

Briefing Document

Adapted from:

Advice to Trusts on the main components of the design brief for healthcare buildings (NHS Estates)

Design Quality Briefing Tool - Functionality

1.0 Use

1.1 The service philosophy and strategy of the trust

Describe the purpose of building in detail with particular attention to patient and staff needs.

Set out:

- Your healthcare philosophy and design vision
- What effectiveness and efficiency of delivery means for you
- Your model of care

1.2 The prime functional requirements of the project

Set out:

- Your operational policies
- The operational capacity you seek
- Include relevant future projections

1.3 The importance and dignity of individuals

The design of the building should consistently relate to patients, staff and visitors.

Issues to consider:

- Clinical, therapeutic and other services and complex diagnostic and specialist activities should be well integrated so that patients perceive a united and seamless service
- Information technology should be used to ensure that information is shared between all providers in a patient focused manner

1.4 Workflows and logistics

Work flows and logistics within and between processes should be carefully thought through and optimized.

Issues to consider

Healthcare processes -

- Departmental workflow should be direct
- Routes should be as short as possible
- Inefficient or dangerous cross-flows must be avoided

Logistics -

- Movements of people, distribution of supplies, storage, and waste disposal should be carefully considered
- Number, size and location of storage and holding bays should reflect the supply & disposal policy

1.5 Adaptability

The building should be designed to be adaptable, to respond to change and to enable expansion.

Issues to consider:

- The design of the layout, the lighting and M&E controls should be versatile to allow everyday changes of use, activity and spaces
- The overall design should be capable of accommodating therapeutic, technological, organizational and formal innovations whilst retaining design coherence
- The structural design should enable adaptability and expansion with limited disruption
- The possibility of future change and expansion should be built into the design of all M&E systems
- Space should be allowed for departments to expand (e.g. operating, wards, OPD, kitchen, CCU)

1.6 Security and ease of control

Set out your:

- Security brief
- Visitor monitoring strategy

Issues to consider:

- The layout should include suitable supervision and control points
- Entrances and departments should be designed to enable ready supervision and security
- the layout should maximize passive supervision and overlooking through isovistas

2.0 Access

2.1 Access for vehicles

Set out access requirements for all vehicles, including on-site roads for ambulances, public transport, service vehicles, fire appliances.

Issues to consider:

- Routes should be clearly marked
- Roads, widths, turning circles etc should be safe and convenient
- The site design should accommodate public transport access having regard to the proximity or otherwise of public transport stops
- Car parks, access routes, loading docks and entrances should be well lit

2.2 Parking for visitors and staff

Set out car, motorcycle and bicycle parking requirements.

Issues to consider:

- Drop-off points should be appropriately provided at entrances
- Sign-posting to parking areas should be adequate

2.3 Goods and waste disposal vehicle segregation

Issues to consider:

- Separate access routes should be provided where required service routes be clearly sign-posted
- Access and loading bays should be thought through in terms of safety and convenience

2.4 External way finding and sign-posting

The external way finding and sign-posting strategy should be of high quality and fully integrated into the design solution.

Issues to consider:

External way finding -

- The external appearance and site layout should support intuitive way finding
- Distinctive 'land marks' e.g. to signal the main entrance should be incorporated into the design

- The hard and soft landscape design should support intuitive way finding
- Sign posting -
- The sign-posting should be an integral part of the way finding strategy
 - Routes and sign-posting to and from parking areas and public transport points should be clear and obvious

2.5 Pedestrian Access

Issues to consider:

Pedestrian routes should be -

- Obvious
- Well sign-posted
- Safe from vehicles, with safe crossings
- Free from obstacles
- Pleasantly landscaped
- Well lit at night

2.6 Access for all

Issues to consider:

- Pedestrian routes should be suitable for wheelchair users, and other people with physical or learning disabilities, and impaired sight or hearing
- There should be parking spaces reserved and marked for disabled people
- Parking for disabled people should be provided close to entrances

2.7 Integration with fire planning strategy

The fire planning strategy should be integrated to allow for ready access and egress.

Issues to consider:

- Compliance with Fire code with provision for safe horizontal escape routes
- Free access by fire fighting appliances to the building perimeter

3.0 Space

3.1 Functional content and space standards

Set out requirements for functional content and space standards.

Issues to consider in addition to departmental areas:

- Public and entrance areas
- Social spaces for patients, staff and public
- Children's areas
- Scope for external franchises and other add-ons
- Storage
- Circulation
- Plant and servicing
- Exterior terraces, play areas, etc

3.1a Adjacencies

Set out adjacency matrix indicating appropriate relationships between different functions derived from operational policies.

Issues to consider:

- The inter-departmental relationships should be convenient and help efficient functioning
- There should be clarity about the priority of key relationships

- Internal relationship within departments (main rooms, bays, storage, service rooms) should be convenient and help efficient functioning

3.2 Space utilization:

Set targets for net to gross areas.

Issues to consider:

- Spaces should be capable of being shared where appropriate - seen as a resource, not personal territory
- Dual use of circulation space should be exploited where effective e.g. to encourage informal association and gathering

3.3 Privacy, isolation and communality

Set out:

- Requirements of visual and acoustic privacy
- Requirements for gender segregation
- Infection control regimes including isolation rooms and beds

Additional issues to consider:

- Reception areas should enable confidential conversations without embarrassment
- The design should help avoid unintended isolation, allowing patients to communicate with staff when needed

Design Quality Briefing Tool - Impact

4.0 Character and innovation

4.1 Lifting spirits and helping recovery

Issues to consider

- The design of the building should aid therapeutic objectives
- The building should engender well-being and raise patients' and visitors' spirits

4.2 Expressing excellence

Issues to consider:

- The design should express a strong positive image of the healthcare service provider
- The building should raise staff morale

4.3 A clear vision

Issues to consider:

- the design should embody a clear and coherent vision confidently communicating its function and aspirations through its physical elements

4.4 A stimulating design

Issues to consider

- The design should have sufficient variety to stimulate the mind and the senses
- Users and visitors should feel that the building has a positive character
- Art should be integrated into the total experience of the building

4.5 New knowledge

The design should explore with due rigor innovation in practice, technique and built form.

Issues to consider:

- The development should dearly reflect new models of healthcare provision in the design
- The design should respond to advanced thinking about architecture and the built environment
- Where possible the design should develop new and transmissible knowledge about buildings for healthcare

4.6 The value of good design

The building should in itself be a demonstration of the value of good design.

Issues to consider:

- The building should show how good design can improve patients' and staff's lives and add value for the client over the building's lifetime

5.0 Citizen satisfaction

5.1 Orientation

The building should be designed to respond to the orientation.

Issues to consider:

- Sunlight and how it falls on the building
- Prevailing winds and their effect, in conjunction with the building, on visitors
- How the building is entered in respect of natural points of arrival and local landmarks

5.2 Scale and proportion

Issues to consider:

- The scale should be thought through in relation to adjoining buildings
- Irrespective of the size of the building the scale should be considered from the point of view of patients, visitors and staff so as to make them welcome

5.3 Composition

The building's form should be pleasing and well composed.

Issues to consider:

- Profile and skyline of the building from a distance and on approach
- The shapes the bulking is made up of
- The interplay of light and shade
- The relationship of the parts to the whole
- Coherence of the parts and the whole
- Consistency and attention to detail
- The integration of service elements such as rainwater pipes, flues, grilles, plant rooms, refuse bays

5.4 External materials

Issues to consider:

- The choice of materials should be on the basis of enhancing the building as a whole
- The form and materials should be well detailed
- The weathering, maintenance and durability of the materials should be thought through

5.5 Color and texture

Issues to consider:

- colors and textures where used should articulate and enrich the building's form and enhance its enjoyment

6.0 Internal environment

6.1 A pleasant, varied and stress reducing environment

Issues to consider.

The internal environment generally –

- The main entrances and reception areas should be pleasant and welcoming
- The internal appearance should be calming and non-intimidating
- The building should have good acoustics
- Temperatures should be comfortable in all seasons the air quality should be fresh

Materials, finishes, textures –

- Materials and finishes should work with the layout to create a set of varied places with degrees of quietness and publicness
- Finishes, fittings, furniture and notices should be well coordinated and designed to reduce clutter
- Selection of finishes and materials needs to take account of infection control issues

Use of art to enhance the healing environment –

- Art should be an integral part of the design of the interior
- The design should make provision for changing art displays
- The design should make provision for presentations of the performing arts

- The design should make provision where appropriate for art activities to take place for patients and staff

6.2 Light and color

Issues to consider:

Light and shade -

- Light and shade should be used effectively to enhance the perception of three-dimensional space

Color-

- The contribution of color to providing continuity and variety, stimulation and calmness should be thought through
- Color schemes should assist way finding

Daylight -

- Daylight should be fully exploited to enhance the experience of patients, staff and public
- Internal spaces and courtyards should be orientated for
- Optimum sunlight penetration

Artificial light -

- Lighting should be used creatively and sensitively to enhance the use and experience of the interiors

6.3 Views

Issues to consider:

- There should be special attention to creating patient, staff and public areas with pleasant views

6.4 Internal way finding

Issues to consider:

- The interior should be integrally designed to support intuitive way finding
- Distinctive 'landmarks', such as art and sculpture should be incorporated into the design
- Where repetitious building forms are used thought should be given to avoiding disorientation

6.5 Spatial quality

Issues to consider:

- There should be a sense of spaciousness with overcrowding avoided
- Spaces should be experienced as a sequence of attractive places with appropriate degrees of enclosure
- Long, narrow corridors, without daylight or views out, should be avoided
- Circulation spaces and common areas should be designed as places in their own right - enjoyable rather than utilitarian

7.0 Urban and social integration

7.1 A sense of place

The building should create a sense of place.

Issues to consider:

- The building should be sited and designed with mind to its overall urban (rural) setting
- The building should enhance the civic qualities of its setting

7.2 A good neighbor

Issues to consider:

- the building's height, volume and skyline should relate well to the surrounding environment
- in the design thought should be given to what local residents and passers-by will think of the building

7.3 A positive contribution to the community

Issues to consider:

- the design should promote a sense of belonging to and integration with the neighborhood and wider community

7.4 Fit with site

Issues to consider:

- The building should be well integrated with the site topography
- The spaces immediately outside the building should be pleasant
- The levels should be designed to be appropriate for entrances and access to outside spaces
- Thought should be given to making land available for future development and expansion
- The design should take advantage of orientation

7.6 Landscape design

Issues to consider:

- Hard and soft landscaping, including courtyards, should be designed with regard to their therapeutic value
- The landscape design should maximize the security of pedestrians and avoid 'no-go' areas
- The landscaping around the building should contribute to the neighborhood
- The external grounds and gardens should be designed for safety and security

Design Quality Briefing Tool – Build Quality

8.0 Performance

8.1 Daylight

Set out daylight standards to be achieved.

- There should be sufficient daylight in each area as required, glare and solar gain should be controlled (e.g. with louvers and blinds)

8.2 Air Quality

Air quality should be fresh for patients, staff and the public.

Issues to consider:

- Quantity of space with natural/artificial ventilation and/or air-conditioning
- Access by occupants to natural ventilation
- Control by occupants of heating and ventilation
- Availability of separate, well ventilated smoking spaces

8.3 Acoustics and noise

Issues to consider:

- A good acoustic environment to deal with internally generated noise
- Sufficient sound proofing against external sound to provide comfort internally
- Adequate sound insulation between rooms
- Building acoustics to aid communication

8.4 Passive thermal comfort

The design of the building fabric itself should help create thermal comfort conditions.

Issues to consider:

- Passive summer cooling
- Minimizing solar gain
- High thermal insulation
- Control of infiltration

8.5 Durability

Issues to consider:

- The building should be able to withstand wear and tear in use
- The finishes should be durable

8.6 Operability

- The building should be easy to operate

9.0 Engineering

9.1 Operational building and engineering management systems and controls

Issues to consider:

- Engineering systems should be flexible, efficient and economic in use, and in use of resources
- Local controls should be provided for use by staff and patients

- Engineering systems should operate quietly

9.2 Specialist engineering systems

Set out brief, requirements and standards to be followed for specialist systems.

Issues to consider:

- Medical gases
- Fire engineering
- Emergency generators
- Batteries
- Nurse call systems
- Theatre and other lighting
- Cold water storage
- Telephones

9.3 Standardized elements in engineering design

Consideration should be given to the use of standardized elements.

Issues to consider:

- Structural elements
- Plant and equipment
- Lighting fittings and bed head units
- Sanitary installations
- Others as appropriate

9.4 Prefabricated elements in engineering design

Consideration should be given to the use of prefabricated elements.

Issues to consider:

- Structural elements
- Plant pods or pallets
- Sub-systems
- Pre-wiring
- Others as appropriate

9.5 Artificial lighting

Set out quantitative standards for artificial lighting (refer to specific guidance as appropriate).

Issues to consider:

- Energy consumption
- Therapeutic benefits
- Appropriateness and accessibility of control systems
- Relative levels of background and task lighting

9.6 Fire planning strategy

A clear fire planning strategy should be incorporated into the design.

Issues to consider:

- Fire alarm and detection system
- High life risks potentially compromised by high fire loads

9.7 Emergency back-up systems

The emergency backup systems should be designed to minimize disruption.

Set out emergency backup requirements and standards

(Refer to specific guidance as appropriate).

Issues to consider:

- Medical gases
- Emergency generators
- Batteries
- Nurse call systems
- Heating
- Theatre and other lighting
- Hot water
- Cold water storage
- Telephones

9.8 Heating, ventilation and air-conditioning systems

The heating, ventilation and air conditioning systems should be logically designed to operate efficiently and provide local control where required. Set out thermal and ventilation requirements and performance standards (refer to specific guidance as appropriate).

Issues to consider:

- Maximizing the use of natural ventilation
- Minimizing the use of heating
- Minimizing the use of cooling
- Surface temperatures of radiators
- Zoning, draining and cut-off controls

9.9 Energy and power systems

Set out requirements and performance standards (refer to specific guidance as appropriate).

Issues to consider:

- Optimizing fuel consumption
- Maximizing flexibility

9.10 Hot water and steam/operational engineering systems

Issues to consider:

- Flexibility and efficiency of engineering systems
- Economy in use of resources

9.11 Telecom and IT systems

The telecommunications and data systems should be easy to operate and 'future proofed' as far as possible.

Set out voice/data/comms brief and standards.

Issues to consider:

- Flexibility and efficiency
- Ease of learning
- Reliability

9.12 Water and drainage system

Set out requirements and performance standards (refer to specific guidance as appropriate).

Issues to consider:

- Flexibility and efficiency
- Minimizing the use of resources
- Capacity of the water supply system to provide safe
- Potable drinking water

- Adequacy of water pressures for clinical processes
- Leak proofing the drainage system

10.0 Construction

10.1 Phasing for planning or construction stages

Consider whether the project needs to be built in phases.

Issues to consider:

- Provision for future phases to be added with minimum
- Disruption to the buildings in use
- Consistency of phasing with the estate strategy and
- Development control plan
- Self containment and operational quality for each phase

10.2 Maintenance

The building should be able to be readily maintained.

Issues to consider:

- The building should be easy to clean
- The construction should be durable
- Components in the building should be able to be readily cleaned, maintained or replaced when necessary

10.3 Robust construction

Issues to consider:

- Junctions between materials and components should be well detailed
- Components and finishes specified should have sufficient strength and integrity for their functions or locations
- Sound break out of potential nuisance to neighbors should be dealt with in the design

10.4 Integration of engineering systems, structure and fabric

The structure, fabric and the engineering systems should be well integrated within themselves and with each other.

Issues to consider:

- Systems and structure clearly and logically organized for ease of use, maintenance and future expansion
- The structural and engineering systems should be well integrated into the design
- The mechanical, electrical and water systems should be well coordinated
- The IT and communication systems should be well coordinated with other systems

10.5 Health and safety

The building should be designed for health and safety in its construction and operation.

Issues to consider:

- The building should support patients by conveying a feeling of safety and reliability
- Clinical and other workplaces should be designed for health and safety
- The design should provide safe access and working conditions
- The following areas (inter alia) should be designed and specified to prevent accidents and to comply with health and safety requirements: stairs and lifts, floors, replacement and cleaning of glazing and windows, doors, radiators and hot water systems, lighting, cold water systems

10.6 Standardized elements

- Consideration should be given to the use of standardized elements where they promote efficiency, speed of construction, higher quality, sustainability or overall value for money

10.7 Prefabrication

- Consideration should be given to the use of prefabricated elements where they promote efficiency, speed of construction, higher quality, sustainability or overall value for money

10.8 Considered construction

The methods and materials used in the building should be well thought through from the point of view of:

- Efficiency
- Impact on neighbors
- Safety
- Health

10.9 Climate change

Future climate change should be considered in the design of the building.

10.10 Demolition and recycling

Consideration should be given in the design to demolition and recyclability.
