

*Feedback from Peter Conroy.*

*Draft*  
**Child Care** ○ **Planning  
Guideline**

Planning and designing  
quality child care facilities  
in NSW



**Planning &  
Environment**



## 1.2 Structure of the Guideline

The Guideline has four parts:

### Part 1 – Introduction

An introduction to how and when to apply the Guideline.

### Part 2 - Guide for Complying with the National Quality Framework

Clause 21 of the Draft State Environmental Planning Policy (Education and Child care Facilities) states that the consent authority must take Part 2 of the Child care Planning Guideline into consideration when assessing a development application for centre-based child care.

This part provides advice on how to meet the physical environment requirements of the National Regulations. It explains the terms used, and how they may be met in development applications and applications for service approval. It aims to ensure that development applications are consistent with the requirements of the National Regulations to provide greater certainty to industry about service approval outcomes.

### Part 3 - Matters for Consideration and Design Criteria

Clause 21 of the Draft State Environmental Planning Policy (Education and Child care Facilities 2017) states that a consent authority may take Part 3 of the Child care Planning Guideline into consideration when assessing a development application for centre-based child care. Design may not be used as a ground of refusal, if the application meets the design criteria in this part.

The objective of good design underpins the guidelines. The design criteria are intended for new centre-based child care facilities, alterations and additions to existing facilities, and conversion of existing buildings for use as a child care service. They define the qualities of good design in child care.

The criteria will apply across NSW to minimise the impacts of child care developments on the environment. The criteria in this part will over-ride controls in a development control plan if there is any inconsistency between the two.

This part also provides considerations for designing a centre-based child care facility in particular situations, such as in residential areas, commercial and industrial areas and mixed use developments.

### Part 4 - Delivery

This part assists proponents to prepare development applications and specifies the information that should accompany them.

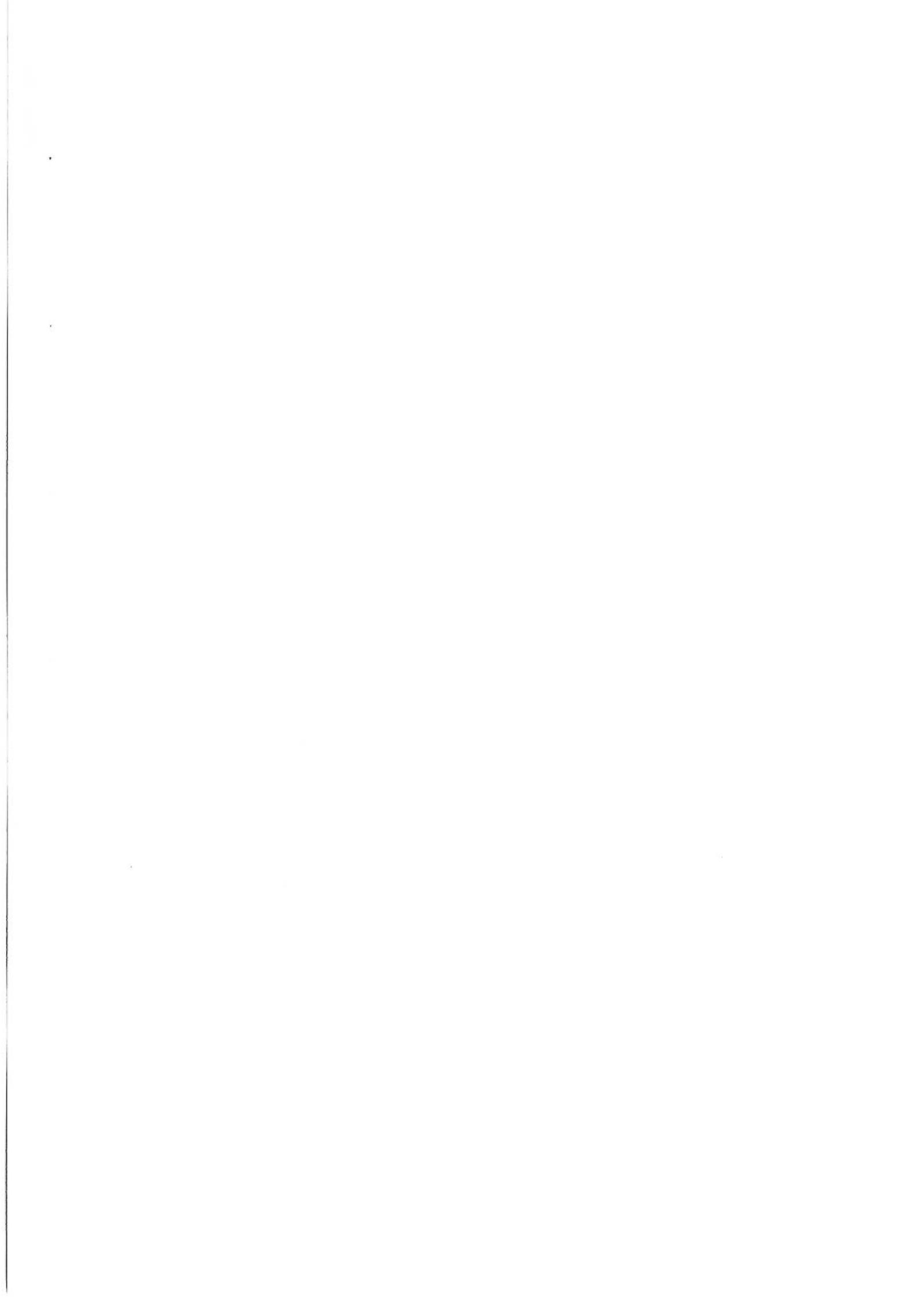
It also provides information required to obtain a service approval, including compliance with Clauses 103 – 115 of the National Regulations. The content is relevant to development applications and should be provided for all new centre-based child care facilities.

This part has advice for consent authorities on best practice when assessing applications, including suggested conditions of development consent.

### Appendices and Glossary

This part provides templates and checklists that should be submitted with a development application and a glossary of commonly used terms.

Certifiers must have clear development standards to assess CDC applications. Is it intended that certifiers will rely on 'design statements'? (Appendix 1).



2

## **Guide for Complying with the National Regulations**

*This part contains advisory guidance on how to meet the physical environment requirements of the Education and Care National Regulations*

## 2.1 National Regulations and Quality Standards

Clause 21 of the Draft State Environmental Planning Policy (Education and Child care Facilities) states that a consent authority must take this part of the Guideline into consideration when assessing a development application for centre-based child care.

Part 4.3 Physical Environment of the Education and Care Services National Regulations (clauses 103 - 115) sets out physical environment requirements for early education and care services. The term education and care service is used to refer to services regulated under the National Law which are the subject of this part. It means:

"any service providing or intended to provide education and care on a regular basis to children under 13 years of age other than—

(a) a school providing full-time education to children, including children attending in the year before grade 1 but not including a preschool program delivered in a school or a preschool that is registered as a school; or

(b) a preschool program delivered in a school if—

(i) the program is delivered in a class or classes where a full-time education program is also being delivered to school children; and

(ii) the program is being delivered to fewer than 6 children in the school; or

(c) a personal arrangement; or

(d) a service principally conducted to provide instruction in a particular activity; or

(e) a service providing education and care to patients in a hospital or patients of a medical or therapeutic care service; or

(f) care provided under a child protection law of a participating jurisdiction; or

(g) a prescribed class of disability service; or

(h) a service of a prescribed class"

Defined in Children (Education and Care Services) National Law (NSW) No 104a

If Section 2 is mandatory then it should state this unless there are fully justified reasons for not complying.

A child care facility is the premises of an education and care service.

The physical environment of an early education and care service, must be safe, suitable and provide a rich and diverse range of experiences that promote children's learning and development.

The information in this part will assist proponents to interpret and apply the requirements of the National Regulations when preparing development and service approval applications.

This Part explains the quantitative indoor space requirements and the qualitative requirements, such as the provision of laundry facilities or services, hygiene and toilet facilities, natural light and ventilation and administrative space, (sections 2.2 - 2.6). It is followed by an explanation of the quantitative requirements for outdoor space, and advice on achieving quality outdoor environments and ensuring children's safety.

Parts 2.2 (indoor space) and 2.7 (outdoor space) of the Guideline contain requirements that, if not satisfied in a development application, will trigger a concurrence requirement under clause 20 of the Draft State Environmental Planning Policy.

Appendix 2 contains a self-assessment checklist on National Quality Framework matters that should be completed and submitted with the development application. Submitting the checklist with a development application will assist the consent authority to determine whether the concurrence clause should be triggered.

### Verandahs as Indoor Space

In certain circumstances external verandahs may be included when calculating the unencumbered indoor space however written approval from the Department of Education is required.

For a verandah to be included as indoor space, any opening must be able to be fully closed during inclement weather.

If a verandah is to be included within the unencumbered indoor space calculations, it can only be counted once and cannot be counted as outdoor space.

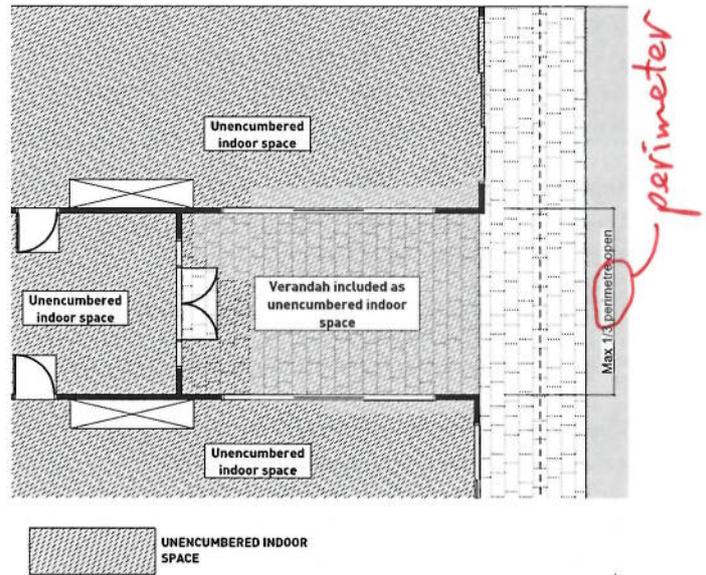


Figure 2-3 An outdoor verandah can be included as unencumbered indoor space with written approval. In spatial calculations this can only be counted once.

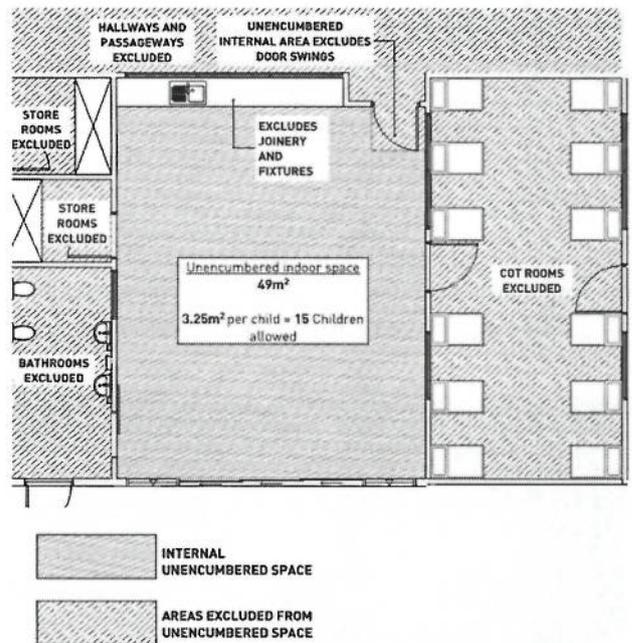


Figure 2-4 Areas to include and exclude when calculating unencumbered internal space. Door swings and joinery is excluded.

## Storage

Storage areas including joinery units are not to be included in the calculation of indoor space. Adequate storage is to be planned from the outset and designed to meet the needs and requirements of the centre.

The National Regulation states that unencumbered area excludes storage. To achieve a functional unencumbered area free of clutter, a centre based service should provide:

- a minimum of 0.3m<sup>3</sup> per child of external storage space
- a minimum of 0.2m<sup>3</sup> per child of internal storage space.

These areas need to be considered when designing and calculating the spatial requirements of the centre.

Storage does not need to be in a separate room or screened. There should be a mixture of safe shelving and storage that children can assess independently.

Storage of items such as prams, bikes and scooters should be located adjacent to the building entrance.

Bag storage is preferred to be provided in the form of pigeon hole joinery units, 300mm wide x 300mm high, with an overall structural height of no more than 1000mm. Where bag hooks with a covering shelf are used, these should have protective timber coverings and are not to be provided for children under the age of 3.

Storage for hazardous substances, medicines, first aid equipment and anything that may present a danger to children should be located in an area or cupboard inaccessible to children.



Figure 2-5 A mixture of lockable cupboards and open shelves provides an effective mixture of storage.



Figure 2-6 Storage of items doesn't always need to be within cupboards- provide shelves and tub storage for items commonly used by children.



Figure 2-7 Ample storage ensures an organised and functional learning environment.

*Should include a short paragraph re the BCA and natural light provisions.*

## 2.3 Ventilation and Natural Light

Regulation 110 Education and Care Services National Regulation

### Natural light

An education and care service premises must make sure that the indoor spaces contain ample natural light, ventilation and thermal comfort.

Child care facilities must:

- be well ventilated (this can be through a mixture of natural cross ventilation and air conditioning)
- have adequate natural light
- be temperature controlled to avoid extremes in temperature which can be harmful to small children.

Solar and daylight access reduces reliance on artificial lighting and heating, improves energy efficiency and creating comfortable learning environments through pleasant conditions. Natural light contributes to a sense of wellbeing, is important to the development of children and improves service outcomes. Daylight and solar access changes with the time of day, seasons and weather conditions. It is important that education and care service premises are designed with that in mind, providing windows facing different orientations and using skylights where necessary.

Child care facilities should have:

- a window in an external wall with a total minimum glass area of not less than 10 per cent of the floor area of the room.

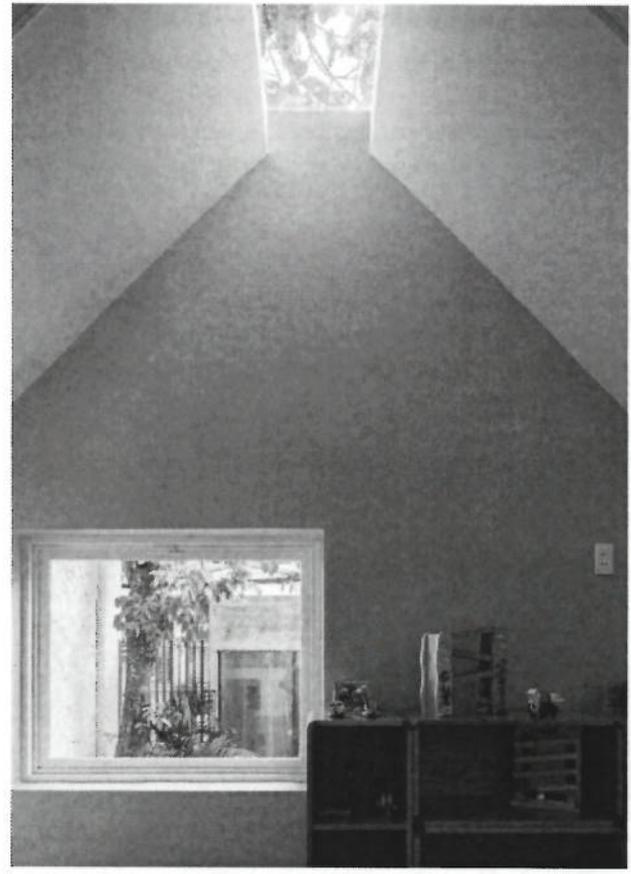


Figure 2-9 Skylights can help improve natural light into activity rooms.



Figure 2-8 Clerestory windows are effective at adding natural light to activity rooms.

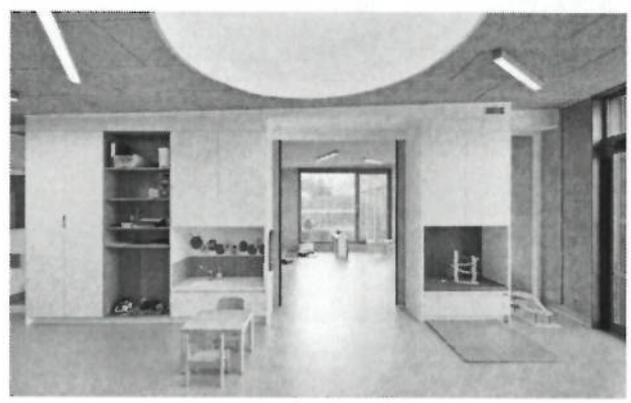


Figure 2-10 Skylights provide additional natural light and reduce reliance on artificial lighting.

Paragraph re BEA.

## Natural Ventilation

Natural ventilation is the movement of sufficient volumes of fresh air through a building to create a comfortable indoor environment. Sustainable design practice incorporates natural ventilation by responding to the local climate reducing the need for mechanical ventilation and air conditioning. To achieve adequate natural ventilation, the design of the child care facilities must address the orientation of the building, the configuration of rooms and the external building envelope, with natural air flow generally reducing the deeper a building becomes.

Child care facilities should:

- ensure natural ventilation is available to each of the children's indoor activity rooms
- have unobstructed window openings equal to at least 5 per cent of the floor area served.



Figure 2-12 Natural light and ventilation is critical for a healthy environment to learn and play in

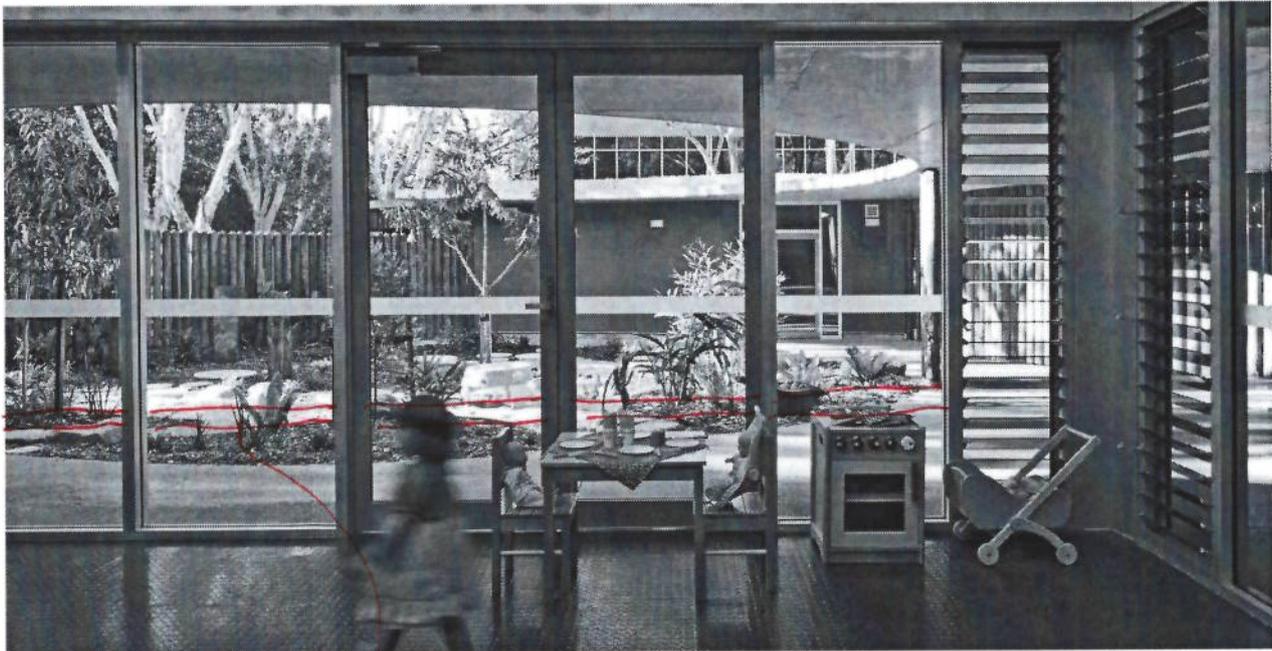


Figure 2-11 Louvres can be incorporated to allow for ventilation when doors are closed.

Visual banding on glazing should also be provided at low level for children. (see p. 29).

### Ceiling Heights

Ceiling height is measured internally from finished floor level to finished ceiling level. The height of a ceiling affects the amenity of a centre and the perception of space. Well designed and appropriately defined ceilings can create spatial interest and hierarchy within the centre.



Figure 2-13 High ceiling heights create great spatial qualities which promote natural light and ventilation.

Consideration should be given when room depth exceeds ceiling height by 2.5 times to ensure that there is minimal need for artificial lighting during the day. Natural lighting should provide a lighting level of 200lux to the rooms.

*at least*

Ceiling heights should be proportional to the room size with the use of raked ceilings and exposed trusses used to create a sense of space and visual interest.



Figure 2-14 High ceiling heights provide good proportion in long and wide rooms.



Figure 2-15 Raked ceiling can provide visual interest and define spaces.

## 2.4 Laundry

Regulation 106 Education and Care Services National Regulation Laundry and hygiene facilities are a key consideration for education and care service premises. It is a requirement of both the Education and Care Services National Regulations and the Building Code of Australia to provide laundry facilities or access to laundry facilities. The approved provider of the service must ensure that laundry and hygienic facilities are located and maintained in a way that does not pose a risk to children.

### On-site Laundry

On-site laundry facilities must contain:

- a washer or washers capable of dealing with the heavy requirements of the centre
- a dryer
- laundry sinks *tubs*
- adequate storage for soiled items prior to cleaning.

### External Laundry Service

If a centre cannot accommodate onsite laundry facilities then external laundering arrangements must be provided. Any external laundry facility providing services to the centre must comply with AS4146 Laundry Practice. *See comments above.*

When an external laundry service is to be engaged, storage and the collection point for soiled items should be located in an area that has separate external access, away from children. This is to prevent clothes being carried out through public areas and to reduce danger to children during the drop off and collection of laundry.

All laundry facilities, either on-site or off-site, must be capable of dealing with soiled clothing, nappies, linen and any item suitable for laundering. Appropriate storage of soiled items must be provided in a way that does not pose a risk to children.



Figure 2-16 Where space is at a premium, laundry services can be carried out by external laundry providers.

*The BOA requires, through the DTS provisions, that laundry facilities be provided. If off-site laundry services were proposed (with off-site facs.) then an alternative*



*Solution design and approval would need to be obtained and approved by a certifying authority.*

Figure 2-17 A typical child care facility laundry layout. External access may be provided if laundry is done off site or for deliveries.



Figure 2-18 A typical child care facility laundry with plenty of storage

## 2.5 Administrative Space

Regulation 111 Education and Care Services National Regulation

The approved provider of a centre-based service must ensure that an adequate area or areas are available at the child care facility for the purposes of—

- conducting the administrative functions of the service
- consulting with parents of children
- conducting private conversations.

Administrative spaces will require closing doors for privacy, glass partitions to ensure supervision from the administrative space, sufficient space for a desk and at least two chairs, and lockable storage units and filing cabinets to ensure child safety and privacy of client information.

When designing administrative spaces, care and consideration should be given to functions which can share spaces and those which cannot. It may be inappropriate to locate general seating/waiting areas in locations also used for personal meetings between staff and parents/carers. Consideration should also be given to appropriate sound proofing of meeting rooms if located adjacent to public areas, or in large rooms where sound can easily travel.

*better to place dot-points/contact on separate lines.*

Administrative spaces should be designed to ensure equitable use by parents and children at the centre. A reception desk may be designed to have a portion of it at a lower level for children or people in a wheel chair.

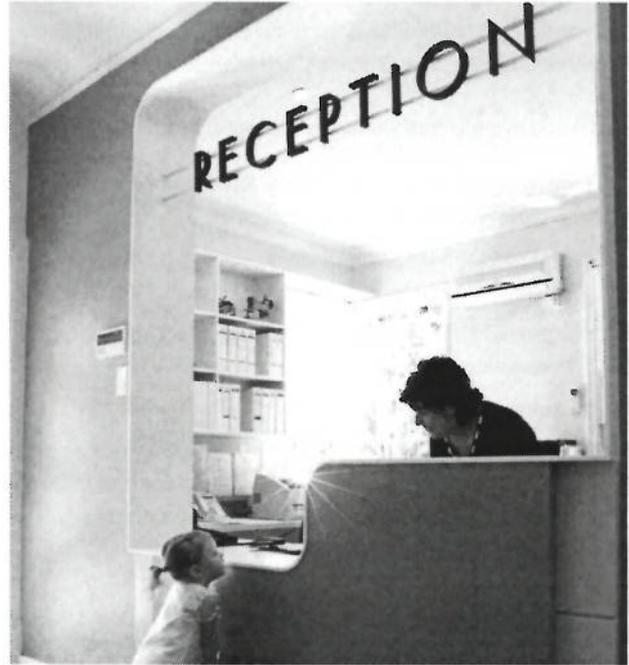


Figure 2-20 Reception spaces in administrative areas should be welcoming to adults and children and be designed for equitable access by all

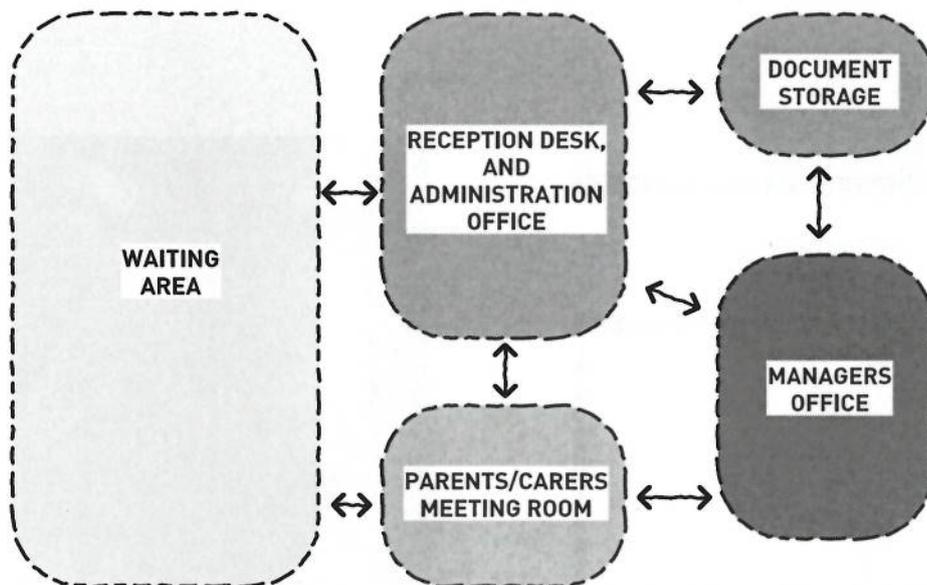


Figure 2-19 Bubble diagram showing relationships between administrative spaces within a child care facility. Requirements of rooms and functions may vary depending on the size and individual requirements of the facility.

## 2.6 Toilets

Regulations 109 and 112 Education and Care Services National Regulation

Toilets and hygiene facilities must be provided and designed for children being educated and cared for at the centre as well as adults who work and visit the centre.

The minimum number of facilities required for children, staff and visitors is outlined in the Building Code of Australia.

Toilet and hygiene facilities for children must be:

- designed for use by children e.g. junior toilet pans, low level sinks and hand drying facilities
- designed to have a sink and handwashing facilities for adults in all bathrooms
- conveniently located for children with direct access from both activity rooms and outdoor play areas
- designed to allow supervision by staff with windows into bathrooms and no doors on cubicles
- external windows shall be placed in a location that prevents observation from neighbouring properties or from side boundaries.

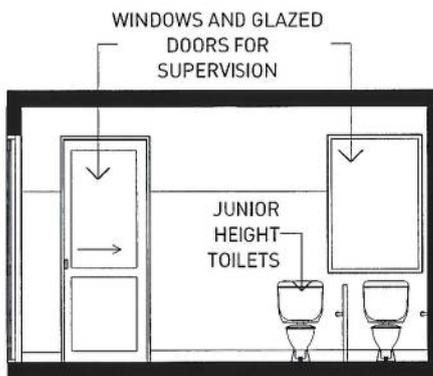
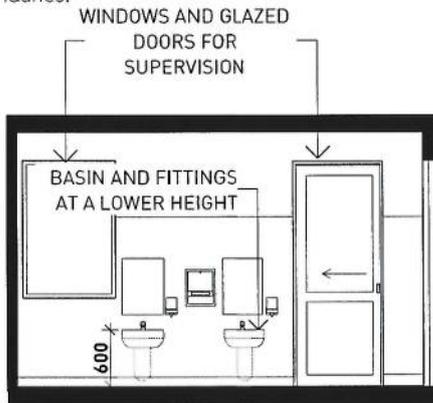


Figure 2-21 Bathroom facilities including toilet pans for use by children at a lower height.

### Nappy change facilities

Child care facilities must provide for children who wear nappies, including appropriate hygienic facilities for nappy changing and bathing. All nappy changing facilities should be designed and located in an area that prevents unsupervised access by children and supervision of the remainder of the room. These requirements are further detailed in the Building Code of Australia, *see below.*

Centre based child care premises that cater for children under three years of age must:

- provide 1 properly constructed nappy changing bench not less than 0.9m<sup>2</sup> in area, at a height of not less than 850mm and no greater than 900mm from the finished floor level
- provide a bench-type baby bath within 1m from the nappy change *space*
- provide hand cleansing facilities for adults in the immediate vicinity (within 1m) of the nappy change area
- provide a space not less than 800mm high, 500mm wide and 800mm deep for the storage of steps *placement or*
- position baby change facilities to be to permit staff members changing a nappy to have visibility of the activity and play area at all times.

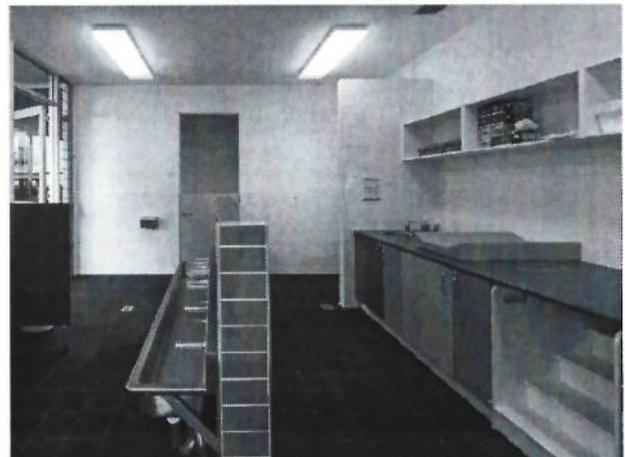


Figure 2-22 Baby change facilities located in the bathroom.

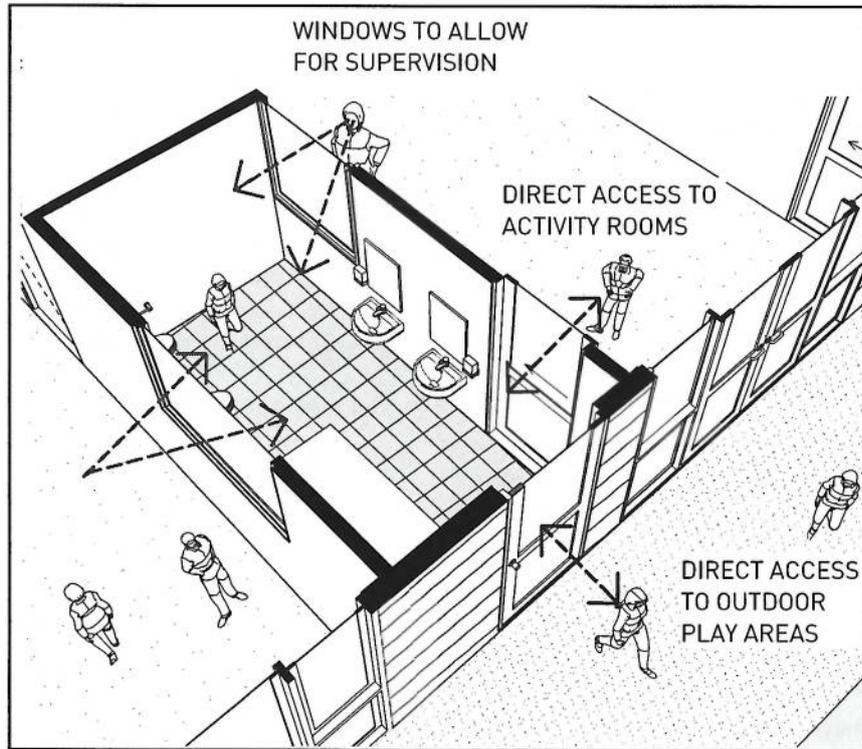


Figure 2-23 Bathroom facilities to have direct access to outdoor areas and activity rooms. Supervision requirements need to be considered in the design to prevent blind spots.

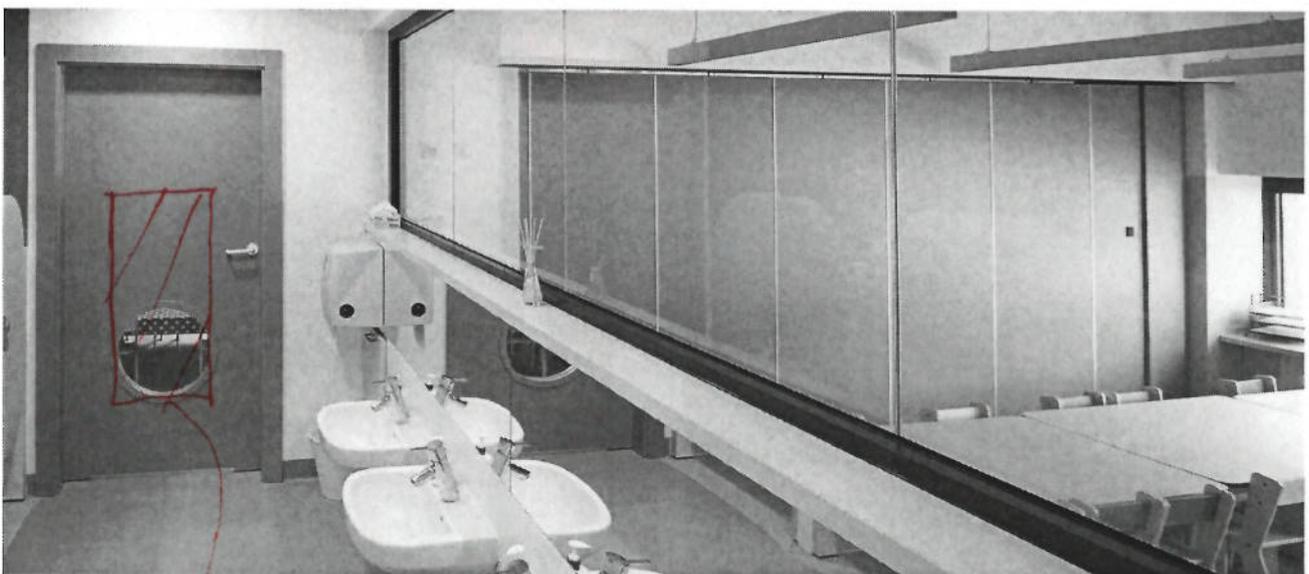


Figure 2-24 Windows from activity rooms provide supervision into the bathrooms.

larger glass viewing panel! should be provided so carers can sight children near doorway (for safety purposes).

## 2.7 Outdoor Environment

Regulations 108, 113 Education and Care Services National Regulations

An education and care service premises must provide for every child being educated and cared for within the centre to have a **minimum of 7.0m<sup>2</sup> of unencumbered outdoor space**. This requirement does not apply to family day care residences.

Unencumbered outdoor space excludes the following:

- any pathway or thoroughfare, except where used by children as part of the education and care program
- any car parking area
- any storage shed or other storage area
- any other space that is not suitable for children
- any area of dense hedges or plantings along boundaries which are too thick in planting and are areas designed not for children to play in.

All unencumbered outdoor spaces must be within a secure and fenced area.

When calculating outdoor space requirements, the area of any additional child is excluded when the child is being cared for in an emergency circumstance as set out in regulation 123(5) or the child is being educated or cared for in exceptional circumstances as set out in regulation 124(5) and (6) of the National Regulations.

### Shade

Education and care services must ensure that outdoor spaces used by children are protected and adequately shaded to prevent overexposure to ultraviolet radiation from the sun. Providing the correct balance of sunlight and shade to play areas is important for the health and wellbeing of children and staff. Controlled exposure to daylight for limited periods is essential as sunlight provides vitamin D which promote healthy muscles, bones and overall wellbeing. Outdoor play areas should be provided with controlled solar access throughout the year.

Outdoor play areas should:

- provide solar access throughout the year to at least 30 per cent of the ground area ?
- provide shade in the form of trees or physical shade structures that provide protection from ultraviolet radiation to at least 30 per cent of the outdoor play area
- shade structures should be evenly distributed over different activity spaces and not just consolidated over one area.

It is recommended that no more than 60 per cent of outdoor space is covered.

*initiates the production of*

*by shade structures.*

*difficult in centres within high-rise buildings!*



Figure 2-25 Covered outdoor space to be open on at least one third of the perimeter.

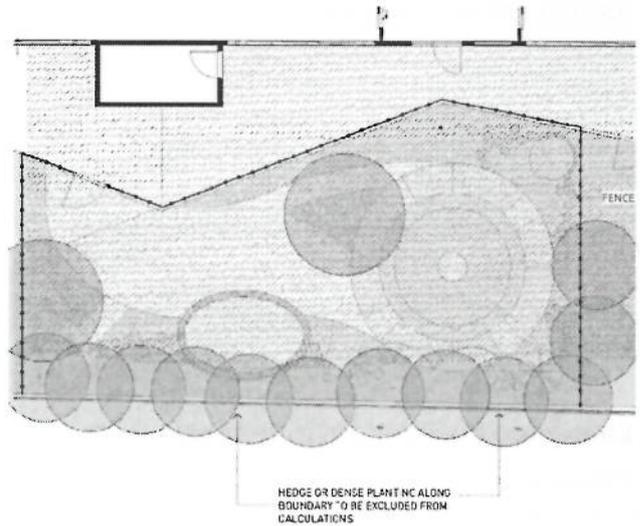


Figure 2-26 An indoor space is designed to be a simulated outdoor space.

### Natural Environment

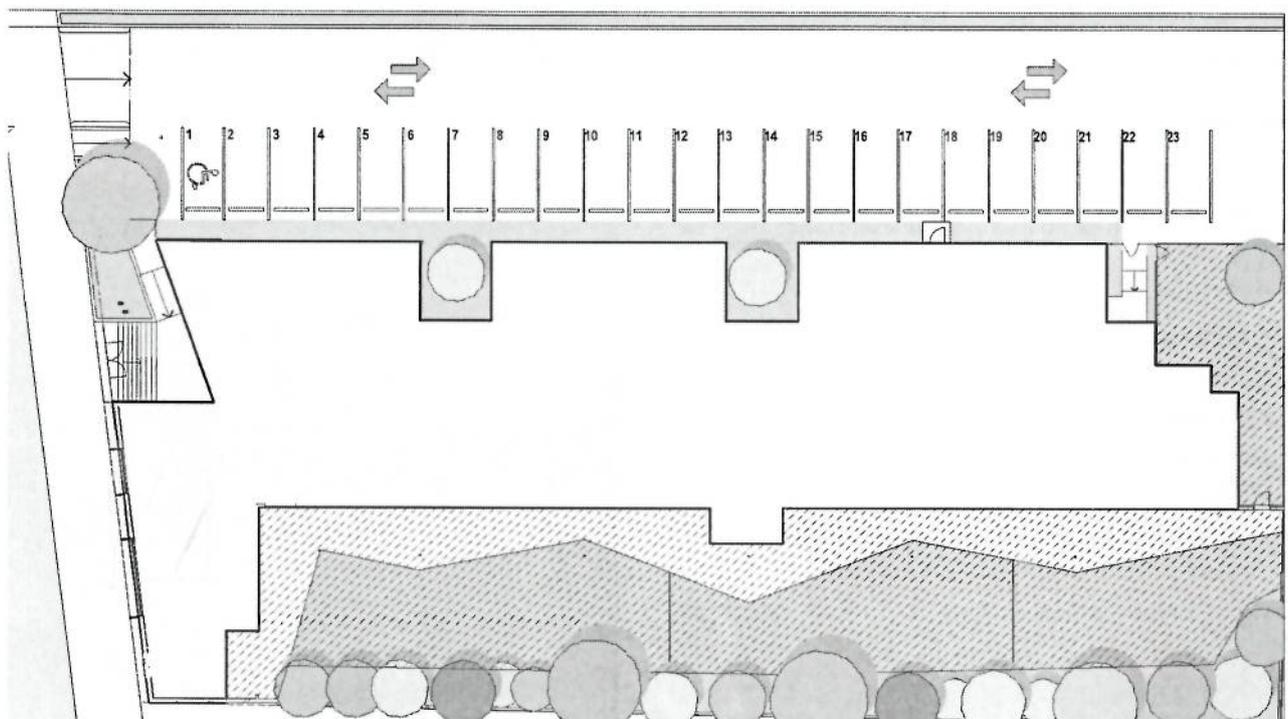
Exploration and learning from outdoor play and the natural environment is very important to the development of children. The provider of a centre based service must ensure that children are provided with natural outdoor environments in which to explore and play.

Exemptions for outdoor space requirements are only granted where an equivalent area of indoor space, simulated to provide an outdoor environment is provided. This simulated outdoor space is provided in addition to indoor space and cannot be counted twice when calculating areas.



**OUTDOOR UNENCUMBERED SPACE**

Figure 2-28 Dense planting along boundaries and other areas not suitable for children is to be excluded when calculating outdoor unencumbered space.



**OUTDOOR UNENCUMBERED SPACE**

Figure 2-27 Areas to be included when calculating outdoor unencumbered space.

## Verandahs as Outdoor Space

Where a covered space such as a verandah is to be included as outdoor space it must:

- be open on at least one-third of its perimeter
- have a clear height of 2.1m
- have a wall height of less than 1.4m where a wall with an opening forms the perimeter.

A verandah that is included in the area of indoor space cannot be included in the area of outdoor space.

## Simulated outdoor environments

Where site constraints restrict the provision of outdoor play areas, indoor areas may be calculated as part of the required outdoor space. Simulated outdoor environments should only be proposed where the outdoor space requirements cannot be met. Proponents should aim to provide the requisite amount of unencumbered outdoor space in all development applications.

Simulated outdoor environments are internal spaces that have all the features and experiences and qualities of an outdoor space. They should promote the same learning outcomes that are developed during outdoor play.

Simulated outdoor environments should have:

- a combination of different floor types including wooding decking, pebbles, grass, bark and artificial grass
- sand pits
- furniture made of logs and stepping logs
- dense indoor planting
- green (vegetated) walls
- climbing frames
- vegetable gardens
- water play areas
- windows and access to natural light and ventilation in excess of that required for an internal space
- skylights can give a view to the sky.

that

No value stated!

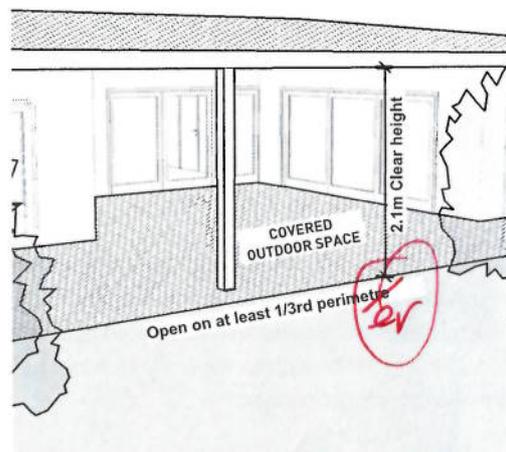


Figure 2-29 Covered areas such as verandahs can be included in outdoor space calculations.



Figure 2-30 Shade structure can be a fixed structural element or a shade sail.



Figure 2-31 Natural environments are important for growth and play.



Figure 2-32 Simulated outdoor environments contain sand pits, rocks and element from the natural environment.

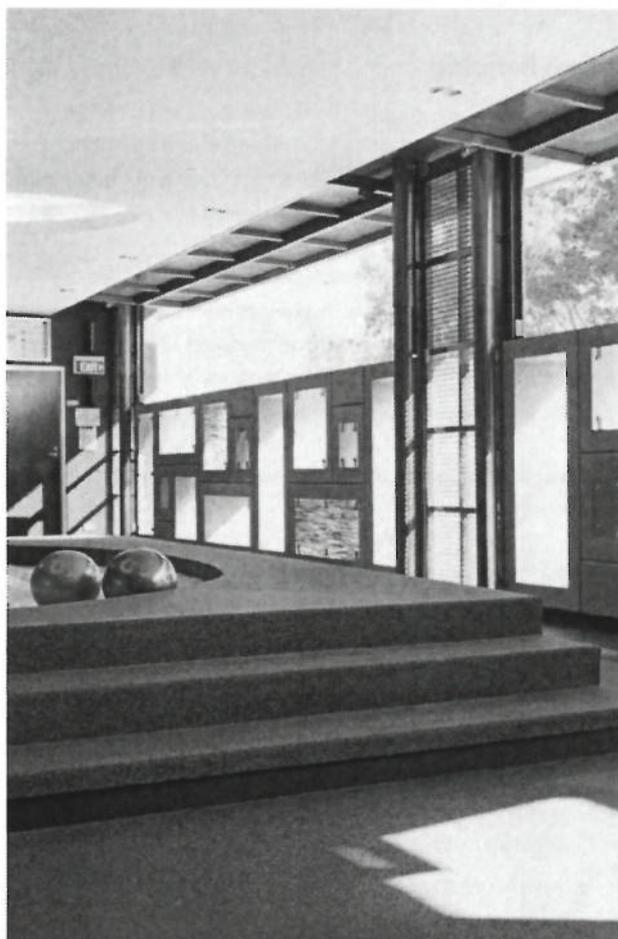


Figure 2-34 Natural ventilation is important to health and amenity. Openable windows located up high are effective at providing ample ventilation.



Figure 2-33 Simulated outdoor environments are only permitted under approval by the Department of Education.



Figure 2-35 Fixed structures can provide a balance of light and shade to outdoor play areas.

## 2.8 Fencing

Regulation 105 Education and Care Services National Regulation

### Front Fencing

Fencing is required around outdoor spaces used by children. This fencing must be designed to prevent children preschool aged or under from being able to go over, under or through the fence into areas external to the outdoor play space.

Improved streetscape outcomes can be achieved where the fence is visually permeable with a height no more than 1.5m. Setting back the fence from the boundary can allow for hedge planting that can provide screening to the play areas and contribute to the landscape character.

On sloping sites, fences and walls should be stepped so not part is higher than 1.8m.

Fencing for the purposes of fencing around outdoor spaces should:

- be a minimum height of 1.2m and no more than 1.5m preferred
- be made from transparent or semi-transparent construction
- have a flat top (a loop or rod top to fence pickets for fences under 1.5m in height increases the risk of hanging points should a child attempt to climb over)
- have no climbing points between 100mm and 900mm from the ground
- have no gaps between pickets greater than 100mm
- any gates to have self closing hinges to AS2890.

### Side and Rear Fencing

Side and rear boundary fence design should ensure the safety of children within the education and care service premises. All side and rear boundary fences, including boundary fences within outdoor play areas, must:

- be made from solid prefinished metal, timber or masonry
- have a minimum height of 1.8m
- have no rails or elements for climbing higher than 150mm from the ground.

In residential areas boundary fencing should also consider the acoustic and visual privacy for the neighbouring properties.

*Need to consider issues of access for people with disabilities.*

*and of material/construction that meets AS1926.1.*

*AS2820*

*AS1926 (Swimming pool barrier fencing).*

*and latches*

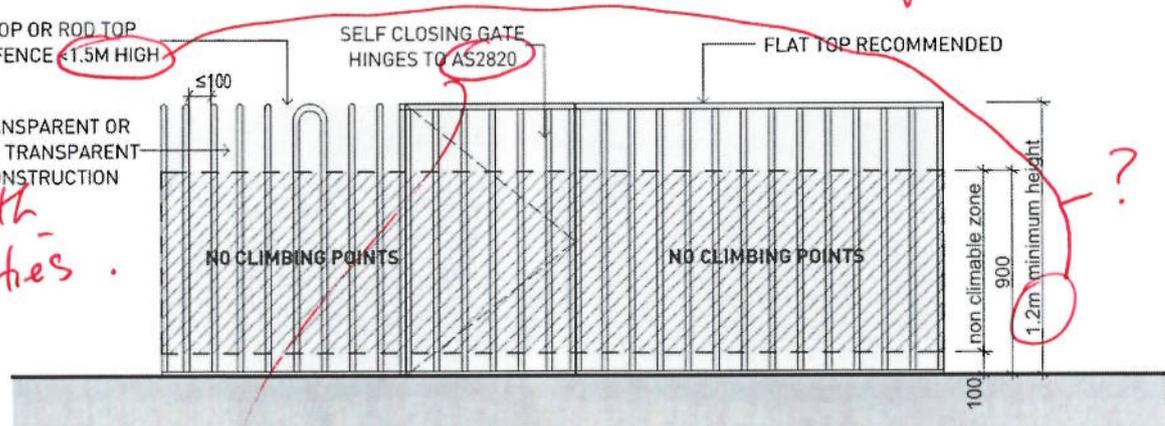


Figure 2-36 Heights and requirements for child care facility fencing (outdoor play spaces)

## 2.9 Design to Facilitate Supervision

Regulation 115 Education and Care Services National Regulation

Child care facilities must be designed to allow for the supervision at all times of all facilities that a child may use, including toilets, nappy change facilities, indoor and outdoor activity rooms and play spaces. The centre must be designed in a way that ensures supervision is maintained throughout use. The dignity of the child must be factored in during the design of supervision:

- In toilet areas, solid cubicle walls up to 1.2m high but without doors provide dignity whilst still allowing for supervision. *screening partitions 900-1200 above the floor level*
- Any windows into bathrooms or nappy change areas are to be away from view of visitors to the centre, the general public or neighbouring properties.
- Reflecting *one-way* mirrors may be used in situations where lines of sight may be compromised by the need for privacy and dignity. *but where supervision is also necessary*

Avoid layouts of rooms that facilitate hidden corners where supervision is poor, or multi room activity rooms for single groups of children.

The use of multi-level rooms should be avoided as supervision will often be compromised or require additional staffing to properly supervise children. If multi-level spaces are used, consider providing areas which can be closed off and used only when under supervision in a controlled activity.

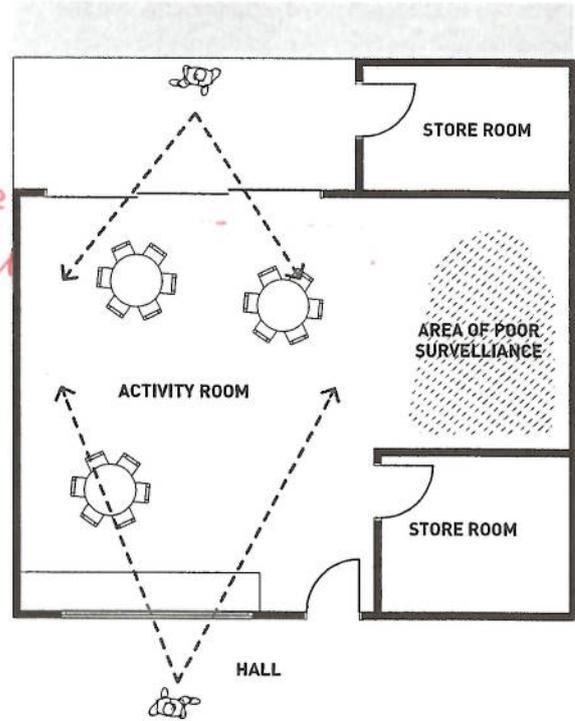


Figure 2-38 Avoid tucked away areas as these reduce effective supervision.

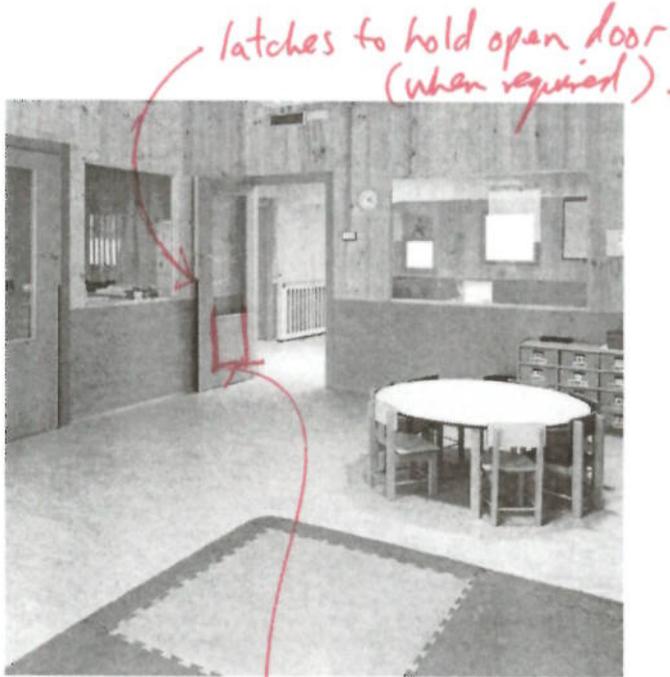


Figure 2-37 Glazed doors and internal windows allows for supervision into rooms within the child care facility.

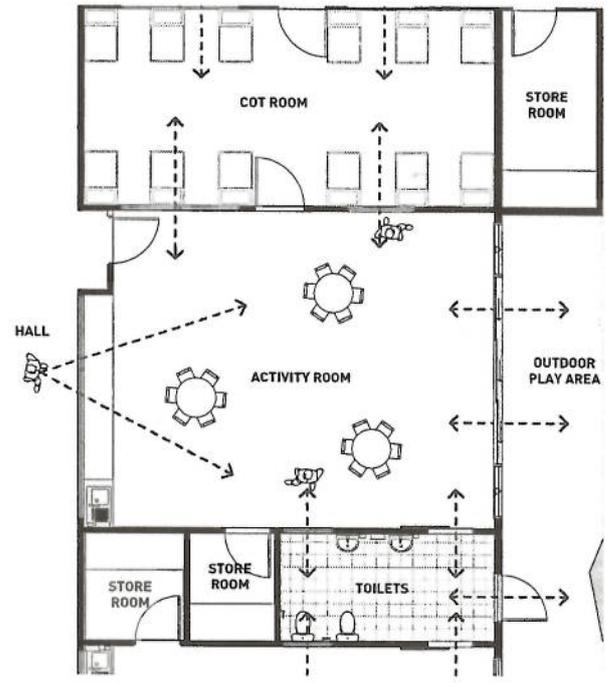
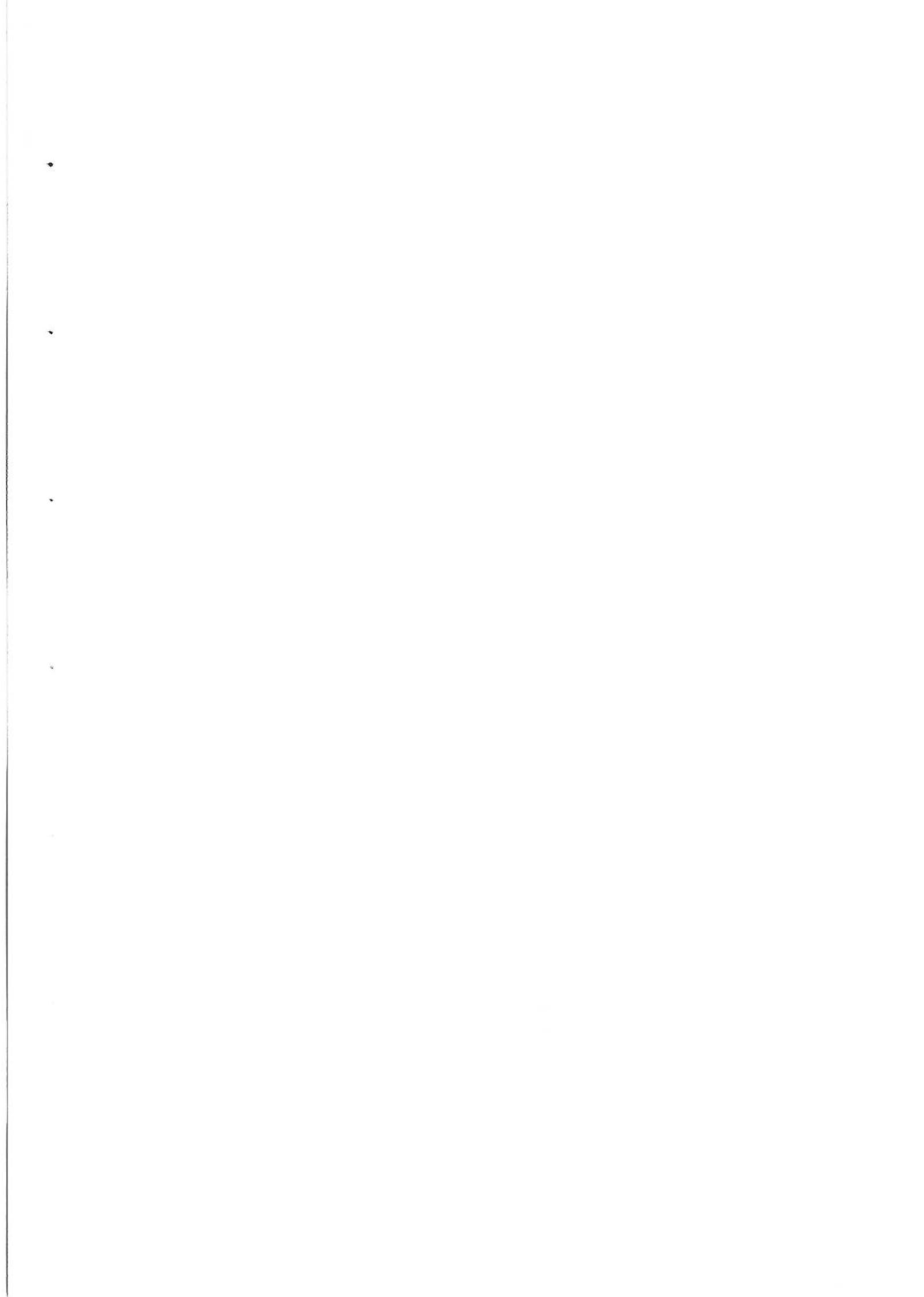


Figure 2-39 Good design of spaces allows for effective supervision between all areas children will occupy.

*for enhanced sighting of children near closed door. (safety when opening door).*



## 2.10 Emergency and Evacuation

Regulation 97 and 168 Education and Care Services National Regulation

Facility design and features should provide for the safe and managed evacuation of children and staff from a child care facility in the event of a fire or other emergency.

Depending on the particular features and location of a centre, compliance with the minimum Building Code of Australia for egress and evacuation may not be sufficient to provide safe evacuation, safeguard children and staff from illness or injury, and provide protection from fire and smoke. Evacuation from multi-storey buildings and mixed use developments may require additional fire safety measures.

### Fire stairs

The Building Code of Australia allows a maximum opening between rails in a fire stair in balustrades of 460mm. To ensure optimal safety and to protect children and staff, proponents should consider making the openings between rails in fire stairs to a maximum of 125mm. A low height handrail can also be provided.

### Mixed use and multi-storey buildings

For security and safety reasons, independent emergency escape routes from the centre to the ground level should be considered ! to separate children from other building users. Where not feasible, a safe haven or separate emergency lift should be considered.

### Safe haven in multi-storey buildings

Provide a fire isolated safe haven where children and staff can muster during the initial stages of a fire alert or other emergency to enable staff to account for all children prior to commencing evacuation using an adjoining fire isolated exit.

*No design standards!*



Figure 2-40 Typical evacuation bag containing products useful for a child care facility

*This is very concerning!  
The BCA needs to be amended to address the special needs and risks of children in high-rise centres.*

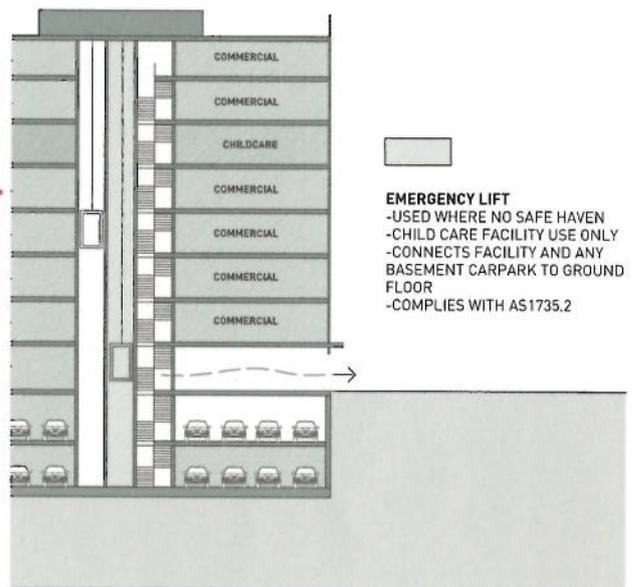
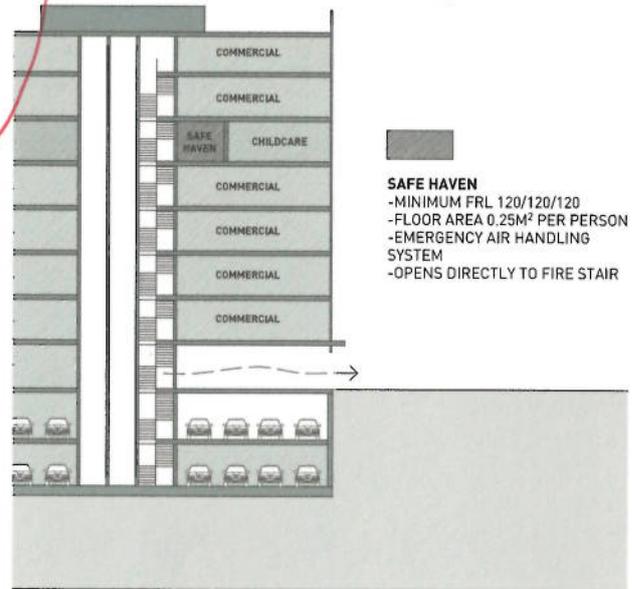
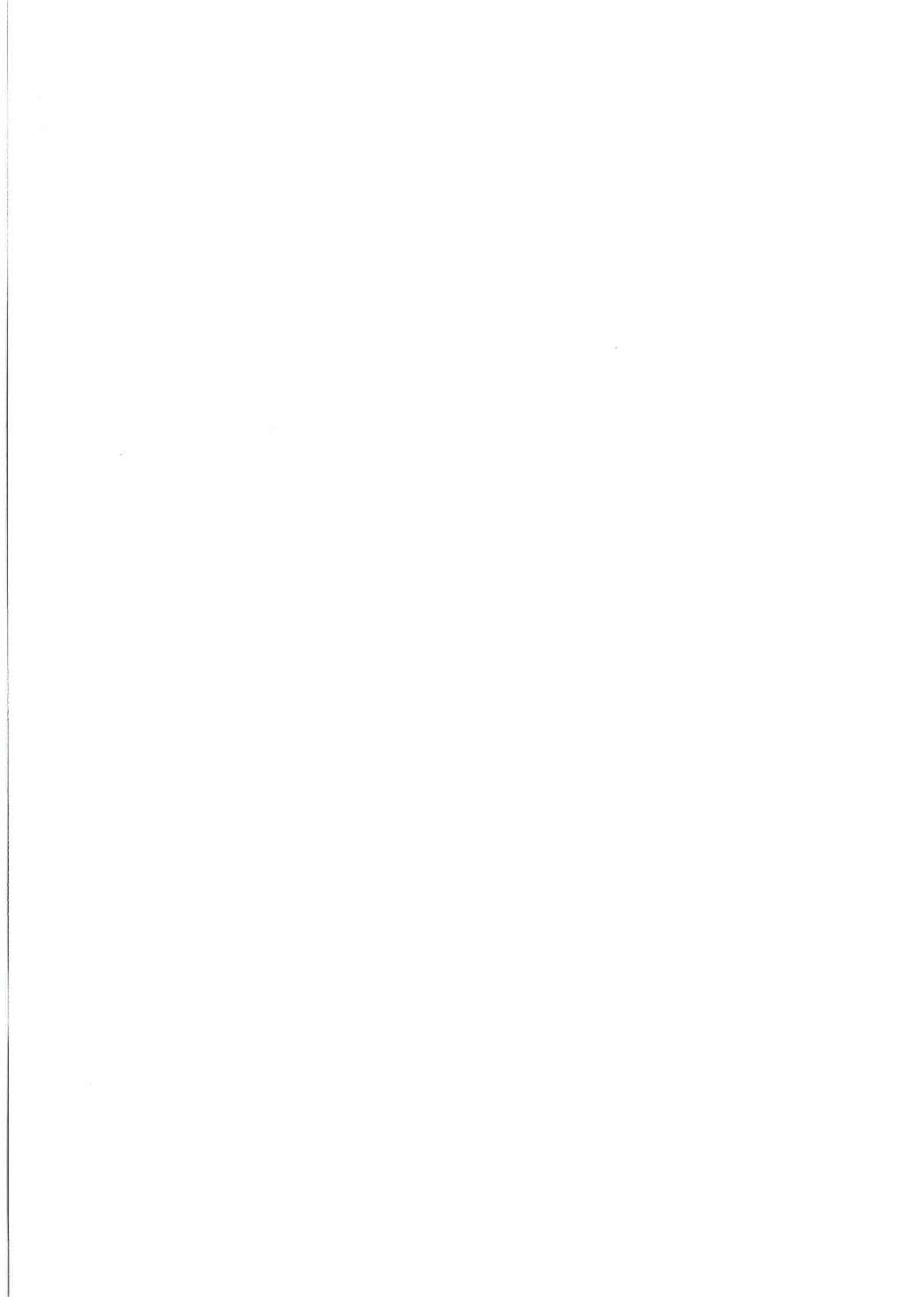


Figure 2-41 Emergency exit strategies for child care facility in mixed use and multi-storey buildings.



## 2.11 National Construction Code

The Building Code of Australia (BCA) is part of the National Construction Code (NCC). The BCA achieves its authority through adoption in the building statutes of each state and territory. In NSW the BCA is called-up in the Environmental Planning and Assessment Regulation 2000.

A child care facility has a building classification of 9b under the BCA being an assembly building.

### Glass

Regulation 117 Education and Care Services National Regulation

Glass used in a child care facility that is accessible to children must be glazed with safety glass or treated with a product that prevents glass from shattering if broken. All glazing used in the child care facility must meet the requirements of B1.4 of the NCC.

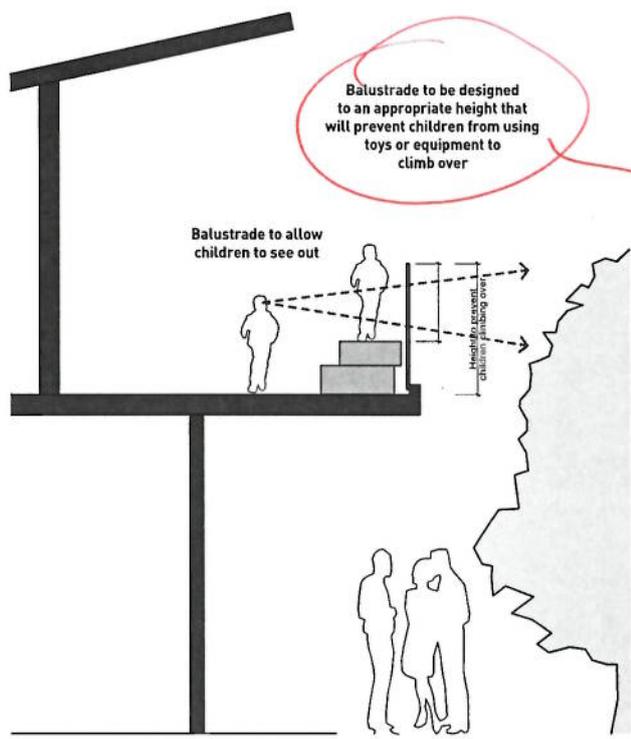
### Barriers to Prevent Falls

In external and internal spaces that are higher than 1m <sup>above</sup> ground or floor level consideration needs to be given to increasing heights of balustrades. The design of the balustrade must be done to ensure that it does not facilitate climbing. Balustrades may need to exceed the minimum height requirement of 1m in areas where children may stack toys or equipment and be able to climb over the balustrade.

- Visual banding or indicators should be provided at low level for children

- BCA requires 50% of windows in children's rooms to have sill height not more than 500mm above floor level.

(BCA, F4.2(d)).



Any issues with toys being thrown off balconies?

Figure 2-42 Balustrade design to prevent falls while still allowing children to look out

## 2.12 Soil Assessment

Regulation 25 Education and Care Services National Regulation and State Environmental Planning Policy No. 55

### Soil Assessment

The Department of Education, as regulatory authority under the National Law, requires an assessment of soil at a site proposed for use as an education and care service, and in some cases, sites already in use for such purposes. Soil assessment is used when considering whether the proposed location is satisfactory for the purpose.

With every service application and development application one of the following is required:

- a soil assessment for the site of the proposed education and care service premises; or
- if a soil assessment for the site of the proposed child care facility has previously been undertaken, a statement to that effect, specifying when the soil assessment was undertaken; or
- a statement made by the applicant that states, to the best of the applicant's knowledge, the site history does not indicate that the site is likely to be contaminated in a way that poses an unacceptable risk to the health of children.

### When the Soil Assessment is required

A soil assessment may be required when children have access to the soil at the service. A soil assessment is not needed if no outdoor space is offered (some restricted approved services), or if the outdoor space has no exposed soil (ie if it is located on the roof of a building).

Where children will have access to soil the Department of Education requires a preliminary investigation of the soil. This includes sites with or without buildings and existing approved children's services where:

- the application is to alter or extend the premises
- the alteration or extension requires earthworks or deep excavations (exceeding a depth of 1 metre)
- the works are going to take place in an area used for children's outdoor play or will be used for children's outdoor play after the work is completed
- a soil assessment has not been undertaken at the children's service.

Minor landscaping, creation of sand pits, movement of play equipment and so on do not qualify as earthworks. These alterations do not require a soil assessment.

### Soil assessment in children's services

Assessing the soil for a children's service approval application may require three levels of investigation:

Stage 1: Preliminary investigation (with or without soil sampling).

Stage 2: Detailed site investigation.

Stage 3: Site-specific human health risk assessment.

An environmental engineer will be able to prepare a soil assessment and determine the type of investigation required.

#### 4. Sustainability

Good design combines positive environmental, social and economic outcomes.

Good sustainable design includes use of natural cross ventilation and sunlight and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials and deep soil zones for groundwater recharge and vegetation.

Well-designed centre-based child care facilities are durable and embed resource efficiency into building and site design, resulting in less energy and water consumption, less generation of waste and air emissions, and reduced operational costs.

Centre-based child care facilities can offer learning opportunities for students and the community in relation to sustainability, resource efficiency and design innovation.

#### 5. Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Well-designed landscapes make outdoor spaces assets for learning. This includes designing for diversity in function and use, age-appropriateness and amenity.

Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values and preserving green networks.

#### 6. Amenity

Good design positively influences internal and external amenity for children, staff and neighbours. Achieving good amenity contributes to positive learning environments and the well-being of students and staff.

Good amenity combines appropriate and efficient indoor and outdoor learning spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, service areas and ease of access for all age groups and degrees of mobility.

Well-designed centre-based child care facilities provide comfortable, diverse and attractive spaces to learn, play and socialise.

#### 7. Safety

Well-designed centre-based child care facilities optimise the use of the built and natural environment for learning and play, while utilising equipment, vegetation and landscaping that has a low health and safety risk, and can be checked and maintained efficiently and appropriately.

Good centre-based child care facility design balances safety and security with the need to create a welcoming and accessible environment. It provides for quality public and private spaces that are inviting, clearly defined and allow controlled access for members of the community. Well-designed centre-based child care facilities incorporate passive surveillance and Crime Prevention Through Environmental Design (CPTED).

and security

## Siting the Development

### 3A Location

Centre-based child care facilities are not suited to every site. The location and physical context of a centre-based child care facility should be safe and healthy for children. Centre-based child care facilities should also be compatible with the surrounding land uses.

The range of matters to consider will vary according to the location and setting of the site and the type of development being proposed. The table on the following page summarises examples of relevant considerations by land use typology across NSW.

To minimise the potential for land use conflicts the following matters should be considered for new development and alterations and additions to existing buildings.

#### Child care in or adjacent to a residential zone

Where the development is the only use on a site zoned for residential purposes, or adjoining land zoned for residential purposes, consider:

- the acoustic and privacy impacts of the proposed development on the residential properties
- the setbacks and siting of buildings within the residential context

• traffic impacts and parking ??

#### Child care in industrial zones

Where a proposed development is on land located in development is on land zoned IN1 General Industry or IN2 Light Industry consider:

- whether the proposed use is compatible with neighbouring land uses, in particular with regard to its proximity to sensitive or hazardous land uses
- whether the proposed use has the potential to inhibit or restrict the operation of existing industrial land uses
- whether the location of the facility will pose a health or safety risk to children, staff or visitors.

#### Commercial and industrial zones

Where the development is the only use on a site zoned for commercial/industrial purposes, or adjoining land zoned for commercial/industrial uses, consider:

- the potential for local environmental or amenity issues such as air or noise pollution, to impact on the health and wellbeing of children, staff and visitors the proposed centre-based child care facility;

- the potential for local traffic conditions to have a detrimental effect on the safety of the children, staff or visitors to the proposed centre-based child care facility
- the potential for the proposed centre-based child care facility to reduce the viability of existing commercial or industrial areas
- in retail centres, the potential for the proposed centre-based child care development to adversely impact on the streetscape and active street frontages.

#### Mixed-use development

Where the construction of a new centre-based child care facility, or alterations and additions to existing facilities, includes a use other than child care that is located on the same site, either in the same or in separate buildings on the site consider:

- in high-rise buildings, the provision of fire safety and evacuation facilities that are suitable for use by children
- proximity and access to, and compatibility with, other uses such as light industrial uses, commercial offices, licensed premises and gaming rooms
- any objectives and design criteria for the area.

#### Retrofit of existing buildings

Retrofitting and design of buildings, particularly warehouses and commercial spaces, should consider the safety, wellbeing and amenity of the children who will use the centre by:

- ensuring that there is adequate natural light and windows
- checking existing glazing is safety glass and meets the relevant *Building Code of Australia* and *Australian Standards*
- undergoing a *National Construction Code*-Section J assessment by a qualified energy consultant to ensure that the insulation and thermal comfort of the retrofitted building is suitable for a centre-based child care facility
- having an appropriately licensed person determine if any existing building materials contain asbestos or existing paintwork contain lead and have removal of contaminated materials carried out by licensed professionals

- considering the location of drop off, parking and play areas in areas that are predominantly light industrial or commercial, noting that the use of heavy trucks on these roads can pose a safety risk to children and the location of play areas should be away from main roads to minimise accident risk

- when retrofitting ground floor commercial buildings with

Needs a re-write.

large windows to the street front, considering the privacy to the children in the centre, while still maintaining an appealing streetscape frontage, through use of privacy screens and balancing privacy, natural light and a quality street frontage

- locating the entry to centres located in a mixed use commercial building to minimise safety risks presented by the movement of people and possibly goods *to and from the building.*

**Priority consideration by land use type**

Urban / rural typology	Considerations
High-rise mixed use developments in city or town centres	Fire safety and evacuation plans in high-rise buildings allow safe passage of small children from the building
	Proximity to sensitive and uses such as brothels <i>land uses including</i>
	Storage space for prams and strollers for families who walk
High density, low rise urban areas	Use of outdoor space - noise
	Traffic and off-street parking
	Proximity to hazardous uses
	Location on busy roads
Low density residential / suburban	Built form
	Built form - context
	Traffic and parking
	Noise and other amenity impacts
Industrial areas	Size of centre
	Proximity to hazardous uses
	Types of vehicles, volume
Commercial areas	Health and environmental impacts - air/ noise pollution
	Proximity to transport
	Parking and traffic generation
	Amenity of the commercial centre
	Impact on viability and operation of existing uses

**Design Criteria 3A**

The objective is to ensure that sites for early childhood education and care facilities are appropriately located

1. A centre-based child care facility is not to be located on a site adjoining a high-rise building, or a busy road, or an odour generating use or other potential health hazard if the centre cannot be designed to avoid negative health and amenity impacts to children and staff *for loss of amenity*
2. A centre-based child care facility is not to present an unsafe risk to children, staff or visitors from:
  - wind tunnels and downdraft created by high-rise buildings
  - pollution created by car and other vehicle fumes
  - proximity to LPG tanks *- how many metres?*
  - contaminated land *on or near a centre.*
  - lead in painted surfaces, carpets, furnishings and roof void in existing buildings
  - asbestos in existing buildings
  - mould and mildew in existing buildings
  - proximity to water cooling and water warming systems *any guidance re distances?*
  - proximity to noise sources *- what levels? define*
  - proximity to odour (and other air pollutants) generating uses and sources *define*
  - existing and potential on and off-site electromagnetic fields 50Hz and radio frequency fields 3KHz - 300GHz *- distance from source?*
3. A Noise Management Plan is required where centre-based child care facility is proposed in any of the following locations:
  - Industrial zoned land
  - an ANEF contour
  - along a railway or mass transit corridor, as defined by the ISEPP *expand (full name).*
  - on a major or busy road *- specify number of vehicles*
  - other land that is impacted by substantial external noise. *to address external noise sources/impacts*
4. Centre-based child care facilities should not be located adjacent to incompatible uses that could negatively impact on:
  - child protection and safety; and
  - children's health.

## 3B Building Envelopes - Heights and Setbacks

A building envelope is determined by the permissible building height and site setbacks. *From property boundaries*

Building height is an important component of the building envelope. It helps shape the desired future character of a place relative to its setting and topography. It defines the proportion and scale of streets and public spaces and has a relationship to the physical and visual amenity of the public and private realms. Variations in building height create visual interest, respond to topography and emphasise elements of the urban context. Building height should be informed by decisions about daylight and solar access, roof design and use, wind protection, residential amenity, landform and heritage. Height must have regard for the scale of adjoining development.

Setbacks govern space between proposed buildings and other elements in the environment. Usually, setbacks are expressed as distance of building from property boundaries. However, they can also refer to the separation between multiple buildings on a single site. They relate to the height of the building. Setbacks are important to the amenity of new development and buildings on adjacent sites.

Setbacks to the street establish the alignment of buildings along a street frontage, spatially defining the width of the street. Combined with building height and road reservation, street setbacks define the proportion and scale of the street and contribute to the character of the public domain.

Where there are no building height or setback controls in the relevant local environmental plan or development control plans, the following matters may be considered to minimise the impacts of centre-based child care facilities on local character:

- building height should be consistent with other buildings in the locality
- building height should respond to the scale and character of the street
- setbacks should allow for adequate privacy for neighbours and children at the proposed centre-based child care facility
- setbacks should provide adequate access for building maintenance
- setbacks to the street should be consistent with the existing character.

### Design Criteria 3B

The objective of this design criteria is to ensure that the scale of the centre-based child care facility is compatible with adjoining development and the impact on buildings on adjoining properties is minimised.

1. The height of a building is not to exceed the height in an LEP or DCP that applies to the land.
2. If there is no height limit in an LEP or DCP then the maximum height of building is:
  - Residential zoned land - 8.5m *the proposed*
  - In any other zone - 12m.

The objective of this design criteria is that setbacks from the boundary of a centre-based child care facility are to be consistent with the predominant development within the immediate context

3. The minimum setback to a classified road is 10m
4. The setback to the road frontage is to be at least:
  - the average setback of the two closest buildings where there are existing buildings within 50m; or
  - where there are no buildings within 50m, the same as required for the predominant adjoining land use.
5. On land in a residential zone, the setback to a side boundary is to consider the side setback patterns of adjoining development.

*What about rear boundaries?*

## 3C Landscaped Area

Landscaping of centre-based child care facilities can play an important role in integrating facilities into the surrounding streetscape and context. Good integration of facilities with the surrounds benefits neighbours and future residents.

Landscaping is important in educational spaces (see Section 2.8). Centre-based child care facilities that provide opportunities for outdoor learning, with good connections to internal learning areas, can integrate interpretive and educational opportunities within the landscape plan. Landscaping can also assist in providing shaded areas for outdoor play.

To maximise the benefits of the existing landscape and provide a high quality landscaped area, the following matters may be considered:

- landscaping should reflect and reinforce local context where it is feasible
- natural features of the site, such as trees, rocky outcrops and vegetation communities should be incorporated into landscaping where ever feasible
- existing stands of trees, particularly in rear setbacks, should be identified and retained to provide a natural source of shade for play areas
- spatial configurations of landscaped areas should assist supervision and minimise opportunities for bullying and antisocial behaviour
- outdoor learning, socialisation and recreation can be enhanced by the use and positioning of urban furniture/ play equipment in configurations that facilitate interaction
- planting for shade and solar access is enhanced by:
  - appropriately scaled trees near the eastern and western elevations
  - a balance of evergreen and deciduous trees to provide shade in summer and sunlight access in winter
  - shade structures such as pergolas for balconies and courtyards.

*strategically positioned*

### Design Criteria 3C

The objective of this design criteria is to provide landscape design that contributes to the streetscape and amenity.

1. Landscape features including trees and rock outcrops should be retained where feasible.
2. Appropriate planting with a minimum mature height of 2m should be provided along the boundary to residential properties to provide screening. This planting area is to be excluded from any outdoor play area calculation.
3. Landscaping in the front setback should positively contribute to the streetscape and neighbouring amenity.

The objective of this design criteria is to provide a safe learning environment for children and contribute to their learning outcomes.

4. No area within the centre-based child care facility is to contain plant species that have the following characteristics:
  - plants known to be poisonous or that produce toxins
  - plants with high allergen properties
  - plants with thorns, spikes or prickly foliage
  - plant species that may place the health, safety and welfare of the centre's users at risk.
5. The outdoor play area is designed to provide a variety of experiences that facilitate the development of cognitive and physical skills, provide opportunities for social interaction and appreciation of the natural environment.



Figure 3-1 Retain existing trees where possible.



Figure 3-3 Direct access to outdoor play areas from indoor activity areas is important. *essential.*

*low height visual indicators  
(see p. 29)*



Figure 3-2 Rocky outcrops can be retained and used within the landscape.



Figure 3-4 Outdoor play areas are important for growth and development.

## 3D Local Character and Context

A detailed understanding of the overall site context is the starting point for creating a well-designed and integrated centre-based child care facility. Context is the character and setting of the area within which the facility will sit. This character and setting is influenced by environmental/physical, economic and social factors.

Understanding the history of a place, how it developed, the people who live there and how it functions encourages developments that are more effectively and appropriately designed and positioned.

The key priorities to consider when responding to character and context are:

- Communities – understanding social dynamics can help developments reinforce local communities.
- Place – drawing inspiration from indigenous character and heritage can strengthen local identity.
- Natural resources – maximising use of the sites intrinsic resources can create more sustainable developments.
- Connections – understanding existing street and road linkages can help develop an effective and integrated movement framework.
- Feasibility – ensuring schemes are economically viable and deliverable.
- Vision – understanding the aspirations of the site within the setting of the wider area.

These elements are inter-related and all rely on each other to make a well-designed sustainable place which responds well to context.

### Design Criteria 3D

The objective of this design criteria is for the built form, articulation and scale to relate to the local character of the area and the context.

1. Provide a design statement that explains how the built form of the development contributes to the character of the local area, including how it:
  - respects and responds to its physical context such as adjacent built form, neighbourhood character, streetscape quality and heritage
  - retains and reinforces existing built form and vegetation where significant
  - considers heritage within the local neighbourhood
  - responds to its natural environment including local landscape setting and climate
  - contributes to the identity of the place.

A design statement template is provided at Appendix 1.

### 3E Public Domain Interface

The public domain interface is the transition area between the centre-based child care facility, its private or communal space at the street edge and the public domain. The built form at the edges defines the spatial proportions of the street and the street edge.

The interface of the development contributes to the quality and character of the street. Subtle variations through planting and boundary treatments such as walls and fencing can create an attractive and active public domain with a pedestrian scale. Long, high blank walls or fences can detract from the appearance of the public domain and impact on the safety of pedestrians and users of the facility.

Windows overlooking the street can improve safety and social interaction through passive surveillance.

Key components to consider when designing the interface include entries, fences and walls, changes in level, service locations interactions with outdoor play spaces and the location and size of street-facing windows. The design of these elements can influence the real or perceived safety and security of children and the identity of the development.

A centre-based child care facility needs to address the streetscape in scale and rhythm of built form. Avoid play areas located against front boundaries and instead provide landscape in front of the fence or play area. A desirable outcome is to have main play areas located away from front setbacks. *to improve motor vehicle safety*

To establish clear delineation between the centre-based child care facility and public spaces, the following matters may be considered:

- creating a threshold by providing a clear transition between public and private realms. This transition can include fencing to provide safety to children entering and leaving the facility.
- windows from the facility should face the public domain, provide passive surveillance to the street and visual interest. Windows can also provide a connection between the facility and the community and may include changing displays.
- Areas where people can be ~~hidden~~ *hide themselves* or concealed ~~should~~ *hide themselves* should be avoided.

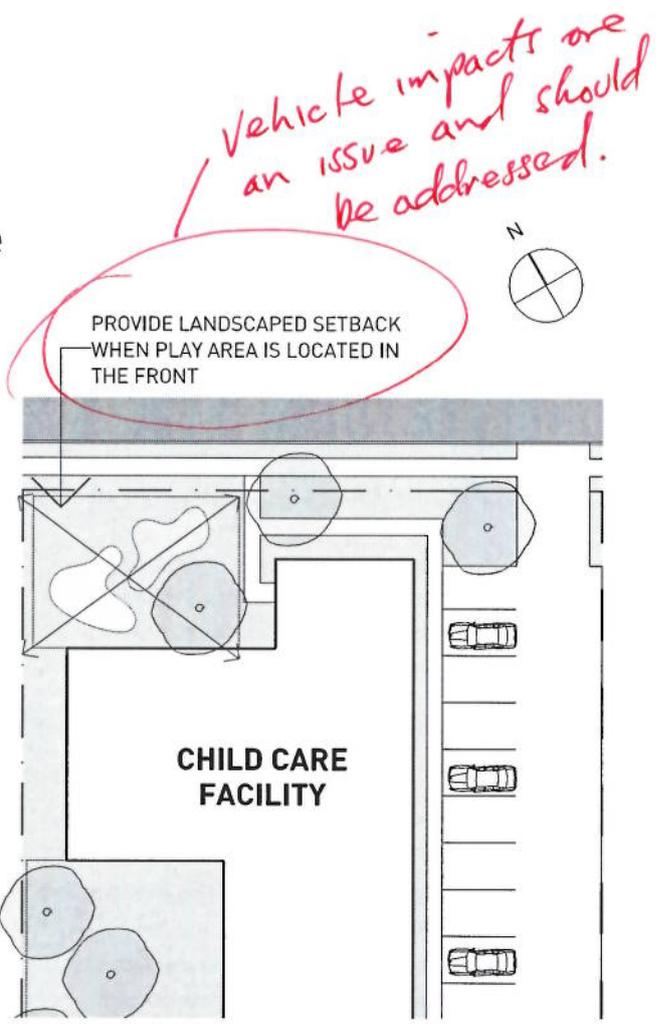


Figure 3-5 Provide a landscape buffer if play areas face the streetscape.

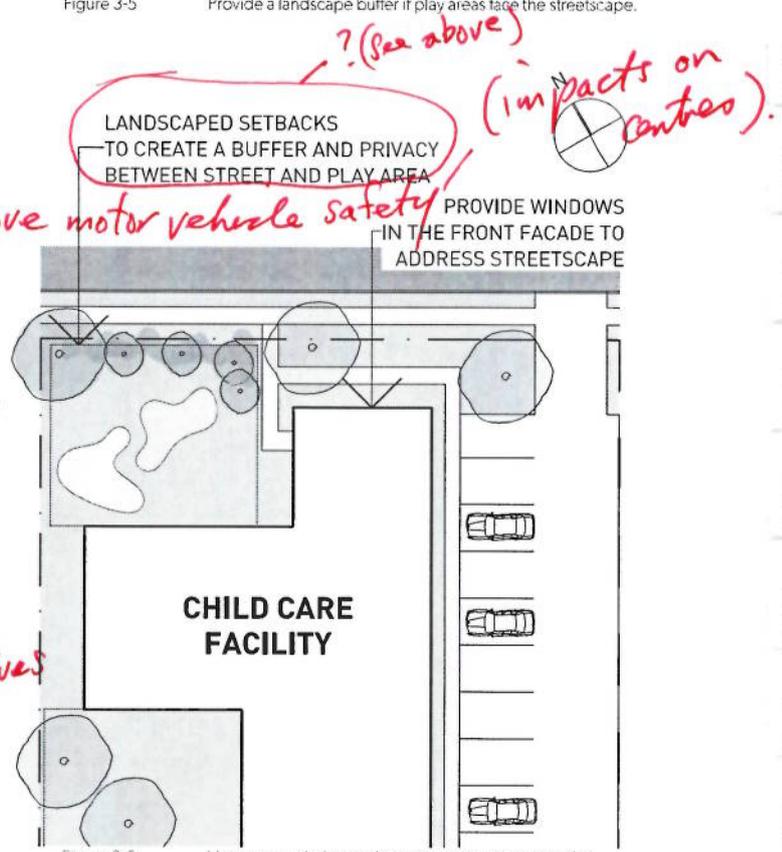


Figure 3-6 Have some windows orientated to the streetscape for supervision as well as visual interest.

- On sites with multiple buildings and/or entries, pedestrian entries and spaces associated with the centre-based child care facility should be differentiated to improve legibility for visitors and children by:
  - changes in materials
  - plant species
  - colours.
- The visual prominence of an underground car park should be minimised and located at a low level where possible. Where it is more than 1m above ground level, ventilation should be integrated with the overall façade design by using 'hit and miss' brickwork, or integrated with the cladding finishes so it is concealed.
 

*the ceiling*

*of driveways and entries to*
- Ramping for accessibility should be minimised by considering building entry locations and where ground floor levels are in relation to footpath levels.
- Where development adjoins public parks, open space or bushland, the design should positively address this interface and adopt some of the following design solutions:
  - clearly defined street access, pedestrian paths and building entries;
  - paths, low fences and planting which delineate communal/private open space from adjoining public open space; and
  - minimal use of blank walls, fences and ground level parking.
- Retention of existing trees and generous planting in the front setback should provide a positive contribution to the streetscape.

### Design Criteria 3E

The objective of this design criteria is that front fences and retaining walls do not dominate the public domain and instead, respond to and compliment the context and character of the area.

1. Front fences and walls within the front setback are to use visually permeable materials and treatments.
2. The maximum fence height within the front setback is 1.5m, with an average no greater than 1.7m. *for sloping sites*
3. Where the fence or retaining walls exceed 1.2m in height it is to be setback at least 0.6m from the street boundary and provide planting with a mature height of at least 1m between the fence and the boundary. *installing curves or openings*
4. High solid acoustic fencing is only to be used to shield the centre from the noise from classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary with landscape planting provided between the wall and the boundary, with a mature height of at least 1.5m.

The objective of this design criteria is to ensure the design of fencing provides for safety and amenity, suits the purpose for which it is required and contributes positively towards the streetscape.

5. Fencing and gates are to be designed to ensure adequate sightlines for vehicles and pedestrian safety in accordance with Australian Standards and Roads and Maritime Services Traffic Management Guidelines.
  6. Gates are to be designed to prevent children leaving/entering unsupervised by use of childproof locking systems. *(foot barrier design would)*
  7. ~~The maximum fence height within the front setback is 1.5m, with an average no greater than 1.7m on sloping sites.~~ *repeated*
  8. Where the proposed development has a frontage to public space, or is in a retail or commercial area, the centre it is to provide shopfront windows and openings that provide views into the centre or contain display windows.
- be acceptable however could be a foot access for persons with disabilities.*

## 3F Pedestrian and Vehicle Access

Providing safe vehicle and pedestrian access and providing for the safe movement of children on the site is paramount to the operation of a centre-based child care facility. Planning and design of centre-based child care facilities should aim to deliver a safe environment for pedestrians, particularly children, motorists and cyclists on the site. Vehicular access and parking should not detrimentally affect the traffic safety of surrounding areas. Providing suitable parking arrangements for staff, parents, visitors, emergency vehicles and service vehicles will improve convenience. Designing car parking arrangements to enhance the streetscape character and have minimal visual impact will benefit the neighbourhood.

To provide a safe environment for pedestrians, cyclist and motorists, consideration may be given to the following:

- providing separate pedestrian and vehicle entries from the street
- providing pedestrian paths that are wide enough so that two prams can pass each other
- providing clear and safe pedestrian paths from car parking areas to the building entry
- establishing separate loading facilities that are clearly designated or have deliveries carried out outside the operational hours of the centre
- deliveries to the centre occurring outside the typical drop off and pick-up times
- where car parking is provided in a basement:
  - locate car park entries behind the building line;
  - integrate basement entries with the overall building façade
  - locate the driveway to one side at the lowest point on the site to reduce visual prominence.
- restrict vehicle access to the site from classified roads
- in mixed use developments:
  - clearly defined, separate entrances are to be provided for the centre-based child care facility components of the building; and
  - parking for the centre-based child care facility should be clearly separated from parking for other uses.

- car parking within the front setback should consider the context - it may be appropriate to limit car parking in the front setback in areas with predominantly landscaped setbacks
- provide planting to larger car parking areas to provide shade to the cars and reduce summer heat that can radiate into the building. Consider planting 1 medium size tree for every 4 car spaces.

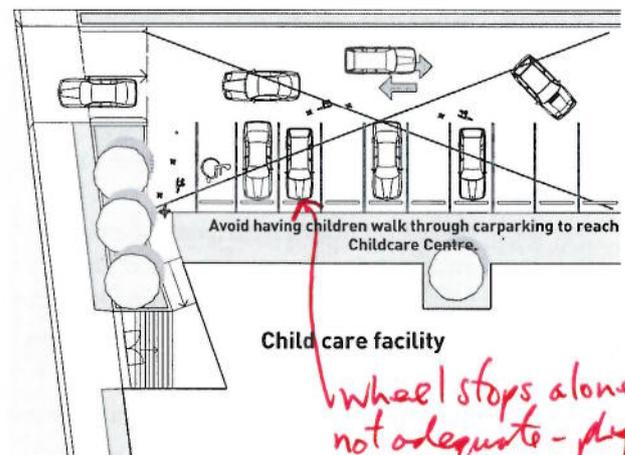


Figure 3-7 Diagram showing poor carpark design resulting in children having to walk through traffic to reach the centre.

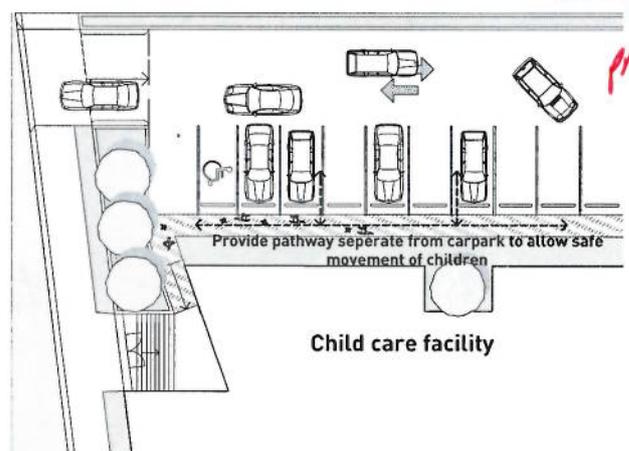


Figure 3-8 Diagram showing good car park design with separate path allowing access to and from cars without the need to walk through traffic.

*only possible for corner sites or where rear access is available.*

*Difficult to read in printed form - Could be placed larger.*

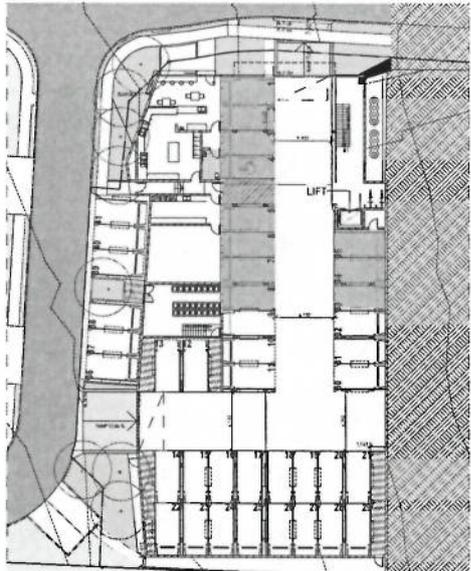


Figure 3-9 In mixed use buildings, carparking for childcare should be located closest to the lift or to the childcare component of the building.

**Design Criteria 3F**

The objective of this design criteria is to provide a safe, connected environment for pedestrians and clear entrance to the facility.

1. The main centre entry is to be directly visible from the street frontage.
2. Separate pedestrian access is to be provided from the car park to the centre entry without the need to walk through the vehicle aisle. Include defined pedestrian crossings within larger car parking areas.
3. Car parking areas are to be separated from the building entrance and play areas by a child safe fence / barrier *playrooms/nursery*
4. Vehicles are to enter and leave the site in a forward direction.
5. In commercial or industrial zones and mixed use development, the path of travel from the car parking to the centre entrance is to be physically separated from any truck circulation or parking areas.

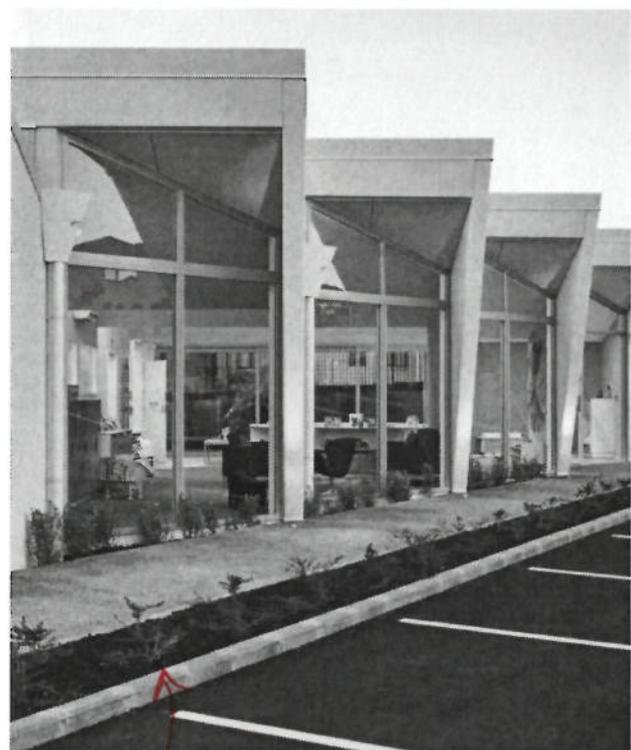


Figure 3-10 Separation of parking and pedestrian foot paths

The objective of this design criteria is to ensure that parking at the centre-based child care facility does not dominate the streetscape.

6. *the ceiling of* Basement car parking not to protrude more than 1m above finished ground level except at the entrance to the car park.
7. Centre-based child care facilities in commercial and mixed use developments in retail centres should avoid positioning parking on the active street frontage.

The objective of this design criteria is to provide vehicle access from the street in a safe environment that does not disrupt traffic flows

8. Centre-based child care facilities are not to have direct street frontage access to a classified road, or any other road which in the opinion of the consent authority is unsuitable for a centre-based child care facility, having regard to:
  - the prevailing traffic conditions
  - pedestrian and vehicle safety including bicycle movement
  - the likely impact of the development on traffic.

*Wheel-stops are not adequate to prevent vehicles crashing onto pathways or into centres !!!*

## 3G Orientation

Orientation refers to the position of a building and its internal spaces in relation to its site, the street, the subdivision and neighbouring buildings, vistas and weather factors such as sun and wind. Building orientation influences the urban form of the street and building address. In residential areas facility orientation directly affects residential amenity including solar access and visual and acoustic privacy.

To maximise amenity through solar access, visual and acoustic privacy, consideration may be given to:

- the amenity of adjoining properties in the location
- locating outdoor play areas away from residential dwellings to reduce noise impacts
- minimising privacy impacts to residential properties by locating outdoor play areas away from adjoining dwellings
- avoid overshadowing of adjoining residential properties by increasing setbacks to the south;
- respond to the local topography by minimising cut and fill
- utilise sloping sites to accommodate car parking under the building footprint
- ensure buildings along the street frontage define the street by facing it and with direct access from the street where possible
- orientate the internal play rooms to maximise solar access and daylight.

*What happens to dwellings less than 3m?*

### Design Criteria 3G

The objective of this design criteria is for the centre to respond to the streetscape and site while optimising solar access and opportunities for shade within the development.

1. The main entry to the child care facility should face a public street.
2. The site and building layout allow solar access to internal and external play.
3. Windows are provided facing the street.
4. Develop a site layout that minimises potential noise and overlooking impacts by facing doors and windows away from private open space, living rooms and bedrooms in adjoining residential properties and *placing* facing play equipment away from common boundaries with residential properties

The objective of this design criteria is that overshadowing of adjoining residential properties is minimised during winter

5. Where the centre is adjacent to a dwelling:
  - The window to a living room of an adjoining dwelling that is more than 3m from the boundary is to receive more than 2hrs of solar access between 9am and 3pm on the winter solstice (June 21)
  - Where the above criteria is not satisfied, the proposed development ensures solar access to neighbouring properties is not reduced by more than 20 per cent.
  - Where private open space and living room windows of an adjoining dwelling cannot be verified the proposed development is accommodated within a building envelope defined by a 35° plane at 3.6m above the boundary.
6. In mixed use developments only, where a centre-based child care facility is located above ground level:
  - Outdoor play areas protect children from wind and other climatic conditions including *down drafts* from buildings and nearby buildings; and
  - A child safe barrier at the edge is at least 1.8m high but has visual transparency to all views from children playing on the ground.

## Amenity

### 3H Visual Privacy

Visual privacy allows residents on adjacent properties to occupy their private space without being overlooked by centre-based child care facilities and centre-based child care facilities are not to be overlooked by neighbouring properties.

Privacy is influenced by the activities in each of the spaces where overlooking may occur, the times and frequency these spaces are being used, the expectations of occupants for privacy and residents' willingness to reduce overlooking with screening devices.

To provide visual privacy between buildings and for neighbouring buildings, consider the following design solutions:

- on sloping sites, use of landscaping to provide privacy
- internal spaces should be located and oriented to maximise privacy
- privacy screens can be used where windows above ground floor may have direct views in to residential properties
- privacy screens should not completely restrict views of the centre to the sky and surrounding area.

*appropriately designed*



Figure 3-11 Privacy screens and walls provide privacy to play areas in busy environments whilst still providing visual interest.

#### Design Criteria 3H

The objective of this design criteria is to protect the privacy and security of children attending the centre, without restricting the opportunity for children to view safely out from the centre's indoor and outdoor play areas to assist their visual development.

1. Indoor areas adjacent to public areas shall be screened to prevent direct sight lines into child care facilities ~~where appropriate~~ whilst maintaining an opportunity for children to view community life. *play spaces and other private spaces of*
2. Direct overlooking of indoor amenities and outdoor play spaces from public areas should be minimised through design features that could include:
  - appropriate site and building layout
  - suitable location of pathways, windows and doors
  - permanent screening and landscape design.

*effective*

The objective of this design criteria is to minimise the adverse impact on privacy of adjoining properties.

3. Direct overlooking of adjoining main internal living areas and private open spaces should be minimised through:
  - appropriate site and building layout
  - suitable location of pathways, windows and doors
  - landscape design and screening.

*effective*

## 31 Acoustic Privacy

Acoustic privacy involves reducing sound transmission between activity rooms and outdoor play areas and between the centre-based child care facility and its neighbours. Designing for acoustic privacy requires a consideration of the site context, surrounding uses, building separation, the location of public and private open spaces and the arrangement of internal spaces in a building.

For constrained sites near a rail corridor, major roads or underneath flight paths, refer to section 20 Noise and Pollution.

Design and site layout should be used to respond to reduce acoustic impacts. Outdoor areas in close proximity to residential uses can be designed to encourage more passive activities. At least 50 per cent of the outdoor play areas should be able to be used for at least 70 per cent of the operational time.

To further minimise the risk of reduced acoustic privacy to neighbouring premises, consider:

- locating outdoor play areas away from residential dwellings and other sensitive uses
- providing physical barriers between the outdoor areas and the noise receivers
- using acoustic attenuation measures to reduce reflected noise
- where located within a mixed use building that contains apartments, treat windows of dwellings to satisfy the noise design criteria
- submit a noise management plan which may be incorporated into the facility management plan
- design and site layout should be used to respond primarily to reduce acoustic impacts. Outdoor areas in close proximity to residential uses can be designed to encourage more passive activities. At least 50 per cent of the outdoor play areas should be able to be used for at least 70 per cent of the operational time.

*Repeated*

*What about impacts on natural ventilation?*

### Design Criteria 31

The objective of the design criteria is to minimise the impact of the child care centre on the acoustic privacy of neighbouring residential developments.

1. For new development or development that includes alterations to more than 50 per cent of the existing floor area, and is located adjacent to residential accommodation:
  - provide a 2m high acoustic fence along any boundary where the adjoining property contains a residential use. (An acoustic fence is one that is solid, gap free fence with minimum panel surface density of 12.5kg/m<sup>2</sup>)
  - located external play areas within 10m of the boundary fence at least 1.2m below the top of the boundary fence
  - ensures that mechanical plant or equipment is screened from view of habitable rooms (including balconies, patios, decks and verandas) of an adjoining sensitive use by solid, gap free material and construction e.g. acoustic fence, building, or enclosure.
2. A suitably qualified acoustic professional is to certify that:
  - cumulative noise emissions from the centre-based child care facility, including the operation of any mechanical plant and equipment and air conditioning must not exceed the LAeq, 15 minute noise level for the project specific noise level for the type of receiver affected as determined in accordance with the NSW EPA Industrial Noise Policy.
  - the LAeq, 15 minute noise level emitted from the use must not exceed the LA90, 15 minute noise level by more than 3dB in any Octave Band Centre Frequency (31.5 Hz to 8 kHz inclusive) when assessed inside any habitable room of any affected residence (measured with all external doors and windows closed) or noise sensitive commercial premises.

~~Should discuss with Paul Stokes.~~

### 3J Noise and Pollution

Centre-based child care facilities located near major roads, rail lines, and beneath flight paths are likely to be subject to noise and poor air quality. Other hostile and noisy environments such as industrial areas and substations may impact on the amenity and wellbeing of the children and staff.

The location of centre-based child care facilities should be selected to avoid or minimise the potential impact of external sources of noise, air pollution and other hazards.

To minimise impacts of noise and pollution at the centre-based child care facility, the following design solutions may be applied:

- create physical separation between buildings and the noise or pollution source
- orientate dwellings perpendicular to the noise source and where possible buffered by other uses
- landscape to reduce the perception of noise and act as a filter for air pollution generated by traffic and industry
- limit the number and size of openings facing noise sources
- provide door seals to prevent noise transfer through gaps
- use double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)
- use materials with mass and/or sound insulation or absorption properties (e.g. solid balcony balustrades, external screens and soffits)
- ensure mechanical plant or equipment is screened from view of habitable rooms (including balconies, patios, decks and verandas) of an adjoining sensitive use by solid, gap free material and construction e.g. acoustic fence, building, or enclosure
- locate cot rooms away from external noises sources.

#### Design Criteria 3J

The objective of the design criteria is to ensure that outside noise levels are controlled to acceptable levels.

1. Outdoor play areas are to have a background external noise level not exceeding 55dBA (LA90 24 hrs).
2. The noise level Leq,1 hr from road, rail traffic or industry at any location within the indoor play or sleeping areas of the centre-based child care facilities during the hours when the centre is operating must not exceed 40dB(A).
3. The Lmax, slow noise level from aircraft at any location within the indoor play or sleeping areas of the centre-based child care facility during the hours when the centre is operating must not exceed 50 dB(A) in accordance with AS2021.
4. Environmental noise intrusion from external noise sources into the child care facility will not exceed the repeatable maximum LAeq, 1 hour of:
  - 35 dB(A) within designated sleeping areas, and
  - 40 dB(A) (LAeq, 1hr) within other internal spaces for playing and learning.
5. A Noise Management Plan is required where a centre-based child care facility is proposed in any of the following locations:
  - on industrial zoned land
  - an ANEF contour
  - along a railway or mass transit corridor, as defined by the ISEPP
  - on a major or busy road or
  - other land that is impacted by substantial external noise.

## Configuration

### 3K Accessible Design

Centre-based child care facilities need to allow equitable access by all members of the community, including those with disabilities. They should also provide suitable play areas for children with disabilities.

Accessible design can be achieved by considering the following:

- link all key areas of the site by pathways that are accessible to prams, wheelchairs and the like
- provide accessibility to and within the building in accordance with the Disability Discrimination Act 1992, Disability (Access to Premises-Building) Standards 2010 and the National Construction Code
- provide a continuous path of travel to and within the building in accordance with AS1428.1: Design and Access for Mobility
- minimise conflicts *of* by placing door handles at a higher height than specified in AS1428.1, to prevent children *being placed* from accessing restricted places such as kitchens, waste room and store rooms. *greater* Such instances should only occur in areas that do not form part of the accessible path of travel. Consider using locks instead, as the impact of higher handle heights may have on future staff with disabilities could result in the potential for Disability Discrimination Action to be taken. *X*

#### Design Criteria 3K

The object of the design criteria is that the centre is accessible to all potential users of the facility.

1. All key areas of the site are to be linked by pathways that are accessible to prams, and wheelchairs including between all car parking areas and the main building entry.
2. Access between the street entry and car parking and main building entrance is to have an accessible path of travel that complies with AS1428.1 consisting of paths and ramps. Platform lifts should be avoided where possible.

Note: The National Construction Code requires access for persons with a disability from the street to the building entry. Consideration may also need to be given to responsibilities under the Disability Discrimination Act 1992 and the Disability (Access to Premises – Buildings) Standards 2010.

*and any required accessible car parking space on the allotment*

## 3L Car and Bicycle Parking

Car and bicycle parking in a centre-based child care facility should be determined in relation to the availability, frequency and convenience of public transport. Car parking should be integrated with the building and landscaped design to minimise visual impact on the streetscape. The design of all car parking bays for use by parents and guests should allow for full opening of all doors and follow the dimensions set out in Table 1.1 of AS2890.1:2004 Parking facilities- Off-street parking.

If a proposed development does not meet the rates in this section, an alternate rate may be proposed and justified in a traffic and parking study that takes into account the unique circumstances of the site and context.

- Car parking within a basement can provide optimum use of the site area and minimise visual impacts.
- Accessible parking is to be clearly marked and located as close as possible to the primary entrance to the building.
- Car parking areas should include a designated footpath from the car park to the building entrance and to the footpath on the street to ensure the safety and welfare of pedestrians, parents, staff and children (see Section 3F) *spaces* *or passenger lift*
- Car parking areas are to be designed in a manner that allows vehicles to travel in a forward direction at all times except when entering or leaving a parking space.
- Where a centre-based child care facility is located within a mixed use development, the parking spaces are to be located and grouped together and conveniently located near the access point to the facility.
- Parking is to be incorporated into the landscape design of the site. Use low level landscaping on two to three sides to soften and screen parking areas.
- Use light coloured paving materials or permeable paving systems.
- Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites.
- Ventilation grills or screening devices for car parking openings should be integrated into the façade and landscape design.
- Delivery and loading areas should be provided away from the main pedestrian access to the building.
- Provide bicycle parking suitable for the context and user needs of the centre.

*in semi-basement parking areas*

### Design Criteria 3L

The objective of the design criteria is to provide parking that satisfies the demand generated by the centre.

1. Off street car parking should be provided at the rates for child care facilities specified in a DCP that applies to the land.
2. Where a DCP does not specify car parking rates, off street car parking is to be provided at the following rates
  - Where the site is within 400m of a metropolitan train station – 1 space per 10 children
  - In other areas – 1 space per 4 children.
3. Accessible parking is to be provided at one space per 30 children. *? This exceeds the BCA !*
4. For small centres in areas with convenient and safe on-street parking spaces this parking may be considered as an offset to off-street parking if it can be demonstrated it does not affect the safety and amenity of the adjacent area.
5. Commercial or industrial zones and mixed use developments only:
  - Use of on-street parking can only be considered where the adjoining uses do not raise conflicts with child safety such as high levels of vehicle movement or conflicts with trucks and large vehicles – particularly in industrial areas.

The objective of the design criteria is that the design of the car spaces allows sufficient room for the unloading of prams and safe access for vehicles

6. Car parking spaces are to comply with the requirements of AS2890.1:2004 Parking facilities – Off street car parking .
7. All parking except for designated staff spaces are to have the width of the parking spaces to comply with User Class 3 in section 2.4 of AS2890.1:2004 Parking facilities- Off-street parking.
8. Designated staff parking may be provided as tandem spaces.

## 3M Form and Articulation

Architectural form is one of the most important elements of good design. It defines the building as viewed from a distance. Good form and proportion make a strong contribution to local character.

Centre-based child care facilities can be a central focal point for a community. They can be provided in buildings that reflect the aspirations of the community and contribute to the identity of a place.

The architectural form is described by building mass, its stepping elements, solid and void relationship, the silhouette created by the roof form.

The following elements can contribute to a positive form:

- Quality roof design provides a positive addition to the character of an area and can form an important part of the skyline. Roofs also provide opportunities for open space, where appropriate and can add to the sustainability of a building's performance.
- Articulation and facade design are the finer details and provide additional visual interest and reinforce the architectural form.
- The design of facades contributes greatly to the visual interest of the building and the character of the local area. While facades that face the street have an impact on the public domain, side and rear facades often influence the amenity of neighbouring buildings.
- The aesthetics and articulation of a building add further detail and complement the architectural form.

- Articulation can assist in refining the form and enhancing it with scale and proportion.
- High quality facades are a balanced composition of building elements, textures, materials and colour selections.
- The quality of the streetscape impacts on local amenity and identity. In order to contribute to the character of the local area, development should recognise predominant streetscape qualities, such as building form, scale, materials and colours
- Utilise materials and finishes that meet the expected standards for community buildings ensuring consistency of finish, well-considered use of colour and texture, durability of surface finishes and fixtures, resistance to damage and vandalism, minimal recurrent maintenance and good amenity and a positive visual impact.
- Reduce the apparent bulk and visual impact by breaking down the roof into small roof elements.
- Provide a balanced composition of solid and void.
- Ensure materials are used in a way that complements the intent of the built form.



Figure 3-12 An example of an articulated form which creates visual interest and breaks up what would normally be a large building mass.



Figure 3-13 An articulated roof form provides visual interest and a focal point.

## 30 Water Management and Conservation

Water sensitive urban design includes the integrated management of water in urban areas. It takes into account all of the elements of the urban water cycle including drinking water, rainwater, wastewater, stormwater and groundwater.

Best practice water management considers water measures at all stages of a project, from initial site planning measures that maximise deep soil areas for water infiltration, to detailed building design that captures and recycles stormwater and wastewater for building services.

Some measures to improve water management are:

- reduce potable water by installing water efficient fittings, appliances, individual metering and rainwater reuse
- provide drought tolerant, low water use plants within landscaped areas
- introduce recommended design solutions:
  - runoff is collected from roofs in water tanks and plumbed into toilets, laundry and irrigation
  - porous and open paving materials are maximised
  - rainwater reused for landscape and toilet flushing
  - locate detention tanks under paved areas, driveways or in basement car parks
  - rainwater tanks may be incorporated in the overall site design to facilitate learning about recycling water, water reuse, and allow children to actively participate in watering gardens.

### Design Criteria 30

The objective of the design criteria is to minimise ~~potable~~ water use. *P*

1. Install fittings with a rating of at least 3 stars.
2. Install a rainwater tank to provide rainwater for use in the landscape areas or toilets.

The objective of the design criteria is that urban stormwater is treated on site before being discharged to receiving waters.

3. All stormwater drainage collected as a result of the development must comply with the relevant Council's ~~stormwater policy.~~ *or other requirements*

Note: All stormwater drainage systems within a lot and the connection to a public or an inter-allotment drainage system must:

- If approval is required under section 68 of the Local Government Act 1993, be approved under that act
- If approval is not required under 68 of the Local Government Act 1993, comply with the requirements for the disposal of stormwater drainage contained in a development control plan that is applicable to the land.

The objective of the design criteria is that flood management systems are integrated into site design.

4. ~~Detention tanks~~ *Stormwater* are to be located under paved areas, driveways or in basements.

## 3P Waste Management

The minimisation and effective management of waste from centre-based child care facilities contributes to the visual and physical amenity of the building while limiting potentially harmful impacts on the environment.

Minimising waste is relevant throughout the building's life cycle. Centre-based child care facilities should include safe and convenient storage and collection of waste and recycling. Waste management should be considered early in the design process.

The storage of waste can have significant visual impacts on the private and public domain and should be located away from key areas such as entries and children's play areas.

Each council area will have its own requirements for waste collection and should be consulted prior to preparing any application.

The following can assist efficient <sup>waste</sup> management:

- provide adequately sized storage areas for recycling, general and garden waste located discreetly away from the front of the development or in the basement car park
- separate waste collection from children's play areas and have secure access
- prepare a waste management plan ~~should be prepared~~ that considers child safety and potential conflict with children at collection times
- screen garbage collection, loading and servicing areas behind structures which are integrated into the overall design
- provide green waste composting that can be re-used within the landscape if possible.

### Design Criteria 3P

The objective of this design criteria is that waste facilities are designed to minimise impacts on streetscape, building entry and amenity of the building occupants. *and adjoining premises*

1. Storage areas for waste and recycling bins should be provided:
  - within a screened enclosure that is part of the over building design, or
  - within a basement car park, and
  - located behind the front building line.
2. In mixed use developments, waste for the facility is to be separated from other uses within the development.
3. The number and type of bins provided is to be in accordance with the relevant council Policy.

Note: Refer to council policy for waste collection, size of bins and frequency of collection. Some policies may require waste vehicle access into the site. Adequate space may need to be provided for waste vehicle circulation. A combination of design and management plans can avoid conflict with children. *and drop-off/pick-up periods.*

4

## **Delivery**

*This section provides guidance on the delivery of centre-based child care facilities across NSW, including information to assist proponents to prepare development applications and information for consent authorities assessing applications.*

## 4.1 Pre Development Application Meetings

Early in the design phase, a ~~pre-development~~ *in processing* application meeting may be held with the local council and building designer to focus on achieving the best siting, built form and design outcomes. Working with council should help avoid unnecessary delays ~~with~~ the application. Representatives from the Department of Education may wish to attend the meeting.

The pre-development application meeting provides opportunities for feedback on specific concept plans for the site. At the meeting relevant planning policies and site constraints can be discussed.

Proponents should contact the relevant council for advice on requirements for pre-development application meetings.



## 4.2 Submitting a Development Application

### Preparing development applications

Clause 25 of the Education and Care Services National Regulations requires that plans for a service approval application must be prepared by a building practitioner. To align with this requirement, it is recommended that development applications be designed and prepared by an architect registered in NSW under the Architects Act 2000 or a building designer accredited by the Building Designers Association.

The development application should demonstrate that:

- the proposal has been prepared in accordance with the provisions of Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- the proposal meets the requirements of the National Quality Framework as outlined in Part 2 of this guideline
- the proposal addresses the overarching design criteria in Part 3 of this guideline
- the proposal considers the matters, objectives and criteria regarding impacts of the development on the surrounding environment cited in Part 3 of this guideline
- any other relevant requirements in a local or state environmental planning instrument.

The plans, sections and elevations may also be accompanied by three dimensional views of the development within its context.

Submission requirements for development applications are within the *Environmental Planning and Assessment Regulation 2000*.

### Documentation accompanying the development application

To facilitate smooth development application processing, consistent assessment of applications across NSW and compliance with the National Quality Framework, it is strongly recommended that proponents submit the self-assessment checklist at Appendix 2 with a development application. The checklist will demonstrate whether or not a development application complies with regulations 104 – 117 of the Education and Care Services National Regulations.

It is also strongly recommended that documentation prepared for a development application satisfy the requirements for the service approval, for efficient approval processes. Plans accompanying a development application for a centre-based child care facility should address the following matters, which are also required to be addressed in a service approval application, as prescribed in Clauses 25 and 97 of the Education and Care Services National Regulations:

- the location and street address of the proposed education and care service premises
- the location of all buildings, structures, outdoor play areas and shaded areas
- the location of all entries and exits
- the location of all fences and gates, specifying the type of fence or gate used or to be used
- the location of toilet and washing facilities, nappy changing areas and any food preparation areas
- the boundaries of the premises
- the landscape of, or landscaping plans for, outdoor spaces that will be used by the child care facility, specifying the natural environments that are or will be provided
- a floor plan indicating unencumbered indoor and outdoor spaces suitable for children
- the location of any associated children's service
- calculations, carried out by a building practitioner, of the areas referred to in regulations 107 and 108 relating to unencumbered indoor and outdoor space
- the elevation plans of the premises

- a copy of the service's proposed water safety policy if a swimming pool or other water hazard is situated at the proposed child care facility
- one of the following:
  - a soil assessment for the site of the proposed education and care service premises or
  - if a soil assessment for the site of the proposed education and care service premises has previously been undertaken, a statement to that effect, specifying when the soil assessment was undertaken or
  - a statement made by the applicant that states that, to the best of the applicant's knowledge the site history does not indicate that the site is likely to be contaminated in a way that poses an unacceptable risk to the health of children.
- an emergency and evacuation floor plan. *and procedure*

#### Design Statement

A Design Statement should be prepared by the building designer or architect to explain how the overarching and specific design criteria in Part 3 are achieved. If the design criteria are not met, the statement should describe how an alternate solution meets their intent, possibly supported by reports or diagrams.

The Design Statement will assist the assessment process by:

- clarifying how the development meets the relevant criteria and
- acting as a checklist to ensure that each application is complete and addresses the requirements under the Regulations, the Draft State Environmental Planning Policy and the Child Care Planning Guideline.

A template for the Design Statement is provided in Appendix 1.

#### Specialist Studies

A range of specialist studies may be required by the consent authority to support a development application. It is recommended that proponents review Appendix 3 which includes a checklist of potential specialist studies. For example, a development application that will affect a heritage item or is located within a heritage conservation area, should be accompanied by a report from a heritage consultant. This may include a full conservation plan or recommended external treatments to ensure the proposed development is compatible with the heritage values of the area.

Similarly, an acoustic or air quality assessment for proposed developments located in industrial areas, near heavy transport corridors such as railways, or near a flight path, may be required to identify sources and mitigating measures against potential noise or air pollutants.

#### Referral of development applications to the Regulatory Authority

Under the Draft State Environmental Planning Policy, development applications for a centre-based child care facility that do not comply with the unencumbered indoor and outdoor space requirements of clauses 107 and 108 of the National Regulations, will require the concurrence of the Regulatory Authority (currently the Secretary of Education). Part 2 of this Guideline sets out the space requirements under the relevant sections on Indoor Space and Outdoor Space.

The Regulatory Authority will have 28 days to review the application and provide concurrence to the proposed development. In determining whether to grant or refuse concurrence, the Regulatory Authority must consider any requirements applicable to the proposed development under the National Law.

Concurrence will be assumed if 28 days pass since concurrence was sought. A consent authority must include any conditions of the concurrence within the development consent.

This process can assist the proponent make any necessary changes to their development plans.

## 4.3 Development Approvals

This section recommends processes, conditions of consent and explanatory notes that councils may use to enforce compliance with the provisions of the Draft State Environmental Planning Policy and the National Regulations.

### Compliance with a concurrence

A development application can be approved once concurrence from the Regulatory Authority, if required, has been received. A development application may be refused on other grounds, even if concurrence is granted. That is, concurrence of the *Regulatory Authority* does not automatically mean that the development application will be approved by the consent authority.

Where a development application has received concurrence, the consent authority must impose any conditions of concurrence on any consent that is granted, otherwise the consent is voidable. Sections 79B(9) and (10) of the *Environmental Planning and Assessment Act* apply.

The following provides an example for an appropriate condition of development consent:

"The child care facility must be developed in accordance with the approved plans and the concurrence from the Secretary of Education dated 1 April 2017."

The development as constructed must comply with any concurrence granted by the *Regulatory Authority*.

### National Construction Code

Standards for the construction of child care facilities are set out in the National Construction Code (NCC), which includes the Building Code of Australia and the Plumbing Code of Australia. Compliance with the Building Code of Australia and relevant Australian Standards is required to obtain a Construction Certificate. The standards in the Building Code of Australia are adequate to ensure the safety of children and adults within child care facilities. There is no justification for Councils imposing requirements on child care facilities that extend beyond the scope of the Building Code of Australia.

or complying development certificate!

The following provides an example for an appropriate condition of development consent:

"The centre-based child care facility must be designed and constructed in accordance with the National Construction Code."

### Staged development

Staged developments will need to describe and illustrate in the stage one development application sufficient detail on indoor and outdoor space for a consent authority to determine if the application needs the concurrence of the Regulatory Authority.

Development proposals that receive the concurrence of the Secretary of the Department of Education at stage one, may also need to be referred for concurrence at a later stage, if the indoor and outdoor space requirements are altered.

The following provides an example for an appropriate condition of development consent to achieve compliance with the National Quality Framework at each stage

#### Stage 1

"A separate development application must be submitted for the design and construction of the centre-based child care facility proposed within this staged development, accompanied by documentation demonstrating compliance with the Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the Child Care Planning Guideline."

#### Stage 2

"The centre-based child care facility must be developed in accordance with the approved plans any the concurrence to this approval received from the Regulatory Authority"

The condition ensures that adequate information is submitted during the subsequent stage to enable assessment of the child care facility.

? The draft Guideline exceeds the BCA in several areas. Why is it that local councils cannot do the same to address safety issues?



## 4.3 Development Approvals

This section recommends processes, conditions of consent and explanatory notes that councils may use to enforce compliance with the provisions of the Draft State Environmental Planning Policy and the National Regulations.

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Where a development application has received concurrence, the consent authority must impose any conditions of concurrence on any consent that is granted, otherwise the consent is voidable. Sections 79B(9) and (10) of the *Environmental Planning and Assessment Act* apply.

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or complying development certificate

→ We may need to produce a Guideline to improve safety.

Note: The Guidelines, in a number of areas, exceed the BCA!!  
Can we still have our planned C.C. DCP?

The following provides an example for an appropriate condition of development consent:

"The centre-based child care facility must be designed and constructed in accordance with the National Construction Code."

### Staged development

Staged developments will need to describe and illustrate in the stage one development application sufficient detail on indoor and outdoor space for a consent authority to determine if the application needs the concurrence of the Regulatory Authority.

Development proposals that receive the concurrence of the Secretary of the Department of Education at stage one, may also need to be referred for concurrence at a later stage, if the indoor and outdoor space requirements are altered.

The following provides an example for an appropriate condition of development consent to achieve compliance with the National Quality Framework at each stage

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#### Stage 2

"The centre-based child care facility must be developed in accordance with the approved plans any the concurrence to this approval received from the Regulatory Authority"

The condition ensures that adequate information is submitted during the subsequent stage to enable assessment of the child care facility.

## Modifications to a development consent

Applications to modify a development consent will be referred to the Regulatory Authority if the indoor and outdoor space does not comply the National Regulations.

The following provides an example of an appropriate note on a development consent regarding the need for a new concurrence if a modification of consent is sought.

If a development is modified to meet the requirements of a service approval, the applicant must first confirm with the consent authority if an amended or new consent is required, including the need for further consultation with the Regulatory Authority.”

## Alerting applicants to the need to obtain a Service Approval

A condition of consent can alert the applicant to the need to obtain a Service Approval.

The following provides an example for an appropriate condition of development consent

“Following issue of the Occupation Certificate and prior to commencing the service, the applicant must obtain a Service Approval from the Regulatory Authority”

This condition advises that a subsequent approval is required prior to commencing operation.

## 4.4 Exempt and Complying Development

### Exempt Development

Certain minor development can be carried out as exempt development under the *State Environmental Planning Policy (Exempt and Complying Codes) 2008*.

This may allow minor alterations to an existing child care facility without the need for a development application. However exempt development may affect the validity of a Service Approval. For example, if exempt development reduces the area of unencumbered outdoor play space, a new Service Approval may be required.

Home-based child care, school-based child care, mobile child care and the temporary relocation of a centre-based child care facility following an emergency can be carried out as exempt development, subject to development standards.

### Complying Development

Certain alterations and additions to an existing child care facility can be carried out as complying development under Part 5 of *State Environmental Planning Policy (Exempt and Complying Codes) 2008*.

School-based child care is permitted as complying development where some building works are proposed to accommodate child care uses.

## 4.5 Service Approvals

Prior to commencement of operations, a centre-based child care facility is required to obtain a service approval from the Department of Education under the Education and Care Services National Regulations.

The National Quality Framework, through the National Quality Standards, contain a number of education and building requirements that must be met prior to Service Approval being issued, including:

- educational program and practice
- children's health and safety
- physical environments, including indoor and outdoor play spaces
- staffing arrangements
- relationship with children
- collaborative partnerships with families and communities
- leadership and service management.

A child care provider cannot apply to the Department of Education for a Service Approval until the development has been constructed and an occupation certificate has been issued by ~~the~~ <sup>an accredited certifier</sup> local council or a private certifier. If the development does not meet the National Regulations (but meets state and local planning requirements), a Service Approval may not be issued. Developers who have addressed the physical environment requirements of the National Regulations during the design and development application stage will be well positioned to obtain a service approval and avoid the need for costly works to meet National Standards.

The guidance provided in Part 2 of this guide will assist the applicant to design a facility that meets the physical environment requirements of the National Regulations as well as the planning controls relating to the development application. Designing facilities at the same time to meet national, state and local planning requirements, streamline the approvals process and reducing costs to child care providers and industry.

### Policies or procedures to support an application for a Service Approval

All applicants will be required to submit policies and procedures for the following matters when applying for a service approval:

- health and safety
- incident, injury, trauma and illness
- infectious diseases
- emergency and evacuation *plans and procedures*
- delivering and collecting children to and from the facility
- excursions
- child safe environment
- staffing
- interactions with children
- enrolment and orientation
- governance and management of the service (refer any issue raised in managing noise emissions etc.)
- acceptance and refusal of authorisations
- payment of fees
- dealing with complaints.

The above information could be provided in a collated single Plan of Management for submission with the application for a service approval.

Conditions of consent may be applied by consent authorities with regard to any matters considered in the development application process that will support an application for a service approval, including an emergency and evacuation plan, parking and drop off arrangements, layout to optimise supervision and child safety, and a noise management plan.

*Part 2 is mandatory - Do you agree? If so, it should state this!*

Requirement	Matters to address	When this is assessment required
Landscape Plan	Part 4.3 Physical Environment of the Education and Care Services National Regulations Guidelines to Shade, Cancer Council NSW 2013 Fact Sheet - Sun Protection Using Shade, Australian Government Radiation Protection and Nuclear Safety Agency March 2015	All child-care facilities
Statement of Environmental Effects	Statement prepared by a suitably qualified planning professional to address the environmental impacts in accordance with the provisions of the EP&A Act, relevant State Environmental Planning Policies, Local Environmental Plan and Development Control Plan	All child care facilities
Stormwater Plan	Proposed method to connect into Council's stormwater system - Refer relevant Development Control Plan	All new child care facilities
Traffic and transport assessment	Matters required under State Environmental Planning Policy [Infrastructure] 2007 (or any later Amendments) in relation to the impact of rail or road noise or vibration. Access and turning provisions for service and emergency vehicles, such as ambulances, delivery, garbage collection and maintenance vehicles. Other matters including: <ul style="list-style-type: none"> <li>• likely/projected trip generation;</li> <li>• parking requirements, including the design of parking areas, and any pick-up and drop-off facilities;</li> <li>• current road safety conditions, including an accident history in the locality; and</li> <li>• the expected impact of the proposed development on the existing and future traffic conditions.</li> </ul>	All child care facilities: <ul style="list-style-type: none"> <li>• in residential or industrial zones with places for 90 or more children</li> <li>• in centres (other than neighbourhood centres) or commercial zones</li> </ul>

## Appendix 4 List of Sources

<b>Published fact sheets, guidelines, reports, council reports</b>	
Australian Government Radiation Protection and Nuclear Safety Agency March 2015	<i>Fact Sheet - Sun Protection Using Shade</i>
Cancer Council NSW 2013, Lane Cove Council	<i>Guidelines to Shade, Shade Handbook</i> <i>Lane Cove DCP Review 2015: Child Care And Parking</i>
Productivity Commission Inquiry Report Overview and Recommendations, No. 73, 31 October 2014	<i>Childcare and Early Childhood Learning</i>
Roads & Traffic Authority (now Roads & Maritime Services)	<i>Traffic Generating Developments</i>
UTS: Centre for Local Government	<i>Best Practice Guideline for the Planning and Development of Child Care Facilities: Final Review Report, September 2013</i>
<b>Websites</b>	
Australian Children's Education and Care Quality Authority	<i>National Quality Framework Reference Materials</i>
Australian Government Radiation Protection and Nuclear Safety Agency Website	<i>Impacts of Electromagnetic Radiation</i>
NSW Environment Protection Authority	<i>AIR quality guidelines</i>
<b>Legislation and Statutory Instruments</b>	
<i>Education and Care National Regulations 2012</i>	
<i>Children (Education and Care Services) National Law (NSW) No 104a</i>	
<i>Environmental Planning and Assessment Act, 1979</i>	
<i>Rural Fires Act 1997</i>	
<i>State Environmental Planning Policy No 33 - Hazardous and Offensive Development</i>	
<i>State Environmental Planning Policy No. 55 - Remediation of Land</i>	
<i>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008</i>	
<i>State Environmental Planning Policy [Infrastructure] 2007</i>	

# Glossary

## Accessible path of travel

Define a continuous accessible path of travel as an uninterrupted route to or within premises of buildings and providing access to all services and facilities. It ~~should~~ <sup>must</sup> not incorporate any step, stairway, turnstile, revolving door, escalator, hazard or other impediment which would prevent it from being safely negotiated by people with disabilities.

## Acoustic privacy

A measure of sound insulation between dwellings, between dwellings and communal areas, and between external and internal spaces.

## Adaptive reuse

The conversion of an existing building or structure from one use to another, or from one configuration to another.

## Amenity

The 'liveability', comfort or quality of a place which makes it pleasant and agreeable to be in for individuals and the community. Amenity is important in the public, communal and private domains and includes the enjoyment of sunlight, views, privacy and quiet. It also includes protection from pollution and odours.

## Aircraft noise

Aircraft noise is identified as contours on the Australian Noise Exposure Forecast (ANEF) Map. The higher the ANEF contour value, the greater the exposure to aircraft noise.

## BCA

Building Code of Australia

*Published by the Aust. Building Codes Board.*

## Building line

The predominant line formed by the main external face of the building. Balconies or bay window projections may or may not be included depending on desired streetscape.

## Building height

As defined in the *Standard Instrument - Principal Local Environmental Plan*.

*the existing built form of the (or see for example, ??) complying*

## Business zones

Land identified on a Land Zoning Map within a local environmental plan as a B1 Neighbourhood Centre, B2 Local Centre, B3 Commercial Core, B4 Mixed Use, B5 Business Development, B6 Enterprise Corridor, B7 Business Park or B8 Metropolitan Centre zone.

## Busy road or rail line

As defined in *State Environmental Planning Policy (Infrastructure) 2007* and *Development Near Rail Corridors and Busy Roads - Interim Guideline*

## Clerestory

High level windows that can be part of a wall above a lower roof

## Core

Vertical circulation (lift and/or stairs) within a building. A single core may include multiple lifts serving the same floor area

## Daylight

Consists of both skylight (diffuse light from the sky) and sunlight (direct beam radiation from the sun). Daylight changes with the time of day, season and weather conditions

## Facade

The external face of a building, generally the principal face, facing a public street or space.

## Floor Area - room

Measured within the finished surfaces of the walls, but excludes any area occupied by wardrobes, kitchens or fixed storage. any fixed storage.

## Floor Space Ratio

As defined in the *Standard Instrument - Principal Local Environmental Plan*.

## Guide to Traffic Generating Developments

Guide to Traffic Generating Developments, published by Roads and Maritime Services (formerly RTA) and available on its' website.

## Landscaped Area

As defined in the *Standard Instrument - Principal Local Environmental Plan*.

## NCC

National Construction Code

*published by - - -*

## Silhouette

A building outline viewed against the sky.

## Sloping site

A site with a slope of 15 per cent or greater.

## Soffit

The undersurface of a balcony or other projecting building element.

## Solar access

The ability of a building to continue to receive direct sunlight without obstruction from other buildings or impediments, not including trees.

**Street setback**

The space along the street frontage between the property boundary and the building. Refer to building line or setback as defined in the *Standard Instrument - Principal Local Environmental Plan*.

**Sunlight**

Direct beam radiation from the sun

**Unencumbered indoor space**

As defined by regulation 107 of the Education and Care Services National Regulations.

**Unencumbered outdoor space**

As defined by regulation 107 of the Education and Care Services National Regulations.

## **Attachment: Childcare Centre Guidelines**

There have been many incidents of motor vehicles crashing into buildings from both parking areas and roadways. The media reports on the following pages of vehicle impacts on childcare centres are examples.

Wheel-stops in carpark areas can be inadequate particularly when a vehicle is under inadequate control. The current extensive use of four-wheel drive vehicles with high ground clearances, all-wheel drive vehicles and SUVs has further increased the risk of vehicles over-running wheel-stops and crashing into nearby buildings.

**Australian Standard 1170.1 'Structural design actions—Permanent, imposed and other action'** prescribes requirements for the design of multi-level carpark areas to minimise the risk of vehicles crashing through barriers and falling from high level to the external ground level. The Standard highlights that wheel-stops solely are not adequate to prevent vehicles over-shooting car spaces when being parked. The Standard therefore requires physical barriers meeting prescribed impact resistance criteria to address vehicle fall risks from multi-level carpark areas. Some extracts from the Standard are provided in the following pages. The Standard, in regard to impact barriers, does not however apply to at-grade carpark areas where there are no fall risks from height.

**Australian Standard AS 2890 'Parking facilities - Part 1: Off-street car parking'** also contains provisions relating to wheel-stops however only in relation to control vehicle placement in parking spaces to prevent vehicles hitting low kerbs or walls and to prevent vehicles projecting over pedestrian pathways etc. Wheel-stops are not designed or required to stop vehicles over-shooting vehicle spaces and crashing into buildings such as childcare centres, including outdoor play spaces. Some relevant extracts from this Standard are provided in the following pages.

Positioning carparking areas/spaces in close proximity to childcare centre buildings and outdoor spaces such as pedestrian pathways and outdoor play areas without adequate physical barriers, exposes children, parents, staff and carers to significant risk of injury and death through accidental vehicle impacts.

Similar risks are also present from motor vehicle impacts resulting from vehicles losing control or motor vehicle impacts on roadways adjoining centres, particularly where outdoor play areas adjoin busy roads and intersections (i.e. a greater risk of vehicle impacts and loss of control). An example of this type of incident occurred in Melbourne in March this year where a bus and truck collided at an intersection resulting in the bus crashing into and through a corner shop/café (see media report below).

The strategic location of parts of centres (play spaces and sleeping rooms) away from adjoining roadways/intersections, particularly outdoor play spaces, can minimise the risk of injury from vehicle impacts on centres.

It is therefore **recommended** that the Department of Planning and Environment consider these potential risks and include appropriate design controls in the Guidelines to minimise the risk of vehicle impacts on centres (buildings and outdoor play spaces).

# **Car ploughs through childcare centre in Macquarie Park**

February 9, 2016

**Kate Aubusson**

*A car has crashed into a childcare centre and ploughed through a playground in Sydney's north west on Tuesday, moments before children were due to be let out for a break.*

*At about 1.30pm a white Ford Falcon smashed through the outer fence of the Macquarie Long Day and Early Learning Centre in Macquarie Park, flattening chairs and play equipment.*

*The driver lost control of the car as he travelled along Talavera Road. The Ford clipped a sedan and collided with a 4WD before careering into the centre.*



*Paramedics treated the man at the scene before taking him by ambulance to Royal North Shore Hospital for observation. Photo: Seven News*

*Witnesses described a frantic scene as they feared the worst, but when the dust and debris had settled they were relieved to find that the playground was empty.*

*The car came to rest about 25 metres from the building where the children were located at the time of the crash. Parents were quickly informed that their children were safe and kept inside.*



*A car has crashed into a childcare centre Macquarie Park in Sydney's north-west. Photo: Seven News*

*Witnesses have called the incident a narrow miss, telling Seven News reporting centre staff were due to let the children into the playground for an afternoon break.*

*"If it had been half an hour later I think he would have killed several children," one witness said.*

*"My little boy's safe, nobody was hurt. That's the main thing," said one mother as she held her son in her arms in the centre car park.*



*"All of the people just panicked": a witness told Seven News. Photo: Seven News*

*The driver, a 38-year-old man, appeared to have suffered a seizure, witnesses told police. "All of the people just panicked, and called an ambulance and tried to pick him up from the car," one man told Paramedics treated the man at the scene before taking him by ambulance to Royal North Shore Hospital for observation. He will undergo blood testing, police said.*

*The centre's owner Stephen O'Connor said he was relieved no children or staff had been injured.*

*He commended staff for staying calm and keeping the children shielded and occupied inside.*

*The childcare centre will remain open despite the extensive damage to its outer fence and playground. A temporary fence was installed in the early evening.*

*Police from Ryde Local Area Command are investigating the incident and have appealed for witnesses to contact Crime Stoppers on 1800 333 000.*

<http://www.smh.com.au/nsw/car-ploughs-through-childcare-centre-in-macquarie-park-20160209-gmprp8.html>

# ***Miracle escape as car crashes into Breakfast***

## ***Point daycare centre***

*January 12, 2016 1:12pm*

*Ben McClellanThe Daily Telegraph*



***The car ran into the childcare centre at Breakfast Point this morning. Picture: Jayne Morgan***

- ***Killed by a P-plater as he checked on car***
- ***Four teens hurt as car plunges five metres down embankment***
- ***Tweed crash leaves carnage in wake***

*AN elderly driver nearly ran down the owner of a child care centre standing outside her business as his car smashed through a fence only metres away from where young children were playing.*

*Jayne Morgan said she had to “leap” out of the way of the Volvo after it drove through a narrow gap in nearby car park fence and hurtled across the cul-de-sac into the Explore and Develop centre at Breakfast Point at 9am.*

*None of the eight children playing in a covered outdoor play area were injured and the 79-year-old driver was taken to Concord Hospital with minor injuries.*



**Several children were assessed by paramedics but there were no injuries. Credit: Jayne Morgan**

*“I was standing outside talking to a colleague on the phone, which I never do. I look over and in the IGA carpark there is a car spinning around and I’m thinking ‘what’s that car doing?’ she said.*

*“Then it goes in reverse and slams into a parked car. The next thing I know the car, believe or not, drives through that gap and straight across here. I literally had to leap out of the way and my first thought was the kids.*

*“As I was running into the centre I could hear my staff saying get the kids inside now. They acted really quickly and put the children into lockdown. We do practice drills but never for a car going into the centre.”*

*Ms Morgan said a large pillar stopped the car continuing into the centre which holds up to 88 children.*



**A pillar stopped the car from going further into the centre to where up to 88 kids were. Picture: Danny Aarons**

*“Thank God none of the children were in that area. It knocked down the fence, the tree and went straight into the pillar. It’s amazing no one was hurt. They often play in the garden (behind the fence),” she said.*

*“I don’t understand if he had lost control of the car, why didn’t he stop when he smashed into the car in the car park? I thought it was a teenager doing burnouts. The car was just spinning around then it reversed into the car and came flying through that gap at 80kmh it felt like. It was so fast I had to leap out of the way. He could have killed me.”*



***A staff member at the centre said it was a miracle no children had been injured. Picture: Jayne Morgan***

<http://www.dailytelegraph.com.au/news/miracle-escape-as-car-crashes-into-breakfast-point-daycare-centre/news-story/ad0b63de3363752b3cedd18151bde5b5>

# Car crashes into childcare centre

Date August 11, 2015

Craig Butt *The Age*

A woman has been taken to hospital after a car crashed into a childcare centre in Hoppers Crossing.

Emergency services were called to the crash at the Goodstart Early Learning Centre on Morris Road at about 4.30pm on Tuesday.

An Ambulance Victoria spokeswoman said paramedics had been called to the scene of the two-car collision, in which one of the cars smashed into the building.

She said one woman at the scene had sustained minor injuries but had been shaken up by the incident and was taken to the Royal Melbourne Hospital in a stable condition.

The car slammed through a fence and into an outdoor play area before crashing into the building.

Ambulance Victoria's Brett Parker said the building was evacuated after the crash.

"Fortunately no children were injured and staff at the childcare centre have done a fantastic job of removing 30 children and staff," he told Channel Nine news.

Relieved parents said the childcare centre had informed them that their children were safe.

"I was scared by what happened," one parent told Channel Nine.



<http://www.theage.com.au/victoria/car-crashes-into-childcare-centre-20150811-giwqsm.html>

## AS 1170.1 Structural design actions—Permanent, imposed and other action

### 3.8 CAR PARKS

Braking and horizontal impact forces arising from the movement of vehicles shall be treated as additional imposed actions. The imposed braking action shall be half the static load imposed by the gross mass of the vehicle.

The horizontal imposed action on barriers required to withstand the accidental impact from vehicles during parking shall be taken as follows:

- (a) For light traffic areas (Type F as given in Table 3.1):
  - (i) Barriers .....30 kN.
  - (ii) Barriers at the end of straight ramps exceeding 20 m in length and intended for downward travel.....240 kN.
- (b) For barriers in medium traffic areas (Type G as given in Table 3.1) .....40 kN.

The impact force shall be distributed over a 1.5 m length at any position along the barrier and shall be assumed to act at 0.5 m above floor level for light traffic areas and at 1.0 m for medium traffic areas.

NOTE: Guidance for situations not covered in this Clause is given in AS/NZS 1170.1 Supp 1, Structural design actions—Permanent, imposed and other actions—Commentary (Supplement to AS/NZS 1170.1:2002).

### C3.8 CAR PARKS

The values given in the Standard are based on the force from one vehicle only.

Braking and horizontal impact forces arising from the movement of vehicles may be calculated as follows:

$$F = \frac{mV^2}{2\Delta} \quad \dots \text{C3.8}$$

where

$F$  = impact or braking force, in newtons

$m$  = gross mass of the vehicles, in kilograms

$V$  = velocity of the vehicles, in metres per second

$\Delta$  = deceleration length, in metres

In calculating the braking force,  $\Delta$  is taken as the braking distance, and in calculating the impact force on a barrier,  $\Delta$  is taken as the sum of the deflection of the vehicle and barrier.

The loads given for car park barriers are based on the following:

- (a) 1500 kg at 2 m/s and 0.1 m crumple zone.
- (b) 2000 kg at 6 m/s and 0.15 m crumple zone.
- (c) 2000 kg at 2 m/s and 0.1 m crumple zone.

Wheel stops should not be relied upon to stop a vehicle impacting a barrier except in normal use. The shape and design of wheel stops varies and information is not available on their effectiveness in stopping or reducing the speed of vehicles.

## AS 2890 Parking facilities - Part 1: Off-street car parking

### 2.4.5 Physical controls

#### 2.4.5.1 General description

The need for the following physical controls shall be considered:

- (a) *Kerbs*—on one or more sides of a parking space to protect pedestrian walkways, landscaped areas, and any other non-trafficable areas generally at or just above pavement level, from encroachment.
- (b) *Barriers*—to contain vehicles at the edges of platforms or decks, or to prevent encroachment onto pedestrian facilities.
- (c) *Wheel stops*—to limit the travel of vehicles when manoeuvring into a parking space.  
NOTE: Wheel stops should be avoided in any situation where they may be in the path of pedestrians or wheelchairs moving to or from parked vehicles, or crossing a car park for any other purpose.
- (d) *Other protective devices*—to prevent damage to structural elements or other unwanted vehicle encroachment.

Physical controls shall not obstruct accessible travel paths for people with disabilities.

All kerbs, wheel stops, low barriers and other obstructions that could be a tripping hazard to pedestrians shall be surfaced in a colour contrasting with their surroundings.

#### 2.4.5.4 Wheel stops

Wheel stops may be provided where it is considered necessary to limit the travel of a vehicle into a parking space. If used they shall meet the requirements given below.

NOTES:

- 1 Typical uses of wheel stops are as follows:
  - (a) Control of kerb overhang where inconvenient or hazardous for pedestrians.
  - (b) Inhibiting contact with an end barrier or high kerb.
  - (c) Inhibiting encroachment into an opposing parking space.
- 2 Wheel stops should be avoided in any situation where they may be in the path of pedestrians moving to or from parked vehicles, or crossing a car park for any other purpose.

Wheel stops shall be between 90 and 100 mm in height, and  $1650 \pm 50$  mm in width.

Where reverse-in parking is unlikely, e.g. at 30, 45 and 60 degree angle parking modules with one-way aisles, or where occasional minor encroachment (up to about 400 mm) by a reverse-in vehicle can be tolerated, e.g. over a kerb, wheel stop positions shall be set at the *front-in* position. If reverse-in parking is likely and encroachment over the end of the parking space cannot be tolerated, wheel stop positions shall be set at the *rear-in* position and all vehicles required to back in. Location of wheel stops with respect to the front of parking spaces is given in Table 2.1 and illustrated in Figure 2.6.

If wheel stops are provided to restrain vehicle contact with a kerb higher than 150 mm or a wall, a further 200 mm shall be added to the wheel stop distance to cater for the B99 vehicle, as illustrated in Figure 2.6(c) and (d).

#### **2.4.5.5 Other protective devices**

Protective devices shall be provided as necessary to protect parts of the building or other fixed objects or equipment from damage by vehicles. Such protection shall include devices to prevent vehicle encroachment into pedestrian ways, stairs, doorways, lifts and the like. Appropriately located bollards are suitable for these purposes. Protective devices shall be clearly visible to drivers when in their normal driving position.

NOTE: Design impact forces are given in AS/NZS 1170.1.

## **Roadway/vehicle crashes and impacts on buildings**

### ***Bus crashes into North Melbourne cafe, house***

*MARCH 3, 2017*

*WORKERS at a North Melbourne takeaway shop have had a lucky escape after an express bus crashed into their building.*

*The 401 express bus, carrying four passengers, slammed into the takeaway shop at 9.50am.*

*Luckily cafe workers were in the back of the shop at the time and no-one was injured.*

*A kitchenhand at the shop, at the corner of Victoria and Dryburgh streets, said a customer had left just five minutes before the crash.*

*"We're all a little shaken but not injured," the worker, named as Matthew, told 3AW.*

*He said staff heard a loud bang and discovered the bus sitting 5m inside the shop.*



The bus caused significant damage to the shop. Picture: Mark StewartSource: News Corp Australia



**The bus and a truck collided before the bus veered into the store. Picture: Mark Stewart**  
**Source: News Corp Australia**

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