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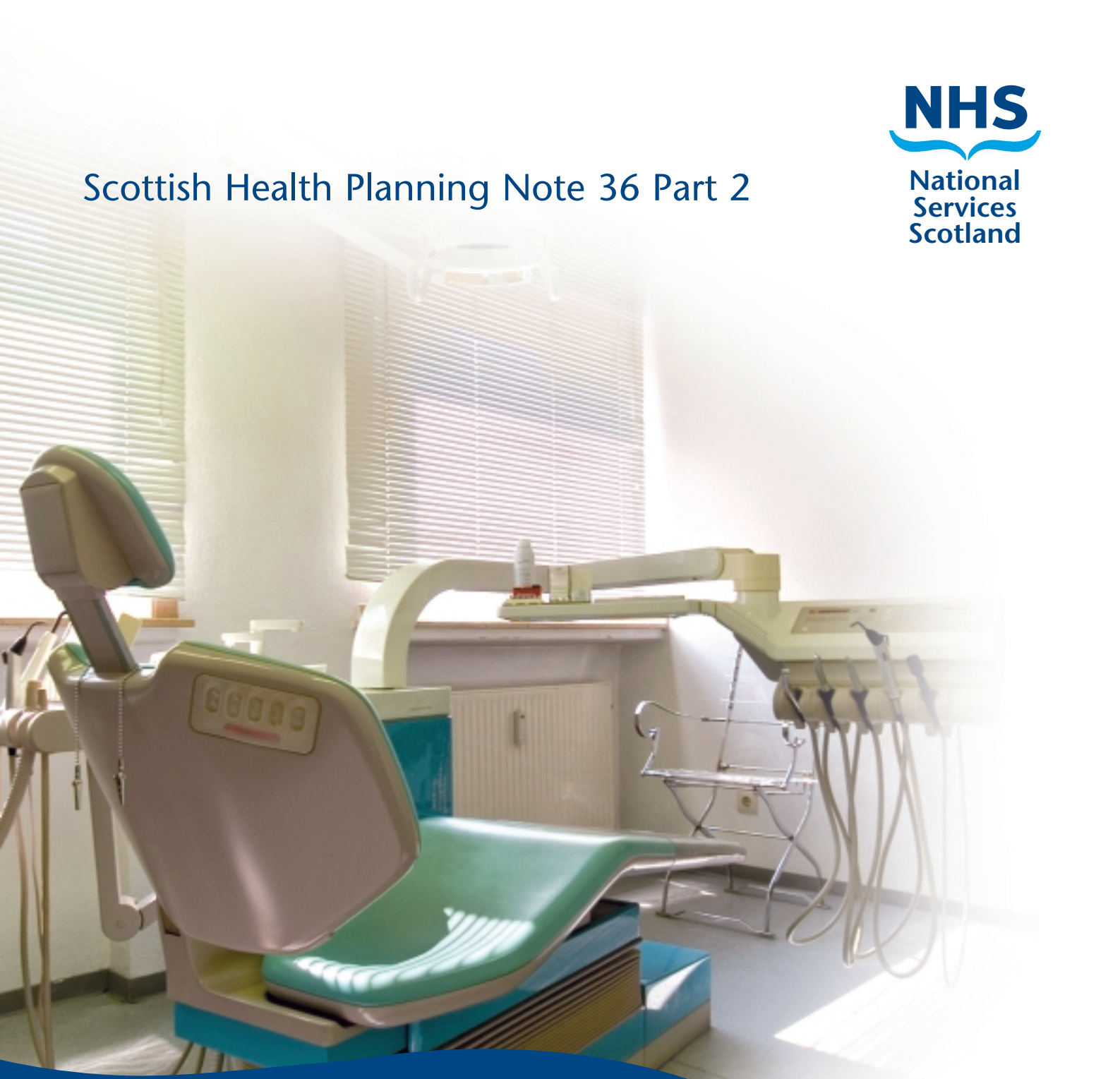
Scottish Health Planning Note 36 Part 2



NHS Dental Premises in Scotland

Health Facilities Scotland
Property and Capital Planning

Scottish Health Planning Note 36

Part 2: NHS Dental Premises in Scotland

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Contents

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1. Introduction

Scope and limitations

1.1 This Scottish Health Planning Note for NHS Dental Premises in Scotland provides advice on the design and specification requirements for Primary Healthcare Premises in Scotland.

This document is the second in a series of three 'sister' Planning Notes. The other two being 'Part: 1: General Medical Practice Premises in Scotland' and 'Part 3: Community Pharmacy Premises in Scotland'.

1.2 The document draws from guidance and advice received from Healthcare Bodies within Scotland and provides the source for the spatial organisation and dimensional standards required for NHS Dental Premises. The document follows the same format used in 'Part 1: General Medical Practice Premises in Scotland'.

1.3 Detailed aspects of procurement and project costing have been specifically excluded from this guidance since these lie beyond the scope of the exercise and it is considered that these aspects have sufficient coverage elsewhere.

This document is primarily aimed at Dentists and NHS Boards considering a new build option for a small to medium sized Dental Premises and is intended to provide them with guidance in compiling their 'Client requirement' documentation. The guidance also provides design teams with a set of minimum standards required and can be used by NHS Healthcare Bodies commissioning new premises or groups of premises, which include NHS Dental Premises. Although aimed at new build premises it should provide helpful guidance for refurbishment of existing buildings.

Many existing buildings, however, will not be able to be adapted to comply with DDA legislation, current NHS guidance and Scottish Building Regulations. These will include premises above ground floor with no capability of installing a lift and some within listed buildings. Practices in these situations will need to assess the local requirements and needs and decide whether to re-furbish or move to more suitable premises.

The guidance is expected to provide common consistent standards for all types of Dental Practitioners, the three types being:

- **Community Dental:** NHS Board employed Community Dentists based and normally working in NHS owned premises, but also providing advice, assessments and care in non-owned premises, normally in Schools;
- **Salaried General Dental Practitioners:** General Dental Practitioners employed under a pilot term contract by NHS Boards based and working in their Practices. These may be leased within NHS Board premises or in the High Street, GDP owned or 3rd party leased;

- **General Dental Practitioners:** General Dental Practitioners, working privately or contracted for a level of NHS work under SEHD Primary Care Directorate via NHS Board Family Health Services normally based and working in their Practices. These may be leased within NHS Board premises or in the High Street, GDP owned or 3rd party leased.

NHS Board Dentists can also obtain help and advice from the Boards in-house property team.

Further construction procurement and briefing guidance is contained within 'PROCODE' Construction Procurement Guidance for NHSScotland. Alternatively the Chartered Institute of Buildings 'Code of Practice for Project Management for Construction and Development', (ISBN 1405103094) is one of many guidance documents available on the subject of procurement options.

Methodology

1.4 It is assumed that those concerned with the design and construction of Primary Healthcare (PHC) Premises would have a working knowledge of the range of statutory requirements, Codes of Practice and other guidance relevant to the design and procurement of PHC Premises. The approach here is to deal with only those aspects of PHC Premises which are considered additional to the many requirements specified elsewhere, in other words the items included here are those thought to distinguish PHC Premises from other types of building.

1.5 The aspects of the design chosen for consideration are listed under functional space headings and, where possible, objective criteria have been used for ease of verification. This of course is not possible in connection with space planning or with the qualitative aspects of the design which are thought to relate strongly to the success or otherwise of such buildings. Material and component specifications are given as exemplars of the type and quality of materials suitable for the given locations. It is expected that designers and developers would offer alternative design solutions and material selections which demonstrably meet the stated requirements.

Background

1.6 It was considered that within NHSScotland there was a lack of guidance in relation to NHS Dental Premises. This document has been produced to try to fill that gap. Some other guidance is also available and, where appropriate, references to these are included.

Performance specifications

1.7 A performance specification is a statement of required results without specifically stating how that result is achieved or materials to be used.

1.8 The opposite of a performance specification is a prescriptive specification which gives design solutions such as how a requirement is to be achieved or how an item is to be fabricated or constructed.

1.9 It is frequently argued that risk is reduced by using performance-based specifications and standards which make the contractor responsible for providing the item or services requested. The developer accepts the risk for meeting performance requirements and should seek innovative solutions to efficiently and effectively achieve performance objectives.

1.10 It is essential that the Client and/or the designers/technical advisors have the experience and skills required to produce performance based specifications (Client 'Construction Requirements') which will ensure the quality and life expectancy of the building, its services, finishes and fitments all meet the Client's expectations.

Specifications are composed of a set of requirement statements. Requirement statements contain the word 'should'.

Further guidance

1.11 Further guidance, including some planning and design guidance information, can be found at http://primarycare.nhsestates.gov.uk (which replaces HBN 36) and is titled 'Primary and social care premises'.

1.12 Other than this document, care should be taken when referring to other NHSScotland and NHS Estates design (e.g. SHPNs and HBNs) and technical guidance (e.g. SHTMs and HTMs), as generally these have been developed for use in the design of large healthcare buildings with inpatient facilities. The technical guidance often requires special services provision, including stand-by and emergency facilities, which are aimed at maintaining life support to particular groups of inpatients. This is extremely unlikely to apply to small or medium sized NHS Dental Premises; only with larger Practices providing specialist services, local Health Boards and those including PCT accommodation will require to consult other guidance documents (SHPNs, HBNs, SHTMs etc). The building user's advice should be sought prior to detailed design stage.

Health Boards, dental clients and users etc require to be specific about which NHS guidance, or parts of guidance, should be considered when new premises are being designed.

1.13 If designers are required to design to Scottish guidance i.e. SHPNs and SHTMs, the local Healthcare Body requires to provide copies to the design team as these documents are not available to non-healthcare personnel. The Healthcare Body should also provide advice on which English documents are approved for use in Scotland.

1.14 The Medical Architecture Research Unit (MARU) has produced some planning guidance; information on appropriate guidance can be found on their website http://www.lsbu.ac.uk/maru/.

2. Design considerations

Design of primary healthcare (PHC) premises

2.1 Dentists and their design teams should take note of the following considerations which provide the basis for the items that are the subject of the specification items in Section 3.

2.2 Primary healthcare premises differ from other types of buildings in a number of ways and this uniqueness is characterised by the following issues, the essence of which is that the needs of people must be of prime concern in addition to the need to strive for design excellence within the cost limits.

Value for money

2.3 Value for money is the combination of economy, efficiency and effectiveness. When developing NHS Dental Premises, designers should seek to minimise the cost of resources used while bearing in mind the quality. Designs should effectively link the actual results of the project to the intended results. The process of design and/or procurement should be undertaken efficiently to minimise the resources used to develop the facility.

Flexibility for future use

2.4 It is important to include for flexibility of use in all new buildings and to ensure that they have some ability to accommodate future advances in technology, new treatment regimes and techniques and also demographic changes. When considering the suitability of existing or proposed sites, thought should be given to the probability of a future requirement to extend or adapt the building and/or car parking. Car parking can be problematic due to the increasing use of cars and restrictions to on-street parking.

Advice should be sought from the Client and local Healthcare Body on the minimum space requirement for future expansion capability and associated extension to any car parking provision. Some Healthcare Bodies require a future expansion capability for all new premises of 50%, plus any associated extension to car parking.

Note: Services provided, and accommodation required, will vary from one NHS Dental Premises to the next. It is the responsibility of Dentists and NHS Boards' allied professionals to define their needs of accommodation at the briefing stage and to have a stated vision of the healthcare services they foresee being developed later. For both the Dentists and designers it is vital to the procurement process that future flexibility and expansion of premises be taken into account from the outset. This is of prime importance where an existing building is part of a development. The design solution must recognise any future boundary limitations on expansion. Any proposals should be discussed with the local NHS Board to ensure that they do not conflict with the Service and Property Strategies for the area.

Client/Design professional's rapport

2.5 Close collaboration between the design team and the healthcare team is essential. The Client healthcare team should include the dental practitioner and staff representation and/or be able to consult with and obtain advice from a number of other experts, many of whom will be available within the appropriate Health Board. These will include Engineering, Decontamination, Infection Control, Waste Management, Domestic Services, DDA, Security, Fire, Building and Architectural. The Boards should be able to advise where to obtain local advice on any of the above which are not available on its own in-house team. These advisors should all be involved from inception through to completion.

This will result in:

- better buildings incorporating more innovative solutions;
- successful practice image;
- harnessing of collective professional skills;
- buildings which reduce the risk of Healthcare Associated Infection (HAI);
- all risk departments/advisors being consulted at some stage, including Health & Safety and Manual Handling. All team contacts should be named in the Client requirement documents.

Attractive to patients/staff

2.6 The benefits from a successful building would include:

- a relaxing and welcoming environment for patients, staff and the wider community;
- providing a focus for the wider community;
- improved staff morale and the potential for reduction in absenteeism and staff turnover.

Procuring the building

Best value

2.7 Primary considerations in the choice of a procurement strategy are the efficient achievement of the organisation's objectives for time, cost and quality.

The design

2.8 Achieving excellence in design is essential in order for a project to deliver best value. Design is both a creative and a technical process and should include the following components, each of which must be addressed appropriately:

- the functional design of the facility to meet the needs of its users. This should result from a detailed assessment of the needs of the users and how they may change over time, as well as how the facility would need to be altered to meet those changing needs;
- design of the complete facility to address the environment for those that use, enjoy, operate, maintain or are otherwise affected by the facility, including aspects that impact on infection control and 'health and safety'. The design should address the impact on the external global environment as well as the aesthetic, cultural and civic values of the facility;
- detailed design of each assembly and component whether manufactured on site or in a factory, and whether to use a purpose-made, standard or product adapted for the facility;
- design of the entire construction process addressing how each component would be manufactured, transported and assembled to complete the facility;
- the maintenance of the facility, including details of how components can be replaced or repaired, should be addressed as well as their ultimate disposal;
- health and safety as well as environmental requirements are likely to become increasingly important with time and hence CDM Regulations require designers to try and envisage what changes might become necessary during the life of the facility;
- good design should also reduce the running and maintenance costs of new buildings.

Project Execution Plan (PEP)

2.9 A PEP of the overall procurement process from first inception to asset disposal should be undertaken at the earliest opportunity by the organisation best placed to do so, in most cases this will be the local NHS team/Board. A PEP should evolve as the project progresses.

The PEP should seek to achieve better value by:

- identifying elements of the process that add more or less value;
- improving the flow of the procurement process and removing potential delay (e.g. by unnecessary bureaucracy or interventions);
- identifying opportunities for delivering the desired outcome by more effective means;
- improving forward planning and management.

Procurement and project management tools

2.10 The procurement process should be made explicit to, and be agreed by, all members of the project team. A consistent set of project management tools and procedures should ideally be made available and be adopted by all members of the team. This set of tools should be capable of being transferred and developed from one project to another in order that improvements can be made to the process, lessons learned and performances compared.

Note: Project management may be carried out by the Client or be transferred by the Client to a member of the design team, however **it is essential** that the appointment is given to a person with the appropriate academic and professional qualifications and experience.

2.11 Mechanisms and procedures should be adopted to ensure the accurate, fast and up-to-date sharing of project information. Electronic means of storing project files are now available with appropriate levels of access and capacities to amend information. Such systems should be considered on larger and more complex projects and the need to establish compatibility of information systems is essential to allow smooth transfer of information.

Linking of design and construction services

2.12 A fully developed design can only be achieved by the collaborative working of a team of designers, manufacturers and builders bringing different skills and disciplines to the process. However, the contributions of individuals given the opportunity to develop new thinking and solutions must also be recognised and utilised.

It is essential that the process is given suitable and sufficient time and resources during the design and construction programmes to deliver the best results against the requirements of the output specification.

Time-Cost-Quality

2.13 Time, cost and quality of the works should be clearly defined in the brief as some of the required outcomes for the project. These three essential elements of any construction project are clearly inter-linked and will impact on each other. The requirements for these should be made explicit and outputs regularly

checked to see whether they are being delivered as required. Post project evaluation is recommended as the final and continuing part of this checking and reporting procedure.

Clients may require or wish for certainty in some or all of these elements and this should be taken into account in selecting the most appropriate arrangements for determining where responsibility is to be placed for the design and construction of the project.

Whole life performance

2.14 Costing of projects should include full life-cycle costing of the facility as well as more immediate construction and project costs. The quality of both design and construction has the potential to greatly reduce whole life costs, including costs-in-use, maintenance, engineering plant replacement and the eventual disposal of the built facility.

Procurement routes

2.15 Although the construction industry has developed many different contractual arrangements and procurement routes for carrying out construction works, most are unlikely to be considered suitable for one-off NHS Dental Premises.

The most likely routes are:

- single stage tender (the 'traditional' route);
- design and build;
- design, build and maintain/operate;
- design, build and leaseback without maintenance.

2.16 Each of these routes places the responsibilities for delivering the project with different parties or arrangements of parties and each have benefits accordingly. They also place emphasis on different aspects of the time-cost-quality relationship and range from the legally adversarial to the formally collaborative.

2.17 Advice should be sought as to the most appropriate route to suit the size and scope and, above all, to achieve the agreed outcomes of the project. The advantages of team working have already been stated, and for smaller and less complex projects can be achieved under a range of contract agreements, including the traditional Small and Intermediate Works Forms, particularly if augmented by a suitable statement of project objectives.

2.18 If Dentists are considering leasing the building from a landlord/developer then they must ensure that the building is fit for purpose for the length of the lease plus an appropriate margin of time beyond. If the building ownership is to revert to the Dentist or Healthcare Body at the end of the lease period, they must not be faced with inappropriate dilapidations costs at the termination of the lease. The District Valuer (DV) should be contacted at an early stage as he/she will be

the person who will agree an appropriate rental figure. This will avoid future problems regarding Dentist's lease agreement costs.

Contract agreements

2.19 A wide range of standard forms of contract for construction works are available from recognised bodies, which have been designed to cover a variety of contractual arrangements. Standard forms of contracts are published, covering the full range of project sizes and complexities, different variations of responsibilities for carrying out the works and formalising means of collaborative working.

2.20 Advice should be sought, if necessary, and a decision made at an early stage on both the procurement route and the form of contract agreement to be used for the project. The local NHS team or Board should be able to advise on the most appropriate procurement route.

2.21 Projects may be considered individually, or alternatively be bundled into larger contract packages. Prior to deciding how to proceed, the Client should consider the following.

Individual project working

2.22 For procurement of projects on an individual basis, including fresh assembly of teams, better value may result from the following:

- learning brought to each project from a wide range of previous projects;
- the use of appropriate procurement methods for each project;
- consideration of each project in its own right, including the context, local opinion and the requirements of the brief for that particular project;
- attention to detail by members of the construction team for whom the project may be a greatly valued part of their workload;
- the facility to reward successful projects with repeat commissions or contracts by the local NHS team.

Procurement of projects on an individual basis may also result in the following;

- the need to build a new team afresh for each project and to implement new working processes;
- higher Client management costs with each project requiring purpose developed briefs and direct Client involvement, including the need to deal with a large number of suppliers and contracts;
- more one-off solutions and a tendency for the wheel to be re-invented for each project;
- slower implementation periods;
- uncertainties of workflow.

Partnership working

2.23 Where Health Boards may be involved with several projects within their area, a single agreement with one or a limited number of teams or team members may be considered to offer better value as a result of:

- improvement of team performance from transferring learning from one similar project to another;
- potential reduction in confrontation and wasteful activity including re-bidding;
- repetition of design and construction elements;
- reduced design and construction periods;
- economies of scale and ordering;
- continuous workflow.

Partnership procurement may also result in the following:

- restriction in the number of team members and suppliers to a few larger companies, frequently not local to the project;
- reduction in the range of options available, with fewer new or innovative ideas emerging from fresh teams;
- less incentive to maintain high standards in all projects during a lengthy partnership agreement;
- repetitive buildings or structures being imposed on dissimilar environments or contexts;
- reduced opportunity for user/public involvement, consultation and brief development to suit particular needs and requirements.

Risk apportionment

2.24 There is always risk in any procurement process and steps should be taken to ensure this is minimised rather than just shifted elsewhere. Apportionment of risk should be dealt with openly and reasonably to ensure that it is dealt with in the most appropriate fashion, and by those best equipped to do so. Advice should be sought from the healthcare team.

Continuous improvement

2.25 During and following all projects, consideration should be given as to how the process of design and construction, and the interface between the two elements may be improved and strengthened so that performance can be continually upgraded and better value delivered. Ideally, this information should be widely shared and disseminated throughout NHSScotland to improve performance across the whole sector.

Building Scotland Act

2.26 On the 1st May 2005 a new building standards system came into operation in Scotland. All building warrant applications from this date will be processed under the Building (Scotland) Act 2003. Information on the new Technical Handbooks can be obtained from the Scottish Building Standards Agency (SBSA) website http://www.sbsa.gov.uk.

Fire Regulations

2.27 The designers of the facility should ensure that the building provided at completion would, without the need for any physical change to the building, allow the building users to comply with the requirements of current legislation. Where appropriate, the design team should assist the building owners in the preparation of any necessary risk assessments.

Needs of people with a disability or special need

Disability Discrimination Act (DDA) 1995

2.28 Introduced in December 1996, the Act requires 3 phased stages of implementation and compliance by owners and managers of public buildings to make access provisions for people with a disability or special need. The third stage, 'the need to comply', became fully effective from October 2004. Section 21.2 of the Act states that "*where a physical feature makes it impossible or unreasonably difficult for a disabled person to make use of a service or building it is the duty of the provider of that service to take such steps that are reasonable to remedy the situation*". NHS Dental Premises clearly fall within the scope of the Act and the need to comply. Guidance on implementing compliance measures for healthcare premises is contained within Scottish Health Facilities Note (SHFN) 20: 'Access audits of primary healthcare facilities' (September 2000) and the Access Audit Survey Toolkit (October 2002), both produced by Health Facilities Scotland (formerly NHSScotland Property and Environment Forum).

All rooms and areas in new and re-furbished buildings which are accessible to staff, patients and visitors are required to comply with this Act. This includes, but is not restricted to, people permanently or temporarily confined to a wheelchair and people with sight or hearing problems.

Fair For All – Practical guidance

2.29 The Scottish Executive Health Department in partnership with Disability Rights Commission are producing guidance for NHSScotland under the Fair For All (FFA) initiative. This guidance will offer advice to both policy makers and practitioners on how to ensure that services are delivered fairly and equally for everyone including needs of people with disabilities. The interim guidance was published in 2005, followed by final guidance in 2006 and is available to view at http://www.drc-gb.org/scotland

Guidance related to blind or visually impaired users

2.30 The Royal National Institute for the Blind (RNIB) has produced a book on the needs of visually impaired people in the built environment. The book is entitled 'Building Sight: A handbook of building and interior design solutions to include the needs of visually impaired people', and is published by RNIB.

2.31 Guide Dogs for the Blind Association (Guide Dogs) UK has produced national standards of best practice entitled 'Enhancing Care Provision for blind and partially sighted people in GP surgeries'. Although this is aimed at GP surgeries it may provide some help when designing Dental Premises.

Construction (Design and Management) Regulations 1994

2.32 Design teams and facilities managers should already be conversant with these health and safety regulations. However Dentists, as Clients, must become aware of their duties in undertaking a project. The Regulations will be relevant to the project from inception stage, through the design and construction process to completion, handover and beyond. The aim is to identify potential hazards within design, construction, use and maintenance of the building which may compromise the health and safety of anyone affected by the processes. This may become particularly important when the project relates to an existing building which is to remain operational during construction. Clients, designers and contractors all have mandatory duties to identify hazards, perform risk assessments and act accordingly to eliminate or control significant risk. The Health and Safety Executive (HSE) produce a free leaflet titled 'Having Construction Work Done: Duties of Clients under CDM Regulations'. This can be obtained from one of four Scottish Offices in Glasgow, Edinburgh, Aberdeen and Inverness or from the HSE website http://hse.gov.uk/.

Infection control

2.33 Cognisance must be taken of SHFN 30: 'Infection control in the built environment' Version 2 and HAI Scribe (Healthcare Associated Infection System for Controlling Risk in the Built Environment). These documents provide guidance to those responsible for design, planning and maintenance of the prevention of cross-infection in healthcare facilities. These are not infection control manuals, nor intended as a comprehensive guide to the principles underpinning the global issues surrounding infection control.

The documents aim to encourage early communication between professionals involved in the design, planning and maintenance of healthcare buildings where prevention of cross-infection and infection control issues impinge upon project management.

Designers should ensure that the design and specifications allow for all internal building elements, and surfaces, worktops, fitments, finishes and materials in all clinical (including decontamination/preparation and disposal) and kitchen areas to be easily cleaned and decontaminated to prevent Healthcare Associated

Infection (HAI). With this in mind the local Healthcare Body's infection control advisor or team should be involved from an early stage in the procurement process and particularly where existing premises are being extended. Dust control can have major implications to a contract in relation to time and cost.

The Board's infection control advisor should be consulted with regard to the design, choice of finishes and fittings. This will include the use of fabrics in 'clinical' areas and the types of toys used in any children's area provided.

Car parking

2.34 The car parking requirements will vary with each new project depending on its location, rural or city centre; the availability of adjacent car parking facilities, public transport and the local planning authority's requirement for off-street parking provision. When parking has to be provided, designers will have to consider the requirements for staff, patients, visitors and disabled parking adjacent to the building's main entrance in accordance with NHS guidance Health Building Note (HBN) 40: 'Common Activity Spaces'. Paragraph 2.4 of this document on 'Flexibility for future use' is also relevant to car parking.

Security

2.35 Security requirements again will vary with projects and their location; some will have serious vandalism or forced entry problems while others will be virtually free from any such problems. To determine what security arrangements are necessary, proposals should be discussed with the local police security advisor, the client's security officer if one exists, or the local NHS security advisor.

Internal security should be discussed with the building users, particularly with respect to any out of normal hours use of the building. Some buildings may allow the 'public areas' to be used while the remaining treatment areas are 'locked off'. This is more likely to be an issue in buildings with multi-practice occupation where they may be open at different times, particularly if being shared with GP Practices. Generally, buildings should have only one public entrance which may require to be controlled by buzzer and speaker entry. A separate staff entry may be a Client requirement and requires to be locked at all times with entry only possible with a key; this could be a fire escape door with an appropriate emergency opening facility on the inside.

The requirement for any locking internal doors should be clearly stated.

Secure storage including alarms for medicines and drugs requires to be agreed early in the design process, together with the requirements for lockable base or wall units within rooms.

The extent and type of staff security measures should be discussed and agreed at an early stage of the design process. This will have a bearing on the planning of the building to enable safe supervision from reception and the provision of security doors only openable by members of staff, either with proximity devices, key pads or remotely operated. Consideration may also be

required in relation to the location and fixing of furniture and fittings, whether fixed staff alarm points will be required or whether each member of staff should have their own personal attack alarm.

NHSScotland Firecode

2.36 This is a suite of documents which is primarily aimed at NHS Hospitals and larger healthcare buildings with 'in-patient' facilities. The SBSA Technical Handbooks deal with structural fire protection and fire escape requirements for all healthcare buildings. Some of the Firecode documents may provide help when considering fire safety or wilful fire raising prevention but some aspects may not apply to NHS Dental Premises. These are listed in References (General) of this document. In addition, each NHS Board will have a Fire Safety Advisor who can provide appropriate advice. All NHSScotland premises are required to comply with all aspects of Firecode, as applicable to each project. Cognisance must also be taken of the Scottish Executive Health Department (SEHD) 'Fire Safety Policy for NHSScotland'.

External works

2.37 Careful consideration should be given to the external areas and approaches to the building, with particular attention to disabled, elderly and infirm patients and visitors. Parking and footpaths must be good quality smooth non-slip surfaces with adequate falls to ensure that no ponding occurs. Good external lighting must be provided. Where possible, steps and ramps should be avoided and car parking for disabled persons should be provided close to the main entrance, all in accordance with HBN 40: 'Common Activity Spaces' Volume 1 and HBN/SHPN 40 Volume 5. Consideration should also be given to the provision of staff parking and the movement of refuse vehicles, delivery vehicles and emergency vehicles. Some Practices may require a separate staff entrance, these can also be used for escorting particularly upset patients out of the building without having to pass through public areas.

3. The Standards

Management of the project

Aim

3.1 To ensure that the project targets are met with regard to time, cost and quality thresholds and ensure overall value for money and resources during the whole life of the service/facility where that value is to be judged against all the specified outcomes.

Requirements

3.2 ***Project Manager***: It is highly recommended for Clients, and mandatory for NHS Boards, that a responsible person be appointed to manage the project in the manner set out in the NHS Estates publication 'A Guide to the Provision of Leasehold Premises for GP Occupation'. In addition, cognisance should also be taken of HDL(2001)47 Construction Procurement Policy issued by the Scottish Executive Health Department.

Planning Supervisor/Coordinator. The Client has an obligation under the Construction (Design and Management) Regulations 1994 to appoint a Planning Supervisor at the outset of any project. Guidance on Client responsibilities is contained in the Heath & Safety Executive's (HSE) document titled 'Approved Code of Practice and Guidance: 2001 ISBN 0 7176 21391 1', which is available from the HSE or TSO bookshops. HSE will also provide free brochures 'CIS 39 – Construction (Design and Management) Regulations 1994: The role of the client: 2000 Revision' and 'CIS 40 – Construction (Design and Management) Regulations 1994: The role of the planning Supervisor: 2000 Revision'.

Design considerations

Aim

3.3 To ensure excellence in design, which is essential in order that the project delivers best value, each of the following components must be addressed appropriately:

- the functional design of the facility should meet the needs of its users and its operations. This will result from a detailed assessment of the requirements of the users and operations and how they may change over time, as well as how the facility will need to be altered to meet those changing needs;
- specific advice should be sought from NHS Education for Scotland (NES) and undergraduate and postgraduate Dental Deans if the premises are

intended for use on clinical teaching, where suitable arrangements must be in place for student supervision;

- the design of the complete facility should consider the internal environment for those that use, operate, maintain or are otherwise affected by the facility, including aspects that impact on their health and safety. The external elevations and overall mass of the design should be carefully assessed with regard to the adjoining buildings and local area; also they will require to be discussed with, and approved by, the Local Authority planners. The results of this evaluation should be recorded in written form and this should be retained with other project documents;
- while it is expected that most new facilities will be in single storey buildings, it is possible that with larger buildings, or on restricted sites, more than one floor might be required. Where upper floors are necessary, designers should try and avoid having patient access accommodation upstairs. This does not, however, mean that upper floors do not have to be provided with disabled access. Where upper floors are necessary, careful consideration will be required in connection with fire escape provision, stair and lift provision and also floor sound insulation;
- although the building does not have inpatients, designers will still have to consider trolley access both to the building and any patient access rooms. This is to allow easy access by the ambulance service in the event of a patient collapsing and having to be removed to hospital;
- the Practice manual handling policy should give information on how disabled or obese patients will be transferred into the treatment chair or lifted in the event of falls or collapse;
- the Local Disability Forum should be included during the design consultation process;
- the detailed design of each assembly or component should be assessed to ensure that it satisfies the relevant project requirements;
- the design of the entire construction process should be reviewed to assess how each component should be manufactured, transported and assembled to complete the facility;
- the Planning Supervisor/Coordinator will ensure that a ‘Health and Safety File’ is produced by the main contractor. This will include information from the design team members including ‘as built’ drawings and material specifications; information from the contractors including names of suppliers; operation and maintenance manuals and other information on the facility giving details of how components and materials should be replaced or repaired in addition to the recommended means of ultimate disposal. The file will be retained and updated, when required, by the building owners;
- in some areas, more emphasis will require to be given to building abuse. Internally designers might have to consider ‘presence sensors’ to activate taps and provide ‘key’ operated toilets. Externally there should be no exposed pipework and all external features like seating will require to be secured to the ground to prevent them being used to access the roof. It should be noted that roof tiles and slates can be stripped off and used as

missiles. The use of laminated outer panes to all windows should be considered;

- the Client and designers should establish at an early stage all requirements relating to the storage and disposal of clinical waste, mercury re-cycling and X-ray safety to ensure compliance with all current legislative requirements and national guidance.

3.4 Where possible, the likely impact of changes to 'health and safety' and 'environmental' requirements on the facility should be assessed for the design life of the facility.

Environment and design

3.5 Designers should create an environment in primary healthcare centres and local healthcare resource centres which will help patients feel at ease, be conducive to efficient working, and contribute to staff morale. Where possible, rooms should be provided with natural light and ventilation.

Art in health buildings

3.6 Works of art and craft can make a significant contribution towards the required standard of the interior of buildings; this need not be limited to conventional hanging of pictures on a wall. Every opportunity should be taken to include works by artists and craftspeople in appropriate spaces in Practices. These may include paintings murals, prints, photographs, sculptures, decorative tiles, ceramics, textile hangings, mobiles and furniture. Often it is works of art and craft which lend special identity to a waiting area or recovery room, and which help give a sense of locality. Particular thought should be given to high levels and ceilings in dental treatment rooms, especially with regard to young children.

3.7 Advice should be sought from experts on:

- ***obtaining grants:*** in some cases, Regional Arts Boards or charitable trusts with a local interest may offer grants to be used within a capital scheme for art or craft works. The Royal Society of Arts offers bursaries for collaborations between architects and artists;
- ***obtaining sponsorship*****:** local industries may see an advantage in supporting an arts project as a way of reaching a wide, or particular, audience;
- ensuring quality in all art and craft works;
- appropriately locating art and craft works;
- selecting artists and craftspeople.

Flexibility/adaptability

Aim

3.8 To ensure that the facility is designed and constructed to accommodate future change, including expansion, with minimal disruption and to ensure that the site chosen will allow this.

3.9 The building and its services should be designed and co-ordinated such that the alteration of one or more aspects of the services, structure, finishes or fixtures should not cause unnecessary disruption, particularly in 'clinical' patient areas. This is likely to require the use of co-ordinated planning grids in the first instance.

3.10 The selection and use of materials and components which meet the minimum legal and technical requirements, but which do not allow for the flexibility demanded here, will not be acceptable.

Circulation spaces

Aim

3.11 Circulation spaces should provide a convenient means for all building users to move between areas without disturbance to occupants of adjacent spaces. If possible, the spatial organisation should be such that those unfamiliar with the building can navigate with minimal need for directional signage. Cognisance should be taken of Health Facilities Scotland (formerly NHSScotland Property and Environment Forum)'s 'Wayfinding' document.

Requirements

Security

3.12 Circulation routes should be easily supervised by staff at reception. For upper floors, where direct supervision is not reasonably achievable, the provision of a close circuit television (CCTV) system monitored from reception may be an acceptable alternative.

Privacy

3.13 The internal arrangement of rooms should ensure that visual intrusion from an adjacent corridor is limited, or excluded in the case of toilets (HBN 40: 'Common Activity Spaces'). The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Staff and public circulation routes

3.14 The design should avoid the need for dental staff to pass the 'public' spaces when moving between administration/reception areas and consulting areas. The design should also consider the provision of a separate staff entrance/exit, which could also provide an alternative means of escape from the building in an emergency, to allow Dentists and staff to leave the building without being observed by waiting patients. The circulation area will vary between projects, depending on the required accommodation, but typically an allowance of 33% should be added to the net area listed within 'Appendix 1: Room data sheet – Typical accommodation', the schedule of typical accommodation. Generally corridor widths will be approximately 1500mm wide in patient areas and 1200mm in staff areas. For larger Practices and Community Dental premises run by Health Boards, corridors are more likely to be 1800mm in patient areas and up to 1500mm in non-patient and staff areas.

Entrance lobby

Aim

3.15 This should be a secure space giving access directly to the patient reception and waiting areas and it should be designed to protect these spaces from the effects of weather. In addition, consideration should be given for the need of secure storage space for prams, pushchairs etc. which may be provided off this area. Safety issues relating to young and elderly must be addressed when specifying automatic doors. Very careful consideration must be given to providing access for disabled and infirm patients, visitors and staff.

Requirements

Security

3.16 This design should allow supervision by staff from the patient reception area.

Layout

3.17 The arrangement should allow for secure pram storage, if provided, without obstruction to the through circulation route. In most building locations, access to this space will require to be remotely controlled by reception staff for security reasons.

Finishes

3.18 Surface finishes must be selected to resist deterioration resulting from the extent of foot traffic and the effects of the weather. More specifically, the floor finish must prevent the migration of dirt and dampness into the patient reception and waiting areas. Consideration should be given to the use of wall protection to prevent unsightly damage. Great care must be taken with the selection of floor material due to the fact that disabled, elderly and infirm people regularly

use this facility. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.

Patient reception

This may be a general reception point for a building housing other healthcare professionals as well, or purely a dental reception in smaller buildings.

Aim

3.19 This space acts as the first point of contact for patients and provides the means of liaison with the administration staff and practitioners. In addition, the staff here should direct and control the movements of patients within the facility and may also deal with collection of prescriptions. In small Practices this space may not be manned full time, with dental staff carrying out the 'reception' functions.

Requirements

Privacy

3.20 The design should prevent telephone conversations and conversations between patients and reception staff from being overheard by others, including those in the waiting area. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Spatial arrangement

3.21 The reception counter should be adjacent to both the principal entrance and the exit from the waiting area and supervise/overlook access to the consulting rooms. Great care must be taken with the selection of floor material due to the fact that disabled, elderly and infirm people regularly use this facility. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. If an open counter is being considered then careful consideration of the fire regulations will be required in relation to fire containment and protection of escape routes.

Reception counter

3.22 This must be designed to accommodate the installation of IT equipment, which should include a provision for cable management. In addition, the design of the counter must consider the Disability Discrimination Act (DDA). This will require the height, width and counter details to be fully considered and designed to allow use by all disabled users, including for example wheelchair users and people with hearing and sight problems. Careful consideration will be required when induction loop systems are being used, in order to prevent private conversations being picked up by others. Use of a deep reception counter will help to prevent abusive patients (or others) from reaching over to assault staff.

Security

3.23 The design should provide staff with an easy escape, directly away from the risk of disorderly patients and to afford staff protection against physical assault. Provision of a panic alarm should be considered

Environment

3.24 Staff and patients must be protected from draughts and provided with ventilation.

Area

3.25 Staff side will typically require 4.5m^2 per receptionist space, while the patients side will require 3 to 4.5 m^2 recessed off the main circulation route.

Waiting areas

Aim

3.26 These spaces should provide visitors and patients with a calm relaxed atmosphere where they can obtain information relating to health from a variety of sources, including audio-visual. Consideration could be given to allowing viewing of the main waiting area from reception, either directly or by CCTV. In some locations it may be considered necessary to provide a separate or partitioned off area for patients who are particularly unwell or have behavioural problems. Alternatively the interview room, if provided, could be used for these patients.

Requirements

Play area

3.27 A children's play area should be provided which allows play to proceed with parental supervision but without causing disruption to other users. This area should allow staff supervision from the patient reception area and be remote from the main entrance. This area requires all materials, fitments, toys etc. to be easily cleaned to prevent cross infection.

Patient call system

3.28 An audio-visual system providing appointment information for patients could be considered. Such a system should cater for people with visual impairment and hearing aid users and should take cognisance of the Disability Discrimination Act.

Other functions

3.29 Clients to advise if the design should allow the space to be used for other purposes; preventative dental classes or other similar activities.

Spatial arrangement

3.30 The waiting area should be adjacent to the patient reception area. In larger premises and those on two or more storeys, secondary waiting areas must be provided to minimise the time for patients to reach consultation rooms.

The waiting area should be capable of being separated from the main consulting and administration circulation routes to allow practitioner and staff movement without the need to pass through areas used by patients.

Furniture and fittings

3.31 The layout of these items should be arranged to provide the best use of space with seats in non-linear layouts which prevent patients facing each other. This should avoid the creation of secluded spaces without supervision from the patient reception area. Space must be provided for wheelchairs users.

Sufficient provision should be made for the display of notices and leaflets, together with writing surfaces for patient use. Careful consideration should be given to the display system which should be fixed/permanent for safety reasons and to avoid ad-hoc systems being used or notices/posters being stuck to wall finishes or doors.

Finishes

3.32 Durable non-reflective surfaces should be provided which are easily cleaned but without compromising patient comfort or interest. The selection of finishes must deliver a comfortable acoustic environment.

Area

3.33 Waiting area sizes depend on the appointment system adopted, the number of floors and the size of the practice. Where an appointment system is in operation, a minimum of five spaces each 1.5m^2 are required for each consulting room. Where an appointment system is not used, the variation in consultation periods may be more significant and consequently more waiting space will be required. All waiting areas should include at least 3m^2 specifically for wheelchair users.

Interview room

Aim

3.34 This space, if required, should be close to the patient reception or waiting area(s). It will provide a space to be used for confidential discussions between staff and patients. Staff security should be considered and the need for a panic alarm and a second staff outward opening ‘escape’ door, opening to the non-public areas, should be assessed. This room could also be used as a ‘quiet’ waiting area for any disturbed patients waiting for treatment or a quiet working space for staff. This room could also be used for Preventative Dental Unit (PDU) training for children etc.

Requirements

Furniture and fittings

3.35 Chairs, a writing surface and computer connections should be provided in an area not less than 7.5m^2. A low level washhand basin will be required if the room is to be used for PDU training for children.

Privacy

3.36 The internal arrangement of rooms should ensure that visual intrusion from an adjacent corridor is limited. The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project. As achieving the recommended sound reduction through doors is very difficult or costly, the location of this room should be considered carefully.

Components

3.37 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and should be suitable for use by people with disabilities from both sides of the door. The room should be capable of being locked with a key when not in use.

Finishes

3.38 Durable surfaces should be provided which are easily cleaned but without compromising patient comfort or interest. The selection of finishes must deliver a comfortable acoustic environment. If being used for PDU training then non-slip vinyl should be considered, at least in the vicinity of the WHB.

Patient toilets

Aim

3.39 The provision of toilets is required for all visitors, including wheelchair users. Sufficient space should be provided to accommodate children in pushchairs, and others, to be assisted if necessary. The quantity of toilets will depend on the size of the facility being considered but a WC suitable for independent wheelchair and assisted use should be provided. A peninsular layout allows a user to transfer to the WC from either side, an important choice for some users, but at the cost of a larger cubicle. Separate 'ambulant' toilets should be provided for men and women, and in some locations different ethnic groups may have to be considered. All toilets should comply with guidelines included in Appendix 3.

Requirements

Related areas

3.40 Separate facilities for feeding and changing babies and toddlers may have to be considered, depending on the use and size of the building. If required these should be provided separate from toilet areas and opening off a corridor rather than the main waiting space or other public areas.

Access

3.41 Toilet facilities should be adjacent to the main waiting area(s), see paragraph 3.13 and HBN 40 'Common Activity Spaces' regarding privacy requirements.

Finishes

3.42 All finishes must be non-reflective, easily cleaned and fungal resistant. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Wall finishes must be washable. Ease of access must be provided to all drainage and plumbing services for maintenance.

Baby changing

Aim

3.43 Facilities may be required for changing and cleaning babies and disposing of soiled nappies. This area must be accessible to both men and women and sufficient space should be provided to accommodate children and pushchairs. This space is listed in the minimum standards required for premises claiming rental cost reimbursement.

Requirements

Furniture and fittings

3.44 This room should include a fixed cleanable shelf with a deeply lipped edge or a proprietary wall mounted baby changing unit, a washhand basin, robust wall hooks and a suitable disposal container. Consideration may be given to a nappy vending machine depending on levels of activity.

Access

3.45 Access should be from a corridor in the public part of the building adjacent to the main waiting area.

Finishes

3.46 All finishes must be non-reflective, easily cleaned and fungal resistant. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Wall finishes must be washable. Ease of access must be provided to all drainage and plumbing services for maintenance.

Breast feeding

Aim

3.47 Facilities may be required to enable mothers to breast feed in privacy and in pleasant surroundings. This will depend on the size of the Practice, its location, local preferences and cultural considerations. This could be provided in a screened off part of the waiting room or in an interview room, with an 'engaged' slider sign provided. Sufficient space should be provided to accommodate children and pushchairs. This space is listed in the minimum standards required for premises claiming rental cost reimbursement.

Requirements

Furniture and fittings

3.48 This area should be provided with an upholstered high backed armchair and a small coffee table.

Access

3.49 If a separate room is provided then access should be from a corridor in the public part of the building adjacent to the main waiting area.

Finishes

3.50 Durable non-reflective surfaces should be provided which are easily cleaned but without compromising patient comfort or interest. The selection of finishes must deliver a comfortable acoustic environment.

Administration and data areas

Aim

3.51 This is a space which should provide an attractive working environment for clerical work associated with records, data, files, correspondence with patients, hospitals and Healthcare Bodies and also internal administration. There should be a secure area for communication and IT equipment.

Requirements

Access

3.52 There will be high levels of interaction between secretarial, clerical and record storage areas. The Practice manager in particular, if there is one, will require easy access to and within each of these areas which may be sited adjacent to each other. To ensure privacy and confidentiality there should be no access by patients.

A separate secure area is required for communication and particularly IT file servers, patch panels, etc.

Layout

3.53 Secretarial work surfaces or desks of appropriate depth for computers/VDUs are required with associated filing and storage cabinets.

Access to communication and IT equipment should be from within the administration area. A work surface would be required for smaller premises, whilst larger sites would require a desk, as well as equipment area.

Finishes

3.54 An attractive office working environment should be provided, typically with painted walls and carpeted floors.

Components

3.55 Doors should be solid core doors, hardwood lipped on all four edges. They should have closers. Door handles should be robust lever type and should be suitable for use by people with disabilities. Doors should be capable of being locked and should not have vision panels. Windows must be provided with curtains or blinds.

Area

3.56 An allowance of 5.5m^2 for each administrative member of staff, medical secretaries etc. Additional space will be required for a communication and IT area, any additional casual/part time users, storage, mail/photocopying space and future expansion.

Practice manager's office

Aim

3.57 Some larger premises may employ a Practice manager, if so they will require an individual working space providing an attractive working environment for a Practice manager. It should provide privacy for confidential meetings with members of staff. Users should confirm which level of personal attack alarm is required in this room early in the project development.

Requirements

Access

3.58 This space should be adjacent, or in close proximity, to the administration and data input areas and it is also advantageous to be near records and reception.

Layout

3.59 An office space with appropriate filing storage/cabinets and desks is required.

Finishes

3.60 An attractive office-working environment should be provided, typically with painted walls and carpeted floors.

Privacy

3.61 The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.62 Doors should be solid core doors, hardwood lipped on all four edges. They should have closers. Door handles should be robust lever type and should be suitable for use by people with disabilities. Doors should be capable of being locked and should not have vision panels. Windows must be provided with curtains or blinds.

Area

3.63 Typically 12m^2

Medical records room

Aim

3.64 This should be a secure space for the storage and retrieval of individual patient records together with an area for clerical staff. Patient records should be available upon request and there are therefore strong linkages between the reception and records functions and particularly between the records and secretarial/data input roles. The location of this room should be carefully considered; the increasing use of electronic storage might free some, or all of this space for future 'expansion'. The Client should determine their exact requirements for storage of records and the level of security required. Normally this room does not have any windows. Care will be required to prevent heat build up in this room.

Requirements

Access

3.65 Patient records are highly confidential and should be part of a secured administration area with restricted access.

Record information in paper based and IT based systems needs to be available to the Dentists for consultations and to other members of staff.

Layouts should take account of the progress being made in scanning techniques and online record information.

Layout

3.66 Paper based records could be stored using carousels, filing cabinets, tray/lateral filing or open shelves/vertical filing. The latter is the most space effective but the detailed design should consider minimising high or low-level shelving for the convenience and safety of staff. Assembly positions for records for issue at dental sessions and for processing should be provided. Extensive surfaces/desks are required for clerical work.

In the short term, many Practices will utilise both paper based and IT systems. Designs should therefore allow for the conversion of space to facilitate the development of screen working and the associated requirements for a printer and scanner.

Security

3.67 This must be a secure area and must be protected by solid core doors and have a digital controlled entry locking device. If the medical records are to be stored in a staff reception/administration area, open reception desks should be protected by steel roller shutters or fixed security glazed screens. In the interest of staff safety, consideration may also have to be given to the installation of fixed security glazed screens and the provision of staff panic alarms. These will be more critical in some Practices depending on their location and also if the building is to be open outwith normal working hours.

Finishes

3.68 An attractive non-reflective office working environment should be provided, typically with painted walls and carpeted floors.

Components

3.69 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. The door should have a mortice lock capable of being locked from the inside with a turnbuckle, but capable of being overridden from the outside by staff with a key. The security locking system should be suitable for use from both sides of the door by people with disabilities.

Area

3.70 Typically 3.5m^2 per practitioner for records storage only. This area does not include secretarial and data input staff.

Staff multi-purpose room (meeting, training, seminar and library)

Aim

3.71 This is a space for training and study and which also allows members of the Practice team an area for the display of central reference material. This is only likely to be provided in large premises, multi-practice units or possibly where on-site teaching facilities are being provided. It is possible that individual rooms might be required to allow for a number of activities to occur at any particular time without disturbance. In some cases this space may be required for larger local staff meetings/conferences, drugs and equipment presentations.

Requirements

Access

3.72 Access should be from a corridor, although in smaller premises it might be provided in, or adjacent to, the common room. However, cognisance should be taken of the required high level of sound reduction between the rooms.

Privacy

3.73 The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.74 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and should be suitable for use by people with disabilities. Doors should be capable of being locked and should not have vision panels. Windows must be provided with curtains or blinds to provide black out facilities. If a security

locking system is used it should be suitable for use by people with disabilities from both sides of the door. This room will require a washhand basin if it is being used for any practical demonstration. In large Practices and those providing on-site teaching facilities, video conferencing services may be required.

Area

3.75 Typically 12m^2 for the training room, 12m^2 for the library and 7m^2 for the study room, giving a total of 31m^2. In small Practices this may be as small as 12m^2 in total.

Staff lounge and kitchen

Aim

3.76 This should be an informal meeting space for staff members and be provided with facilities for lunch and coffee breaks. In small Practices this space may also be used for meetings and training. It should be used by Dentists, hygienists, therapists, nurses and administrative staff.

Requirements

Access

3.77 Access should be isolated from the main patient circulation areas. It would be an advantage if staff do not need to pass through the administration area to reach the common room areas.

Layout

3.78 Informally furnished area with kitchen facilities to include a stainless steel sink with draining board, a separate washhand basin, fridge, microwave, storage units, work surfaces etc and possibly a dishwasher. This area should also include wall-mounted notice boards.

Finishes

3.79 Easy clean work surfaces and a non-slip sheet material floor finish with coved skirting in the kitchen area and carpet and wall decoration in the common room.

Components

3.80 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and should be suitable for use by people with disabilities. Doors should be capable of being locked and should not have vision panels. If a security locking system is used it should be suitable for use by people with disabilities from both sides of the door. Windows must be provided with curtains or blinds.

The type of locking device should be discussed with the Client; a digital locking device may be required depending on the location of this room.

Area

3.81 Typically 12.5m^2 for a one Dentist unit through to 35m^2 for a ten Dentist/hygienist/therapist unit, but the use is significantly influenced by the additional provision of training rooms, libraries, studies etc. in larger Practices.

Staff toilets

Aim

3.82 The provision of toilet(s) for staff, which should be suitable for semi-ambulant and independent wheelchair users. The minimum number of toilets required will be determined by the SBSA Technical Handbooks, and will depend on the number of staff using the building. Additional toilets may be required depending on the building layout regarding distances from other staff areas. Cloakroom facilities should also be provided; this could be in the form of secure staff lockers which could be located in the staff rest room. A staff shower may have to be considered for staff who cycle to work and/or for their use after 'accidents' with/by patients.

Requirements

Access

3.83 Toilet facilities for both male and female should be provided adjacent to the main common area.

Adequate facilities will be required in accordance with current standards and should include the provision of male and female special needs toilet cubicle for wheelchair access complying fully with British Standard 8300:2001 'Design of buildings and their approaches to meet the needs of disabled people – Code of practice'. Staff with disabilities should not be required to use patient toilet facilities therefore separate provision must be provided for staff.

Finishes

3.84 All finishes must be non-reflective, easily cleaned and fungal resistant. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Wall finishes (including skirtings) must be washable. Ease of access must be provided to all services.

Dental treatment room

Aim

3.85 The provision of a space suitable for Dentists to carry out examination of, and treatment to, patients and also interviews and discussions regarding proposed treatment. The design of the room should ensure privacy and be welcoming to patients. These rooms will normally be clustered in groups which may include other specialised treatment rooms. Users should discuss with the designers any safety measures required if it is envisaged that violent or disruptive patients are to be treated on the premises.

Requirements

Spatial relationship

3.86 Dental treatment rooms must be easily accessible from patient waiting areas.

Privacy

3.87 The internal arrangement of the room should ensure that visual intrusion from an adjacent corridor is limited. The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a privacy factor better than 80 as stated in SHTM 2045 'Acoustics, Part 2, Design Considerations'. In practice, this may be difficult to achieve in a cost effective manner therefore an acceptable noise level should be agreed by the Client and adopted. These rooms will be required to be tested for compliance by an acoustic consultant on completion of the project. These rooms should have windows; double-glazing with integral blinds.

3.88 ***Components***

Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers; they must also allow wheelchair access. Doors should be lockable and should be provided with obscured vision panels; handles should be robust lever type. If this room has X-ray equipment fitted, or will use mobile equipment, then screening may be required. Generally X-ray dosage is now so slight that lead lining is not required; reference should be made to the National Radiological Protection Board (NRPB) document 'Guidance notes for Dental Practitioners on the safe use of X-rays'. If screening is required, this may require walls, doors, and possibly floors and ceilings to be lined with lead or otherwise protected. If the room is at ground floor and a window is provided it may require special high-lead-content glass. This will require specialist input from the equipment supplier and local clinical physics advisor, either from within the NHS or on a consultancy basis. X-ray suppliers, installers and those responsible for maintaining the equipment must ensure that they are aware of all current legislative requirements, and in particular IRR99 and IR(ME)R 2000.

Internal arrangement

3.89 On entering the room, the patient should be clearly visible to the Dentist and/or nurse. The layout should allow wheelchair access to the dental chair.

Furniture and fittings

3.90 The layout of this room, and particularly the location of the dental chair and its associated services, is critical. A recognised healthcare range of fitments and fittings should be used for all benching, workstations and cupboards. There should be a defined area for the operator with washhand basin and an area for the dental nurse, also with a washhand basin. Cleaning and rinsing of instruments should only be carried out in the decontamination facility. Standard layouts will include a sink and a washhand basin. Worktops require to be special laboratory type without joints, with post formed roll fronts, post formed rear upstands and with sinks and washhand basins formed as an integral part of the worktop. The worktops require to be cleaned and disinfected between each patient.

Assistance with room layout, furniture and fittings, sanitaryware and services required can be provided by the local NHS team, NHSScotland Scottish Healthcare Supplies, specialised design organisations or dental equipment suppliers. This particularly relates to the location of the chair and its under floor service supply routes and connection box.

Provision must be made for computer equipment, patient call and panic alarm systems, in addition to dental equipment and storage for sterile equipment and supplies. Any 'administration' work should not be carried out on the 'dental' worktop, which should be kept clear of PCs, cables, paperwork, telephones etc. In many cases X-ray equipment will be located in this room. PC monitors should be on adjustable brackets, either fixed to the wall or on a desk mounted column, which will allow the Dentist to see the screen while working with a patient. The X-ray wall bracket may require local reinforcing to cope with the weight and movement of the equipment when arms are fully extended.

Finishes

3.91 Floor, wall and ceiling finishes in these areas should be jointless, impermeable and easy to clean. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Splashbacks to worksurfaces are appropriate.

Area

3.92 The area of this room can vary between 15 and 17m^2, generally the room will be 16m^2. Where on-site teaching facilities are included, one or more dental treatment rooms will require to be slightly larger to cater for the Dentist and trainee within the room, the actual area required should be confirmed by the Client.

At least one dental treatment room may require to be larger to cope with a wheelchair patient with one or two companions, the Dentist and nurse and

space for using a patient hoist adjacent to the couch. Parking space will be required for the empty wheelchair. In some cases the patient will be treated while sitting in their wheelchair so space will be required adjacent to the dental chair within reach of all equipment as well as the Dentist, dental nurse and possibly a patient companion/relation. This room may require a specialist articulated wheelchair platform for treatment of wheelchair users.

Recovery room

Aim

3.93 The provision of this space will only be required if the Practice is going to be carrying out intravenous sedation, and will be located within the main treatment area. The design of the room should ensure privacy for patients and be adjacent to the surgeries concerned; consideration could be given to the provision of a connecting door. A spatial allowance for wheelchairs to turn and manoeuvre must be provided. This accommodation may be shared with adjacent surgeries.

Requirements

Access

3.94 Patient access should be from the main circulation area or directly from adjoining surgeries. Patients should be able to exit the room without having to pass through the dental surgery.

Furniture and fittings

3.95 The room should allow for a couch and comfortable chair and space to manoeuvre a wheelchair. A clinical washhand basin should be provided. If more than one patient will be using the room then a curtain/screen should be provided around each space provided.

Finishes

3.96 Floor, wall and ceiling finishes in these areas should be smooth and easily cleanable. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.

Privacy

3.97 The design of walls, floors and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R'w) to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.98 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and should be suitable for use by people with disabilities from both sides of the door. The room should be capable of being locked with a key when not in use.

Area

3.99 The minimum area should be 7.5m^2.

Compressor room

Aim

3.100 When designing new premises, provision should be made for a plant room or cupboard suitable for housing the dental compressor and vacuum pumps which will provide piped medical compressed air and suction to each of the dental treatment rooms. The room requires to be carefully controlled to prevent overheating of the plant and contamination of dental air supplies, or freezing of drying systems and vacuum plant. For specific details relating to compressed air refer to Section 4 of this document and SHTM 2022: Supplement 1 'Dental Compressed Air and Vacuum Systems'. Care should be taken with the location of the air intake and the equipment should be fitted with a silencer and filters as appropriate.

Requirements

Access

3.101 The location of, and access to, this room requires careful consideration in order to avoid noise within the building, particularly the treatment areas.

Privacy

3.102 The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a high level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components will require to be tested for compliance by an acoustic consultant on completion of the project.

Finishes

3.103 Wall and ceiling finishes in this area require to be painted to reduce dust levels and allow the surfaces to be cleaned. The floor requires to be sealed to prevent dust.

Components

3.104 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type with mortice lock capable of being locked from the inside with a turnbuckle, but capable of being overridden from the outside by staff with a key.

Area

3.105 The minimum area will be approximately 5m^2, but will be dependent on the size of the equipment required for the Practice and the required service space around the equipment.

X-ray room

Aim

3.106 Some Practices may still require a separate room within the treatment area and close to the surgeries. This room should be accessed from the main circulation area.

Requirements

Layout

3.107 The arrangement will be dependent on the x-ray system being proposed; manual, automatic or digital. Assistance with room layout and provision of equipment, fittings, sanitaryware and services required can be provided by equipment suppliers and NHSScotland Scottish Healthcare Supplies. The X-ray wall bracket may require local reinforcing to cope with the weight and movement of the equipment when arms are fully extended. Screening may be required in walls and the door but generally X-ray dosage is now so slight that lead lining is not required. During the design process specialists and manufacturers should confirm specific requirements in relation to this.

Finishes

3.108 Walls should be smooth and applied paint finishes must be capable of being easily cleaned. Floor and ceiling finishes should also be capable of being easily cleaned. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.

Privacy

3.109 The design of walls, floors and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: ‘Acoustics, Part 2, Design Considerations’. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.110 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and should be suitable for use by people with disabilities from both sides of the door. The room should be capable of being locked with a key when not in use.

Area

3.111 The minimum area should be 8.5m^2.

X-ray developing room

Aim

3.112 This should be a separate room within the utility area and close to the treatment areas. This room should be accessed from the main circulation area and allow for use by more than one nurse. Depending on the equipment being used, careful consideration will be required in relation to room and equipment ventilation requirements.

Requirements

Layout

3.113 The arrangement will be dependent on the x-ray system being proposed; manual, automatic or digital. Assistance with room layout and provision of equipment, fittings, sanitaryware and services required can be provided by NHSScotland Scottish Healthcare Supplies Division or suppliers.

Finishes

3.114 Walls should be smooth and applied paint finishes must be capable of being easily cleaned. Floor and ceiling finishes should also be capable of being easily cleaned. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Worktops should have coved rear upstands and be suitable for regular cleaning to avoid any cross infections.

Privacy

3.115 The design of walls, floors and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w), to that stated in SHTM 2045: 'Acoustics, Part 2, Design Considerations'. These elements and components may require to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.116 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type and the room should be capable of being locked with a key when not in use.

Area

3.117 The minimum area should be 8.5m^2.

Decontamination

The need to decontaminate

3.118 The term 'decontamination' encompasses cleaning, disinfection and sterilization. The need for decontamination relates to a number of issues, some of which are discussed below.

Healthcare Associated Infection (HAI)

3.119 Effective decontamination of reusable medical devices before their use on the next patient is an essential measure in the prevention of healthcare associated infection.

Patient safety

3.120 Decontamination is essential to ensure that medical devices are free from infective micro-organisms and bacterial endotoxins.

Staff safety

3.121 To make a medical device safe to handle during inspection, assembly and use, it must be cleaned and disinfected.

On site v off site decontamination

3.122 In planning a new facility, the costs and benefits of on-site versus off-site decontamination should be taken into account. Off-site decontamination is likely to require increased stocks of instruments to cater for the turnaround time involved whilst on site decontamination on the other hand, introduces a need for specialised equipment, facilities and training. On-site decontamination should only be carried out when it is clear that the required standards can be economically achieved and maintained.

Decontamination standards

3.123 Where decontamination of instruments and other medical devices is to be carried out within the premises, the facilities provided for this must meet the standards laid down in the NHSScotland Sterile Services Provision Review Group 1st Report 'The Glennie Framework' (the Glennie Report) published by the Scottish Executive Health Department under HDL(2001)66 Healthcare Associated Infection: 'Review of Decontamination Services and Provision across NHSScotland'. These standards have been supported by a variety of guidance documents produced by the organisations below.

Local decontamination facilities are appropriate only for the reprocessing of instruments where the risk of transmission of Transmissible Spongiform Encephalopathies (TSEs) is low as categorised in the Glennie Report above.

Sources of guidance

3.124 Work is ongoing and further advice will be available from Health Facilities Scotland (formerly NHSScotland Property and Environment Forum) www.hfs.scot.nhs.uk, Health Protection Scotland (HPS) http://www.hps.scot.nhs.uk/ and the Scottish Executive Health Department (SEHD) www.show.scot.nhs.uk/sehd.

3.125 Such installations are highly specialised and should not be undertaken without appropriate specialist advice in relation to the decontamination processes to be carried out, the layout and construction of the facility and the equipment to be used. The interaction of these facets is key to achieving the standards required, and specialist testing, validation and commissioning are required for both the facility and equipment. The local decontamination of medical devices is an evolving field. The most up to date guidance available from the organisations listed above should be followed at the time of planning.

3.126 At the time of writing, guidance specific to the provision of local decontamination facilities is being prepared. When completed, this will be available through the Health Facilities Scotland web site above. In the interim, many of the principles are detailed in Scottish Health Technical Memoranda (SHTM) 2010: 'Sterilisation', '2030 ' Washer-disinfectors' and Scottish Hospital Planning Note (SHPN)13 'Sterile Services Department'. These documents are written with central decontamination in mind and specialist interpretation for local decontamination will be required. Interim guidance on local decontamination facilities is also given in 'Local Decontamination Units: Guidance on the Requirements for Equipment, Facilities and Management', produced by HPS.

Dental hygienist and therapist room

Aim

3.127 The provision of a space suitable for hygienists and therapists to carry out examination of, treatment to, and cleaning of patients' teeth and discussions regarding proposed treatment. The design of the room should ensure privacy and be welcoming to patients. These rooms will in most cases be fitted out as dental treatment rooms and may well be shared with Dentists.

Requirements

Spatial relationship

3.128 Rooms must be easily accessible from patient waiting areas.

Privacy

3.129 The internal arrangement of the room should ensure that visual intrusion from an adjacent corridor is limited. The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a privacy factor better than 80 as stated in SHTM 2045 'Acoustics, Part 2, Design Considerations'. In practice this may be difficult to achieve in a cost effective manner therefore an acceptable noise level should be agreed by the Client and adopted. These rooms will be required to be tested for compliance by an acoustic consultant on completion of the project. These rooms should have windows with either curtains or blinds to provide privacy.

Components

3.130 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers; they must also allow wheelchair access. Doors should be lockable and handles should be robust lever type; they should be provided with obscured vision panels. If this room has X-ray equipment fitted, or will use mobile equipment, then screening may be required. If the room is at ground floor level and a window is provided, it may need special high-lead-content glass. This will require specialist input from the equipment supplier and local clinical physics advisor, either from within the NHS or on a consultancy basis.

Internal arrangement

3.131 On entering the room the patient should be clearly visible to the hygienist, therapist or nurse. Layout should allow wheelchair access to the dental chair.

Furniture and fittings

3.132 The layout of this room, and particularly the location of the dental chair and its associated services is critical. A recognised healthcare range of fitments and

fittings should be used for all benching, workstations and cupboards. Standard layouts will include a sink and washhand basin. Worktops require to be special laboratory type without joints, with post formed roll fronts, post formed rear upstands and with sinks and washhand basin formed as an integral part of the worktop. The worktops require to be cleaned and disinfected between each patient.

Assistance with room layout, furniture and fittings, sanitaryware and services required can be provided by the local NHS team, NHSScotland Scottish Healthcare Supplies, specialised design organisations or dental equipment suppliers. This particularly relates to the location of the chair and its under floor service supply routes and connection box.

Provision must be made for computer equipment, patient call and panic alarm systems, in addition to dental equipment and storage for sterile equipment and supplies. Any 'administration' work should not be carried out on the 'dental' worktop, which should be kept clear of PCs, cables, paperwork, telephones etc. In many cases X-ray equipment will be located in this room. The X-ray wall bracket may require local reinforcing to cope with the weight and movement of the equipment when arms are fully extended. This room may require a specialist articulated wheelchair platform for treatment of wheelchair users.

Finishes

3.133 Floor, wall and ceiling finishes in these areas should be jointless, impermeable and easy to clean. Floor finishes and coved skirtings should be formed in non-slip sheet vinyl, with welded joints for ease of cleaning. Splashbacks to work surfaces are appropriate. A suitable and sufficient risk assessment should be carried out prior to the specification of floor coverings particularly in relation to slip resistance.

Area

3.134 The minimum area should be 15m^2 if shared with a Dentist.

Dental laboratory

Aim

3.135 It is very unlikely that many, if any, NHS Dental Premises will require this room as most work is now carried out by specialised commercial labs. If the provision of a space suitable for a dental technician to carry out production and repair of dentures, crowns etc. is required then the Client/user will require to brief the designers on all requirements.

Requirements

Spatial relationship

3.136 This room is not part of the patient treatment area of the building and may require to be accessible by the user at different hours from the rest of the building.

Privacy

3.137 The design of walls, floor and ceilings, including doors or other components forming part of the walls, should provide a level of sound performance which attains a minimum weighted sound reduction index (R´w) to that stated in SHTM 2045 'Acoustics, Part 2, Design Considerations'. This room will be required to be tested for compliance by an acoustic consultant on completion of the project.

Components

3.138 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type with mortice lock capable of being locked from the inside with a turnbuckle, but capable of being overridden from the outside by staff with a key. A security locking system may be required for doors accessing this room.

Internal arrangement

3.139 The layout of worktops, fittings and furniture must be agreed with the dental technician at an early stage of the design. This room will require work areas with specialised extract systems and a high level of service outlets.

Furniture and fittings

3.140 The furniture and fittings should be of 'laboratory' standard and supplied by specialist suppliers. The layout of this room and its associated services is important and a recognised healthcare range of fitments and fittings should be used for all laboratory benching, workstations and cupboards. Assistance with room layout, furniture and fittings, sanitaryware and services required can be provided by NHSScotland Scottish Healthcare Supplies, other specialised design organisations or suppliers. Provision must be made for computer equipment.

Finishes

3.141 Floor, wall and ceiling finishes in these areas should be smooth and easily cleanable. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.

Area

3.142 The minimum area should be 17.5m^2.

Storage areas

Aim

3.143 To provide areas for all the Practice storage requirements. Careful consideration must be given by the Practice manager, Dentists and staff regarding their total storage requirements, particularly any drugs or hazardous materials. These are areas traditionally given little thought by clients at design stage but which will then lead to serious lack of storage on completion of the project. Plant, meters and services equipment, including distribution boards particularly, must not be located within any of the Practice storage areas. Separate storage will be required for any mobile gas equipment and spare cylinders, this should be located on an external wall.

Requirements

Access

3.144 These areas are under the direct control of the Practice staff and must be locked and not accessible from patient circulation areas. Some stores may be directly accessed off working areas.

Finishes

3.145 All finishes must be easily cleaned and fungus resistant. Floor finish in the bottled gas store should be sealed and painted to provide a tough dust free finish.

Components

3.146 Doors should be solid core doors with suitable veneer or laminate facings and hardwood uppers on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type with mortice lock capable of being locked from the outside with a key but capable of being overridden from the inside by a turnbuckle.

Cleaner, plant and refuse areas

Aim

3.147 To provide areas for heating plant, electrical equipment, IT servers and the supply, storage and disposal of materials. The above areas should be individual rooms and not shared or multi-use areas. Plant, and services equipment/distribution boards particularly must not be located within any of the Practice storage areas. IT server rooms will almost certainly require mechanical cooling.

Requirements

Access

3.148 These areas are under the direct control of the Practice staff or building provider, and must be locked and not accessible from patient circulation areas. Preferably plant areas should be located on external walls for ventilation purposes and possible external service access.

Layout

3.149 The cleaner's room should have lockable metal cupboards for the storage of cleaning materials in accordance with COSHH regulations. Typically the room will have a low-level bucket or 'belfast' sink, stainless steel sink unit and small washhand basin together with space for all cleaning equipment.

Clinical waste should be stored within special containers which should be held in an appropriate separate secure 'Disposal Hold' Store together with dirty articles and linen, pending cleaning and decontamination. Each storage area should be clearly labelled. The areas should be ventilated by extract mechanical means. There should also be suitable means of safely transporting and handling the refuse i.e. wheeled bins.

General refuse awaiting collection should be held in a secure enclosure close to the building and the pavement where staff will require to leave wheeled bins for collection by refuse vehicles.

Finishes

3.150 All finishes must be easily cleaned and fungus resistant. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises. Wall finishes (including skirtings) must be easily washable.

Sealed, dust free finishes are required in the plant room and refuse areas. These floors should be sealed and painted.

Floor finishes in spaces housing data/communications equipment should be assessed for any requirement for static dissipative properties.

Components

3.151 Doors should be solid core doors, hardwood lipped on all four edges and should have acoustic brush seals and closers. Door handles should be robust lever type with mortice lock capable of being locked from the inside with a turnbuckle, but capable of being overridden from the outside by staff with a key.

Checklist of typical accommodation

3.152 Table 1, Appendix 1: Room Data sheet: 'Typical accommodation', represents a collation of the room and space functions within areas shown as minimum, optimum or by ratio.

4. Engineering, energy and environment

Introduction

4.1 This Section describes the engineering, energy and environment requirements for NHS Dental Premises in Scotland. The guidance should acquaint the engineering members of the design team with the criteria needed to meet the functional requirements. Environmental and engineering technical data and equipment details are described in the relevant Activity Database, available from NHS Estates as a subscription service. Reference should also be made to NHSScotland guidance Scottish Health Planning Note 03: 'General design guidance'.

Economy

4.2 Engineering, energy and environment services are a significant proportion of the capital cost and remain a continuing charge on revenue budgets. The project design engineer should therefore ensure:

- economy in initial provision, consistent with meeting functional requirements and maintaining clinical standards;
- optimum benefit from the total financial resources these services are likely to absorb during their lifetime;
- that design and installation of engineering systems should enable the operation of these systems to meet best Practice performance indicators (PIs) for both energy and water.

4.3 The economic appraisal of alternative locations and design solutions should include building orientation, heat conversion and distribution losses. Reference should be made to SHTM 07-02:'EnCO_2de – making energy work in healthcare'. The aim of Encode is to ensure that everyone involved in managing, procuring and using buildings and equipment thinks about the implications of energy use today and in the future. Encode explains how cost savings, and environmental benefits, can be achieved.

4.4 In view of higher building specifications and the inevitable increasing cost of energy, together with the need to monitor domestic hot and cold water systems (legionellae statutory requirements), the project team should, for larger multi-Practice facilities, include the provision of a Building Management System (BMS). Where there is a need for extensive mechanical ventilation, the economic viability of heat recovery systems should be assessed.

Designers should ensure that those services, which use energy, do so efficiently to meet the respective PIs.

4.5 Attention is drawn to the services provided by Scottish Healthcare Supplies in the provision of the most economic tariff for energy supply. All NHSScotland healthcare premises should take advantage of these services.

Engineering and energy

Heating and ventilation services

4.6 The acoustic environment should allow normal conversation without disturbance to others. Ventilation must be designed to minimise patient cross infection.

4.7 A plant-room with external access for equipment and maintenance personnel will be required to accommodate boilers, hot water generation where centralised plant is used, ventilation plant where appropriate, compressors and vacuum systems etc. The plant-room size should be determined to ensure adequate space around the equipment for maintenance and plant replacement.

4.8 When designing new build premises, a life cycle cost analysis should be carried out to assess the most appropriate energy source, including renewables.

4.9 Space should be provided to accommodate meters, where appropriate, or storage of fuels adequately sized to suit local fuel deliveries.

4.10 Where spaces are heated by low-pressure hot water systems, radiators, underfloor heating coils or radiant panels can be used. The use of underfloor heating coils or ceiling mounted radiant panels will assist the provision of room layout flexibility to suit future requirements, as they do not take up any wall space. The distribution of pipework services to final points of use should, wherever possible, be concealed above ceilings or below floors. However, where pipework needs to be surface mounted, it should be insulated and boxed-in on the horizontal runs and risers. Where radiators are used, to fully comply with DDA legislation they should be low surface temperature type throughout. Further information is given in Scottish Health Guidance Note: 'Safe' hot water and surface temperatures'.

4.11 Zoning of the space heating system should be considered. Where zoning is used, it should be by building orientation, Dental Facility/common functionality, hours of occupation and by floor levels, as appropriate.

4.12 Where radiators are used, there should be adequate space underneath to allow floor cleaning equipment to be used.

4.13 Each heating element, e.g. radiator or underfloor heating circuit, should have its own tamper-proof thermostatic control to preset the maximum room temperature. These controls should be of robust construction and selected to match the temperature and pressure characteristics of the heating system.

4.14 The flow temperature to space heating appliances should also be modulated in accordance with the external ambient temperature.

4.15 The BMS should control the heating throughout the unit with optimum ON/OFF control to suit heating zone occupancy. A manual override should be provided, where appropriate, to promptly restore all plant to full operational status.

4.16 Wherever possible, spaces should be naturally ventilated, but some areas will require mechanical extract for clinical and/or functional reasons (See Appendix 2). Air movement induced by mechanical ventilation should be from 'clean' to 'dirty' areas, where these can be defined. The design should allow for adequate flow of air by a suitable method into any space having mechanical extract ventilation. Such arrangements should not prejudice the requirements of fire safety or privacy.

Mechanical cooling is now seen as a requirement in surgeries and may also be required in areas such as sterilizing rooms and IT server rooms. This could be achieved with individual ceiling-mounted cassette units operating with direct expansion refrigerant of the non-ozone depleting type. Each unit would incorporate pumped condensate draining and local programmable control.

Arrangements should be made to avoid any heating being in conflict with any cooling required.

4.17 Where mechanical ventilation is utilised, ensure negative or positive room pressures as required, taking due account of infiltration, where appropriate. Diffusers and grilles should be located to achieve uniform air distribution within the space without causing discomfort.

4.18 An extract system will be required for 'dirty' areas such as utility rooms and should operate continuously throughout the day.

Where rooms are ventilated by individual fans, these should be controlled via light switches or preferably, passive infra-red detectors. A dual motor fan unit with an automatic changeover facility should be provided for toilets.

4.19 Mechanical ventilation systems should be considered for larger multi-Practice premises and controlled by a BMS.

4.20 External discharge arrangements for extract systems should be protected against back pressure from the effects of adverse wind velocity, and should be located to avoid the reintroduction of exhausted air into this or any adjacent building through air intakes or windows.

4.21 Where larger multi-Practice premises are deep-planned and rely on mechanical supply ventilation, refer to SHTM 2025: 'Ventilation in healthcare premises' and SHTM 2005: 'Building management systems'.

4.22 In large multi-Practice premises, heat recovery systems should be used in ventilation systems unless proven not viable.

4.23 Local exhaust ventilation is required where exposure by inhalation of substances hazardous to health cannot be controlled by other means. The Health and Safety Executive in its current EH40, 'Occupational Exposure

Limits', sets limits which form part of the Control of Substances Hazardous to Health Regulations 1994 (COSHH).

Water services

Hot and cold water services

4.24 There are a variety of means of generating domestic hot water, including stand-alone hot water generators or point-of-use heaters. When deciding on the most appropriate method of providing the hot water service, cognisance should be given to legionella precautions and energy efficiency. See Section 6 of SHTM 2040: 'The control of legionellae in healthcare premises - a code of practice'.

4.25 Where domestic hot water supply is taken from a circulating main, a minimum supply temperature of 60°C to the main is required, and the return temperature to the generator must be not less than 50°C. Reference should be made to SHTM 2040: 'The control of legionellae in healthcare premises – a code of practice' and HSE document L8 'Legionnaires disease – The control of legionella bacteria in water systems'.

4.26 All hot water hand-washing outlets to which patients, visitors and staff have access should be fitted with a thermostatic valve complying with Model Engineering Specification D08 limiting the outlet temperature to 41^{o}C.

In all other areas such as pantries and cleaner's room, the hot water outlets should be clearly labelled "VERY HOT WATER" with fixed notices.

4.27 Cold water storage will be determined by the size and use of the water services in the premises.

Storage tanks should have an appropriate internal surface, a sealed lid and filtered vents in compliance with SHTM 2027: 'Hot and cold water supply, storage and maintenance'. The materials used should be Water Research Council (WRC) approved so that they do not promote the growth of bacteria and are suitable for contact with drinking water.

All cold water pipe-work, valves and fittings should be insulated and vapour-sealed to protect against frost, surface condensation and heat gain. All hot water pipes, valves and fittings should also be insulated.

4.28 The requirements for the control of legionellae bacteria in hot and cold water systems are set out in SHTM 2040: 'The control of legionellae in healthcare premises – a code of practice' and the current HSE document, L8, 'Legionnaires' Disease – The control of legionellae bacteria in water systems'. Further guidance on the design and installation of hot and cold water supply and distribution systems is contained in SHTM 2027: 'Hot and cold water supply, storage and mains services' and SHTN 2: 'Domestic hot and cold water systems for Scottish Healthcare Premises'. Compliance with SHTN 2 should be where applicable and reasonable. It would not be expected, however, that on-site dedicated filtration plant would be provided.

4.29 For the purposes of maintenance and increased safety**,** hot and cold water services in larger multi-practice premises should be monitored via a BMS for cold water storage, hot water storage (where applicable), main hot flow and return, and sentinel points on main branch circuits where appropriate.

Alternatively, on smaller premises where the fitting of a BMS is inappropriate, temperature monitoring and recording may be achieved by means of a manual system or by using an electronic data recorder with appropriate temperature sensors.

Internal drainage

4.30 The primary objective of internal drainage is to provide a drainage system which:

- uses the minimum of pipe-work;
- remains watertight and airtight at joints and connections;
- is sufficiently ventilated to retain the integrity of water seals.

To prevent back-siphonage, air breaks should be incorporated within all drainage from appliances.

Design considerations

4.31 The general design of the premises drainage system should comply with the relevant British Standards and Codes of Practice, including BS 5572 and the current Building Regulations. Recommendations for spatial and access requirements for health engineering services are contained in SHTM 2023: 'Access and accommodation for Engineering Services'.

4.32 The gradients of branch drains should be uniform and adequate to convey the maximum discharge to the stack without blockage. Practical considerations, such as available angles of bends, junctions and their assembly, as well as space considerations, usually limit the minimum gradient to about 1:50 (20mm/m).

Generally plasterwork will be carried out away from Dental Practices, but in the event of this being included within a Practice, plaster sinks with plaster traps will be required.

4.33 Provision for inspection, rodding and maintenance should ensure full bore access, and be located to minimise disruption or possible contamination. Manholes should not be located within the premises.

Electrical installation

4.34 The administration area will increasingly have a high level of computers and light fittings would be required to comply with the CIBSE Lighting Guide 3: 'The visual environment for display screen use'.

4.35 The installation should comply in all respects with BS7671, 'Requirements for Electrical Installations', and for larger premises where applicable and reasonable, SHTM 2007: 'Electrical services: supply and distribution' and SHTM 2020: 'Electrical safety code for low voltage systems'. All designs must take full account of the current Building Regulations (Scotland) Act.

Electrical interference

4.36 Care should be taken to avoid mains-borne interference and electrical radio frequency interference affecting physiological monitoring equipment, computers and other electronic equipment used in the building or elsewhere on the site. Guidance on the avoidance and abatement of electrical interference is contained in SHTM 2014: 'Abatement of electrical interference'.

Lighting

4.37 Maximum use should be made of daylight.

4.38 If an entrance canopy is included, the lighting should draw attention to its location. Colour finishes and lighting throughout the centre should be coordinated to create a calm and welcoming atmosphere. Unnecessarily high levels of illumination and glare should be avoided. All lighting systems must also comply with the Disability Discrimination Act. Further guidance on these and other aspects of lighting is contained in the CIBSE Lighting Guide LG2, 'Hospitals and Healthcare Buildings'. Where lighting levels within the Appendices of this document differ from the CIBSE Guide, the former should apply.

4.39 Lighting is required in accordance with CIBSE guides to align with circulation, particularly in paper based record systems using vertical filing and over work surfaces.

For some Practices, consideration should be given to the inclusion of 'blue' lighting with the facility to switch to 'white' for domestic service purposes. Experience has shown that 'blue' lighting reduces the misuse of IV drugs within public toilet areas.

4.40 Communication/IT areas require heat gains to be off-set (usually by a ceiling mounted, non-ozone depleting refrigerant, cooling cassette), category 2 lighting and a cable containment system capable of recovery/upgrading as technology requirements develop further.

4.41 Architects and engineers should collaborate to ensure that the decorative finishes used are compatible with the colour-rendering properties of the lamp(s), and that the spectral distribution of the light source is not adversely affected. Luminaires should be manufactured and tested in accordance with the requirements specified in the relevant sections of BS4533: 'Luminaires'. Their location should afford ready access for lamp changing and maintenance.

4.42 The number and location of luminaries connected to a circuit, and the number of switches and circuits provided, should allow flexibility in the general and local

level of illumination, particularly in areas away from windows where daylight can vary significantly. Project teams should consider the provision of automatic/presence switching in areas of the premises which may be unoccupied for long periods. Generally, high efficiency luminaries should be fitted and be appropriate to the space. Light tubes should be installed to provide natural light in internal spaces unless proven non-viable.

4.43 Dental surgery lighting should be supplemented by the dental examination luminaire.

4.44 Where visual display terminals are to be used, the lighting should be designed to avoid any bright reflections on the screen, and should ensure compliance with the requirements of the Health and Safety (Display Screen Equipment) Regulations. Further guidance is contained in the CIBSE Lighting Guide LG3: 'The visual environment for display screen use'.

4.45 The lighting of corridors, stairways and other circulation areas, which are not generally covered by Activity Data Sheets, should be designed in accordance with the guidance contained in SHPN 40: 'Common activity spaces Volume 5, Scottish Appendix'. Standby lighting will be required in some areas to enable interrupted dental surgery procedures to be temporarily dressed, together with primary escape routes in accordance with BS5266 'Code of practice for emergency lighting' and SHTM 2011: 'Emergency electrical services'.

Socket-outlets and power connections

4.46 Sufficient twin 13-amp switched socket-outlets should be provided to supply all portable appliances which are likely to be used simultaneously.

To enable domestic cleaning appliances with flexible leads (nine metres long) to operate over the whole of the building, switched single socket-outlets should be strategically provided in corridors. Where considered necessary in individual rooms, these should be located at low level below the room light switch at the doorway.

Adequate provision of socket-outlets must be made available for voice/data IT equipment, and a minimum of three twin 13A switched outlets should be provided per workstation to eliminate the use of trailing leads.

4.47 Where feasible, all socket outlets in examination/treatment areas should be connected in such a manner that a supply is available from two separate circuits of the same phase.

Security systems

4.48 Where premises require to be protected during 'out-of-use' hours, this should be by using a monitored intruder alarm system which complies with BS4737, BS7042 or BS5979 as appropriate. The main entrance should be well lit. In addition, the provision of closed-circuit TV (CCTV) at the main entrance may be useful if sightlines are obscured. CCTV may also be required within the building

to cover areas not visible from reception, including access to staff only accommodation. Panic buttons, or other systems for summoning assistance, should be provided for emergency use. Further guidance on aspects of building and staff security is contained in the NHS Security Manual – NAHAT, 1992.

Patient call system

4.49 Patient-to-staff call points should be provided in all spaces where patients may be left alone temporarily, for example disabled persons WCs. Further guidance is contained in SHTM 2015: 'Bedhead services'.

4.50 An audio-visual system providing appointment information for patients may be required by the Client. Such a system should cater for people with visual impairment and hearing aid users and should take cognisance of the Disability Discrimination Act (DDA).

Telephone services

4.51 The telephone exchange hardware is an item which the Practice may choose and install themselves, while developers will install the voice and data cabling and trunking infra-structure.

Information Management and Technology (IM&T)

4.52 Health Guidance Note (HGN): 'Telemedicine', acts as an introduction to telemedicine i.e. medicine practised at a distance. It discusses the evolution, benefits and expected impact of telemedicine. Reference should also be made to Scottish Health Guidance Note (SHGN): 'Structured cabling for IT systems'.

Each computer workstation should be served by a triple RJ45 outlet, together with twin 13amp outlets.

All computerised records should have a local emergency battery back-up, uninterrupted power supply (UPS), to cope with power cuts, but no stand-by emergency generators would be expected.

Clocks, music, radio and television

4.53 Any clocks which are sited in clinical areas should have a sweep second-hand. Connections for television/video and background music/radio system outlets should be provided in the main waiting areas where considered necessary. Client/users should note that a licence will be required for the use of TVs and also that they will need to register with the Performing Arts Society if music is played.

Lightning protection

4.54 Protection of the building against lightning should be provided in accordance with SHTM 2007: 'Electrical services: supply and distribution' and BS6651 (1992) where an assessment shows that it is required.

Lifts

4.55 Premises should ideally be single storey as lifts are expensive to install and maintain. However, in the situations where lifts are a necessity, guidance is given in SHTM 2024: 'Lifts'.

Fire safety

4.56 The need for structural fire precautions and means of escape from the whole accommodation must be taken into account at the earliest possible planning stage.

Means of escape guidance is now incorporated within SBSA Technical Handbooks (see paragraph 2.26) for all healthcare buildings. Additional guidance is provided by BS5588: 'Part 8, Code of Practice' for means of escape for people with disabilities.

If any fire hazard rooms are located internally and require mechanical ventilation then NHSScotland Firecode will apply. These rooms will require fire/smoke dampers or fire rated ductwork in accordance with the guidance.

4.57 It is important to establish during the design stage those aspects of fire safety strategy which affect the design, configuration and structure of a project. At appropriate stages of the design process, the architect and engineer should discuss and verify their proposals with the local fire authority, and ensure that the project team and all other planning staff are fully acquainted with the fire safety strategy for the design in terms of operation (staff responsibilities, etc), equipment provision, and building and engineering layouts. HTMs 57: 'Internal Glazing' to HTM 60: 'Ceilings' give detailed information for the selection of fire-resistant building components.

Noise

4.58 Excessive noise and vibration from engineering services and process plant, whether generated internally or externally and transmitted to individual areas, or noise from other sources for example, speech which can be transmitted by the ventilation system, can adversely affect the operational efficiency of the NHS Dental Premises and cause discomfort to patients and staff. The limits and means of control advocated in SHTM 2045: 'Acoustics' should provide an acceptable acoustic environment.

Privacy factor categories

4.59

Privacy factor	*Resulting privacy, assuming normal speech*
<70	Clearly audible and intelligible
70 –75	Audible but not intrusive (public areas)
75 – 80	Audible but not intelligible (general offices)
>80	Inaudible (consultation rooms)

Space for plant and services

4.60 Space for plant and services should provide:

- easy and safe means of access, protected from unauthorised entry;
- for frequent inspection and maintenance;
- sufficient access panels for inspection and maintenance;
- adequate means for eventual removal and replacement of plant.

4.61 Recommended spatial requirements for mechanical, electrical and public health engineering services are contained in SHTM 2023: 'Access and accommodation for engineering services'. The information in this SHTM is specifically intended for use during the initial planning stages when precise dimensional details of plant may not be available.

4.62 The distribution of electrical services to final points of use should, wherever possible, be concealed in walls and above ceilings. However, in dental treatment rooms, sterilizing and decontamination rooms, recovery rooms and preventative dentistry units, electrical services should be concealed on walls within vertical and horizontal dado trunking to allow easy access for future adaptations.

4.63 Access to control and isolation devices for the control and safe isolation of engineering services should be:

- located in circulation areas rather than in working areas;
- protected against unauthorised access;
- clearly visible and accessible, where intended for operation by the Dental Practice staff.

Engineering commissioning

4.64 The engineering services should be commissioned in accordance with the validation and verification methods identified in the latest editions of the relevant Scottish Health Technical Memoranda (SHTMs). Flow measurement and proportional balancing of air and water systems require adequate test facilities

to be incorporated at the design stage. Guidance is also contained in a series of commissioning codes published by the Chartered Institution of Building Services Engineers (CIBSE) and in the Guidance to Engineering Commissioning issued by the Institute of Healthcare Engineering and Estate Management (IHEEM). The commissioning period identified at the planning stage should not be compromised due to time constraints to avoid lifetime effectiveness and efficiency problems.

Medical gases

4.65 Guidance on the provision of medical gases, dental vacuum and compressed air is contained in SHTM 2022: 'Medical Gas Pipeline Systems' and the appropriate supplements.

Except in very small premises, dental compressed air and vacuum plant, together with manifolds, should be housed remotely from dental treatment rooms. It should be assumed that general anaesthesia techniques will not be used in Dental Practice Premises. Where relative analgesia is administered, scavenging will be achieved through the suction systems at the dental chairs. Care will be required locating the discharge to atmosphere from scavenging units. Location must take account of external paths, opening windows, ventilation/air intakes etc.

Only approved Authorising Engineers (Piped Medical Gases) should approve piped medical gas systems prior to use and maintenance of the plant and systems should be undertaken by specialists.

Environment

4.66 All relevant Health and Safety regulations and HSE guidance will apply to the properties.

Infection control and the built environment

4.67 The built environment should meet the requirements of Scottish Health Facilities Note 30: 'Infection control in the built environment – design and planning'. Further information is available from Health Facilities Scotland (formerly NHSScotland Property and Environment Forum) and reference should be made to NHSScotland decontamination guidance issued by Health Facilities Scotland (formerly NHSScotland Property and Environment Forum) available at www.hfs.scot.nhs.uk and Health Protection Scotland http://www.hps.scot.nhs.uk/.

References (Specific)

Environments for Quality Care; 'Health Buildings in the Community'

A series of exemplars, this guide shows how good design can make local health buildings, ranging in size from surgeries to community hospitals, attractive to patients and pleasant for staff to work in. The Stationery Office, 1994, ISBN 0-11321-764-1.

'Historic Buildings in the Health Service'

This provides advice and guidance on issues concerning listed buildings and conservation matters. The Stationery Office, 1995, ISBN 0-11322-205-X.

- Part 1 of the document covers the reconciliation of healthcare operational needs with the historic character of the buildings;
- Part 2 deals with surplus historic buildings which need to be adapted to new use, either for healthcare activities or alternative uses under new ownership.

Scottish Health Planning Notes (SHPNs) and Scottish Health Facilities Notes (SHFNs)

These are produced by Health Facilities Scotland (formerly NHSScotland Property and Environment Forum) and replace some NHS Estates technical guidance (HBNs and HFNs).

SHPN 36 Part 1: 'Standard Specification for General Medical Practice Premises in Scotland': this document provides guidance to GPs and their design teams and follows the same format as this guidance for Dental Practices. These are 'sister' documents which will be used together when larger multi-Practice premises are being considered.

SHFN 14: 'Disability Access': considers the introduction of the Disability Discrimination Act (1995) and provides guidance and assistance on implementing the requirements for healthcare premises.

SHFN 20: 'Access Audits of Primary Healthcare Facilities': enables GPs, Practice managers and other healthcare providers to carry out access audits of their Practice premises. The aim is to identify those aspects of the building which would need to be improved or modified to enable the premises to perform within the spirit of the Disability Discrimination Act (1995). This audit could then be used in any discussions with the Healthcare Body about reasons for improvements.

SHFN 30: 'Infection Control in the Built Environment' 2005 and HAI Scribe: 'Healthcare Associated Infection System for Controlling Risk in the Built Environment': provides guidance for 'designed-in' infection control to enable designers, architects, engineers, facilities managers and planners to work in collaborative partnership with infection control teams. The aim is to deliver facilities in which infection control needs have been planned for, anticipated and met.

Access Audit Survey Toolkit: 'Access for disabled people in healthcare premises': aims to help all healthcare providers survey the accessibility of their existing properties to assess whether they meet the requirements of Section 21 of the Disability Discrimination Act 1995 and to establish what improvements need to be made to ensure there is no discrimination against disabled people in the provision of equal access to the services offered in any property.

Scottish Health Technical Memorandum (SHTM)

SHTM 07-02: EnCO_2de – making energy work in healthcare

Encode is the primary source of guidance on managing energy use and carbon emissions in the healthcare sector. Encode is not prescriptive. It draws together best practice guidance so that healthcare organisations can determine a way forward that best suits their situation.

The aim of Encode is to ensure that everyone involved in managing, procuring and using buildings and equipment thinks about the implications of energy use, today and in the future.

The most important step on the way to achieving energy and carbon savings is strong leadership. Strong leadership and commitment from the Chief Executive will enable staff, patients, suppliers and visitors to take the necessary actions to gain control of energy use, keep that control, and make the right choices for the future. Encode explains how cost savings, and environmental benefits, can be achieved.

Encode provides sufficient information for any healthcare organisation to manage its daily energy-saving activities, and to plan effectively to make the most of opportunities that lie ahead.

Health Building Notes (HBNs) and Health Facilities Notes (HFNs)

Produced by NHS Estates, the HBN and HFN series provides technical guidance on buildings and facilities management in the context of clinical practice for most healthcare premises and hospital departments.

Primary and social care premises: this is a web based site which replaces HBN 36: 'Local Healthcare Facilities'. The website can be found at http://primarycare.nhsestates.gov.uk/.

HBN 40: 'Common Activity Spaces', 1995: a series of four volumes which provides guidance on activity spaces frequently occurring in health buildings. Each volume provides detailed ergonomic data on general public areas.

If the intended primary care premises are of a size that requires lifts, stairs, corridors, lobby and sign posting then reference should be made to HBN 40 Volume 4. Volume 2 details consulting/examination rooms.

Volume 1, The Stationery Office, 1995, ISBN 0-11 3221 843

Volume 2, The Stationery Office, 1995, ISBN 0-11322-185-1

Volume 3, The Stationery Office, 1995, ISBN 0-11322-186-X

Volume 4, The Stationery Office, 1995, ISBN 0-11322-187-8

HBN/SHPN 40: 'Common Activity Spaces, Volume 5, Scottish Appendix', 1996: this Note is aimed at designers of health buildings in Scotland. It provides amendments to all four volumes of HBN 40 which, when applied, will ensure that the documents conform to current Scottish medical and nursing practices, Scottish Statutory Standards, references etc.

Miscellaneous

'Better Buildings for Better Services: A review of innovative developments in primary care' (1997): a research project conducted by the National Primary Care Research and Development centre based on 10 case studies of innovative primary care developments, the services they provide, procurement routes used and lessons learned. Publisher: Radcliffe Medical Press, 1997, ISBN 1-85775-287-2

'Designing Primary Healthcare Premises: A Resource' 1996: prepared for the North West Regional Office, NHS Executive by MARU Health Buildings Research and Policy Centre, South Bank University, London. This resource book is intended to be a tool to support those involved in developing primary care premises.

'Fair For All': 2005: prepared by SEHD in partnership with Disability Rights Commission. Available to view at www.drc-gb.org/scotland.

'Building Sight' 1995: published by the Royal National Institute for the Blind; also available from HMSO (ISBN 1 85878 074 8-paperback).

'Enhancing Care Provision for Blind and Partially Sighted People in GP Surgeries': published by Guide Dogs for the Blind Association (Guide Dogs) UK.

British Standards Institution

British Standard 6465-1:1994 Sanitary appliances. Code of practice for scale of provision, selection and installation of sanitary appliances.

British Standard 6465-2:1996 Sanitary appliances. Code of practice for space requirements for sanitary appliances.

British Standard 8300:2001 Design of buildings and their approaches to meet the needs of disabled people. Code of practice.

References (General)

NOTE: *Where there is a requirement to address a listed reference, care should be taken to ensure that all amendments following the date of issue are included.*

Publication ID	Title	Publisher	Date	Notes
	Health and Safety at Work etc Act	HMSO	1974	
	Electricity Act	HMSO	1989	
	The Water (Scotland) Act	HMSO	1980	
	Clean Air Act	HMSO	1993	
	Registered Establishments (Scotland) Act	HMSO	1998	
	The Building (Scotland) Act 2003	TSO	2003	
	Building (Scotland) Regulations 2004	TSO		
	Scottish Building Standards Agency Technical Handbooks (http://www.sbsa.gov.uk)	SBSA Website	2005	
SI 917	Health & Safety (First Aid) Regulations	HMSO	1981	
SI 2115	Control of Asbestos at Work Regulations (as amended)	HMSO	1987	
SI 1057	Electricity Supply Regulations (as amended)	HMSO	1988 (1998)	
SI 635	Electricity at Work Regulations	HMSO	1989	
SI 682	Health and Safety (Information for Employees) Regulations	HMSO	1989	
SI 1790	Noise at Work Regulations	HMSO	1989	
SI 1380	Health and Safety (Training for Employment) Regulations	HMSO	1990	
SI 2792	Health and Safety (Display Screen Equipment) Regulations	HMSO	1992	
SI 2372	Electromagnetic Compatibility Regulations (as amended)	HMSO	1992	
SI 2793	Manual Handling Operations Regulations	HMSO	1992	
SI 2966	Personal Protective Equipment at Work (PPE) Regulations	HMSO	1992	
SI 3004	Workplace (Health, Safety and Welfare) Regulations	HMSO	1992	
SI 3139	Personal Protective Equipment (EC Directive) Regulations (as amended)	HMSO	1992	

Publication ID	Title	Publisher	Date	Notes
Acts and Regulations (continued)				
SI 3140	Construction (Design and Management) Regulations	HMSO	1994	
SI 3163	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)	HMSO	1995	
SI 341	Health and Safety (Safety Signs and Signals) Regulations	HMSO	1996	
SI 1460	Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP2)	HMSO	1997	
SI 1713	Confined Space Regulations	HMSO	1997	
SI 2306	Provision and Use of Work Equipment Regulations (PUWER)	HMSO	1998	
SI 2307	Lifting Operations and Lifting Equipment Regulations (LOLER)	HMSO	1998	
SI 2451	Gas Safety (Installation and Use) Regulations	HMSO	1998	
SI 3242	Management of Health and Safety at Work Regulations	HMSO	1999	
SI 437	Control of Substances Hazardous to Health Regulations (COSHH)	HMSO	1999	
British Standards				
BS 349	Specification for identification of the contents of industrial gas containers (AMD 6132, 5189)	BSI Standards	1973	
BS 1319	Specification for medical gas cylinders, valves and yoke connections (AMD 3029, 6179, 4603, 6184)	BSI Standards	1976	
BS 5499	Fire safety signs and graphic symbols	BSI Standards		
BS 5266	Code of practice for emergency lightning	BSI Standards	1988	
BS 6465-1	Sanitary appliances. Code of practice for scale of provision, selection and installation of sanitary appliances	BSI Standards	1994	
BS 6465-2	Sanitary appliances. Code of practice for space requirements for sanitary appliances	BSI Standards	1996	
BS 8313	Code of practice for accommodations of building services in ducts	BSI Standards	1997	
BS 8300	Design of buildings and their approaches to meet the needs of disabled people – Code of practice	BSI Standards	2001	

Publication ID	Title	Publisher	Date	Notes
Scottish Health Technical Guidance				
SHTMs are generally produced for use in the design of large healthcare buildings containing in-patient accommodation so care should be taken when being used in connection with small and medium sized Practices.				
SHTM 2005	Building management systems	PEF	2001	CD-ROM
SHTM 2007	Electrical services supply and distribution	PEF	2001	CD-ROM
SHTM 2011	Emergency electrical services	PEF	2001	CD-ROM
SHTM 2014	Abatement of electrical interference	PEF	2001	CD-ROM
SHTM 2020	Electrical safety code for low voltage systems (Escode – LV)	PEF	2001	CD-ROM
SHTM 2021	Electrical safety code for high voltage systems (Escode – HV)	PEF	2001	CD-ROM
SHTM 2022	Medical gas pipeline systems	PEF	2001	CD-ROM
SHTM 2022: Supplement 1	Dental compressed air and vacuum systems	PEF	2004	CD-ROM
SHTM 2023	Access and accommodation for engineering services	PEF	2001	CD-ROM
SHTM 2024	Lifts	PEF	2001	CD-ROM
SHTM 2025	Ventilation in healthcare premises	PEF	2001	CD-ROM
SHTM 2027	Hot and cold water supply, storage and mains services	PEF	2001	CD-ROM
SHTM 2040	The control of legionellae in healthcare premises – a code of practice	PEF	2001	CD-ROM
SHTM 2045	Acoustics	PEF	2001	CD-ROM
SHPN 3	General design guidance	PEF	2002	
SHTN 1	Post commissioning documentation for health buildings in Scotland	HMSO	1993	
SHTN 2	Domestic Hot and Cold Water Systems for Scottish Health Care Premises	PEF	2001	CD-ROM
SHTN 3	Management and Disposal of Clinical Waste	PEF	2002	
SHTN 4	General Purposes Estates and Functions Model Safety Permit-to-Work Systems	PEF	2001	CD-ROM
SHTN 6	The Safe Operation and Maintenance of Thermostatic Mixing Valves	PEF	2001	CD-ROM
SHGN	'Safe' hot water and surface temperatures	PEF	2001	CD-ROM
	NHSScotland – Procode	PEF	2002	CD-ROM

Publication ID	Title	Publisher	Date	Notes
	NHSScotland - Firecode	PEF		
NHS Estates Guidance				
HBN 40	Common Activity Spaces	HMSO	1995	
MES	Model Engineering Specifications	NHS Estates	1997	As required
HSE Publications				
CS 5	Part 1: Entry into confined spaces Part 2: Cleaning and gas freeing of tanks containing flammable residues	HMSO	1977	
CS 4	Keeping of LPG in cylinders and similar containers	HMSO	1986	
Approved code of practice	The Control of Asbestos at Work Regulations	HMSO	1987	
Approved code of practice	Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board	HMSO	1988	
EH 40	HSE Occupational Exposure limits	HSE	Annual	
CIS 39	Construction (Design & Management) Regulations 1994: The role of the client	HSE	2000	
CIS 40	Construction (Design & Management) Regulations 1994:The role of the planning supervisor	HSE	2000	
HSG 224	Managing health and safety in construction: Construction (Design & Management) Regulations 1994: Approved Code of Practice and Guidance	HSE, HMSO	2001	
Miscellaneous References				
CIBSE	Lighting Guide LG2 Hospitals and Health Care Buildings	CIBSE	1989	As amended
CIBSE	Lighting Guide LG3 The visual environment for display screen use	CIBSE	1996	
	The safe storage of gaseous hydrogen in seamless cylinders and similar containers (CP 8)	British Compressed Gases Association	1986	

Publication ID	Title	Publisher	Date	Notes
Miscellaneous References (continued)				
	Environments for Quality Care; 'Health Buildings in the Community'	HMSO	1994	
	Property Transactions	HMSO	1994	
	Historic Buildings in the Health Service	HMSO	1995	
	Designing Primary Healthcare Premises: A Resource	North West Regional Office, NHS Executive	1996	
	Better Buildings for Better Services: A review of innovative developments in primary care	Radcliffe Medical Press	1997	

Publisher Key:

Her Majesty's Stationery Office	HMSO
The Stationery Office	TSO
Scottish Building Standards Agency	SBSA
British Standards Institution	BSI
Property and Environment Forum	PEF
Health & Safety Executive	HSE
Royal Institute of British Architects	RIBA
Chartered Institution of Building Services Engineers	CIBSE

Appendices

Appendix 1: Room data sheet - Typical accommodation

The areas listed below are the minimum net areas from internal wall surfaces. They **exclude** all 'service' zones required for radiators, all pipe ducts and all narrow 'passage' entry zones between the main corridor and the 'clinical' or working area of the room and all space required for all internal partitions.

Checklist of Typical Accommodation				
	optimum	***minimum***	***by ratio***	***notes***
Patient Interface				
Entrance Lobby				consider wheelchair and pram movements
Pram Parking				secure area supervised from reception
Patients' Reception	7.5m^2	6.0m^2		add for Practice size – ensure wheelchair turning circle
Waiting area			6.0/7.5m^2	areas per dental treatment room plus 3.0m^2 for wheelchair waiting space
Children's Play	15.0m^2	5.0m^2		planned within waiting area, space will vary with Practice location/size
Interview Room	9.0m^2	7.5m^2		1 @ 9.0m^2 should be suitable for wheelchair use
Patients' Toilet - ambulant		2.5m^2		
Patients' Toilet – disabled Disabled with assistance	5.5m^2	4.5m^2		consider peninsular layout as SHFN 20 – 5.5m^2
Baby Changing	5.0m^2	4.5m^2		room accessible to men and woman and not within a disabled toilet
Breast Feeding	5.0m^2	4.5m^2		space relates to separate room
Administrative/Clerical/Staff				
Staff Reception			4.5m^2	per staff position
Administration Office(s)				as required by Practice, see notes in Section 3 paragraph 3.56
Practice Manager's Office	12.0m^2	10.0m^2		if applicable
Office (2 person- IT server)				as required by Practice
Medical Records Room			3.5m^2	per Dentist (but determined by Practice needs)
Mail/Photocopying				as required by Practice (add if within an Admin. Office)
Practice Library		12.0m^2		add 7.0 m^2 if study facility required
Staff multi-purpose Room (meeting, training, seminar and library)				as required by Practice
Staff Facilities				
Staff Lounge/Kitchen		12.5m^2		for 1 Dentist – through to 35m^2 for 10 dental staff
Staff Cloakroom(s)/Lockers(s)				as required by Practice
Staff Shower		3.3m^2		

Checklist of Typical Accommodation (continued)				
	optimum	*minimum*	*by ratio*	*notes*
Staff Facilities (continued)				
Staff Toilet (disabled)		4.0m^2		with whb
Staff Toilet (ambulant)		2.25m^2		with whb – min 1male & 1female
Dental Services				
Dental Treatment Room	16.0m^2	15.0m^2		
Dental Treatment Room (sedation & training)		17.0m^2		
Recovery Room		7.5m^2		as required by Practice
Compressor Room		5.0m^2		
X-ray Room		8.5m^2		as required by Practice
X-ray Developing Room		8.5m^2		
Dental Hygienist/Therapist		15.0m^2		if to be shared with Dentist
Dental Laboratory		17.5m^2		as required by Practice
Ceiling Heights	2.7m	2.4m		larger rooms/spaces will require a minimum of 2.7m
Storage and Ancillary Support				
Cleaner's Room(s)	10.0m^2	7.0m^2		per floor level
Equipment Storage				as required by Practice
Stationery and Leaflets				as required by Practice
General/Multi Purpose Store(s)				as required by Practice
Bottled Gas Store				
Disposal Hold Store		5.0m^2		determined by Practice size and collection frequency.
General Refuse (Local Authority)				generally wheelie bins located externally in screened off area
Plant/Services/IT				
Mechanical Services Plant				as determined by Engineer
Electrical Switchroom				as determined by Engineer
Node Cabinet/Telephone Switch Room				as determined by Engineer
Circulation	In small premises it might be possible to achieve 28% but generally 33% will be required excluding any space required for lifts and stairs			
Corridors	33%	28%		determined by layout and applicable regulations
Stairs				determined by layout and applicable regulations
Lifts				determined by layout and applicable regulations
Note 1 At the briefing stage it is essential to the design team that Dentists take responsibility for defining the services and accommodation requirements necessary within their facility. The checklist should serve as a broad briefing tool at the outset.				

Appendix 2: Room data sheet - Engineering services

General notes relating to the Engineering services tables can be found at the end of this Appendix.

ROOM TYPE	SHTM 2025: Ventilation and ADB Room Data			
	Ambient Room Temperature °C	Type of Ventilation	Ventilation Rate	Nominal room pressure with respect to surroundings
Entrance Lobby				
Pram Parking	16	Natural		
Reception	21	Natural/Supply	5 ac/hr	0/+ve
General Waiting/ Children's Play Area	21	Natural/Supply	5 ac/hr	0/ + ve
Interview Room	21	Natural		
Toilets	20	Natural/Extract	10 ac/hr	- ve
Disabled Toilet	20	Extract	10 ac/hr	- ve
Baby Changing Room	20	Extract	10ac/hr	- ve
Breast Feeding Area	21	Natural/Supply	5ac/he	0/+ve
Administration Area	20	Natural		
Practice Manager's Office	20	Natural		
Office (2 person-IT Server)	20	Natural		
Medical Records Room	16	None		
Mail and Photocopier Room	20	Extract	10 ac/hr	- ve
Staff multi-purpose Room (meeting, training, seminar and library)	21	Natural/Supply	5 ac/hr	0/+ve
Staff Lounge/Kitchen	19	Extract	6 ac/hr	- ve
Staff Cloakroom/Lockers	21	Extract	10 ac/hr	- ve
Staff Shower	21	Extract	10 ac/hr	- ve
Staff Disabled Toilet	20	Extract	10 ac/hr	- ve
Dental Treatment Room	22	Supply/Extract	10 ac/hr	0
Recovery Room	22	Supply/Extract	10 ac/hr	0
Compressor Room	15min/35max	Natural/Extract	To suit equipment	0/-ve
X-ray Room	22	Extract	10 ac/hr	0
X-ray Developing Room	16	Extract	10 ac/hr	- ve
Dental Laboratory	20	Supply/Extract	10 ac/hr	- ve
Cleaner's Room	16	Extract	10 ac/hr	- ve
General Store	16	None		
Bottled Gas Store				
Disposal Hold (Clinical Waste Store)	Unheated	Extract	10 ac/hr	- ve
Plant Room	Frost protection	Natural		
Electrical Switchroom	Unheated	None		
Node Cabinet/Telephone Switch Room	18	Extract		- ve

Appendix 2: Room data sheet - Engineering services (continued)

ROOM TYPE	CIBSE Lighting Guide LG2				SHTM2045 Acoustics	
	Service Lighting Level – Lux	Service Lighting Position of Measurement	Emergency Lighting Standby Grade	Colour Rendering Required	Privacy Factor	CCTV
Entrance Lobby						
Pram Parking	200	Floor	-	-	70	-
Reception	300/500	Floor/Desk	B	-	75	X
General Waiting/Children's Play Area	200	Floor	B	-	70	X
Interview Room	300	Desk	B	X	80	-
Toilets	150	Floor	-	-	70	-
Disabled Toilet	150	Floor	-	-	70	-
Baby Changing Room	150	Floor	-	-	70	-
Breast Feeding Area	200	Floor	B	-	70	-
Administration Area	300	Desk	B	-	80	-
Practice Manager's Office	300	Desk	B	-	80	-
Office (2 person-IT Server)	300	Desk	B	-	75	-
Medical Records Room	150	Floor	-	-	70	-
Mail and Photocopier Room	300	Desk	B	-	75	-
Staff multi-purpose Room (meeting, training, seminar and library)	300	Desk	B	X	75	-
Staff Lounge/Kitchen	300	WP	-	-	75	-
Staff Cloakroom/Lockers	200	WP	-	-	70	-
Staff Shower	150	Floor	-	-	70	-
Staff Disabled Toilet	150	Floor	-	-	70	-
Dental Treatment Room	300/1000	WP/Chair	B	X	80	-
Recovery Room	150	Couch/Chair	B	-	80	-
Compressor Room	300	Floor	A	-	70	-
X-ray Room	300	Desk/Worktop	B	-	70	-
X-ray Developing Room	300	Desk	B	-	70	-
Dental Laboratory	300	Worktop	B	X	80	-
Cleaner's Room	100	Floor	-	-	70	-
General Store	100	Floor	-	-	70	-
Bottled Gas Store						
Disposal Hold (Clinical Waste Store)	100	Floor	-	-	70	-
Mechanical Services Plant	150	Equip	A	-	70	-
Electrical Switchroom	150	Equip	A	-	70	-
Node Cabinet/Telephone Switch Room	150	Floor	A	-	70	-

Appendix 2: Room data sheet - Engineering services (continued)

ROOM TYPE	SHGN: 'Safe' Hot Water & Surface Temps		SHPN 48: Telecomms SHGN: Structure Cabling for IT Systems		SHTM: 2015 Bedhead Services			Comments
	Low Level Heating Surfaces <43°C	TMV Requirement <41°C	Telephone/ Communication Provision	Data Communication Provision	Intruder Alarm	Attack Alarm	Patient – Staff Call System	
Entrance Lobby								
Pram Parking	-	-	-	-	-	-	-	
Reception	X	-	X	X	X	X	-	
General Waiting/Children's Play Area	X	-	X	-	-	X	-	
Interview Room	X	-	X	X	X	X	-	
Toilets	X	X	-	-	-	-	X	See SHTN 6
Disabled Toilet	X	X	-	-	-	-	X	See SHTN 6
Baby Changing Room	X	X	-	-	-	-	X	
Breast Feeding Area (if provided)	X	X	-	-	-		X	
Administration Area	X	-	X	X	X	-	-	
Practice Manager's Office	X	-	X	X	X	X	-	
Office (2 person-IT Server)	X	-	X	X	X	-	-	
Medical Records Room	X	-	-	-	X	-	-	
Mail and Photocopier Room	X	-	X	X	X	-	-	
Staff multi-purpose Room (meeting, training, seminar and library)	X	X	X	X	-	-	-	See SHTN 6
Staff Lounge/Kitchen	X	-	-	-	-	-	-	
Staff Cloakroom/lockers	X	X	-	-	-	-	-	See SHTN 6
Staff Shower	X	X	-	-	-	-	-	See SHTN 6
Staff Disabled Toilet	X	X	-	-	-	-	X	See SHTN 6
Dental Treatment Room	X	X	Double	Double	X	X	-	See SHTN 6
Recovery Room	X	X	-	-	X	X	-	See SHTN 6
Compressor Room	-	-	-	-	-	-	-	
X-ray Room/X-ray Developing Room	X	X	X	X	-	-	-	

Appendix 2: Room data sheet: Engineering services (continued)

ROOM TYPE (continued)	SHGN: 'Safe' Hot Water & Surface Temps		SHPN 48: Telecomms SHGN: Structure Cabling for IT Systems		SHTM: 2015 Bedhead Services			Comments
	Low Level Heating Surfaces <43°C	TMV Requirement <41°C	Telephone/ Communication Provision	Data Communication Provision	Intruder Alarm	Attack Alarm	Patient – Staff Call System	
Dental Laboratory	X	X	Double	Double	X	X	-	
Cleaner's Room	X	X	-	-	-	-	-	
General Store	X	-	-	-	X	-	-	
Bottled Gas Store	-	-	-	-		-	-	
Disposal Hold (Clinical Waste Store)	-	-	-	-	-	-	-	See SHTN 3
Electrical Switchroom	-	-	X	-	-	-	-	
Node Cabinet/Telephone Switch Room	-	-	X	X	X	-	-	

Note 1 If LST radiators, rather than underfloor heating coils or overhead radiant panels are to be utilised, then these should be used throughout the premises.

Note 2 The requirements for Clinical Waste Stores are given in SHTN 3.

Note 3 If a Ventilated Air Supply can be provided naturally, then this is the preferred option, but the guidance in SHTM 2025 shall apply to all treatment and clinical areas.

Note 4 'X' indicates that provision of this service is required in the room.

Note 5 'A' or 'B' refers to the Emergency lighting grade as defined in LG2 (see Section 4.46 for definitions).

Note 6 Privacy factors are defined in Section 4.64 of LG2.

Note 7 Where there are two lighting levels quoted, the first figure is the general 'space' lighting level and the second figure is the level to be achieved by use of an examination lamp.

Note 8 SHTN 6 advises that where TMVs are not fitted, a warning notice saying 'Very Hot Water' is required.

Appendix 3: Exemplar specifications

The following examples are relevant at the date of publication.

In time, changes in materials, regulations and practice may cause alternative specifications to become more appropriate.

The following exemplar specifications give alternative ceiling constructions. While smooth finished plasterboard is generally considered more aesthetically acceptable for smaller rooms, careful thought must be given to the maintenance or replacement access required to any concealed services. Where possible, concealed services routes should be placed above 'public areas', stores and other non-patient accessed rooms where suspended tiled ceilings may be considered acceptable. In single storey buildings, pitched roofs would provide a suitable void/loft space for services and access to them, which would avoid the need for any access through the ceilings. Only with buildings of more than one floor will the problem of access to services arise.

All finishes and fittings should be chosen with ease of cleaning, particularly decontamination, in mind. They must be able to withstand harsh treatment and must be agreed with the Client and their infection control advisor. This is particularly applicable to patient access areas and any decontamination facilities.

Door ironmongery should be chosen from a range approved as being suitable for use by people with disabilities and also allow infirm/elderly users to easily open doors. Ironmongery should contrast with the door finish in order to highlight its position. Automatic closing mechanisms must be safe for use by children and infirm users of the building.

Colour schemes should follow the guidance in NHSScotland's Wayfinding: 2001 document with respect to people with sight impairments and provide all the required and recommended colour contrasts. All colour schemes should be approved by the client.

NHS Estates has produced a suite of 'Building component' HTMs (54 to 71) which give guidance on a variety of building components including internal doorsets, ironmongery, ceilings, windows etc. It should also be noted that these documents are currently being updated so some may not provide up-to-date guidance. Generally these documents 'may be used with caution' in Scotland as they do still provide a lot of current best practice advice. NHSScotland Clients and Health Facilities Scotland (formerly the Property and Environment Forum) can advise.

Thought should be given to the specification of internal partitions, apart from compliance with fire provision requirements. The designer should consider the possibility of future requirements for wall mounted fittings and fitments and how the partitions will cope with these, or changes to the room use or layout.

Consideration should therefore be given to the best option between timber or metal studs and the possible use of a layer of plywood behind plasterboard.

Brick and blockwork are unlikely materials for internal partitions due to their lack of flexibility with possible future changes to internal layouts, although plantrooms, stair enclosures and loadbearing walls may require to be constructed with blockwork.

Careful consideration should be given to the location of doors and their design as they are always the weak link in sound insulation requirements. This particularly applies to areas where patients may be discussing personal details. If use of acoustic brush seals is being considered, thought should be given to any effect on 'ease of opening' by elderly or disabled etc.

Entrance lobby (paras 3.15 – 3.18)		
Element	***Construction***	***Comments***
Partition Walls	Partitions may be constructed from brick/blockwork but will more generally be constructed from either timber or metal stud systems, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion of the work. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Main entrance doors can be made of a variety of materials; timber, aluminium, upvc etc. If timber, they should be solid, or solid core construction with a suitable facing and hardwood lipped on all four edges. Doors may be automatic, fully glazed or fitted with viewing panels complying with current regulations and DDA recommendations.	Doors will require to be self closing and may also require to be fire rated. If so, then the complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors.
Ironmongery	Push plates, pull handle, door closer.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w) when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Entrance flooring system.	The Contractor should liaise with the Client to decide which product is most appropriate. Some advice can be obtained from HTM 61: 'Flooring' 2006.
Pram parking	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	

Patient reception (paras 3.19 – 3.25)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Any doors within this area should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish on the public side of reception.	Textile floor covering should be barrier carpet. A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	The Contractor should liaise with the Client to decide which product is most appropriate. Flooring should comply with Health Technical Memorandum 61 'Flooring' 2006.
Floor finish on the staff side of reception.	Textile floor covering.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Waiting areas (paras 3.26 – 3.33)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering should be barrier carpet.	The Contractor should liaise with the Client to decide which product is most appropriate. Some advice can be obtained from HTM 61: 'Flooring' 2006.

Interview room (paras 3.34 – 3.38)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	The door should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets'2005.
Ironmongery	Lever handles and mortice lock.	Some advice can e obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Patient toilets (paras 3.39 – 3.42)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster. For large multi-practice premises, toilets may be of a size that will allow the use of cubicle partition systems.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance. Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish. Ceramic wall tile splash backs.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Push plates, pull handle, door closer, toilet locks and grabrails. In an emergency, doors must be able to be opened by staff from outside.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Administration and data Areas (paras 3.51 – 3.56)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock. Push button mechanical lock on the outside.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Security Roller Grille	The curtain should be 12mm diameter extruded aluminium tube with nylon links spaced to form a brickbond pattern.	High visibility security roller grille.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Practice Manager's office (paras 3.57 – 3.63)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005. Due to usage a push button security lock may be preferred for the door.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 59: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Medical records room (paras 3.64 – 3.70)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Security Roller Grille	The curtain should be 12mm diameter extruded aluminium tube with nylon links spaced to form a brickbond pattern.	High visibility security roller grille.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering.	Some advice can be obtained from HTM 61: ' Flooring' 2006.

Staff Multi-purpose Room (meeting, training, seminar and library) (paras 3.71 – 3.75)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance. Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	Textile floor covering.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Staff lounge and kitchen (paras 3.76 – 3.81)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant will be required to prove compliance. Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005. Due to usage a push button security lock may be preferred for the door.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant will be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finished anti-bacterial coating.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Staff toilets (paras 3.82 – 3.84)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance. Some advice can be obtained from HTM 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish. Ceramic wall tile splash backs.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Push plates, pull handle, door closer, toilet locks and grabrails. In an emergency, doors must be able to be opened by staff from outside.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from eithers plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Dental treatment rooms (paras 3.85 – 3.92)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with a special surface coating for hygiene control, offering long term protection against the growth of mould, bacteria and other organisms.	Apply two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood, lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with a special surface coating as walls above.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finished anti-bacterial coating.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Recovery room (paras 3.93 – 3.99)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with a special surface coating for hygiene control, offering long term protection against the growth of mould, bacteria and other organisms.	Apply two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceilings should be finished with a special surface coating as walls above.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finished anti-bacterial coating.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Compressor rooms (paras 3.100 – 3.105)		
Element	**Construction**	**Comments**
Partition Walls	Partitions should be constructed from either brick/block with mortar joints and in some areas finished in two-coat lightweight gypsum plaster OR timber/metal stub partition system lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Surfaces should be finished with an emulsion paint finish.	Apply two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock capable of being locked inside with a turnbuckle, capable of being overridden with a key from the outside by staff.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster or the underside of floor slab/roof if suitable, can be pointed.	Some advice can be obtained from HTM 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface.
Floor finish	Concrete sealer to floor slab.	

X-ray room (paras 3.106 – 3.111)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

X-ray developing room (paras 3.112 – 3.117)		
Element	**Construction**	**Comments**
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	The partition system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Some advice can be obtained from HTM 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Some advice can be obtained from HTM 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from HTM 60: 'Ceilings' 2005. The ceiling system should provide a sound performance which attains a minimum weighted sound reduction index (R´w), to that detailed in SHTM 2045: 'Acoustics, Part 2, Design Considerations', when tested on completion by an acoustic consultant. Independent sound tests undertaken by an acoustics consultant may be required to prove compliance.
Ceiling finish	Plastered ceilings should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Some advice can be obtained from HTM 61: 'Flooring' 2006.

Dental laboratory (paras 3.135 – 3.142)		
Element	***Construction***	***Comments***
Partition Walls	Partitions will generally be constructed from either timber or metal stud system, reinforced as necessary to provide fixings for wall mounted fittings and fixtures. They should be lined with gypsum plasterboard and finished with a board finish plaster.	Partitions should comply with Health Technical Memorandum 56: 'Partitions' 2005.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to be fitted with acoustic brushes.	Doors may require to be fire resisting FD30. The complete fire door assembly, including frame, intumescent seals, hinges, glazing and ironmongery must perform to British Standard for Fire Doors. Doorsets should also comply with Health Technical Memorandum 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock.	Ironmongery should comply with Health Technical Memorandum 59: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Ceilings should comply with Health Technical Memorandum 60: 'Ceilings' 2005.
Ceiling finish	Plastered ceilings should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected it has a factory finish.
Floor finish	A suitable and sufficient risk assessment must be carried out when considering and specifying the type of floor covering for the premises.	Flooring should comply with Health Technical Memorandum 61: 'Flooring' 2006.

Cleaner, plant and refuse areas (paras 3.147– 3.152)		
Element	***Construction***	***Comments***
Partition Walls	Partitions should be constructed from either brick/block with mortar joints and in some areas finished in two-coat lightweight gypsum plaster OR timber/metal stud partition system lined with gypsum plasterboard and finished with a board finish plaster.	Apply a minimum of two coats to all wall surfaces. Colours to be approved by the client.
Wall finishes	Wall surfaces within the room should be finished with an emulsion paint finish.	Apply a minimum of two coats to all wall surfaces.
Doors	Doors should be solid core, flush finished with a suitable facing and hardwood lipped on all four edges. Doors to plant areas to be fitted with acoustic brushes.	Some advice can be obtained from Health Technical Memorandum 58: 'Internal Doorsets' 2005.
Ironmongery	Lever handles and mortice lock capable of being locked inside with a knob, capable of being overridden with a key from the outside by staff.	Some advice can be obtained from Health Technical Memorandum 58: 'Ironmongery' 2005.
Ceiling	Ceiling may be constructed from either plasterboard finished with a board finish plaster OR proprietary suspended ceiling system.	Some advice can be obtained from Health Technical Memorandum 58: 'Ceilings' 2005.
Ceiling finish	Plastered ceiling finishes should be finished with an emulsion paint finish.	Apply two coats to ceiling surface. If the suspended ceiling system is selected, it has a factory finish.
Floor finish	A suitable and sufficient risk assessment should be carried out prior to the specification of floor coverings particularly in relation to slip resistance. No floor finish in Plant Rooms and refuse hold enclosure.	Some advice can be obtained from Health Technical Memorandum 58: 'Flooring' 2006. Concrete sealer to be applied to exposed concrete to reduce dust levels.

Schedule of Sanitaryware and related requirements		
The following Schedule provides a description of sanitaryware required in each room. The number of appliances required in toilets should comply with British Standard 6465-1:1994 '*Sanitary appliances. Code of practice for scale of provision, selection and installation of sanitary appliances'.* The layout of appliances should comply with British Standard 6465-2:1996 '*Sanitary appliances. Code of practice for space requirements for sanitary appliances' and HBN 40.* Design for disabled people should comply with current Building Standards (Scotland) Regulations and British Standard 8300:2001 '*Design of buildings and their approaches to meet the needs of disabled people – Code of practice'.* For infection control purposes and cleaning and access to service/pipework, sanitaryware should, where possible, be mounted on an integrated panel system finished with a surface material which can withstand regular clinical cleaning. All washhand basins and sinks will require wall mounted dispensers for typical soap, paper towels, antiseptic skin cleaning detergent. Some may also require glove and nail brush dispenser services The specification for clinical washhand basins can be found in HTM 64: 'Sanitary assemblies'. The arrangement is the accepted standard even though this document has not been approved for use in Scotland. Consideration should be given to the use of movement sensor 'hands free' taps for all clinical washhand basins and possibly public washhand basins. All sanitaryware, fixtures and fittings require to be securely fixed to withstand misuse and vandalism. Washhand basins require particular attention and should always be supported on legs or secure brackets.		
Room	***Description of Requirements***	***Notes***
Interview Room	Vitreous china washhand basins with single level basin mixer tap, standard trap, no overflow, no waste plug and flush grated waste.	Required at low level if the room is to be used for PDU training of children etc.
Patient Toilets	Vitreous china washhand basins with single level basin mixer tap, standard trap, no overflow, no waste plug and flush grated waste. Close coupled washdown WC units in vitreous china with 7.5 litre capacity cisterns with seats and covers. One wheelchair WC compartment complying fully with current building regulations and BS 8300:2001. A WC for independent and assisted wheelchair use should be provided. The peninsular layout allows a user to transfer to the WC from either side.	Refer to paragraph 4.26 for note on thermostatic valve requirements for all hand washing facilities. Disabled toilets require, as a minimum, all grab rails and fittings as detailed in manufacturers 'Doc M standard packs'. Layouts as NHS Estates HBN 40 guidance.
Staff Shower	Shower tray, thermostatic mixing valve.	
Baby Changing/Feeding Room	Vitreous china washhand basins with single level basin mixer tap, standard trap, no overflow, no waste plug and flush grated waste.	
Dental Surgery	Sink and washhand basin formed in worktop.	All fittings to be specified by specialised dental supplier.
Recovery Room	One vitreous china clinical washhand basin with single lever mixer tap, standard trap, no overflow, no waste plug, flush grated waste and no tap holes.	

Schedule of Sanitaryware and related requirements (continued)		
Room	**Description of Requirements**	**Notes**
X-ray Developing Room	One vitreous china clinical washhand basin with single lever mixer tap, standard trap, on overflow, no waste plug, flush grated waste and no tap holes.	
Dental Laboratory	One vitreous china clinical washhand basin with wall mounted lever mixer tap, standard trap, no overflow, no waste plug, flush grated waste and no tap holes. One stainless steel inset sink and double drainer with standard trap. Overflow, waste plug, dual flow swivel nozzle mixer trap.	These are the minimum requirements. Client and/or user to advise.
Staff lounge/Kitchen	One stainless steel inset sink and drainer with standard trap. Overflow, waste plug, dual flow swivel nozzle mixer trap. Vitreous china washhand basins with single lever basin mixer tap, standard trap, no overflow, no waste plug, and flush grated waste.	
Staff Toilets	Vitreous china washhand basins with single lever basin mixer tap, standard trap, no overflow, no waste plug and flush grated waste. Close coupled washdown WC unit in vitreous china with 7.5 litre capacity cisterns with seats and covers. One wheelchair WC compartment complying fully with current building regulations and BS 8300:2001. A WC for independent assisted use should be provided. The peninsular layout allows a user to transfer to the WC from either side.	
Cleaner, plant and refuse area	Vitreous china washhand basins with single lever basin mixer tap, standard trap, no overflow, no waste plug and flush grated waste. One low level vitreous china bucket sink with wall mounted hot and cold taps. Stainless steel single drainer sit-on sink top.	

Schedule of Fitments and related requirements		
Care should be taken with the choice of fitments. They should be of a suitable quality to stand up to the treatment they will be subjected to in a busy healthcare building. Fitments should be selected from manufacturers that produce a range specifically designed for NHS Dental Premises. Advice should also be sought from the local Healthcare Bodies infection control team regarding the design of fitments and worktops. Generally only one storage unit in each room should be lockable with one key to pass all locks; requirements to be confirmed with the Client/users.		
Room	***Description of Requirements***	***Notes***
Dental Surgery	Jointless worktop with bullnosed leading edge, 'L' or 'U' shaped to two walls.	All fittings to be specified by specialised dental design specialist or equipment supplier. See paragraph 3.90.
Cleaner's Room	3 tier adjustable shelving. Double door lockable sink base cupboard unit. Double door lockable wall cupboard unit. Inset sinktop with integral drainer. Jointless worktop with bullnosed leading edge Suitable splashback required between worktop and wall units, and full length of worktop.	
Storage Room	5 tier adjustable shelving to be provided on at least one wall.	Heavy items may require metal floor mounted storage shelving system.