



Hampshire
County Council

**Hampshire County Council
Guide to Designing
Nursing Care Accommodation**

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1. Introduction

1.1 The Vision for Nursing Care in Hampshire

Hampshire County Council has a strong track record of developing, and working with partners to develop, high quality innovative buildings. At Oak Park, Havant we are seeking to extend this tradition through the development of a purpose built modern Nursing Home as part of a wider Health & Wellbeing Campus. Whilst the County Council will not be directly building, owning, or running this new Nursing Home, we have produced this guide with a view to assisting our prospective partner developer. Its purpose is to act as an aide memoire highlighting sources of statutory guidance that should be considered in the development of the home, and also acting as a signpost to other expert resources and sources of good practice that have developed in specific areas.

Whilst its primary purpose is to assist partners with whom we will be working on this development, we also hope that developers of other nursing home provision in Hampshire will also consider taking on board our suggestions, based as it is on a combination of statutory guidance and learning and best practice from a range of existing schemes developed within and beyond Hampshire.

It is not intended to act as a proscriptive checklist, and it is recognised that not all areas highlighted will be appropriate in all circumstances. Rather it is intended to highlight those features which Hampshire County Council consider important in scheme developments as we continue to aspire to support the development of high quality, Nursing Homes across the county.

1.2 Scope of the design guide

This document relates to the building design of Nursing Homes within Hampshire, and has been prepared as a guide to principles of design by Hampshire County Council's Property Services, building on the experience gained from developing our own Nursing Homes, site visits to other Nursing Homes and consultation with Nursing Home staff, and other Hampshire County Council's Adult Services staff

Very often the detailed design of specialist accommodation requires discussion and the development of detailed layouts through consensus. Some issues may not present obvious or standard solutions. As such this document is not intended to be prescriptive.

1.3 Key Requirements of Nursing Care?

A Nursing Home describes an establishment which provides a safe environment in which vulnerable individuals with complex nursing and care needs can have their health, behavioural, social care and support needs met following surgery, an accident, or illness event at home, or instead of admission to, or preventing delayed discharge from, an acute care facility.

A key consideration for all new Nursing Home provision in designing for the future, is the challenge of meeting the needs of the increasing number of people living with dementia. With, according to research by the Alzheimer's Research Trust (2010), around 820,000 people in the UK living with dementia, and research by the Alzheimer's Society suggesting that the proportion of people with dementia doubles for every 5 year age group, with one third of people over 95 living with dementia.

The service should operate, within an ethos and culture of actively maximising patient recovery, re-ablement, rehabilitation, wellbeing, self care abilities and independence, and as such the physical building should be designed to support this.

The focus of the provision should be on partnership working and active engagement with the range of partners to:

- Deliver short term care and support to enable service users to have a period of recovery, rehabilitation and/or reablement, with the aim of maximising the service users independence and quality of life and their potential to return to their own home at the earliest opportunity.
- Support the assessment, care and rehabilitation of older adult service users with a functional or organic mental health condition and younger adult service users with an early onset dementia type illness to enable them to return to less intensive support and from there to greater independence.
- Ensure the protection of service users, and others who may be at risk, of inappropriate or unsafe care and treatment, and that there are safe and effective environments and facilities.

1.4 Considerations

All Nursing Homes should aim to be:

- Focused on individual needs
- Enabling
- Domestic
- Designed for:
 - privacy, support and companionship
 - way finding and orientation
 - flexibility
 - Independence
- Delivered with flexible care
- Delivered with 24 hour nursing
- Designed with access to meals
- Delivered with domestic support
- Focused on progressive privacy

2. Location

2.1 Site

It is recognised that the site requirements for a Nursing Care scheme are largely determined by the size of the proposed development, and are therefore difficult to predict in advance. Within Hampshire a minimum scheme size of 40 bedrooms has been established for each development, as being necessary to secure its long term viability. No maximum size has been set for developments. As such developments consisting of fewer units would only be considered on an exceptional basis. To deliver a scheme of this size a minimum site size of 0.6 hectares has been identified, to enable the full range of communal facilities and usable external space to be provided. Exceptions to this are only likely to be considered in more urban areas where it is recognised that usable external space may be less commonly provided.

When evaluating the suitability of a proposed site, strong consideration should be given to topography, especially with regard to the ability of residents and their relatives, who are likely to include peers and elderly spouses with limited mobility, to move freely around it without the need for a high number of ramps and handrails.

3. Externals

3.1 Building approach

Consideration should be given to improving access routes to neighbouring facilities through dropped kerbs, crossings and accessible street furniture. A safe drop off position is required.

This is likely to be used by a variety of vehicles such as minibuses, ambulances and private cars and consideration should be given to accommodate rear tail wheelchair lifts on minibuses, which can lead to quite a large drop off area.

Good practice suggests a 'horse shoe' drop off configuration is preferable to avoid the need to reverse with the associated health and safety risks.

Consideration of the needs of residents suggests inclusion of an entrance canopy to allow residents to move directly into a sheltered area and minimise exposure to inclement weather as wheelchair users particularly, are prone to rain in a seated position.

Accessible parking spaces should be provided adjacent to the entrance. Any general parking requirements will be determined in consultation with the Local Planning Authority.

3.2 Landscape

External spaces can stimulate the senses, encourage socialising with peers and friends, and be emotionally uplifting. Looking at a calm and well designed garden is both soothing and restorative.

Care, ongoing maintenance and occasional replanting are key to achieve a high quality nurturing and restoring environment which can help residents cope with their day to day life.

Existing vegetation

- Where there are mature trees an arboricultural survey will be carried out as part of the Planning process, and tree works agreed.

General layout

- The garden areas should be safe and secure and provide residents who may be able with opportunities to make the grounds part of their home environment. The grounds will need to be enclosed to ensure that residents who wander do not leave site unseen. The exact design of boundaries need to be agreed with the Local Authority and nursing home operator. Over and above this, a contained, well overlooked environment, such as a courtyard, is useful as it will provide shelter, and be easier to manage on a daily basis. Any proposed layout needs

to consider that residents with dementia are prone to wandering and a series of looped paths – preferably dotted with seating and points of interest - will avoid the frustration from dead ends and repetitive routes.

- It is essential to provide regular seating places for resting and for residents to sit either in the sun or shade. Seating should include for relatives, and space needs to be available next to benches for wheelchairs to be brought close enough for conversation. Where seats are moveable these need to be light enough to move yet sturdy enough to provide stable and safe seating.
- A shed and a greenhouse could be considered for inclusion in the landscape design as a way to encourage residents to take part in gardening activities where this is felt to be appropriate.
- Flexibility is key to a successful design, with the Home, once in operation, included in any decision regarding the day to day use of the grounds, so that staffing of both grounds maintenance staff and care staff is appropriate.

Planting design

- Planting should provide interest throughout the seasons - some areas may be left clear for residents to garden if this is appropriate. Areas of raised planting may suit wheelchair users and those unable to work at ground level.
- The sensory aspects of the external landscape should be developed to give colour, texture, and scent, together with sound via the use of grasses, wind chimes and water features. Bird feeders and other ways of luring wildlife into the garden should be explored.
- Many residents may not have the opportunity to go outside often, and the view from both private rooms and communal areas should be carefully thought through to maximise a more 'passive' appreciation of the garden. Creating visual stimuli with the establishment of a view from bedroom windows for those that are bed bound is an important criteria. This needs to be balanced with the need to maintain privacy into bedrooms.
- Plants must be selected to avoid toxicity, thorns and sharp foliage and berries which may present a choke hazard.

3.3 Car parking

In determining the level of car parking provided within a scheme, consideration should be given to the location of the site with regard to local facilities, its proximity to public transport links, and the policy of the local planning authority in this area. Where developments are in high density urban areas, planning restrictions may apply to the provision of on-site parking.

4. Functional Spaces

4.1 General layout principles

HCCAS have confirmed the categories for regulated activities by the Care Quality Commission under the Health and Social Care Act 2008 as follows: -

- 1) Accommodation for persons who require nursing or personal care.
- 2) Treatment of disease, disorder of injury.
- 3) Diagnostic and screening procedures.

To respect 'floor living' philosophy, Homes are to be organised into blocks of bedrooms, creating small social groupings with their own lounge dining areas and ancillary spaces.

This arrangement is considered easier to staff than 'group living' or 'hotel living' arrangements, and is also desirable in homes having residents with dementia. These service users function better in small groups.

It is important to consider laundry and catering service access to the bedrooms including trolley routes which would favour a loop configuration on plan.

Social groupings of eight to ten bedrooms through the form of linked buildings may retain a domestic scale and avoid long corridors. The placement of support facilities such as assisted bathrooms, and smaller lounge spaces with regard to distances and accessibility also needs to be considered.

Residents should have access to a enclosed external area which can be readily monitored by staff.

4.2 Entrance

Most examples of existing Nursing Care have a main entrance which is secure at all times and all visitors gain entry into the building via an intercom system. A lobby will guard against draughts, and allows staff, visitors and residents to get into a dry environment before being authorised to enter the rest of the building. The design of the access into the building is normally agreed with the Secure by Design Police Liaison Officer. Placement of the entrance to the front of a site can allow the remaining grounds to be safe and secure and used for the benefit of residents.

- Automatic entrance doors aid accessibility. This is related to the nature of the residents who are likely to be physically frail and have difficulty in applying enough force to open the entrance doors.
- Residents may have a preference for swing doors rather than sliding as these may be confusing and not fulfil the user-group's expectations about a 'domestic environment'.
- The operation of swing doors needs to be carefully considered to ensure that doors do not open and knock residents over.
- The provision of office accommodation for the nursing home operator along with staff/admin areas adjacent to the front entrance to receive visitors acts as a security measure and can also act as a buffer to the more private residents' accommodation.
- CCTV offers staff residents a means of communicating with the front door and can be a Secured by Design requirement.
- Good practice has shown that ancillary access to the kitchen and laundry areas needs to be separate from the main entrance for safety and visual reasons.
- Refuse disposal and recycling arrangements need to be considered and agreed with the local refuse department.

4.3 Circulation

Good practice has found that circulation areas designed to reflect the following are of benefit to the residents and others:

- Avoid long corridors which can feel institutional and affect accessibility
- Maximise the use of daylight
- Create clear circulation patterns allowing residents to orientate themselves

- The ability to see out at regular points aids orientation and enhances the space
- Regular seating areas provide rest, and meeting points
- Ends of corridors which have a seating area avoids frustration by residents with a propensity to wander
- Avoid dead ends which have fire risks and issues for dementia sufferers
- Ensure wheelchairs can pass safely
- Generally the circulation can be designed as a positive social space linking the bedrooms rather than just a means to access the accommodation
- Artwork and features at key access points and changes in direction to aid orientation
- Continuous handrails to both sides of the corridor should be provided, wherever practicable, to assist physically frail residents
- Level thresholds allow access
- Entrances to bedrooms ideally should be slightly recessed to avoid ranks of entrance doors, and to provide a private space by the bedroom door. This also gives residents the potential to personalise their front doors, which can help to prompt memory
- Circulation should be internal to avoid residents having to go outside to gain access to central facilities
- Fire doors ideally should be on hold open devices linked to the fire alarm system and ideally recessed flush to reduce snagging points
- A 300mm space is required to the leading edge of all doors to facilitate ease of use by wheelchair-bound residents, in accordance with Building Regulations Approved Document Part M
- A means of identifying front doors by colour and/or personalisation is preferred
- Whilst a variety of spaces is encouraged, unnecessary turns and projections are best avoided in order to prevent disorientation
- Blinds can give control of uncomfortable glare from windows at the end of corridors during daytime hours as well as curtains for night use.
- Corridors are to be significantly wider than those commonly provided in residential homes for elderly people. This is in order to create a more comfortable and less restrictive space for residents to circulate. These

circulation areas will inevitably become wandering areas for some residents and contain designed features or 'landmarks' such as a recessed seating area, bay window with a view, a distinctive picture or colour etc. This will also be of benefit in the use and manoeuvring of food and linen trolleys.

- Skirtings are to be continuous across the base of riser cupboards to make them appear as part of the wall. Riser cupboard doors and doors to non-resident areas are to be painted in with the wall colour so that they are visually lost within the wall. This will reduce confusion and frustration among residents with dementia, if they try to open doors but find that they are locked.
- It is important for residents with dementia to be able to address their surroundings. Entrances to residents' communal spaces such as lounge dining rooms are to have a glazed partition adjacent to the door so the use of the room can be seen by the resident before entering.
- The internal layout should be designed to help minimise damage to walls by mobile equipment and also limit incidences of residents accidents. Any corners vulnerable to damage by mobile equipment are to be protected by the use of corner guards.
- Bedrooms doors should be positioned to afford the bedrooms a degree of privacy.

4.4 Lifts

- Lifts are more convenient when located adjacent to central facilities with a clear 'waiting' space in front of them. If the lifts are intended to be used for evacuation they will require a lobby, ideally with hold open devices.
- Good practice has found that clear indication of arrival to each floor through signage / way-finding / colour contrast / feature wall colour / object identification / artwork, etc. helps residents orientate themselves.
- The sizing of lifts in relation to the transportation of wheelchair users and stretchers etc will aid the use of the building.
- Experience has shown that consideration of whether mirrors should be provided in lifts should be judged, as these can cause confusion to residents with dementia.
- Ideally, at least two lifts allows access in the event of a breakdown with one wheelchair lift, and the other a stretcher lift.

4.5 Bedrooms

- The extensions are to contain bedrooms in excess of 14 metres sq
- The relationship of the bed to the layout of the bedroom and adjacent corridor is important, to ensure that staff passing by in the corridor can observe a resident in bed but at the same time offer a degree of privacy.
- The bedroom furniture layout is to be designed around the nursing bed in a peninsular position to allow access to both sides of the bed for staff to aid hoisting and manoeuvring.
- The bedroom door should have a wide clear opening, possibly with a door and a half configuration to ease access.
- Residents should have the ability to lock their own room once a risk assessment has been undertaken. Ironmongery to bedrooms should include a one-action emergency release mechanism to facilitate easy escape in the event of an emergency.
- Generally, the furniture design is to incorporate rounded corners, easy grip handles and wipeable surfaces. The bedside table is to have wheels to enable easy positioning of the unit whilst the resident is in a profiled position in bed. An over-bed server is to be provided to all nursing care bedrooms.
- All new bedrooms are to be fitted with X-Y ceiling track hoists that are capable of serving as much of the bedroom floor area as practicable with a working load of 45st.
- Floors to be fitted with slip resistant vinyl. It should be designed as a static-dissipative product.
- Walls are to be finished in washable, scrubable emulsion.
- A layout which permits the use of profiling beds
- Use of illuminated light switches
- Avoid locating bedrooms adjacent to noisy areas/rooms (i.e. laundry).

4.6 WC & En-suite Facilities

- Homely as possible in resident areas
- Relaxing, healing and non-institutional in ambience, which is a positive experience for the resident.
- Carefully consider the ease of access on the approach to the toilet/shower room
- Outward opening doors will allow access by staff, should a residents fall against it
- A simple lock (which can be released from outside in an emergency)
- Comply with current Building Regulations Part M and British Standards which give the configurations for wheelchair access to WC's and to showers
- Shower doors with a seal at the base which avoid excessive water across the room. Shower curtains provided in addition to half height doors to contain the water
- Selection of robust sanitary fittings and support rails
- Wheelchair accessible layouts including knee space to basin area and suitable layout to enable additional fixings of support rails in the future.
- Support rails are to have a slip resistant non-scratch surface, and contrast with their background to aid residents with visual impairment. These are to be of a different colour to ancillary items such as dispensers and shelves to avoid confusion. Drop down support rails are to be lockable in the upright position and have a friction action so as not to drop down quickly when pulled. All drop down rails are to be fitted with a toilet roll holder to both sides of the WC pan to offer choice to the resident.
- There is a requirement for en-suites to contain a shower, washbasin and WC to every bedroom. Layouts should accommodate a peninsular WC pan arrangement ensuring staff better access to both sides of the resident during use, as well as easier access for mobile specialist equipment should a resident fall from the WC pan.
- The shower should have level access and formed by a shower tray former. There will need to be a 2m turning circle for a shower chair which can overlap the shower and can also act as the main turning circle within the en-suite used for WC and basin access. A fold-down seat is not required in the shower. Fixed rather than fold down support

rails to be provided in the shower. The rail holding the shower head must be sturdy enough to act as a support rail.

- In addition to en-suite WCs there should also be a number of unisex peninsular arrangement WCs located around the building, generally in close proximity to lounges.
- All WCs accessible to residents or visitors will have doors that can be unlocked and opened outwards in an emergency. All doors to WCs are to be of contrasting colour to other doors to create a visual cue to residents and to indicate the usage of the room beyond. Door signage to include pictorial and word references. Ironmongery to include a one-action emergency release mechanism to facilitate easy escape in the event of an emergency.
- Basins should have overflows to avoid accidental flooding. There should be separate hot and cold taps as this will be less confusing to residents than mixer taps. Percussion taps shall not be installed as they can be confusing and difficult to operate and are not appropriate to a domestic environment.
- The basin in the en-suite WC shall be large enough to accommodate a bowl for bed-bathing, and provide enough knee space underneath for residents in wheelchairs. It should have a semi-pedestal to conceal the trap and waste from view and to stop residents from risking injury. The basin fixing should be able sufficiently sturdy should residents use the basin for support.
- Services are to be boxed in to conceal plumbing and pipework so as to limit dust traps and alleviate cleaning issues as well as hot surfaces.
- Support rails are to be provided around the WC pan, basin and on the back of the door.
- The WC pan is to be at a height of 480mm to aid side transfers from wheelchairs. The WC pan seat should contrast with the pan to aid residents with visual impairment. The flush lever should be a large spatula design suitable for elderly people. The cistern is to be lockable.
- Shower support rails are to be fitted with grips and should incorporate shower head holders to avoid shower slide poles which are not designed as support rails.
- Soap dispensers, paper towel dispensers and knee operated bins are to be provided for staff use.
- Lockable storage is to be provided for staff care use.
- Towel rails are to be robust enough to use as support rails.

- There should be a staff call pull cord accessible from the WC pan linked back to the staff call system.
- Flooring is slip-resistant vinyl with a resistance rating of R10. It should be designed as a static-dissipative product.
- Walls are to be finished in washable, scrubbable emulsion, with tiling around the mirror.

4.7 Bathing Facilities

- Generally Nursing Care buildings should have assisted bathrooms to a minimum ratio of one bathroom to every eight residents. These are large rooms allowing for improved access with peninsular arrangements of fittings, and sufficient unobstructed floor space for movement of wheelchairs, shower chairs, etc. These all accommodate a height-adjustable bath, WC pan, wash hand basin and associated support rails, storage dishes, mirrors, hooks and benches.
- Assisted bathrooms should be lockable when not in use to alleviate risks of drowning. Therefore the WC provision within assisted bathrooms does not form part of the overall provision for the building.
- All assisted bathrooms are to have an XY ceiling track hoist with a working load of 45st installed.
- All bathrooms should have ironmongery that includes a one-action emergency release mechanism to facilitate easy escape in the event of an emergency.
- All assisted bathrooms should be designed to limit dust traps and alleviate cleaning issues and hot surfaces issues.
- A number of different baths are provided at each home. These offer residents a choice depending on their needs. Bathing options include knee breaks, hydrotherapy (with automatic disinfection system) and bath chairs, depending on bath model. All baths are to be height-adjustable to assist staff in bathing residents and to reduce staff back injuries.
- Basins are to have overflows to avoid accidental flooding. There are to be separate hot and cold taps as this will be less confusing to residents than mixer taps. It should have a semi-pedestal to conceal the trap and waste from view and to stop residents from risking injury.
- The WC pan is to be at a height of 480mm to aid side transfers from wheelchairs. The WC pan seat should contrast with the pan to aid residents with visual impairment. The flush lever is to be a large spatula design suitable for elderly people. The cistern is to be lockable. The area surrounding the WC must be designed not to hinder the placing of a commode over the WC pan.
- Support rails are to be provided around the WC pan and basin areas.

- Shower support rails are to be fitted with grips and will incorporate shower head holders
- Towel rails are to be robust enough to use as support rails.
- Soap dispensers, paper towel dispensers and knee operated bins are to be provided for staff use.
- Lockable storage is to be provided for staff care use.
- There are to be staff call pull cords located near to the bath, WC pan and shower area, linked back to the staff call system.
- Flooring is to be slip-resistant vinyl with a resistance rating of R10. It should be designed as a static-dissipative product.
- Walls are to be fully tiled in shower areas. Elsewhere walls are to be finished in washable, scrubbable emulsion.

4.8 Sluicing Facilities

- Generally, sluice rooms are to be provided on each floor and to an approximate ratio of one sluice to every 20 bedrooms. The rooms are to be large enough to accommodate storage of clinical waste bins, macerators, lockable storage for cleaning and staff protection equipment, urine test cupboards and hand washing facilities.
- To reduce the amount of clinical waste HCC have taken the decision to replace slop hoppers and bedpan washer-disinfectors with macerators. Layout of fittings are to be in a dirty/clean split across the room.
- Appliances and sanitaryware are stainless steel and shall comply wherever possible to DoH HTM 64 (sanitary assemblies).
- Flooring is to be slip-resistant vinyl with a resistance rating of R10. It should be designed as a static-dissipative product.
- Walls are to be finished in a hygienic, washable coating system which shall alleviate the need for tiling and the inherent issues tiling creates regarding cleaning and infection control.

4.9 Drug Storage & Medical Facilities

- Medical Rooms are provided at each site, generally one per home, with larger sites having one medical room per floor. Wherever possible these are combined with a nurses' station facility. All medical rooms are lockable.

- Lockable base and wall cupboards for general and clinical equipment are provided. Two controlled drugs cabinets are provided in each medical room.
- Hand-washing facilities are provided. The basin is stainless steel with a wall mounted lever action mixer tap to avoid cross-contamination.
- Flooring is slip-resistant linoleum with a resistance rating of R10.
- Walls are finished in washable, scrubable emulsion, with a tiled splashback to worktop areas. Walls are to be finished in washable, scrubable emulsion.

4.10 Nurses' Stations

- These will need to be suitably located to give close proximity to the bedrooms that are being served and provide staff with a degree of observation of the corridor being served where practicable.
- Nurses' Stations will be the base for operating in that area of the building and will need to provide office facilities for residents' notes in addition to being used for the delivery of nursing cover to the bedrooms including the provision of medicines.

4.11 Kitchens & catering facilities

- A full commercial kitchen is likely to be required that can provide all meals to residents as well as various hot drinks and snacks. Kitchens generally have full air handling equipment (supply and extract) in accordance with CIBSE guidance, comprising supply and extract fresh air mechanical ventilation plant automatically controlled to prevent odours from drifting into the circulation corridors. It is good practice to have exhaust discharge louvers located remote from the open-able windows. Most schemes also aim to locate these areas away from the main entrance.
- Kitchenettes are to be provided in every lounge-dining room. Meals provided by the main kitchen will be transferred to the kitchenettes via hot trolleys and served to residents in their own lounge/dining room.
- Fittings shall include the provision of base and wall cupboards, with locks provided to all doors and drawers to enable staff to lock away any potential hazardous equipment such as toasters, kettles and microwaves which may pose a risk of scalding or hot surfaces.
- Dishwashers will not be provided in kitchenettes.

- It is to be remembered that nursing environments are the residents' homes and kitchenettes are provided to enable residents to maintain independence and access facilities such as hot/cold drinks and snacks as they wish. In a frail and vulnerable client group this inevitably poses elements of risk. Where residents are most at risk of injuring themselves assistance will be offered and residents' individual risk assessments and care plans should be prepared. For residents most at risk the kitchenette cupboards are lockable to store kettles/toasters etc if staff are not available to assist or supervise.
- The worktop should have a lower fixed section with a space beneath in compliance with Approved Document Part M.
- There should be adequate space for assisted transfer from wheelchair to dining chair if required. There should be room for care staff to sit alongside at the dining table.
- There should be adequate space for manoeuvring heated trolleys and temporary parking provided where they do not cause obstruction.
- Flooring is to be slip-resistant vinyl with a resistance rating of R10 to kitchenettes, and impervious-backed carpet to dining areas.
- Walls to have a tiled splashback over worktops.

4.12 Laundries & Laundry machines

- This will be a staff operated commercial facility that is not envisaged to be accessible to residents.
- When considering the location of laundry facilities, care should be taken to ensure adequate allowance is made for sizing of laundry trolleys and their frequency of use.
- The laundry should be planned on a clean/dirty split principle to avoid contamination.
- Washing machines should be fitted with protection devices to comply with the requirements of the Water Supply (Water Fittings) Regulations 1999. category 5.

4.13 Cleaners' rooms

- It is good practice to have cleaners' rooms provided on each floor and within kitchens and laundries, for easy access to cleaning equipment as required.
- Cleaners' rooms should be lockable and fitted with lockable cupboards for the safe storage of cleaning fluids.
- Hand-washing facilities should also be provided separately from general sink and bucket sink facilities.

4.14 Infection control arrangements

Environmental health considerations generally require that wash hand basins are to be provided in all clinical areas, food preparation areas, resident washing areas, sluice rooms, cleaners' rooms, staff areas, laundries, OT rooms, medical rooms and kitchenettes, and generally as close as possible to the exit point of the room.

In clinical and hazardous areas wash hand basins should be stainless steel with wall mounted lever mixer taps to avoid cross-contamination. Hand rinse basins will not be fitted with a plug or chain-stay hole to avoid sitting water.

Soap dispensers and paper towel dispensers should be provided at each washing facility

5. General Guidance

5.1 Fire Safety

- Schemes should be designed to ensure the safety and well being of residents, staff and visitors at all times. A thorough fire avoidance and control strategy should be incorporated when designing Nursing Care developments. There should also be an appreciation of the fire risks, both during construction & upon occupation by building owners/managers to ensure that all aspects of fire safety are covered from design inception through to construction, completion, occupation & throughout the lifetime of the building.
- Fire Suppression Systems, although not mandatory in Nursing Care developments in England, there is an expectation that larger units should include a fire suppression system as a cost effective solution to business continuity planning and to cover for the likely increase in life risk over time.
- Systems will generally be expected to comply with the relevant British

& European Standard. However to facilitate the provision of fire suppression within buildings there is now general acceptance that risk based, fit for purpose systems with some variation away from current standards may be acceptable.

- Building Regulation Purpose Group - 2(a) – Residential (Institutional)
- Appropriate Fire Safety Legislation - Building Regulations
- The fire strategy for the buildings should be developed through consultation with Hampshire Fire and Rescue.
- The Nursing Home shall be designed to provide for Progressive Horizontal Evacuation in accordance with Building Regulations Approved Document B Volume 2 Section B1 paragraphs 3.38-3.52. The ability to provide bed-evacuation is specifically excluded from the requirements.
- The basis of fire safety in older persons' homes is to ensure that the building and its systems give sufficient warning of, and contain any outbreak of fire such that staff have the time to move residents from one fire-resisting compartment within the building to an adjacent safe compartment.
- Panic bars to the escape doors are to be fitted without the 'push bar to open' sign as residents with dementia would attempt to push the door open. This must be agreed by Hampshire Fire & Rescue Service on the basis that the staff manage the fire evacuation of residents.
- Electromagnetic locks (maglock) should be fitted to the fire escape doors in addition to the panic bars. The maglocks are fail safe open, linked to the fire alarm system. This must be agreed by Hampshire Fire & Rescue Service.

5.2 Equality Act (EA)

The EA is non-prescriptive in offering design solutions, but aims to ensure that reasonable access is achievable for all members of society to public buildings. The main supporting legislation for assessing the effectiveness of access issues are BS 8300:2009 and Building Regulations Approved Document Part M.

Key items for consideration in all buildings are:

- Access into the site and from car parks up to and through principal entrances

- User-friendly entrance doors/access controls
- Appropriate WC facilities for visitors, preferably close to principal entrances.

These need to be considered and other topics, including accessible toilet and bathroom design, lifts, staircases, corridors, colour contrast issues and signage design.

Typically, fire doors to all rooms where residents may wish to go e.g. bedrooms and lounges should be fitted with 'swing free closers' which are activated to close in the event of a fire. Cross-corridor doors are to have 'hold open devices' which generally allow free access, but release the door in the event of a fire. The selection of door closers is now being driven by the requirements of Approved Document Part M which imposes a maximum closing force of 20N on any door. Thresholds should be level.

Consideration should be given to the above and other topics, including accessible toilet and bathroom design, staircases, corridors, colour contrast issues and signage design. It has been found that mobile hearing assistance systems have been an effective provision.

5.3 Designing for dementia

Dementia groups design guidance includes the following recommendations:

- Observing a domestic scale
- Creating a homely environment for residents
- Using familiar materials and colours.

There is a reduced capacity for people with dementia to be able to judge risk or foresee danger; forgetfulness is another problem that can lead to danger in some areas. It is also quite common for people with dementia to get lost trying to find their way around a building. This includes a person forgetting information such as the location of one room in relation to another. If numerous visual cues or reminders are incorporated into the designed environment, these can help by acting as way-finders and thus lessen the problem.

Use of good redundant 'cueing' techniques, way-finding and orientation, familiarity, scale and security can be of benefit. For example, providing well-lit, inviting entrances to day rooms, natural lighting, changes in floor and wall textures, colours, identifiable architectural features, recognisable and distinctive individual room designs to compensate for residents' sensory and memory losses.

Clear glazed screens to communal areas can permit residents to understand the use of a room without resorting to signage.

Clear and uncomplicated circulation routes are easier to interpret and reduce the possibility of residents getting lost and frustrated.

There can be a need for opportunities for residents to personalise the space, for example a distinct frame for a photo, picture or shelf by residents' flats.

Avoidance of dead-end corridors and stairs with blind turnings. In order to minimise confusion and frustration of residents with dementia, lounge dining rooms and seating areas can be located to the ends of corridors to give residents a 'goal' if they are prone to wandering.

Access and routes to non-resident areas are best understated so as not to alert residents with dementia to their presence.

The creation of seating areas to break up corridors provides meaningful areas to walk to for the wandering resident.

5.4 Bariatric care

Current trends in obesity may prompt some consideration given to the level of care and need that the facilities can offer and be designed to meet. Bedrooms designated for Bariatric Care (care of residents over 26st) if included would need to be located on the ground floor. These require wider doorsets to accommodate larger specialist equipment, wheelchairs, shower chairs, etc.

The bedroom and bathroom would need to have the ability to take a heavy duty XY ceiling track hoist fitted that will lift up to 45st. The bathroom if furnished will need to accommodate larger residents. Consideration should be given to floor-mounted rails, larger WC pans, bidet-toilets, etc. As stated, ideally the units designated for Bariatric Care should be located on the ground floor with the possibility of the fire evacuation leading to the consideration of bed evacuation.

5.5 Interiors

A key objective is to create a homely environment and avoid an institutional feel. This may be achieved by arranging bedrooms in small social groupings of 8-10 bedrooms. The sense of homeliness can be increased through the use of familiar fittings such as decorative fireplaces in lounge areas, wall lights and carpets and furnishings. Particular attention needs to be given to the light fittings to ensure that they are non-institutional, yet provide sufficient light to assist those with visual impairments.

Good practice has found that corridors 1800 mm wide allow wheelchairs to pass, and with natural light at the ends and at strategic points will give a feeling of light airy spaces. Consideration of seating areas and lounges at the ends of corridors with resting areas on a circulatory routes can aid residents with dementia who are prone to wandering and also create a more homely and less institutional environment.

Good practice has found that a variety of carefully chosen and coordinated colour schemes assists residents to identify their flat and orientate themselves within the building. Furniture should be carefully selected to meet the care needs of the residents and also continue the homely feel whilst providing the correct support. Schemes with under-floor heating have avoided large radiators impinging on rooms and hot surfaces issues. Similarly, schemes with recessed sprinkler heads have ensured that the services do not intrude into the domestic ambience of the rooms. Designers are recommended to consult with the Building Control and the Fire Authority with regards to sprinklers.

Good practice has found that the following considerations have lead to successful schemes:

- Adequate ventilation through regular windows will avoid overheating and stale air in corridors
- Ensure excessive effort is not required to open doors (swing free closers are a good option to consider)
- Window sills of an appropriate level to allow seated residents to see out
- Handrails which return into the wall at the end
- Lever handles which are able to be used by those with restricted grip, and have a return at the end
- Fully-lined curtains in all bedrooms and communal spaces, with blackout linings to bedrooms avoids sleep disturbance. Consider robust fittings and fabrics suitable for hotel or healthcare environments.
- Storage is to be provided for mobile equipment when not in use. It is important that the ceiling hoists are parked in an allotted space that will avoid people walking or raising their heads into them.

5.6 Colour Contrast & Material Selection

A good colour contrast between walls, floors, doors and architraves, as well as fittings and furniture, assists residents with visual impairment in identifying the different surfaces and edges of their surroundings. Good practice has found that patterns should carefully be selected so as not to cause confusion between, for example, the edge of a chair and the carpet.

Colour schemes from each area, and at the entrance to each bedroom gives each group of bedrooms an individual look. This can assist residents in locating 'their home'.

The following features which aides residents represent good practice and are found within the Building Regulations:

- A 30% tonal contrast between all surfaces: Floors to walls; walls to ceilings; walls to doors/architraves
- Skirting with the same Light Reflectance Value (LRV) as the wall
- The LRV of a wall with 30 points different from that of the floor and ceiling
- LRV of door surround (architrave and frame) of 30 points different to that of the wall
- The door surround should contrast with the wall. The purpose of this is that if the door is open and the wall in the background and foreground are the same colour the opening can still be identified
- The surface of the leading edge of any door that is not self-closing or is likely to be held open, should contrast visually with the other door surfaces and its' surroundings
- Handrails to both sides of corridors and stairways. A change in material and colour at changes of direction, as well as textured indicators, will assist residents with visual impairment in identifying the route through the building
- Shiny surfaces should generally be avoided, particularly in relation to floor finishes. Tiling in a satin finish reduces glare that can confuse residents with visual impairment. See above.
- Use of different colour pallets to distinguish between floors and or clusters of bedrooms. Colour contrast the resident's doors to distinguish them from the walls is good practice and a Building Regulation requirement
- Avoid "bands" or border strips of colour on floor surfaces as residents can perceive it as a barrier or step
- Experience has shown that highly patterned carpets which can cause visual confusion for residents with dementia or visual impairment, or both
- Skirting boards which are continuous across the base of riser cupboards make them appear as part of the wall and avoid confusing them with doors to rooms
- Riser cupboard doors and doors to non-resident areas which are painted in with the wall colour so that they are visually lost within the

wall will reduce confusion and frustration among residents with dementia (if they try to open doors but find that they are locked)

- Sufficient colour contrast to highlight the location of fittings
- Fittings installed on a continuously-coloured background

Careful consideration should be given to specification of appropriate floor finishes with regard to the following:

- Carpet with an impervious backing and a pile that is not too deep so that it doesn't cause tracking of wheelchairs
- Entrance matting of a closed type construction so as to avoid walking sticks getting stuck, and the pile short enough not to cause tracking
- Vinyl or rubber flooring which can be easy to clean and slip-resistant as appropriate. Avoidance of slip-resistant vinyl's that have too high a carbon chip content, which can cause visual confusion
- Threshold and transition strips as flush as possible and which match in with the flooring colour as much as possible so as not to cause a 'visual step'.

Interior timberwork painted with satinwood as opposed to gloss reduces glare.

Use of patterned wallpapers should be carefully considered as they cause problems in the following ways:

- Bold patterns may be over stimulating
- Small patterns such as geometric ones can produce blurred vision and eye fatigue
- Vertically striped wallpaper may make some people feel dizzy
- Curved and angled lines on walls can affect balance
- Still life patterned wallpaper can be confused with reality.

5.7 Material Selection – Ease of cleaning/Odour control

- Carpets to corridors are to be specified based on a number of criteria including the ease of use of mobile equipment such as hoists and trolleys, longevity, colour fastness, pile weight, pile height, colour palette, pattern and ease of cleaning.
- Carpets in staff areas and offices is to be selected to facilitate the ease of use of chairs with castors.

- In wet areas, bedrooms and lounge/dining rooms flooring is to be slip-resistant with a resistance rating of R10 and have excellent maintenance properties. It should be designed as a static-dissipative product.
- Curtain and bedspread fabric are to be selected in order that they can be washed at 71°C, meeting NHS infection control barrier washing requirements.

5.8 Loose Furniture

The following considerations will aid the selection of appropriate furniture:

- Furniture which is robust and fit for purpose
- A variety of heights and styles of chairs to give a broad range of choice is important
- A 'family' of seating creates a homely atmosphere and provides choice, e.g. two-seater sofas, tub chairs, some high backed armchairs, lounge chairs, etc. and helps to avoid an institutional look
- Dining tables should be sturdy, with some being height-adjustable, and should be able to accommodate wheelchairs. Square or rectangular tables can often give more flexibility as they can be pushed together to create larger groups on occasion
- Dining chairs with a mix of ones with arms, and ones without, with vinyl upholstery for ease of cleaning
- Fabrics which are impervious-backed to healthcare standards, and seat pads which include pressure-relief foam
- Consideration should be given to the ability to move furniture around the building if necessary.
- Chairs should be selected based on guidelines from the Dementia Services Development Centre, and by the nursing care advisor with interior designers regarding dimensions (seat depth, seat width, seat height, back height, armrest height), other features (seat rake, backrest shape, headrests, armrests, lumbar support), construction (base, cushions, castors, overhang, stability, protrusions), design features (variety, style, contoured, cushion covers), fabrics (impervious surfaces, visual variety, tactile appeal, fabric care, fire retardant). Consultations should be held with moving and handling experts and occupational therapists.

5.9 Acoustics

- Good practice has shown that measures should be taken to ensure a hearing assistance system for the reception desk and the lounges together with the flexibility of portable battery-operated induction loops (stored centrally), is be available for use by residents with impaired hearing. These can be taken wherever they are required.
- The reverberation time of large spaces needs to be controlled in accordance with relevant guidance to improve intelligibility. Sources of noise, in particular low frequency noise from lifts, laundries and kitchens are best isolated to avoid the disturbance of residents.
- Due to the operational nature of nursing care a dispensation from the full requirements of Building Regulations Approved Document Part E may be negotiable. This is in light of the need for acoustic separation to limit the transfer of confidential conversations and personal care rather than the broader range of noise associated with private dwellings. The acoustic separation within a nursing care home is also curtailed by the overarching need for staff to check on residents with bedroom doors being left open.

5.10 General signage

Signage to comply with Approved Document Part M which includes guidelines such as minimum character size, sentence case, embossing, height, type face, etc. The Sign Design Guide produced by The Sign Design Society and JMU, which is cross-referenced in Part M, is a useful reference. Appropriate signage delineating disabled parking bays will be designed in accordance with BS 8300:2009.

5.11 Protection from falling, collision and impact

- Stairs should be designed in accordance with the Building Regulations Approved Document Part K, but with reference to Building Regulations Approved Document Part M.
- Good practice has found that where possible the stairs should be designed to avoid a straight flight in order to avoid falls. The balustrades are best solid, mitigating the need for an open stair well and avoiding possible trapping of limbs, heads etc.
- The Building Regulations require opening windows should to be set above 800mm. Opening windows in addition to this requirement should be restricted to 100mm to avoid a person climbing over the guard. This also complies with the requirement to avoid persons moving about the building from colliding with open windows. The windows should also

comply with BS 6399 for withstanding a force as a barrier and should ideally comply with Secure by Design.

- Good practice has found that powered doors to the entrance should be designed to fail-safe open and arranged to have a clear view to either side. They also are to have sensors fitted to limit the possibility of people becoming trapped.
- The Building Regulations require vision panels are provided in doors on main traffic routes with a minimum visible zone between 900mm and 1500mm above floor level.

5.12 Trip & Fall Hazards

- All thresholds are to be level.
- Threshold strips are to be provided between all changes of floor finish to minimise trip hazards, and shall be complementary in colour to the adjacent flooring so as not to create a visual step for residents with dementia or visual impairment.
- Handrails are to be provided along all corridors and to external paths wherever possible.
- Flooring on ramps is to be slip resistant and include alerts for changes in level and direction.
- Floor finishes shall be plain coloured as heavy patterns can give the impression that there are holes in the floor or that there are changes in level, leading to confusion, anxiety and impaired balance for residents with dementia.
- No threshold strips are to be used between floor types of the same range to avoid creating a visual 'step' for residents with dementia or visual impairment.
- In wet areas, a slip resistant sheet vinyl or linoleum is to be selected with a resistance rating of R10.
- Windows are to be restricted to open 100mm . The restrictors are to be secured and for normal use and only removable with a tool for window maintenance.
- The specification of fittings such as drop down support rails should address any issues regarding head trapping during usage.
- An assessment for anti-ligature devices for curtain hooks, etc., in particular in units for residents with dementia should be undertaken.

- Doors to stairs should be fitted with maglocks interfaced with the fire alarm system. Stair nosings should contrast in colour to finishes so as to alert users to edges.
- Care should be taken in the design of external areas as even small changes in level may present a hazard to some residents.

5.13 Hot surfaces and risk of scalding

- Careful consideration of the mechanical services systems and their integration into the buildings will help mitigate the risk of scalding from hot surfaces.
- Good practice has found that all pipe work should be boxed in (or contained within ceiling voids and designed riser positions). If radiators are used these shall generally be a low surface temperature design.
- Good practice has found that all hot water outlets other than those in the kitchens should to be protected by TMV3 standard thermostatic mixing valves which are failsafe and shall be set to provide safe hot water temperatures (ie, close to 43°C).
- Consideration of fittings in communal lounge spaces which include the provision of lockable base and wall cupboards, to enable staff to lock away any potential hazardous equipment such as toasters, kettles and microwaves which may pose a risk of scalding or hot surfaces may be of benefit.
- Central kitchens and laundries which are lockable with access limited to authorised staff only.
- Under floor heating generally will reduce the risk of burns from radiators and pipes.

5.14 Lighting

- Good natural light should be maximised in the design. Generally, people over the age of 65 need lighting four times as bright as they did when in their 20's. Low light levels reduce the ability to read, lip read and increase the risk of falls.
- The correct lamp must be fitted to ensure that the design light levels, colour recognition, and aesthetic appearance is achieved.
- Low level sills allow residents to see out from a seated position whilst avoiding windows being confused with doorways.

- The internal lighting installation should generally incorporate T5 and compact fluorescent and/or LED source recessed and surface luminaires as appropriate for the area of use. Facilities should be provided for scene setting and/or night light function and where applicable incorporate daylight dimming systems to maximise energy savings.
- Emergency lighting should be provided to the requirements of the relevant British Standards.

6. Services

6.1 Emergency call and resident monitoring systems

The consideration of the type of system to be installed within the new buildings will need to reflect how the residents can maintain independence with an appropriate level of assistance without intrusion on their rights. Whatever system is adopted the emphasis should be on making the system as visually non intrusive, and non institutional in appearance as possible. Wireless technology should be incorporated as much as possible. As technology continues to develop in this area it is considered prudent to make the base system as flexible as possible to accepting additional equipment and upgrades.

6.2 Emergency/back-up generator supplies and fuel/storage

All developments must comply with current legislation relating to the provision of emergency power. The consideration of standby generators in view of the likely level of frailty of residents is best undertaken on a risk assessed approach. Installation and maintenance of generators is expensive and so the benefits of their inclusion would need to be carefully considered.

In the event of the loss of the main electrical supply to the building a standby generator would automatically start and power up the unit. The generator would be sized to accept the total load of the building so that the building can continue with all its normal daily functions. If provided the generator would be tested for operation on a monthly basis.

6.3 Services access

Service access panels within the occupied parts of the building such as the corridor, en-suite toilets, lounges should be locked for safety as should the plant room area.

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