

Design Guide

Medium secure psychiatric units

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Cover photograph: Denis Hill Unit, Bethlem Royal Hospital,
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About this publication

This Design Guide has been prepared jointly by NHS Estates and the Health Care Division of the Department of Health. It offers advice on the planning and design of medium secure psychiatric units.

The guide concerns, in particular, medium secure in-patient facilities which, together with their “outreach” services, provide mainly for mentally ill patients, and some with psychopathic or personality disorder, assessed as likely to respond to relatively short-term (that is, up to about two years’ maximum) care and treatment.

The term, “medium secure unit” has been used in preference to “Regional Secure Unit”, reflecting the need to diversify the range of services provided at that level of security (see paragraphs 1.10 - 1.12), as well as changes in the way services are purchased and provided in the NHS.

The guide supersedes the DHSS Design Guidelines of July 1975 on “Regional Secure Units”. It should assist those planning new medium secure units or extensions to existing ones. It takes account of experience with existing units, including an evaluation commissioned by the Department of Health, which was undertaken in the summer of 1992 by a multi-disciplinary team. (Single copies of the evaluation report, which cites examples of existing design features, may be requested from the Department of Health, Health Care Division 1 A, Area 113, Wellington House, 133 Waterloo Road, London SE1 8UG.)

Other reference material is either mentioned hereafter in the text or listed in the Bibliography.

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1.0 Nature and function of medium secure units

Introduction

1.1 There are currently some 630 places in medium secure units (MSUs) in England, developed through central capital funding and some earmarked revenue. "Interim" secure units provide a further 300 places, many of which are also of medium secure standard. Substantial increases in central capital funding for medium secure units in 1992/3 and 1993/4 have stimulated further plans for these services.

1.2 This guide does not seek to be prescriptive about how an MSU should be designed or built. Rather, it provides information on those aspects of design which have proved to be effective in particular locations. The needs of individual units, their patients and staff, will differ, as will local strategies for a wider range of services.

1.3 The size of existing units varies widely. In future, it is likely that most units will have between 30 and 70 beds. Schedules of accommodation, with indications of cost, are based on these sizes. Space needs of units of intermediate size may be assessed by interpolation.

The policy context

1.4 Local assessments of need are an essential starting point for future developments. Initial regional assessments, undertaken by Regional Directors of Public Health in 1992* to coincide with the Department of Health/Home Office review of health and social services for mentally disordered offenders and others requiring similar services (the "Reed" review; Cm 2088, 1992), suggested that the minimum national need for medium secure beds was 1500 (ibid, paragraphs 5.19-5.22). This does not, however, imply a "norm". Regional needs will differ.

1.5 Those planning medium secure and other forensic services are strongly advised to familiarise themselves with the published consultative reports of the review. These cover the broad range of services for mentally disordered offenders, including the need for effective links between hospital, community and criminal justice services, as well as mechanisms for multi-agency assessment and diversion from the criminal justice system to health and social services.

1.6 The *Health of the Nation* White Paper (Cm 1986, 1992) requires health authorities to include in their strategic and purchasing plans "the necessary range of health and social services (both secure and non-secure) for

mentally disordered offenders to enable them to respond to people's special needs".

1.7 The *NHS Priorities and Planning Guidance 1994-1995* issued by the NHS Management Executive on 29 June 1993 (EL (93) 54, at B. 14) identifies services for mentally disordered offenders as a first order priority:

"NHS authorities should work with personal social services and criminal justice agencies to develop strategic and purchasing plans for services for mentally disordered offenders and similar people, based on the joint Department of Health/Home Office review of services. These should include:

- | an effective range of non-secure and secure services (including those for patients with special or differing needs, such as people with learning disabilities or psychopathic disorder, ethnic minorities, young people and women);
- | arrangements for the multi-agency assessment and, as necessary, diversion of offenders from the criminal justice system;
- | meeting the mental health care needs of transferred or discharged prisoners;
- | the placement, within six months, of special hospital patients who no longer require high security."

1.8 The review reports are available from HMSO:

- | Volume 1: Final summary report (Cm 2088) (ISBN 0-1 0-1 20882-0);
- | Volume 2: Service needs (ISBN 0-1 1-32 1551-7);
- | Volume 3: Finance, staffing and training (ISBN 0-1 1-321551-5);
- | Volume 4: The academic and research base (ISBN 0-1 1-32 1553-3);
- | Volume 5: Special issues and differing needs (ISBN 0-1 1-32 1554-1).

1.9 Consultative reports on services for offenders with learning disabilities or autism, and on racial and cultural issues, were issued by the Department of Health and Home Office in November 1992. For the time being they may be obtained from the Health Care Division of the Department of Health (Area 113, Wellington House, 133 Waterloo Road, London SE1 8UG).

*NHS Management Executive letter (92)24; Jones/Dean (1992), *Health Trends* 24: 48.

The need to diversify

1.10 Although most of the existing permanent units are designed mainly for mentally ill people, there is a need for further medium secure services for people with learning disabilities (mental handicap), for those with psychopathic or personality disorder, and for mentally disordered people who require longer-term medium secure provision. The DH/HO review reports have commented on these matters, as well as on the requirement in some areas for a greater number of local secure places providing lower than medium security, for example a local locked ward (see Final summary report, *op cit*, Annex J).

1.11 The future pattern of services for "special needs" groups is likely to be influenced to some extent by the outcome of the working group on high security and related provision, established in the light of the DH/HO review and the Ashworth Hospital inquiry report (Cm 2028, 1992), and the Department of Health/Home Office advisory group on psychopathic disorder.

1.12 An annex on units for people with learning disabilities has been included in this guide, although more work needs to be done before it would be possible to produce definitive guidance.

2.0 General functional and design requirements

2.1 The successful treatment of patients within a medium secure unit will for the most part be determined by the pattern of care that is possible within it. Comparatively high staff levels are a widely accepted prerequisite, but an equally important therapeutic factor is the amount, disposition and quality of the accommodation that is provided. It is essential that such accommodation is geared to the differing needs of patients who are to progress through the unit in stages, from acute/assessment to rehabilitation and pre-discharge. Although the accommodation for each of these three basic stages of care will differ in several respects, it is important for the planner/designer to understand that the speed of rehabilitation of every patient will differ. The accommodation must be so arranged that flexible use of it may be made. For example, it should be possible for some patients in the intensive care section to use, at some point, certain activity spaces in the rehabilitation ward. Similarly, the secure/seclusion room in the acute/assessment ward should be available for use by a patient who has previously moved on from that section.

Use of space

2.2 The design of the MSU contributes substantially to the success of patients' treatment, if it permits a regime which lowers emotional tensions and eases the frictions which can develop in a population that includes people who are seriously disordered. Space standards must be generous enough to provide for a wide range of activity and experience, from the privacy of the individual bedroom, through one-to-one interview or consulting rooms, to day spaces, group rooms, and social, therapy and recreation areas. The skill of achieving this within the limits of available funds will depend on the design, grouping and location of rooms, so as to maximise multi-purpose use and increase utilisation levels. This will require flexible patterns of working and the creative use of staff (for example nurses sharing occupational therapy tasks) to provide an extended therapeutic day, and to continue activities into the weekend. Figure 1 shows how an overlap between wards and therapy facilities serving the whole unit might help to achieve flexibility and maximum use of space.

2.3 The majority of MSU patients are relatively young and physically fit men. A sports and exercise area (see paragraph 4.30) is thus an essential feature, if boredom and frustration are to be avoided. Such facilities, however, are expensive to build and to run: particularly in the case of smaller MSUs, project teams should consider planning a sports and exercise area for shared use by other patient

groups, by staff, and in some cases,, by the local community. In this case, the essential therapeutic purpose of this area must be maintained. A joint venture approach may be appropriate.

2.4 Value for money must inform all decisions which affect both capital and revenue costs. There must be proper attention to the cost per case admitted to MSUs. Buildings should be designed in order to minimise operating costs for a given standard of care.

2.5 Capital charges and capital overheads (heating, cleaning, etc) require the operational justification of all spaces provided, since their existence will affect revenue as well as capital costs. However, significant under-provision can be not only therapeutically counter-productive, but also difficult, disruptive, and disproportionately costly to rectify. However, where comparisons are made between particular units, including those in the private sector, these must be valid ones, taking account of, for example, the associated outreach services that are provided, links with other relevant services (including community services) and contributions to research and training.

Security and containment

2.6 In clinical practice there may be occasions when patients leave the secure perimeter with or without a member of staff. However, the buildings must be secure enough to maintain public safety and that of their occupants, and to allay the anxieties of staff and of the public. Graded levels of security can be achieved by a combination of effective deployment of staff, the internal planning of the building, and the design of windows, doors, walls (and, where appropriate, fences), together with locking and electronic security systems.

2.7 The designer's task is to achieve this level of safety discreetly and with the minimum overt signs of security. The design should be of a comforting character with the aim of reducing tension and of promoting a sense of well-being. It is as important to provide an agreeable environment for staff as for patients; if staff find their surroundings both pleasant and practical, the stresses inherent in their work can be reduced, with attendant benefits to patient care. Heating, lighting and ventilation should be controllable by staff and patients; landscaping and interior design (including use of works of art) are very significant. This balance of security and amenity is particularly important in areas such as admission or intensive care wards, in which the freedom of patients is most limited.

B = bed areas

WD = day areas particular to each ward

UD = day and general use OT spaces shared between wards – available at all times

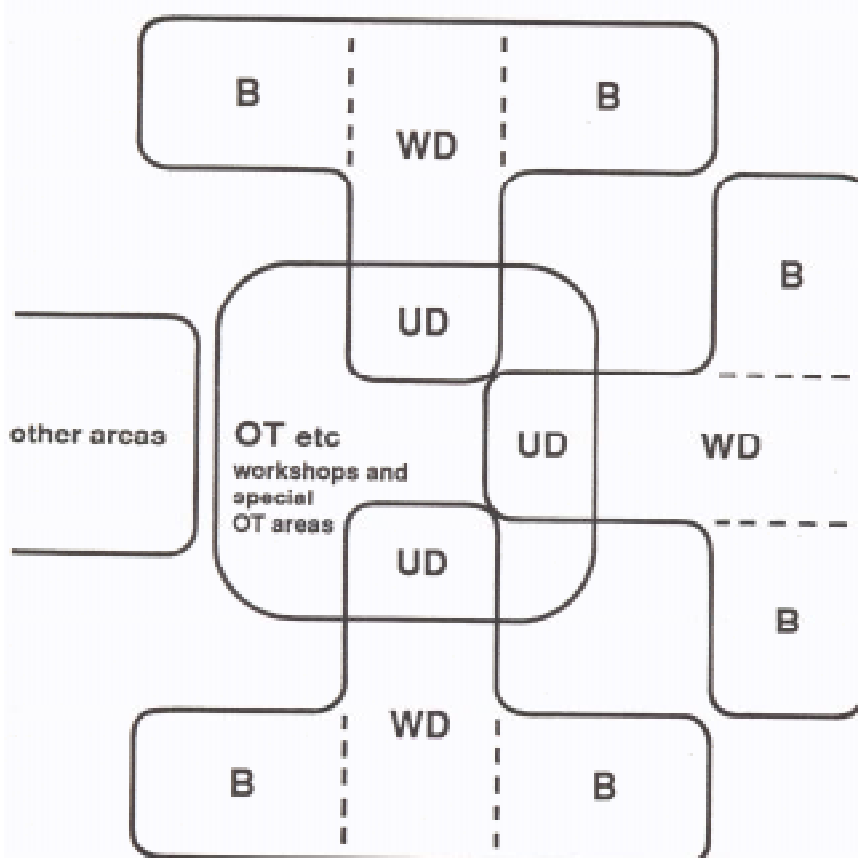


Diagram of categories of spaces:
shows scope for sharing, to maximise active use of space by patients.

(3 wards are shown: the same principle applies to an MSU with a different number of wards.)

Figure 1

Location

2.8 MSUs should be located as near as possible to the centre of the population served. This should help to keep patients in touch with family and friends, and to facilitate contacts between MSU staff, local psychiatric units and community services. A disproportionately large number of patients are from urban areas, but a suitable inner-city location may be hard to achieve. Proximity to a psychiatric unit is highly desirable; some MSUs have been successfully located on the site of a District General Hospital which in its turn has occupied some of the land of a present or former psychiatric hospital.

2.9 Early consultation with planning authorities is essential, as proposals for MSUs can cause local anxiety.

Land use and built form

2.10 The main determinant of the amount of land required for an MSU will be the extent of outdoor space needed. This space provides the necessary opportunity for exercise and fresh air, especially for those patients who are not yet permitted to leave the unit. In most existing units, this space takes the form of a garden enclosed by a security fence, although many in addition have one or more courtyards enclosed by the buildings.

2.11 There is a case for designing the MSU so that all or most of the secure outdoor space is provided in courtyards. This avoids the need for, and cost of, the problematical and unsightly welded mesh fences that are otherwise required to enclose external gardens. (The exception to this proposition is where the scenery outside the unit is attractive, and where an external garden gives more opportunity for patients to enjoy the view; in such cases the security fence, if needed, should if possible be placed in a ditch or ha-ha to reduce its apparent height.)

2.12 In very limited urban sites, even if this approach is adopted, it may still be necessary to have some wards and other patient accommodation at first floor level - and even some non-patient functions on a second floor. However, in most cases there should be sufficient land to plan the entire MSU at ground floor level. (Ground floor location is in any case needed for the more dependent patients.) This has the advantage that all patients have easy and direct access to open space, of which a range can be provided, not only for different uses (all-weather pitch, occupational therapy, barbecues, ornamental gardens, etc) but also for the exclusive use of some parts of the MSU such as, for example, an admission or intensive care ward. Sloping sites may allow all patients access to outdoor space on their own ward level in a two-storey design.

2.13 High-quality landscaping (both hard surfaces and planting) is essential if a courtyard-based design is to fulfil

its potential. Regular garden maintenance is as important as initial design. Courtyards must be of sufficient size, and oriented to optimise sun penetration. Some land is needed outside the walls or secure perimeter to allow for landscaping, to improve the external appearance of the buildings, to give outdoor space for patients who can be there unescorted, and to provide a buffer zone between the MSU and neighbouring buildings. Security fences, where needed, should not be visible from the approach to the MSU.

2.14 Courtyards surrounded by two-storey buildings have the advantage of being harder to abscond from. The main security problem for single-storey courtyards (and indeed for all single-storey MSUs or parts thereof) is how to prevent absconding over roofs. Overhanging eaves are not effective in this respect; moreover, they also make rooms dark and lead to a greater use of artificial lighting. Courtyards in one existing MSU have had large plastic cylinders fixed at eaves level, which have so far proved unscaleable. They are, however, unsightly and give a strong message that "this is a different sort of building". This is a problem that warrants further study and experimentation (for example the use of anti-climb paint or other devices that make roof access difficult). Square rainwater pipes closely fixed to walls are harder to climb than circular ones.

2.15 The additional land taken up by the buildings in a single-storey MSU is a factor to be considered but, as already indicated, is so much less than the outdoor space required anyway as not to have a significant effect on land cost. (It may be that a variety of spaces, less in total area than the large fenced meadows seen at several units, may provide better value to the users.)

2.16 Building costs are likely to be a little higher for single-storey construction than for two-storey. Savings on lifts and stairs may be outweighed by additional roof and foundation costs. An exception is where soil conditions would call for piling or other special foundations for buildings of more than a single-storey.

2.17 Running costs soon overtake capital costs and are thus far more significant over time. Approval in principle (AIP) submissions for capital for MSUs will also need to include information on projected revenue (see also Chapter 7). It is for planners of proposed MSUs to take expert advice on the operational consequences of building form. In a single-storey MSU it is likely that journeys involving the movement of both escorted patients and supplies, may be simpler even if the distances travelled are longer. Most important is the therapeutic environment. If such a layout enables patients to make maximum use of the facilities provided, that may be the overriding consideration.

Growth and change

2.18 MSUs are inherently hard to alter or add to, not least because it is difficult to bring in contractors. Instances of planning for adaptability are the shape and grouping of rooms to facilitate change of use and the design of mechanical and electrical services to permit easy alteration.

2.19 The extension of an MSU can also present problems of circulation and security and tends to be disproportionately expensive. Serious consideration should therefore be given at the inception of a scheme to the likely or possible need at a later date to extend the unit. Any such future extension should be allowed for in the arrangement of the initial building and the exterior spaces associated with it.

3.0 Architectural features

3.1 Buildings should be of human scale and should use good-quality, robust but domestic-type materials. This aim is not incompatible with security; however, ingenuity in devising new forms of construction does not always prove successful, and may emphasise the special nature of the building. Ease of repair is an important consideration if an appearance of consistent good quality is to be maintained.

Windows

3.2 This element has proved the hardest to specify in all MSUs built to date. Windows must combine security with good natural light and ventilation. No kind of glass has proved completely satisfactory, and polycarbonate is recommended; the most scratch- and damage-resistant grade should be employed. Glazing beads should be fixed from outside and should be at least 25 mm wide to prevent risk of the polycarbonate being sprung out. (Any beads that can be reached by patients should be fixed by one-way screws.)

3.3 In this way, quite large fixed panes can be used in window areas sufficient to maximise views and daylight and to limit unnecessary use of artificial lighting. Cills in patient areas should generally be low - 700 to 800 mm above floor - to maximise external views from a seated position. The additional use of a removable outer window, which could use normal glass, may be considered if its cost can be justified in terms of the reduction in noise transmission and heat loss.

3.4 Ventilation is crucial. One good solution is narrow, full-height opening windows or solid panels, with a clear opening of no more than 125 mm width. Reliable draught sealing is essential. The number of such opening lights will be proportional to the area of the room - at least one per 5 m² is required. In this way, mechanical ventilation in patients' rooms can usually be avoided: it is expensive to install and to run, and is apt to be noisy. An alternative is a wider, side-hung opening window with restriction provided by a substantial external bar, camouflaged, for example, by using it as the frame supporting a window box.

3.5 Internal rooms should be avoided wherever possible: even rooms such as stores are more pleasant if provided with a window (which would also provide more flexibility for their subsequent conversion for other purposes). Wherever a risk is perceived of contraband being passed in to patients from outside, a mesh may be fitted to the outside of the window frame in front of the window opening.

3.6 Frames may be of metal or timber and must be very securely fixed to the surrounding masonry. The durability and robustness of plastic or other newer materials will need careful consideration.

Doors and entrances

3.7 All doors should be of solid core construction, both to prevent deliberate or accidental damage and to reduce sound transmission. For some interview and consulting rooms, acoustic sealing strips may be warranted. Designation of fire doors will result from the unit's fire safety strategy.

3.8 The entrance to the MSU requires a controlled access lobby, whose outer and inner doors may have electro-mechanically released locks, operated by reception/clerical staff, who may also operate the telephone switchboard (see paragraph 5.10). Manual locking systems have, however, proved satisfactory in some MSUs. The doors may be of metal or timber - but in the latter case care is needed to prevent them from warping and jamming. If the reception staff are clearly visible, both from outside and from the controlled access lobby, human contact may immediately be established and any institutional effect counteracted. This lobby needs some comfortable seating, and particular attention should be given to providing daylight and a good interior design. The lobby will condition the first impression that visitors have of the MSU and must not be used for deliveries or to store items awaiting return or disposal.

3.9 A second service entry is needed, which should preferably serve all other access functions, for example delivery of food, occupational therapy and other supplies, and collection of rubbish. It too needs a controlled access lobby: this may be planned so as to be under the same control as the main entrance.

3.10 Security for patients may be varied by parole status, and by unlocking certain areas within the MSU. Doors between sections of the MSU may be operated by an electro-magnetic system whereby each member of staff carries a transmitter that can be programmed to open particular doors on approaching them. This is simpler for staff to use and may be thought to carry a less custodial connotation than bunches of keys. However, locks and keys can be quite satisfactory functionally. A modern variant is the use of magnetically coded plastic cards, which are carried by staff and inserted into a card reader to release the door-locking mechanism.

Electronic systems for personal security

3.11 These include:

- a. hard-wired call button system;
- b. ultrasonic personal alarm;
- c. infra-red personal alarm.

3.12 Staff emergency call buttons must be located where they will be easy to find and use. They should be provided in all patient-accessible areas including patients' rooms, as well as in circulation spaces and in external secure areas; the latter should be of suitable weatherproof construction.

3.13 Ultrasound and infra-red systems depend on a small personal transmitter. They are expensive to install and maintain and may be difficult to use. They should be selected only after careful study and consultation with prospective users.

Internal wall surfaces

3.14 Fair-faced brickwork can in certain circumstances be attractive and may be used in entrance and some staff areas, but is not recommended in patients' areas due to the risk of abrasions. Painted or wallpapered plaster is generally preferable, however, with protection being added to corners and any other areas vulnerable to damage.

Ceilings

3.15 In patients' areas, these should be of concrete or, if of plaster, should have mesh reinforcement to prevent their becoming a means of absconding. Their minimum height should be 2.55 m; light fittings in an intensive care or admission ward should not protrude much, if at all, below this level. In larger rooms, higher ceilings may well be used and in some of these, attractive use may be made of the full height within a pitched roof, with clerestory or other high-level windows (providing that they can be cleaned).

Lighting

3.16 Artificial lighting should be provided in a manner which enhances the quality of the accommodation and complements the interior design. With the possible exception of offices, the secure room and service spaces, the design of the lighting installation should as far as possible contribute to a relaxed and domestic ambience and avoid an institutional atmosphere; light fittings should be selected and positioned accordingly. In an intensive care or admission ward, and in order to minimise any

potential for self-harm, lighting fittings should generally be of a type which can be fixed securely to the ceiling so as to avoid flexible cable suspension. In these areas, diffusers or shades made of glass or fragile materials should not be used.

3.17 It is usual for lighting switches to be arranged so that patients have some direct control of the artificial lighting in their bedrooms and communal spaces. However, the changeover to reduced levels of illumination in patient-accessed areas as well as general circulation corridors and spaces during the night, is best controlled from suitable master switches situated at an appropriate staff base. The details of the arrangements will be project-specific but it is important that this aspect of operational policy is decided at an early stage so that the precise requirements may be included in the brief to the electrical engineering designer.

Floor finishes

3.18 Carpets, except in wet areas and some occupational therapy rooms, should be used as widely as possible. They make the MSU more domestic in appearance and quieter, and thus reduce tension. Selection must take into account maintenance; clearly defined cleaning procedures are needed.

Corridors

3.19 The minimum width for minor corridors should be 1.5 m, and 1.8 m for more major ones (this assumes that doors generally open into rooms – see paragraph 4.4). Wider circulation routes in some areas may also serve as informal meeting places.

3.20 Corridors can appear claustrophobic if natural or artificial lighting is inadequate, or if dark-coloured wall or floor surfaces are used. Daylight from clerestory windows or rooflights may help in this respect.

Pitched roofs

3.21 For reasons of appearance and reduced maintenance pitched roofs are generally preferable to flat ones. Engineering plant and the distribution routes for ventilation ductwork, piped services, electrical power, lighting and communications systems can also be sited within such a roof space, with access for maintenance provided under cover (access hatches are needed for replacement of any large items of equipment).

3.22 Spaces within a pitched roof may also be used for offices, storage and other non-patient functions. Provided that structure and engineering services are designed with

this in mind, unused loft areas may subsequently be converted for these or similar purposes.

Fire precautions

3.23 Fire safety and security are frequently in conflict. The local fire officers must be involved at an early stage of design, but it is important that the function of the MSU is made clear to them, including the high level of staffing, so as to prevent inappropriate fire escape requirements. MSUs are large enough to enable escape to be made either from one area into another or into a secure open area.

3.24 In devising a suitable fire precautions policy, reference may be made to 'Firecode', a suite of documents (published for NHS Estates by HMSO) covering policy, technical guidance and specialist aspects of fire precautions. It incorporates recommendations and requirements agreed between the Department of Health, Home Office, and Department of the Environment. It comprises Health Technical Memoranda, fire practice notes, and management guidance about a range of aspects of fire precautions in NHS premises.

Fences

3.25 Use of garden areas has often been limited by anxiety about risk of absconding over fences. To be at all reliable in this respect, a fencing height of 5.8 m is thought to be necessary. Fences should be of close-welded steel mesh, with bars at 12 mm centres in one direction. These are expensive and, even if planting is provided both inside and outside them (at a suitable distance), they inevitably make for a custodial image.

Car parking and external works

3.26 The number of parking spaces should be based on the maximum number of staff in the building at peak times, plus additional places derived from an estimate of the likely number of visitors.

3.27 A small service yard is needed by the service entrance, its size based on the maximum size and number of vehicles likely to be using it at any one time.

3.28 Both of these areas, as well as the exterior as a whole, need good landscaping. Storage is needed for lawnmowers and other garden equipment. Provision for maintenance access and watering must be made for all internal courtyards.

3.29 Gardening can provide healthy activity for patients and, depending on the availability of interested therapists, some courtyard areas may be designed for this form of

occupational therapy and could include a greenhouse and other facilities for raising plants. It may also be possible to provide for limited animal care.

3.30 External lighting should be designed not only to enhance the appearance of all these spaces but also to facilitate their use after dark and to satisfy safety considerations.

4.0 Description of accommodation

4.1 The required accommodation may be considered as falling into three groups: wards, therapy and activity areas, staff and service functions. However, account must be taken of the overlap between the first two of these groups as illustrated in Figure 1 (page 6).

Wards

4.2 A typical MSU will include wards ranging from intensive care, admission, assessment and rehabilitation, to pre-discharge. Their number and designation will depend on the size of the MSU. As much flexibility as possible in their use should be aimed at. The basis of the following description is a ward of about 14 beds, which seems to be an optimum size, although by no means the only one possible. For smaller wards, numbers of day rooms, etc will be reduced accordingly. The exceptions are an intensive care unit, for which about six beds are appropriate, and a pre-discharge unit, for which a self-contained flat for a small number of patients is most suitable, and which may be outside the secure perimeter. An intensive care unit may require an additional occupational therapy (OT) or activity room for patients who cannot yet move to other parts of the MSU.

The patient's room

4.3 All rooms should be single, and designed and furnished as bed-sitting rooms to permit study and quiet activities in privacy. An area of 10 m² is recommended. Most patients will have use of radios, other sound equipment or television. Noise from one room to another is a frequent cause of aggravation. Partitions should be of solid masonry; they should be designed to prevent sound transmission above ceiling level. Unless all partitions are carried up to roof level, a solid concrete ceiling is the most satisfactory solution; it also provides greater security.

4.4 Doors should be designed to open into the rooms, but with door stops that can be removed to allow the door to be opened outward if access to the room is needed in an emergency. Patients should normally be able to lock their rooms when they leave (to avoid risk of theft) or when they are inside (for privacy and against intrusion).

Women patients

4.5 The ability to lock rooms is particularly important for the safety of women patients, who can feel vulnerable in units where they are outnumbered by men. Their numbers are usually small, though variable, and it may be difficult to justify a separate women's living unit (and to manage it,

bearing in mind the different stages of patients' progress). However, in each living unit a group of rooms together with a WC and a bathroom should be capable of being set aside for the sole use of women patients.

Layout and services

4.6 Figure 2 shows a possible layout for a patient's room; a squarish shape has a slight cost penalty in terms of corridor length but is more congenial and offers more scope for alternative arrangements of furniture than longer, narrower ones. Furnishings and fittings should include:

- a bed, with possible storage space below, and a wall-mounted reading light with reachable switch;
- a bedside table and desk, both with drawers; an upright chair and easy chair;
- a wardrobe unit with clothes hanging space, shelves, and high level cupboard for suitcases etc;
- a basin in vanity unit and, behind it, mirror with light and shaving point;
- at least one twin socket-outlet and a TV aerial point;
- a ceiling light;
- a floor carpet (one room may have a vinyl or lino floor to provide for an incontinent patient, and a rug can be provided at other times);
- room heating locally controllable, for example by radiator thermostat.

4.7 For nurses' observation, a square polycarbonate panel is needed in the door – its lower edge no more than 1.3 m above the floor. When requiring privacy and when clinically appropriate, patients may hang a small curtain (on Velcro) on the inside.

4.8 Water services to any room can be cut off by isolating valves. As shown in Figure 2, these can be in cupboards opening onto the corridor; such cupboards are also a more economic arrangement than walk-in cupboards for storage of linen (two per 14-bed ward) and for other small items (including patients' belongings).

4.9 Socket-outlets in the patients' rooms should be supplied via circuits having a residual current protective device (set for a residual operating current of 30 mA) and an emergency isolating switch sited external to the rooms in a position readily accessible to the staff.

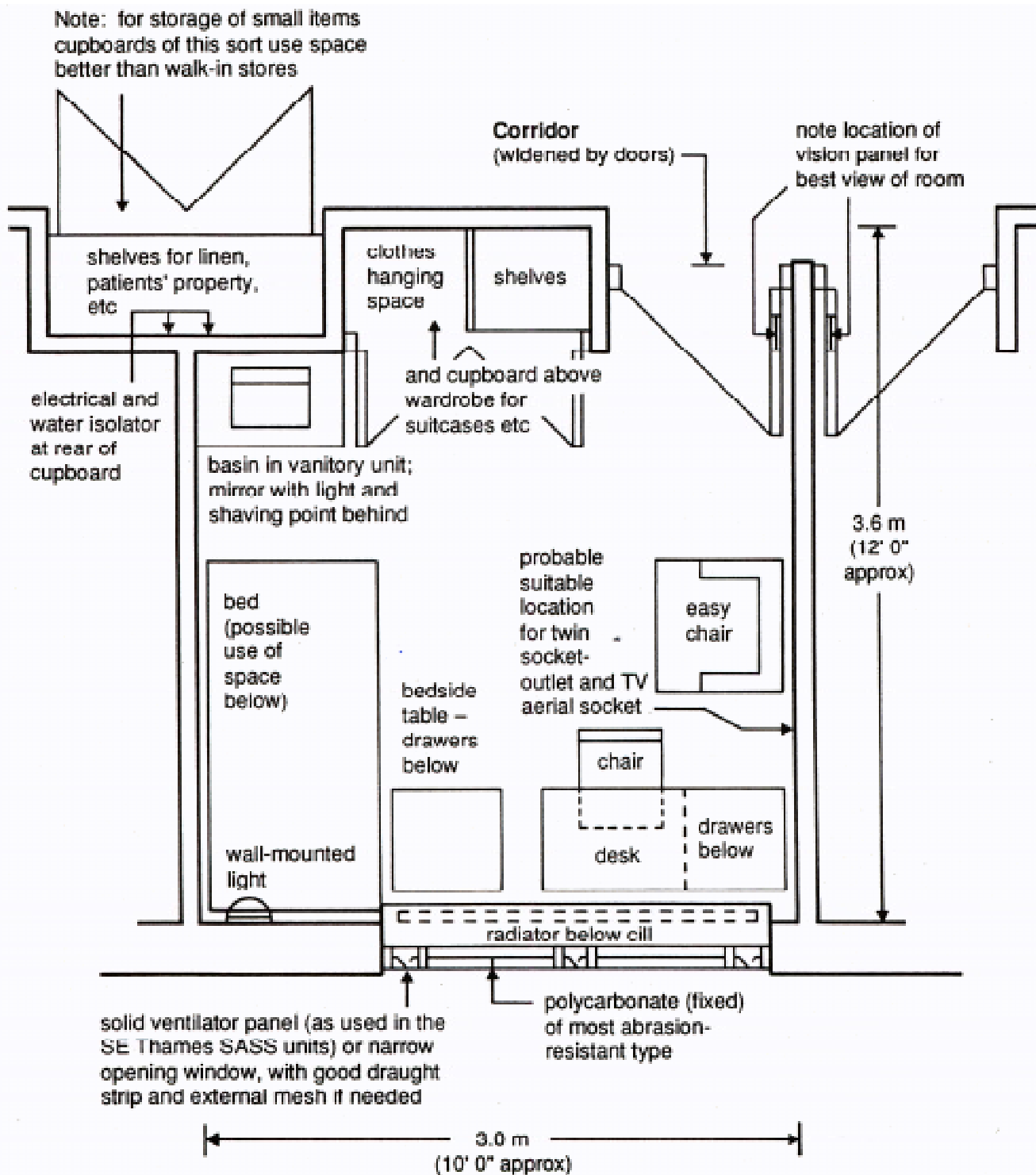


Figure 2 Possible arrangement of a patient's room

4.10 On admission, some patients bring comparatively bulky belongings including furniture. If this is to remain in the MSU, rough storage (in, for example, a cellar or loft space) is needed; some such space is needed anyway for bulky items belonging to the unit.

4.11 En-suite WCs (in a separate room opening off each patient's room) are not essential provided that patients are free to leave their room at night. If provided, they increase area and cost considerably.

Secure rooms (sometimes referred to as seclusion rooms)

4.12 Use of these rooms is generally very infrequent. One may suffice for the whole MSU - probably in the intensive care ward (provided that it is deemed acceptable to move patients to it from other wards on the rare occasions when this is needed). An area of 7 m² is recommended.

4.13 A suggested arrangement is for the secure room to be approached through a lobby large enough for a member of staff to sit in, and having a normal door to the corridor. From this lobby there would be a door to a WC with basin, as well as the door to the secure room. An alternative is for vision panels to be in a wall separating the secure room from the staff base rather than in the door to the secure room. This arrangement removes the need for the lobby. It remains an option to provide an en-suite WC; in either case the WC should be available for general use when the secure room is unoccupied.

4.14 These rooms must resist determined attack and damage. Walls and floors should be lined with light-coloured welded seam vinyl; a chalkboard, securely fixed and flush with the wall surface, may be provided. The room should have a strong door, preferably steel-reinforced, mounted into a substantial frame securely fixed to the brickwork, with an unbreakable, unscreened observation window and a triple-bolt locking mechanism. An unbreakable external double-glazed window should be provided with a blind between the panes which can be operated by staff from outside the room. A clock should be visible to the patient through the observation window. The room should not have any 90° corners adjacent to the door where a "blind spot" could be created.

4.15 Light fittings should be of a vandal-resistant construction and be unreachable or recessed into a reinforced ceiling. Heating should be mounted in the ceiling. Unobtrusive mechanical ventilation should be provided via robust ceiling mounted grilles. All controls and switches for lighting, heating and mechanical ventilation should be situated outside the secure room for operation by staff. Voice intercom is considered to be unnecessary, and potentially disturbing for psychotic patients. However, piped music may be suitable and, if

provided, should be via ceiling-mounted loudspeakers in a robust flush enclosure. A sealed plastic-covered mattress may be used to add some comfort.

WCs and bathrooms

4.16 Each WC and bath/shower should be located in small, separate, lockable rooms to provide maximum flexibility in use and best quality of environment. All water pipes should be obscured from view and shower heads must not allow self-harm. One WC and bathroom should provide access for a younger person who is confined to a wheelchair but otherwise physically fit. Bathrooms should contain a bath with a shower fitting, shower curtain with the track recessed into the ceiling, and non-slip surface at the shower end of the bath. They should also contain a WC and basin. These facilities should be available for use by staff and visitors as well as patients. WCs and bathrooms should be distributed around the ward so as to minimise their distance from any patient's room.

Daytime facilities

4.17 Shortage of day space can make for tension and lead to problematic behaviour. A number of smaller rooms, furnished in a homely style and for different uses, will provide a more therapeutic environment than would be achieved by a single large space; patients need to be able to choose between socialising, spending time quietly relaxing in front of the television, or playing games together. A possible mix of such rooms could be:

- a TV room for up to ten (smoking permitted), with mechanical ventilation via a locally controlled, independent supply and extract unit with heat recovery element;
- a sitting-room (non-smoking) with TV, large enough for all patients and staff of the ward. This may be enlarged to provide a dining area if there is no central dining room. Mechanical ventilation may be required;
- a room with a pool table;
- a quiet room;
- an open area with some seating near the middle of the living unit, together with a corridor (with windows) which provides space for walking as well as access to rooms;
- a unit kitchen, with cooker, dishwasher, double sink, hand basin, fridge/freezer, microwave and dry storage. It should be big enough for use by several patients and staff members, and should provide both training and therapy. If this is the main source of patients' meals it will need to be larger than if only used for occasional snacks, and may have a hatch to the dining area of the ward. Independent mechanical ventilation should be

provided (with local controls) to permit the system to be shut off when the kitchen is not in use;

- a launderette, for patients' use, with industrial-grade machines vented to the outside, with sink, ironing board, airing racks, and mechanical ventilation.

Staff rooms and offices

4.18 The nursing or general office (or staff base) can be quite small, since handovers can be done in one of the other rooms in the living area. It will be a base for notes, diaries, and (usually) the medications and dressings cupboard. It is convenient if it is in view of the entrance to the ward. The centrally placed glass box should be avoided if possible; it should have a window. Small lockers for staff property may also be located here.

4.19 There should be at least two office/interview rooms for use by any staff as needed. They could be used by patients when not otherwise required. One of these rooms (or an additional one) can be provided for a ward manager if needed.

Service rooms

4.20 A cleaner's room is required and also a small room or cupboard for dirty laundry and disposal items awaiting collection. Storage space is needed for linen, equipment and patients' belongings; the arrangement shown in Figure 2, and referred to in paragraph 4.8, is recommended.

Engineering spaces

4.21 Each ward will normally need an electrical distribution switch-cupboard: secure access may also be needed to plant spaces, as described in Chapter 5.

Therapy and activity areas

4.22 MSUs need to meet patients' social, leisure and therapeutic needs by providing a balanced range of recreation and pleasure, as well as occupational therapy, activities. These need to be co-ordinated throughout the day and evenings and over weekends. The accommodation required will vary according to the size of the MSU, but flexible use of rooms and proximity to day areas will maximise the use of facilities and promote collaborative working.

Occupational therapy

4.23 Occupational therapy may range from work experience and vocational retraining, domestic and social training to exploration of feelings and understanding of family dynamics and mental disturbance. Many of these

activities are best carried out in very small groups, or one-to-one with the therapist. The service may also employ art, drama or music therapists and tutors from adult education services. Nurses and other colleagues will frequently work as co-therapists, particularly in group-work situations, and volunteers or sessional staff can often be involved in sports and recreational activities. Planned programmes with clear objectives will help in determining treatment priorities and allocating space accordingly.

4.24 In a larger unit there will be the need to consider providing a range of facilities such as:

- a room for woodwork (with en-suite WC, for ease of control of movement of patients with access to sharp instruments);
- an art room;
- a pottery room, with kiln (the art and pottery rooms may be separated by a folding partition, to increase flexibility);
- a music room;
- two classrooms, one with computers;
- a large general purpose room (increased sound attenuation will be needed for this or the music room);
- activities of daily living - kitchen;
- gardening facilities (see paragraph 3.29).

4.25 In smaller units, some of the less specifically equipped spaces may carry out a wider range of different functions.

4.26 More detailed information on OT facilities can be found in paragraph 4.8 of Health Building Note (HBN) 35 (see Bibliography).

4.27 Depending on the size of the MSU, at least one general OT office will be needed. An office is required for the head occupational therapist, which may also double for interviews and confidential discussions. Extensive storage space is required, especially associated with the woodwork room, and with easy access from the service entrance.

4.28 The extent and nature of woodworking equipment will depend on the size of the MSU and on local operational policies. Electrical power supplies to woodworking machinery should be via isolators which can be locked in the off position, locking being under appropriate staff supervision.

4.29 The placing of the more general-purpose rooms near to the daytime facilities of the living units could enable the flexible use of space and staff to be realised, as indicated in Figure 1.

Sports and exercise facilities

4.30 The cost of providing these facilities, and the scope for sharing with other users, are referred to in paragraph 2.3. If they can be made available at times to local residents, the relationship between the MSU and the surrounding community might be helped.

4.31 Unless a sports hall is available on an adjoining hospital site for MSU patients, the MSU is likely to need its own. This could also be used for large meetings, and it should have a floor (for example 7 mm cushioned vinyl) suitable for multi-purpose use. Storage will be needed for equipment and for chairs; a separate room should be provided for multi-gym apparatus. A physical training instructor or physiotherapist will enable best use to be made of these facilities. Depending on the location of these facilities in the MSU, changing rooms and toilets may need to be provided nearby. This area should be designed so that direct access can be made to it for outside users without going through other parts of the MSU.

4.32 Table-tennis and snooker are also popular, and take up more space than can usually be provided in any living unit. They are best provided centrally.

4.33 An all-weather pitch and swimming pool might be provided economically if they can be shared with, or let to, outside bodies – for example staff of a nearby hospital or other large organisation. However, swimming pools are very expensive to provide and to operate. There may be a case for a jacuzzi.

Other social and recreational functions

4.34 These include a shop (which may be run by staff, volunteers or patients), a library (which may be run by the county library), and hairdressing. Religious services can be held in appropriate multi-use spaces at agreed times; attention must be given to the needs of people from differing cultures.

Psychologists' rooms

4.35 Where a case is made for these, two rooms are required, separated by a one-way mirror. Video and audio-recording equipment in the smaller room permits study of patients in the other. These rooms must be located for easy access by patients and may be used at other times for other purposes by staff with or without patients.

Patient follow-up or "outreach" facilities

4.36 For follow-up of patients in the community, a community psychiatric nurse will need office space. It must be possible for day-patients to attend the unit. Out-patient sessions may require a consulting suite in the MSU, or these may be held in the community or in a local hospital

or psychiatric unit. There is generally a need to enhance the outreach services provided from medium secure units so that they become a more integral part of the wider forensic and general psychiatric services. Precise functional needs may differ between units. MSUs can also be a source of expertise and advice for staff working outside the unit.

Visitors

4.37 Visitors will normally meet patients in a day room on the living unit; however, an additional room could be provided near the main entrance, which might also be used for overnight stay. Provision should be made for children visiting.

ECT and sick rooms

4.38 Electra-convulsive therapy can in an emergency be given in the MSU but special facilities are not required. The ECT suite in the associated department of psychiatry may be used if needed. No sick room should be necessary; physically ill patients, unless needing acute general hospital services, can be nursed in their own rooms.

Accommodation for staff and service functions

Offices

4.39 It is not always easy to predict at the outset the number of staff, and thus the number and nature of offices. Subsequent extension is difficult, hence the provision for loft conversion suggested in paragraph 3.22. Staff requirements will vary with the size of the MSU, but any of the following people who are to work there at least three full days a week will normally need an office to allow them to work in quiet and privacy, and to provide them with storage of confidential material:

- consultants;
- domestic manager;
- general manager;
- head occupational therapist;
- information technology officer;
- medical records officer;
- nurse tutor;
- personnel officer;
- psychologists;
- senior registrars;
- senior nurse manager;
- social workers.

4.40 Office space - generally shared -will also be required for:

- administrative and secretarial staff;
- community and other specialist nurses;
- OT staff, technical instructors and other therapists;
- physiotherapist;
- registrars;
- social work students;
- teachers.

Some of these staff (for example OT and psychology) are probably best located near their working areas. There may therefore be some overlap between these offices and similar accommodation described in previous sections.

4.41 Associated with the offices will be storage for stationery and other materials and equipment such as a photocopier; a cleaner's room; and toilets. This area will also include a medical records office and store (which should be secure internally and externally) and in some cases an archives room, and academic facilities.

4.42 More detailed information on offices and supporting accommodation can be found in Health Building Note (HBN) 18 (see Bibliography). This includes guidance on the impact that Information Technology has, not only on the detailed design and layout of office workstations but also on the additional consideration which now has to be given to the provision of natural and artificial lighting, power supplies and data wireways where there is a concentration of computer terminals in a single space, as well as the possible need for mechanical ventilation. In some cases air cooling may even be needed.

Academic and research facilities

4.43 The academic and research base for forensic psychiatry and related disciplines needs to be expanded. Work in MSUs can make an important contribution to this.

4.44 One or more seminar rooms may be needed - for say, 10 and/or 20 occupants - according to the size of the MSU. One of these rooms may be used, and arranged formally, for Mental Health Review Tribunals of up to 15 people. Access to a library - usually to be found in a nearby academic centre or large hospital - is essential. For occasional large conferences the sports hall or a nearby lecture theatre in a postgraduate medical centre could perhaps be used. Any additional facilities would require special justification.

4.45 Audio-visual equipment needs secure storage.

Staff support services

4.46 A staff dining room is needed, unless (particularly in a smaller MSU) a nearby hospital has available facilities. This may be associated with a patients' dining room (if this function is centralised), both being served by the same kitchen. If there is no dining room a staff sitting room is needed, with a kitchenette where drinks and snacks may be prepared. Where there is a dining room, the staff sitting room may take the form of an associated coffee lounge.

4.47 A centrally located staff changing room with shower is needed, but its use and size will be limited if few staff wear uniform. In that case, a better provision could be small lockers for handbags and small items, located near the place of work, for example in the general office in a living unit. Staff with offices will usually hang their coats there.

Support services

4.49 Many of these - for example catering, pharmacy, portering, garaging, cleaning, occupational health, estates services (building, engineering and grounds maintenance) - may be shared or combined with those of the associated hospital or psychiatric unit, but some of them will require a presence in the MSU, the extent varying with its size. For example, a small estate maintenance base will be needed, usually associated with the boiler or calorifier room.

4.49 Storage will be needed for consumables, and for items of furniture temporarily out of use or awaiting repair.

Engineering spaces

4.50 The accommodation requirements for the various mechanical and electrical engineering installations are described in Chapter 5.

5.0 Engineering services, communications and estate maintenance

Space planning implications for engineering services

5.1 Accommodation will be required for:

- a. either heating calorifiers or independent boiler plant, together with associated oil fuel storage or gas meter and pressure regulating equipment, as appropriate;
- b. hot water storage calorifiers and auxiliary plant;
- c. electrical intake switchroom and distribution switchcupboards;
- d. cold water storage tanks;
- e. centralised and local ventilation plants;
- f. limited maintenance workshop facilities.

5.2 Accommodation may be required for emergency electrical generator and associated fuel tank.

5.3 Appropriate provision will also be required for the following communications services:

- a. telephones;
- b. staff call/alarm system;
- c. fire alarm system;
- d. TV signals;
- e. security control/monitoring system;
- f. staff location.

Sizing and location of engineering services accommodation

Heating and hot water plant

5.4 A plantroom, with external access for equipment and maintenance personnel, will be required to accommodate hot water storage calorifiers, and either independent boiler plant or heating calorifiers, if the primary heat source is taken from existing site heating systems. This room will also contain associated water treatment plant, pumps and plant controls. Its size will vary to suit the heating and hot water demands of each specific project. If independent boiler plant is provided, a separate space will also be required for either oil fuel storage tanks or a gas meter and its associated control valves and pressure regulating

equipment, depending on the choice or availability of the primary fuel supply.

Cold water storage

5.5 Accommodation, usually at high level, will be required for cold water storage tanks. The supporting structure will need to be suitable for the weight of the water to be stored. The amount of cold water storage will be specific for the demands of each project and may also have to satisfy conditions imposed by the relevant water supply authority. Secure and safe access for maintenance personnel should be ensured.

Ventilation plants

5.6 Accommodation will be required for centralised and local ventilation (and possibly air cooling) plants. These will usually be sited near to the functions having the largest mechanical ventilation requirements. The size, number and location of plantrooms or spaces will be specific for each project. Safe access for maintenance personnel and for the removal and replacement of plant items should be ensured. This access must be secure and restricted to duly authorised maintenance staff only.

Electrical supplies

5.7 An electrical intake switchroom, with external access for meter reading and maintenance personnel, will be required as the primary electricity distribution centre for the unit. Depending on the electrical distribution design philosophy, suitable secure switchcupboards for secondary distribution fuseboards and accessories will usually be required in the circulation space of each ward.

Emergency generator

5.8 Emergency electrical power supplies will usually be more economically arranged if the MSU happens to be sited for convenient connection to an existing hospital site's emergency electrical power distribution system. In situations where this is not practicable, and a local standby generator is provided, it will usually be more economic to install plant capable of supplying the whole MSU rather than provide separate essential and non-essential electrical power distribution systems. A dedicated plantroom should be provided for any local standby generator. This should have secure external access for the plant and maintenance personnel and space for the fuel storage tank. Air inlet and discharge grilles to suit the engine cooling requirements

and a suitable sleeve for the exhaust discharge will also be required. Supplementary acoustic treatment will usually be required in order to achieve an acceptable level of ambient noise when the generator is operating.

Planning and space implications for communications services

Telephones

5.9 The planning and provision of the telephone installation at an MSU should not be carried out in isolation. A review of the overall strategy for telephone services within the Region and the local District Management Unit is a prerequisite. Guidance on the factors to be taken into account is given in Health Building Note (HBN) 48 (see Bibliography). This HBN also gives guidance on the telephone facilities that can be provided by a modern telephone system with an electronic exchange.

5.10 In most cases it will be appropriate for a local operating console (and any associated separate equipment cabinet) to be provided in the reception area. Whether this functions as a satellite or as a tandem exchange within a larger telecommunications network, and the extent to which either Direct Inward Access (DIA) or Direct Dialling Inwards (DDI) exchange lines are provided, are matters for local project decision. These features are described and discussed fully in HBN 48.

Staff call and alarm system

5.11 Patient/staff emergency calls and staff/staff alarm calls are handled by a combined communication system which usually requires some secure space (with access for maintenance) for its central power supply and distribution equipment. If this cannot be accommodated at the relevant staff base, an enlargement of one of the electrical distribution switchcupboards may be appropriate alternative provision.

TV signals

5.12 There will usually be centralised receiving apparatus to distribute TV sound and vision signals to the bedrooms and other parts of the MSU. This will usually be contained in a vertical equipment rack which will require secure accommodation with access for maintenance. An enlargement of one of the electrical distribution switchcupboards may be appropriate provision. A suitable site will be required for the TV receiving aerial or dish.

Security control and monitoring systems

5.13 Security access controls and any monitoring panels or displays should be located at a suitable staff base. Access controls will usually be key operated or energised

but special override provision, possibly interlinked with the fire alarm system, may have to be incorporated to satisfy the fire officer's requirements for total evacuation in an emergency (see also paragraph 3.23).

Staff location

5.14 It may be appropriate to provide a staff paging system similar to that at a DGH site. Guidance on these systems is given in Hospital Technical Memorandum 20 (see Bibliography), and their possible integration with the site telephone system is described in HBN 48.

Estate maintenance

5.15 The maintenance of the buildings, engineering services and equipment at an MSU will involve substantially the same range of maintenance trades as on a DGH site. However, the amount of activity will be less due to the smaller scale of provision, with the consequence that a permanent on-site presence of maintenance staff is unlikely to be justifiable. The manner in which maintenance is organised and delivered at a particular MSU will be determined by health authorities in accordance with their estate management operational policies. The possible policy options and the factors involved are described and discussed in Health Building Note (HBN) 34 (see Bibliography).

5.16 Consequently, comprehensive engineering and woodworking facilities are not required, but a workshop bench, with a vice and space for a limited range of portable bench-mounted power tools, will usually be required for use by a variety of visiting trades together with adjacent lockable storage for some essential spares and consumable materials. This could be accommodated within an enlargement of the plantroom described in paragraph 5.4 above. It is essential that this facility is reserved for the sole use of visiting maintenance personnel and is not regarded as part of the general storage space available to the unit's operational staff.

Engineering design guidance

5.17 Detailed guidance for engineering designers concerning the engineering services in the functional accommodation described in this Design Guide, and their integration into systems suitable for a complete MSU, is contained in the engineering services chapters of Health Building Notes. In particular, the engineering design criteria, materials specifications and reference data given in HBN 35 and HBN 18 (see Bibliography) are relevant to the functional requirements of the accommodation described in this Design Guide.

5.18 The following engineering services, as described in detail in the above guidance and associated Activity Data sheets, have been included in the departmental cost guidance given in paragraphs 6.6 to 6.17 of this Design Guide:

a. Mechanical services:

- (i) heating generally by low pressure hot water radiators, but by a ceiling panel in the secure room, with individual thermostatic controls and weather compensated flow temperature (heat source not included);
- (ii) hot water centrally supplied to service points with local thermostatic reduction to safe outlet temperature at service points (calorifiers not included);
- (iii) cold water centrally supplied to service points; drinking water supplies and fire hose reels included (water storage tanks not included);
- (iv) mechanical ventilation via supply and extract systems to meet functional requirements of specific areas; other areas to be naturally ventilated;
- (v) natural gas distribution pipework to boiler plantroom and catering equipment;

b. Electrical services:

- (i) main incoming switchboard, distribution cabling, fuseboards and isolators;
- (ii) final circuits to socket-outlets and other power outlets for fixed and portable equipment;
- (iii) final circuits to general and decorative lighting points. Fluorescent, tungsten, safety and emergency luminaires as appropriate;
- (iv) essential power and lighting circuits segregated for connection to local hospital site emergency electrical power distribution system;
- (v) supplementary equipotential bonding connections as required;
- (vi) staff call and alarm system ("hardwired");
- (vii) fire and drug cupboard alarm systems;
- (viii) security monitoring and access control systems;
- (ix) clocks;
- (x) television signal relay outlets from centralised receiving apparatus;
- (xi) telephone internal distribution cabling and outlets (handsets and any local operating console not included);
- (xii) data transmission wireways only.

6.0 Space standards, cost guidance and schedules of accommodation

Space standards

6.1 The schedules of accommodation hereunder set out preferred areas for two sizes of unit which are considered to be near to the lower and upper range of bed numbers for an MSU.

6.2 Apart from ward areas, the general principle adopted has been that increased utilisation of the accommodation considered appropriate for the smaller unit of 38 beds, together with modest increases in the areas for certain facilities, will avoid the necessity for pro-rata increases in area to serve the larger 72-bed MSU.

6.3 Due to the different operational policies that are likely to apply to individual units, a wide range of optional activity spaces has been identified to assist the briefing process. However, as size will in certain cases be very dependent upon local circumstances, indicative areas have not been stated in all cases but a notional allowance has been included in the summary of areas.

6.4 It has also been anticipated that the adoption of the planning principles set out in this Design Guide will result in an economically planned unit with circulation space of between 30 and 35 per cent.

6.5 While the activity centre is capable of a wider range of uses in the context of the whole hospital, possibly with some community involvement, the schedules have been prepared on a patient-use basis only. Certain extended uses have been included under the schedule of optional accommodation.

Cost guidance

General cost guidance

6.6 Cost guides are included below to assist with the early capital planning of an MSU, and are not to be regarded as having the status of Departmental Cost Allowances.

6.7 This cost guidance is largely based on the cost for a recently completed scheme, adjusted to reflect the requirements set out in this Design Guide.

6.8 The separate “departments” that comprise an MSU represent a wide range of functions and generate costs which reflect considerable variations in the cost for

individual elements. The additions to the cost for comparable hospital departments are mainly a consequence of the additional security requirements that have to be provided, but design teams should seek to ensure that each particular requirement is met in a cost-effective way.

6.9 As a general principle, suggested costs assume a domestic environment unless otherwise dictated by security requirements. The summary departmental cost guide at paragraph 6.16 is based on mid prices within the following ranges:

| | Cost/m ² | Bldg/Eng ratio |
|----------------------|---------------------|----------------|
| Wards | £800 - £890 | 77/23 % |
| Pre-discharge flat | £650 - £720 | 74/24% |
| Activity centre | £500 - £540 | 72/28% |
| Office accommodation | £550 - £600 | 76/24% |
| Other accommodation | £500 - £800 | - |

The costs for the listed optional accommodation will generally fall within the relevant band. The building/engineering ratios are indicative only and have been assessed at the mid points of the above cost ranges.

6.10 All stated costs are MIPS VOP index 218, effective from August 1992, and will require to be adjusted, up or down, in accordance with currently promulgated guidance. All costs include appropriate allowances in respect of design reserve and contingencies. (MIPS is an acronym for the median (unweighted) index of Public Sector Building Tender Price indices; VOP means Variation of Price, and is a series of the above indices for tender prices under that type of contract. For fixed price (FP) contracts, an addition should be made in accordance with promulgated guidance.)

6.11 Costs are based on a single-storey solution. A case study suggests that a two-storey solution might achieve a saving of up to 5 per cent on the elemental building costs, although this could be offset by an overall increase in floor area due to the requirement for vertical circulation spaces.

On-costs

6.12 Secure units may be associated with an existing hospital or located on a site remote from a hospital. In either case the necessary infrastructure provision is likely to be independent of the main hospital.

6.13 On-costs will be largely determined by the characteristics of the site, which may range from a flat green-field location to a difficult inner-city location.

6.14 It should be noted that, for completeness, engineering plant spaces (but not the plant contained therein) which normally form part of on-costs have been included in the summary of departmental area at paragraph 6.33 and in the summary departmental cost guide at paragraph 6.17.

6.15 It is important that a design team input should be obtained at the earliest opportunity in order to assess the on-cost implications of individual sites, both as a part of the option appraisal process and for the purposes of the Approval In Principle submission.

Summary departmental cost guide

6.16 All costs referred to are exclusive of furniture and loose equipment, professional fees and VAT.

6.17 An allowance of around 15 per cent would probably be appropriate for furniture and equipment, subject to any allowance in respect of transfers of existing equipment. It should be noted that, for security purposes, a greater proportion of furniture requires to be fixed and is regarded as Group 1 for cost analysis purposes, with a corresponding reduction in Group 3 costs.

| Number of beds | 38 | 72 |
|----------------------------|--------------------|------------|
| Departmental accommodation | f1,734,000 | f2,722,000 |
| Cost per bed | f45,632 | f37,805 |
| Total floor area | 2600m ² | 3950m* |
| Cost per m ² | f667 | f689 |

Schedules of accommodation

6.18 The following schedules are based on the text in Chapter 4, 'Description of accommodation', and are illustrative of the likely accommodation requirements for 38-bed and 72-bed units.

6.19 Particular care needs to be exercised in determining the areas for intermediate sizes of unit, since requirements for accommodation in support of the living units will not necessarily vary proportionally to changes in patient numbers.

6.20 14-bed ward (paragraph 4.2 refers)

| Activity space | Space area m ² | Quantity | Total area m ² |
|------------------------------|---------------------------|-------------|---------------------------|
| Patient's room | 10 | 14 | 140 |
| WC with basin | 3 | 3 | 9 |
| Domestic bathroom | 5 | 2 | 10 |
| Bathroom for wheelchair user | 7 | 1 | 7 |
| TV room | 20 | 1 | 20 |
| Sitting room | 32 | 1 | 32 |
| Pool table room | 15 | 1 | 15 |
| Quiet room | 15 | 1 | 15 |
| Kitchen | 17 | 1 | 17 |
| Launderette | 10 | 1 | 10 |
| Staff rooms/offices | 10 | 3 | 30 |
| Cleaners' room | 6 | 1 | 6 |
| Storage cupboards | | As required | 10 |
| Switchcupboard | 2 | 1 | 2 |
| Disposal | 4 | 1 | 4 |
| Nett total | | | 327 |
| Circulation etc* | | | 98 |
| Total | | | 425 |

*Includes open area and corridor.

Optional accommodation

| Activity space | Total area (inc circulation) m ² | |
|--|--|-------------------------------|
| Bulky item storage | | |
| MSU items | As required | (paragraphs 4.8 & 4.10 refer) |
| Patients' items | As required | (paragraphs 4.8 & 4.10 refer) |
| Dining area to sitting room | 20 | |
| Increase size of kitchen if this is main source of patients' meals | As required | (paragraph 4.46 refers) |

6.21 6-bed ward (intensive care/assessment) (paragraph 4.2 refers)

| Activity space | Space area m ² | Quantity | Total area m ² |
|-----------------------------------|---------------------------|-------------|---------------------------|
| Patient's room | 10 | 6 | 60 |
| Secure room | 7 | 1 | 7 |
| Secure room lobby | 3 | 1 | 3 |
| WC with basin* | 3 | 2 | 6 |
| Domestic bathroom | 5 | 1 | 5 |
| Bathroom for wheelchair user | 7 | 1 | 7 |
| Daytime spaces (for various uses) | 15 | 3 | 45 |
| Kitchen | 14 | 1 | 14 |
| Launderette | 10 | 1 | 10 |
| Staff rooms/offices | 10 | 3 | 30 |
| Cleaners' room | 6 | 1 | 6 |
| Storage cupboards | | As required | 10 |
| Switchcupboard | 1 | 1 | 1 |
| Disposal | 4 | 1 | 4 |
| Nett total | | | 208 |
| Circulation etc | | | 62 |
| Total | | | <u>270</u> |

*One to be associated with secure room.

Note storage space for bulky items (as paragraph 6.20) may be required.

6.22 Pre-discharge flat (paragraph 4.2 refers)

| Activity space | Space area m ² | Quantity | Total area m ² |
|--------------------|---------------------------|----------|---------------------------|
| Bedroom | 10 | 4 | 40 |
| Living/dining room | 28 | 1 | 28 |
| Kitchen | 10 | 1 | 10 |
| Bathroom | 5 | 1 | 5 |
| WC | 3 | 1 | 3 |
| Linen etc storage | 5 | 1 | 5 |
| Nett total | | | 91 |
| Circulation etc | | | 29 |
| Total | | | <u>120</u> |

6.23 Entrances and reception (paragraphs 3.8 and 3.9 refer)

| Activity space | Total gross area m ² |
|------------------------------------|---------------------------------|
| Draught lobby | 6 |
| Foyer | 15 |
| Reception* | 7 |
| Waiting | 13 |
| Service entrance and control lobby | <u>6</u> |
| Total | <u>47</u> |

* May be provided in association with an office/workstation at a reduced area.

Note HBN 51 Supplement 1 provides general guidance.

6.24 Occupational therapy (paragraphs 4.23 to 4.29 refer)

Small - for 38-bed unit } in association with
 Large - for 72-bed unit } wards etc

| Activity space | Space area m ² | Small | | Large | |
|-------------------------|---------------------------|-------------|---------------------------|-------------|---------------------------|
| | | Quantity | Total area m ² | Quantity | Total area m ² |
| Clean/dirty work areas: | | | | | |
| Woodwork room | | 1 | 60 | 1 | 100 |
| WC: en-suite | 5 | 1 | 5 | 1 | 5 |
| Art room | | 1 | 20 | 1 | 30 |
| Pottery room/kiln space | 25 | 1 | 25 | 1 | 25 |
| Gardening base | 10 | 1 | 10 | 1 | 10 |
| Music room | 20 | 1 | 20 | 1 | 20 |
| Classroom | 15 | 2 | 30 | 2 | 30 |
| General purpose room | | 1 | 25 | 1 | 40 |
| ADL kitchen | 20 | 1 | 20 | 1 | 20 |
| OT offices | | As required | 20 | As required | 30 |
| OT manager's office | 10 | 1 | 10 | 1 | 10 |
| Timber store | | | 13 | | 17 |
| Storage (except timber) | | As required | <u>18</u> | As required | <u>28</u> |
| Nett total | | | 276 | | 365 |
| Circulation etc | | | <u>83</u> | | <u>109</u> |
| Total | | | 359 | | 474 |

Optional accommodation

| Activity space | Total area (inc circulation) m ² |
|----------------|--|
|----------------|--|

| | |
|--|----|
| OT room or activity room (in association with intensive care unit, as paragraph 4.2) | 26 |
|--|----|

6.25 Activity centre (paragraphs 4.30 to 4.32 refer)

The following schedule is the minimum provision that is considered to be appropriate for any unit that does not have access to existing facilities. Insofar as it is practicable, increases in demand from a unit with increased numbers of patients should be met by increased utilisation of the activity centre's facilities.

| Activity space | Space area m ² | Quantity | Total area m ² |
|---|------------------------------|----------|------------------------------|
| Sports hall/table-tennis area/large meeting room | 300 | 1 | 300 |
| Storage for equipment and chairs | 14 | 1 | 14 |
| Multi-gym | 16 | 1 | 16 |
| Multi-use room | 24 | 1 | 24 |
| Changing room/shower (patients) | 2 | 12 | 24 |
| WC (patients) | 2 | 10 | 20 |
| Staff base | 13 | 1 | 13 |
| Cleaners' room | 6 | 1 | <u>6</u> |
| Nett total | | | 417 |
| Circulation etc | | | <u>92</u> |
| Total | | | <u>509</u> |

Optional accommodation

| Activity space | Total area (inc circulation) m ² |
|--------------------------------|--|
| Snooker room | 42 |
| Staff changing room/shower | 12 |
| Staff WCs (M and F) | 4 |
| Disabled WC | 5 |
| Additional activity rooms | As required |
| Additional storage areas | As required |
| Whirlpool | 13 |
| Additional staff accommodation | As required |
| Tea bar | As required for meetings, team events etc |
| Tea bar sitting area | As required for meetings, team events etc |

6.26 Other social/recreational activities (paragraph 4.34 refers)

Dependent upon the availability of facilities elsewhere, the following optional accommodation may be required:

| Activity space | Total area (inc circulation) m ² |
|----------------|--|
| Shop | 20 |
| Library | 25 |
| Hairdressing | 14 |

6.27 Psychologists' rooms (paragraph 4.35 refers)

| Activity space | Space area m ² | Quantity | Total area m ² |
|------------------------------------|------------------------------|----------|------------------------------|
| Patient's room | 15 | 1 | 15 |
| Psychologist's observation room | 8 | 1 | <u>8</u> |
| Nett total | | | 23 |
| Circulation etc | | | <u>7</u> |
| Total | | | <u>30</u> |

6.28 Outreach (paragraph 4.36 refers) and visitors' accommodation (paragraph 4.37 refers)

Optional accommodation

| Activity space | Total area (inc circulation) m ² |
|--|--|
| Type 3 workstation for community nurse | 12 |
| Consulting room | 16 |
| Visitors' overnight stay | 16 |
| Visitors' WC/shower - en-suite | 7 |

6.29 Office accommodation (paragraphs 4.39 to 4.42 refer)

The following schedule is based on the principles set out in HBN 18 - Office accommodation in health buildings, and is illustrative only. The actual number of workstations will be project-specific and should be related to the number of whole-time-equivalent staff.

| Activity space | Space area m ² | 38-bed unit | | 72-bed unit | |
|------------------------------|---------------------------|-------------|---------------------------|-------------|---------------------------|
| | | Quantity | Total area m ² | Quantity | Total area m ² |
| Office workstation: | | | | | |
| - type3 | 9 | 6 | 54 | 7 | 63 |
| - type 4 | 7 | 4 | 28 | 5 | 35 |
| - type 5 | 6 | 6 | 36 | 8 | 48 |
| - storage | 4 | 1 | 4 | 2 | 8 |
| Medical records: | | | | | |
| - type 4 workstation | 7 | 2 | 14 | 3 | 21 |
| - store | 4 | 1 | 4 | 1 | 4 |
| - archives storage | 4 | 1 | 4 | 2 | 8 |
| Photocopier room and storage | | | | | |
| | 4 | 1 | 4 | 1 | 4 |
| Utilities: | | | | | |
| - staff WC | 3 | 2 | 6 | 3 | 9 |
| - staff cloaks | 4 | 1 | 4 | 1 | 4 |
| - cleaners' room | 6 | 1 | 6 | 1 | 6 |
| Nett total | | | 164 | | 210 |
| Circulation etc | | | 66 | | 84 |
| Total | | | 230 | | 294 |

6.30 Optional accommodation - academic facilities

(paragraphs 4.43 to 4.45 refer)

| Activity space | Total area (inc circulation) m ² |
|----------------------------------|--|
| Meeting room - 10 people | 28 |
| Conference room - 20 people | 48 |
| Office workstations (additional) | As required |

6.31 Staff support services (paragraphs 4.46 and 4.47 refer)**Optional accommodation**

| Activity space | Total area (inc circulation) m ² |
|---|--|
| Staff dining room and kitchen (if existing on-site facilities cannot be utilised) | As required |
| Staff sitting room/coffee lounge | |
| Associated kitchenette (if dining room not provided) | As required |
| Centralised staff changing room(s) with shower facility * | As required |

*Limited cloakroom facilities are included in the office accommodation schedule (paragraph 6.10 in HBN 18) for non-nursing staff.

6.32 Supporting engineering and other services accommodation

(paragraphs 4.48 and 4.49 refer)

| Activity space | 38-bed unit area m ² | 72-bed unit area m ² |
|------------------------------------|------------------------------------|------------------------------------|
| Estate maintenance base | 15 | 20 |
| Boiler/calorifier room | 35 | 45 |
| Gas meter room | 5 | 5 |
| Electrical switchroom | 15 | 18 |
| Cold water storage | 12 | 18 |
| Ventilation plant spaces | 25 | 35 |
| TV apparatus space | 1 | 1 |
| Nett total | 108 | 142 |
| Notional allowance for circulation | 22 | 28 |
| Total | 130 | 170 |

Optional accommodation

| Activity space | Total area (inc circulation) m ² |
|------------------------------------|--|
| Standby generator and fuel storage | 30 |

6.33 Summary of areas for exemplar MSUs

| Para ref | Activity group | Area m ² | 38-bed unit Quantity | Total area m ² | 72-bed unit Quantity | Total area m ² |
|-----------------------------|--|---------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| LIVING ACCOMMODATION | | | | | | |
| 6.20 | 14-bed living unit | 425 | 2 | 850 | 4 | 1700 |
| 6.21 | 6-bed living unit | 270 | 1 | 270 | 2 | 540 |
| 6.22 | 4-bed pre-discharge flat | 120 | 1 | 120 | 1 | 120 |
| | Subtotal | | | 1240 | | 2360 |
| | (Area per bed - m ²) | | (32.6) | | (32.8) | |
| SUPPORT ACCOMMODATION | | | | | | |
| 6.23 | Entrances and reception | | | 47 | | 47 |
| 6.24 | Occupational therapy | | | 359 | | 474 |
| 6.25 | Activity centre | | | 509 | | 509* |
| 6.27 | Psychologists' room | | | 30 | | 30 |
| 6.29 | Office accommodation | | | 230 | | 294 |
| 6.32 | Engineering and other services | | | 130 | | 170 |
| | Subtotal | | | 2545 | | 3884 |
| | (Area per bed - m ²) | | (67.0) | | (53.9) | |
| OPTIONAL ACCOMMODATION FOR: | | | | | | |
| 6.20 | Wards | | | | | |
| 6.24 | OT | | | | | |
| 6.25 | Activity centre | | | | | |
| 6.26 | Social/recreational activities | | | | | |
| 6.28 | Community care and visitor accommodation | | | | | |
| 6.30 | Academic facilities | | | | | |
| 6.31 | Staff support services | | | | | |
| 6.32 | Standby generator | | | | | |
| | Notional allowance for above | | (say) | 140 | | 201 |
| | Notional total | | | 2685 | | 4085 |
| | Area per bed (m ²) | | | 70.7 | | 56.7 |

*See options for increase in area for larger centre.

7.0 Procurement procedures

Need for care in procurement

7.1 Medium secure units are expensive to build and run. This fact on its own should be enough to call for special attention in the provision of such units. However, the introduction of an internal health market, with providers having to provide levels of services at prices which purchasers can afford to take up, intensifies the need for circumspection at all stages of procurement.

Use of 'Capricode'

7.2 'Capricode' is the procedural method by which every scheme (including those generated by trusts) must, mandatorily, be developed, managed and processed. The essence of Capricode is captured in the second paragraph of its first introductory page, which reads:

The procedures reflect the logical sequence of events necessary to progress health building schemes from inception to completion and commissioning. They provide for clear timetabling and effective management of schemes and the ongoing monitoring and evaluation of performance. Their aim is to secure a sound, consistent and accountable approach by health authorities and to promote health building schemes which give best value for money (in terms of both capital and running costs), accommodate the requisite services efficiently, open on time, and keep within budget. Adherence to Capricode and presentation of submissions and information in the required form at the right time will assist the management, processing and

audit of schemes, thereby promoting timely decision-making, approvals and reporting. The procedures themselves cannot guarantee successful health building. It is the commitment of management, Appraisal Teams, Project Teams and Design Teams that produces the results the procedures seek.

Project sponsor and project manager

7.3 Two key appointments need to be made at an early stage - those of project sponsor and project manager, the former normally in advance of the latter.

7.4 The project sponsor is a named individual who will have "ownership" responsibility for the duration of the project on behalf of the client, health authority or trust. The sponsor may be a generalist manager, a clinician or an estates professional. He or she must be provided with appropriate authority and resources as well as adequate professional/technical advice independent of any such advice given by professional project managers commissioned from the private sector. Figure 3 illustrates the key position of the project sponsor.

7.5 A sponsor who intends to contract for external project management will usually need independent advice on task identification together with assistance in the process of selecting a manager. He or she also needs support in the monitoring of the management service provided and also the opportunity to seek and obtain ad hoc advice from time to time.

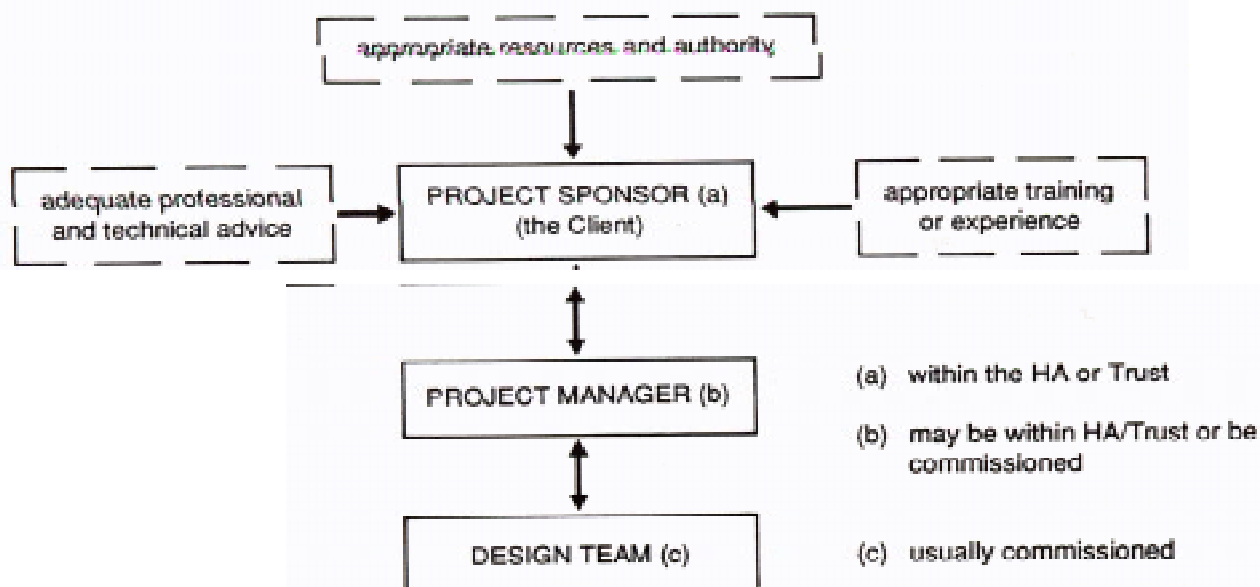


Figure 3

7.6 Professional project management can be procured in a number of ways as indicated in Figure 4. The project manager may be either a suitably qualified and experienced person appointed from within the authority's existing organisation, or alternatively, someone from a professional company or firm. He or she will normally need to be resourced with a small team and appropriate computing support to program the entire process from inception to completion, including client commissioning.

7.7 The duties of both project sponsor and project manager, and the relationship of one to the other, are set out in detail in the NHS Estates/HMSO publication 'Agreement for the appointment of project managers for commissions for construction projects in the National Health Service'. It is recommended that this document is used in the appointment of an outside consultant project manager; but in any case health authorities should equip their project sponsor and manager with copies of the publication at the outset of the project to ensure that they fully understand their management responsibilities. The names and status of the people appointed to these positions should be notified to the Department of Health at Capricode Stage 1.

Use of 'Concode'

7.8 It is recommended that the appointment of members of the design team is in accordance with 'Concode' via the NHS Estates/HMSO document 'Agreement for the appointment of architects, surveyors and engineers for commissions in the National Health Service'.

7.9 Later on, the requirement of 'Concode' should also be implemented when the form of construction contract, method of obtaining tenders, the appointment of the contractor and the method of managing the contract need to be decided.

Procurement method

7.10 The following is the recommended Capricode-based procurement route to be followed. Asterisked activities are mandatory.

1. Scheme inception to Approval In Principle (AIP)

RHA has preliminary discussions with DoH Policy/Funding Division and secures agreement to submit AIP proposal.

*Client nominates project sponsor, who appoints appraisal team to put together AIP proposal.

*Client appoints project manager on basis of explicit duties (see paragraph 7.3 above).

Project sponsor considers need to appoint, at this stage, consultants (architect recommended) to assist in AIP development. If so decides application made to DoH for preliminary funding allocation to cover initial fees. Project manager arranges interviews and invites fee bids. Project manager makes recommendation and client makes appointment.

Project manager prepares first issue of project handbook (see definition in 'Agreement for the appointment of project managers' document).

*Preliminary planning discussions held with local authority and outline approval secured.

When draft submission ready, authority sends single copy to NHS Estates for checking that its Capricode **form** (not content) is acceptable and that its contents are complete.

*Authority amends draft as necessary and makes formal AIP submission (8 copies) to DoH Policy/Funding Division.

*Completed Concise 1 report sheet sent to NHSE.

*Responsible DoH division, after receiving comments from professional and technical advisers, replies to authority either asking for supplementary (or amended) information, or giving formal approval to (further) funding and agreement to proceed to budget cost submission.

2. AIP to budget cost (BC)

Authority appoints project team, and project manager updates project handbook to include responsibilities of members.

*Project manager arranges interviews and invites fee bids from candidates for design team. Design team appointed in accordance with document referred to in paragraph 7.8.

Project manager updates project handbook.

Project sponsor provides initial brief to design team, including functional content, operational policies, notional cost plan, schedule of accommodation, development control plan and outline development programme.

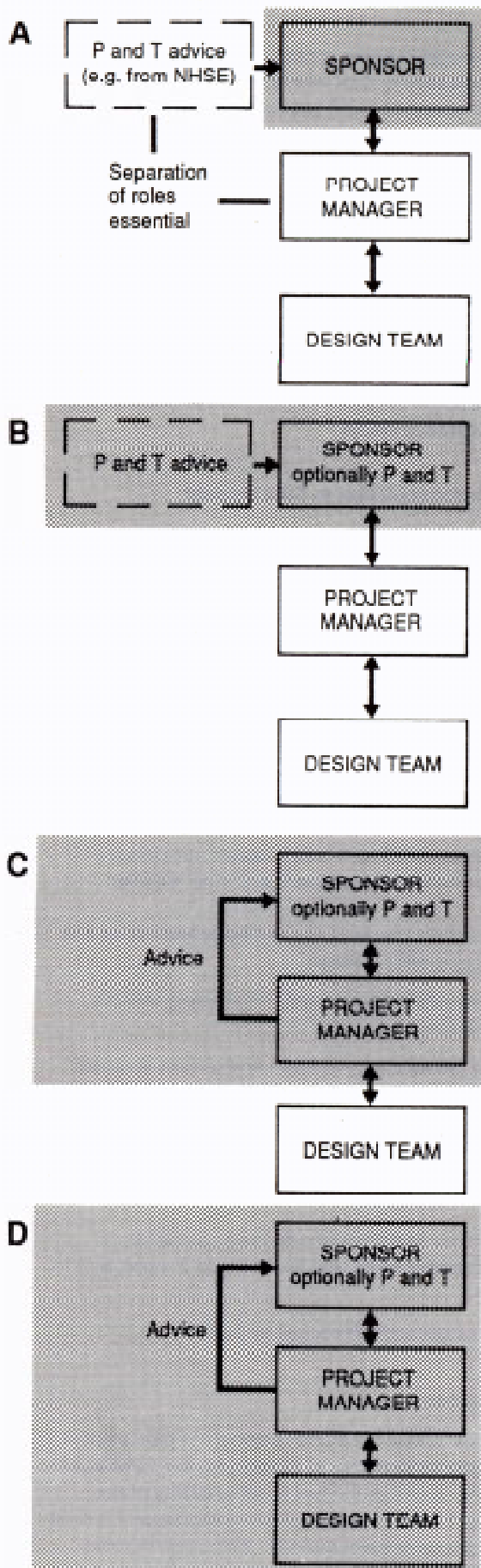
*Project manager obtains consultants' verification and sends Certificate of Readiness to Proceed to Design to NHSE.

Project and design teams develop scheme with continuing, reference to project sponsor. Project manager ensures that cost of scheme is controlled within parameters established at AIP. Any significant variations in either siting, content or firmed-up costs are referred to NHSE for approval.

Construction contract strategy proposals determined.

*Project manager obtains approval of authority to budget cost proposals and makes BC submission to NHSE (4 copies) with updated Concise 1 report sheet attached.

*NHSE compares submission with AIP and if no significant changes, and after endorsement by the DoH Policy/Funding Division, writes giving approval to proceed to tender.



External advisers must be separated from external management and design team to avoid conflicts of interests.

Advantages:

- good use of resources in fluctuating workload conditions
- advice commercially up to date
- avoids need for recruitment/retention/training of professional staff
- flexibility to take support from more than one source or to change advisers
- value for money encouraged by competition.

There are three options within this model:

- a. an in-house professional acts as sponsor
- b. an in-house professional supports the sponsor
- c. a professional is seconded on a term contract to support the sponsor.

Advantages:

- continuity, commitment to the organisation
- cheaper than A in high workload conditions
- (c) link to commercial experience, wider resources and provides option to vary later
- sponsor more likely to seek support due to accessibility
- this is a common model in the NHS and the private sector.

Advantages:

- greater continuity, commitment to the organisation
- cheaper than A or B in high workload conditions
- sponsor more likely to seek support due to accessibility
- this is a common model in the NHS
- more direct relationship between sponsor and manager leading to quicker decision-making.

Advantages:

- greater continuity, commitment to the organisation
- probably cheapest option if staff can be recruited and retained
- sponsor more likely to seek support
- direct relationships make for quicker decision-making.

Figure 4 The four choices for sponsor support. Shading indicates services provided from within client organisation.

3. Budget cost approval to tender

Project manager assists project sponsor in finalising brief for design team.

Project manager reviews management control plan.

Lead consultant provides project sponsor with detailed report concerning design development. Project manager leads discussion and obtains project team's agreement on exterior and interior design proposals, standards of construction and finishes.

Project manager and sponsor set up arrangements for procurement of equipment and discuss with lead consultant requirements of Groups 1 and 2 equipment.

Lead consultant confirms to project manager that all necessary planning, building control, health and safety, fire and other approvals have been granted and all conditions complied with.

*Project manager and sponsor set up arrangements for commissioning, including appointment of commissioning officer and commissioning team.

Project team reviews room layouts and other aspects of detailed design.

Project manager places notice in EC Official Journal (if necessary) on behalf of client.

Project manager reviews pre-tender cost check and obtains lead consultant's confirmation that tender documents comply with design brief.

Project manager obtains design and QS certificates as well as certificate of design team's readiness to proceed to tender.

*Certificate of Readiness to Proceed to Tender sent to NHSE with updated Concise 1 report indicating that estimated construction costs are within budget.

4. Tendering

*Design team and authority, having taken up references, select tenderers and authority invites tenders, all in accordance with Concode.

Authority receives tenders. Design team considers them and provides tender report with recommendation.

*Project manager sends tender report to NHSE seeking approval to place contract.

*NHSE considers, confers with DoH Funding Division and, if acceptance obtained, signifies approval to place contract.

5. Construction

Project manager updates project handbook with names of key people in contractor's and main subcontractors' organisations and with further definition of project procedures, including in particular method of dealing with variations to contract.

*Project manager oversees control of expenditure and makes application to DoH via NHSE for an increase to approved sum when and if all possible corrective measures taken to contain additional costs are unable to keep over-expenditure below predetermined limit.

*Project manager submits quarterly Concise 2 reports to NHSE.

Commissioning team prepares commissioning programme including any closures, decanting and transfers.

Project manager monitors order, delivery and issue of Group 2 equipment to suit contractor's programme.

Date of practical completion agreed and project manager obtains design certificate.

6. Practical completion to final account

Commissioning officer:

- a. manages development and working of management/operational systems;
- b. invites tenders for support services and selects firm;
- c. confirms staffing levels and reconciles staff cost with budget;
- d. initiates recruitment/redeployment and training programme;
- e. reconciles equipment costs with budget;
- f. organises ordering, receipt, storage, installation and/or distribution of equipment and other supplies.

*Building security checked. Fire certificate applied for and obtained by project manager.

Equipment installed and tested. Engineering services tested and commissioned.

Snagging carried out by architect and services engineer and defects made good by contractor.

Formal opening, if any, arranged.

*Project manager submits six-monthly Concise 2 reports to NHSE.

*QS negotiates final account with main contractor, architect certifies same, and final Concise 2 report sent to NHSE.

Client arranges audit if required by DoH.

7. Evaluation

Topics may include the effectiveness of the procurement process, the performance of design consultants, and value for money, as well as the functional suitability of the buildings. Evaluation is of particular importance if it is able to influence subsequent projects. It may also improve users' understanding of the planners' intentions, and thus eliminate unnecessary post-contract alterations.

8.0 Bibliography

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Health Building Note 34 - 'Estate maintenance and works operations', HMSO, 1992. ISBN 0-11320084-6.

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Hospital Technical Memorandum 20 - 'Staff location systems', HMSO (out of print but available from HMSO through their photocopying service).

Annex

Medium secure services for people with learning disabilities (mental handicap)

1. There are currently no places for people with learning disabilities in regional secure units developed as part of the centrally-funded programme. However, there are over 100 places described as "medium secure" in other units, and plans exist to develop further facilities in some Regions.
2. There are some differing (and developing) views about how best to cater for people with learning disabilities in conditions of medium security. This annex and its appendix do not attempt to provide definitive guidance, but do draw attention to recent work that may assist those planning services.
3. The 1992 evaluation team visited two units for people with learning disabilities. As noted at the start of this guide, copies of the team's report are available for reference. Those planning services should refer to the Department of Health/Home Office review report on learning disability services (see paragraph 1.8), which was published for consultation in November 1992. An extract from this is appended.
4. Two other publications may be of assistance:
 - a. the report of the project group, established by the Department of Health, under Professor J L Mansell, "Services for People with Learning Disabilities and Challenging Behaviour or Mental Health Needs" (HMSO, 1993). This provides advice on the commissioning of services for a group which has some commonality with that covered by the mentally disordered offender review;
 - b. Social Services Inspectorate "Guidance on Standards for the Residential Care Needs of People with Learning Disabilities/Mental Handicap" (HMSO, 1992).
5. General guidance on learning disability policies may be found in Health Service Guidelines (92)42 and Local Authority Circular (92)15.

Appendix

Department of Health/Home Office review of services for mentally disordered offenders: extract from special needs working group report on services for people with learning disabilities or autism (November 1992)

HR: Report of the hospital advisory group: see *Service Needs* (HMSO, 1993) (volume 2 of review reports)

SN: Report of the official working group on services for people with special needs: see *Special issues and differing needs* (HMSO, 1993) (volume 5 of review reports)

Needs assessment

6.2. Given that insufficient is known about precise service levels or needs for offenders with learning disabilities and similar patients, the starting point for future service plans is an effective needs assessment. Needs will in any case vary from one location to another. The hospital advisory group speculated as to the possible national requirement for levels of secure provision for people with learning disabilities (HR 7.9-7. 10), but, as we noted in our earlier report (SN 2.22), ***these are not targets and were not intended to obviate the requirement for proper local needs assessments.***

6.3. In terms of mentally disordered offenders as a whole, this process has been given a strong boost by NHS Management Executive Letter (92)24 which asked Regional Directors of Public Health to conduct a needs assessment, in conjunction with other agencies, with particular emphasis on requirements for various levels of secure provision. This was to include the needs of people with learning disabilities.

6.4. The intention is that this will be an annual exercise, broadened and refined in the light of experience to cover the whole range of health and social services for mentally disordered offenders and similar patients. It is clear from the initial assessments that many Regions are already looking at the implications for learning disability services, although generally it will be necessary for future assessments to give these more specific attention. An earlier assessment for one Region (West Midlands) may provide a helpful guide: see Annex O to this report. In the meantime the Department of Health is following up the initial assessments with Regions on an individual basis.

- * ***WE RECOMMEND that future needs assessments (carrying forward work done in the light of NHS Management Executive Letter (92)24 and undertaken on a multi-agency basis) should give more specific attention to the needs of people with learning disabilities.***

The development of secure and associated "outreach" services

6.5. Assessment must take account of those people in prison who might have been diverted to health or social services, those likely to be identified at the court or pre-court stage, and patients in Special Hospitals who may or may not need a high level of security.

6.6. More work needs to be done to consider the implications of this review for patients needing or currently being treated in ***high security***. This will be one of the tasks of the working group announced by the Secretary of State for Health following the Ashworth Hospital inquiry. There has been a gradual reduction in the number of Special Hospital patients with mental impairment or severe mental impairment (from 249 in 1987 to 188 in 1991). The effect of this is being felt in some areas where the local or supra-district services are having to find placements for a more challenging group of people than before. Their needs (though not requiring high security) are often highly resource-intensive, calling probably for the development of a specialised service which is able to offer a variety of residential or community responses to highly individual circumstances.

6.7. Existing ***medium secure*** psychiatric provision is unsuitable for people with learning disabilities, who, in any event, require a different therapeutic approach and whose needs militate against the 18-24 month treatment philosophy usually applied by Regional Secure Units. There must therefore be separate learning disability provision, although there may be scope for some "campus" type developments that provide specialised care in a discrete unit, while drawing on a number of common services and maintaining active community links.

6.8. Units that could loosely be described as "medium secure" (though often relying more on high staffing ratios or extensive grounds than on significant visible security), or, indeed, more local units, have the potential to become valuable centres of expertise, provided that the in-patient service is matched by a full range of ***"outreach" services***. Between them, these should be able to provide a full range of care including, as necessary, practical skills training, further education, counselling and behavioural programmes, together with access to residential, occupational and recreational

facilities. Again, such developments have clear resource implications, but they would also have a preventive function with possible savings, as well as health and social gains, in the longer-term. The cost of doing nothing is often greater over time than effective intervention.

6.9. It is not possible at present to provide firm estimates for secure provision for people with learning disabilities, but at least it is now firmly established that the medium secure programme does include such services (Annex F to this report; SN 2.21). We consider that a learning disability element should be identified specifically in new Regional bed targets to be set in the light of the review (HR 5.36; SN 2.21-22). Allied to this would be a need to demonstrate how the secure service would fit into a wider strategy for people with learning disabilities. We anticipate that the NH.5 generally may need guidance on this and on such aspects as staff mix, design and outreach services.

- * ***WE RECOMMEND that Regional targets for medium secure beds should include a learning disability element specifically identified and related to a wider Regional strategy.***

- * ***WE RECOMMEND that the Department of Health issues practical guidance on the development of medium secure provision for people with learning disabilities.***

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About NHS Estates

NHS Estates is an Executive Agency of the Department of Health and is involved with all aspects of health estate management, development and maintenance. The Agency has a dynamic fund of knowledge which it has acquired during 30 years of working in the field. Using this knowledge NHS Estates has developed products which are unique in range and depth. These are described below.

NHS Estates also makes its experience available to the field through its consultancy services.

Enquiries should be addressed to: NHS Estates,
Department of Health, 1 Trevelyan Square,
Boar Lane, Leeds LS1 6AE. Tel: 0532 547000.

Some other NHS Estates products

Activity DataBase - a computerised system for defining the activities which have to be accommodated in spaces within health buildings. *NHS Estates*

Design Guides -complementary to Health Building Notes, Design Guides provide advice for planners and designers about subjects not appropriate to the Health Building Notes series. *HMSO*

Estatecode - user manual for managing a health estate. Includes a recommended methodology for property appraisal and provides a basis for integration of the estate into corporate business planning. *HMSO*

Capricode - a framework for the efficient management of capital projects from inception to completion. *HMSO*

Concode -outlines proven methods of selecting contracts and commissioning consultants. Both parts reflect official policy on contract procedures. *HMSO*

Works Information Management System - a computerised information system for estate management tasks, enabling tangible assets to be put into the context of servicing requirements. *NHS Estates*

Option Appraisal Guide - advice during the early stages of evaluating a proposed capital building scheme. Supplementary guidance to Capricode. *HMSO*

Health Technical Memoranda - guidance on the design, installation and running of specialised building service systems, and on specialised building components. *HMSO*

Health Building Notes - advice for project teams procuring new buildings and adapting or extending existing buildings. *HMSO*

Health Facilities Notes - debate current and topical issues of concern across all areas of healthcare provision. *HMSO*

Health Guidance Notes - an occasional series of publications which respond to changes in Department of Health policy or reflect changing NHS operational management. Each deals with a specific topic and is complementary to a related Health Technical Memorandum. *HMSO*

Encode -shows how to plan and implement a policy of energy efficiency in a building. *HMSO*

Firecode -for policy, technical guidance and specialist aspects of fire precautions. *HMSO*

Nucleus - standardised briefing and planning system combining appropriate standards of clinical care and service with maximum economy in capital and running costs. *NHS Estates*

Concise -software support for managing the capital programme. Compatible with Capricode. *NHS Estates*

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Designed to meet a range of needs from advice on the oversight of estates management functions to a much fuller collaboration for particularly innovative or exemplary projects.

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