

2.1 MECHANICALAIR CONDITIONED AREAS

External Design Conditions	Summer 31°C db 21°C wb Winter -5°C db /SAT
Internal Design Conditions	19°C db -23°C /45 - 60% RH

SUMMER COOLED AREAS

External Design Conditions	Summer 31°C db 21°C wb Winter -5°C db /SAT
Internal Design Conditions	21°C db \pm 1°C

HEATED AREAS

External Design Temperature	Winter -5° C db
Internal Design Temperature	Winter 18°C db Summer : No environmental treatment.

NB: Some deviation from these internal values may be experienced when the external conditions move outside the external limits stated above.

DESIGN CONSIDERATIONS

The following parameters have been used in the design of the systems:-

Thermal Transmittance

Existing building exact 'U' Values not available

Lighting

Heat gain per unit floor area 20 W/m²

Office Small Power

Heat gain per unit floor area (Office) 45 W/m²
Heat gain per unit floor area (Data Centre) 1000 W/m²

People

Fresh Air Ventilation Rate 0.014m³/s per person.

Ventilation Air Change Rates

Data Centre	one air change per hour
Toilet Supply	Existing installation
Toilet Extract	Existing installation

Water Systems

	Flow °C	Return °C
	_____	_____
Primary Chilled Water	7	13
Heating Water	81	72
Domestic Hot Water 'Draw-off'	65	-

2.2 PLUMBING

- Local Authority** : **London Borough of Islington**
- Water Authority** : **Thames Water**
- Gas Authority** : **British Gas**
- Design Manual** : (a) **Plumbing Engineering Services Design Guide**
(b) **Building Regulations**
(c) **British Standards (as applicable)**
- Design Basis** : (a) **Rainfall intensity**
(b) **Foul and Surface Water Drains flowing 3/4 full maximum**
(c) **No. persons occupying the building**
(d) **Domestic water storage: ? hours reserve based upon ? litres per head**
(e) **No. of main course meals to be provided per day:**
(f) **Domestic hot water storage: ? litres per head**
(g) **Domestic hot water storage for kitchen purposes: ? litres per meal**

2.3 ELECTRICAL

The design of the Electrical Services for the ODC Contract was carried out by

TILNEY SIMMONS PARTNERSHIP

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Full design data is available from the above

17 August 1994