 12. Glazed curtain walling system with metal colour interlayer featuring an internal PPC metal spandrel to conceal the ceiling plenum and fully fritted glass where required to provide privacy to plant rooms and cores. (type EWSO16)
- 13. Sliding glass door housing units to provide protection to sliding glass doors when retracted to open the building.
- 14. Glass balustrade with PVD stainless steel handrail to external terrace (EWSO10)



North Elevation - 1/2 St Giles Square

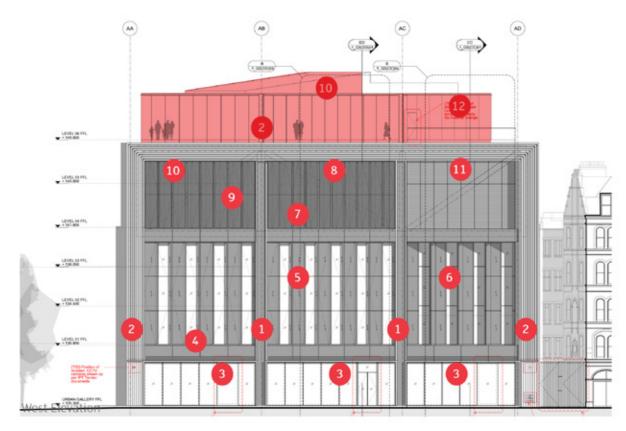


Second floor plans - louvres open

# West Elevation, Design Finishes / Layouts / Shell and Core Services Engineering

- 1. Metal cladding (type EWSOO5) all external metal cladding elements are colour stainless steel with brush finish in vertical direction only to resemble brushed brass. Samples will be investigated with the facade contractor to determine the appropriate specification
- 2. Masonry cladding (type EWS007/008) to corner legs and level 6 beam is an assembly of black granite ribs with polished and honed finish and granite backing. Black mortar jointing and black movement joints shall give a monolithic appearance.
- 3. Bespoke sliding door system with glazed appearance (EWSOO4) ground floor operable facades to buildings A and B are manually operated sliding panels with concealed top and bottom frames. These retract behind housing units when the buildings are in open condition. The retain unit bay will feature a sloping threshold. The base track will incorporate a compressible mechanism to interact with the door frame to create a weather seal. A set of double doors with all glass appearance will provide access and provide a means of escape from points indicated in the fire strategy report. The system's housing will conceal containment for elements such as ACS.
- 4. First floor metal clad beam(EWSOO5) conceals primary structure and louvre operation mechanism, rainscreen cladding will incorporate supplementary air inlet grille with acoustic attenuation for LED ventilation. Face of beam cladding aligns flush with face of primary louvres when in closed position. All EWSOO1 units to appear equal per bay in close position.

- 5. Primary louvres pivot and slide (type EWSOO1)-part glazed triple storey metal clad louvres automatically pivot open and slide to one side. Metal cladding solid as EWSOO5.
- Metal and glazed cladding system cladding mimics adjacent louvres as if pivoted inwards (type EWS21A)
- 7. Level four metal clad beam smaller in depth than the first floor beam, front face flush with face of primary louvres (type EWSOO5)
- 8. Small louvres (type EWSOO2) two storey fully clad in perforated metal with solid metal frame and pivoting operation.
- 9. Zone of low level air extract louvres behind small louvre type EWS 002zone of fine architectural louvres for plant room exhaust build into glass curtain walling system (type EWS033)
- 10. Flush glazed curtain walling system structurally glazed facade system recessed behind louvres and extending in same plane through to level 6 roof. The system includes an internal PPC metal spandrel to conceal the ceiling plenum all levels except the glass pavilions on buildings A&B. Fully fritted glass where required to provide privacy to plant rooms and cores areas. (type EWSO16).
- 11. Flush glazed curtain walling system with metal coloured mesh interlayer integrated into glazing metal mesh finish to match other metal elements. internal PPC metal spandrel to conceal the ceiling plenum and fully fritted glass where required to provide privacy to plant rooms and cores. (type EWSO16)
- 12. Glass balustrade with PVD stainless steel handrail to external terrace (EWSO10)



West Elevation

