

# Key Internal and External Spaces

Universally Designed Early Learning and Care settings should provide internal and external spaces that support the needs of all users and provide an optimum environment for all children's learning and care.

03





## Snapshots

A selection of images taken by the children from across the case study settings.





## Key Internal and Associated External Spaces: Overall Design Issues

Early Learning and Care (ELC) settings contain a variety of internal and external areas that range from infant spaces up to school-age childcare spaces for older children. Depending on the size of the setting, it may also include staff rooms and offices, family rooms, toilets, and other ancillary areas. In all cases the children's spaces should form the heart of the setting to be connected and integrated within the whole setting. Outdoor space is a crucial element, and should be designed in tandem with the internal layout to ensure a good relationship between inside and outside and direct access for children to nature and the outdoors.

When designing or retrofitting internal and external ELC spaces consider the Key Design Issues as framed by the selected **Síolta Standards** (See **Introduction page 16**):

	<b>Rights of the Child</b>	Provide spaces that enable choice and encourage active participation.
	<b>Parents and Families</b>	Design accessible, supportive and inclusive spaces for the children's families.
	<b>Interactions</b>	Provide spaces that encourage positive interactions between children, families and staff.
	<b>Play</b>	Design indoor and outdoor spaces that promote movement, play, creativity and exploration.
	<b>Professional Practice</b>	Provide flexible spaces that support the role of practitioner as environmental planner and evaluator, while also providing areas for reflection, study and quiet work.
	<b>Community Involvement</b>	Provide welcoming, accessible settings that form strong community connection while also increasing visibility and interaction between the setting and the community.



## 3.1 Shared Central Areas, Family Rooms, and Dining Areas



01 Northside Family Resource Centre, Ballynanty, Limerick City.

### Design features

- Central space provides a shared play area for children of different age groups.
- It functions as a central social space for families.

### Design tip

- Changes in floor colour or tone may cause issues for some people with sensory, physical or cognitive difficulties.





## Shared Central Areas

### Design considerations and awareness

Some ELC settings may have a shared central area acting as a general social space or play area, for hosting small parental or family events and for meetings. These spaces will support greater family involvement and engagement.

A shared central area can consist of a reception lounge or waiting area, an open plan area as part of the main circulation, or a dedicated room within the setting. These spaces should be large enough to serve the setting and should be centrally located and easily accessed upon entry.

Some settings may also have central play and work spaces for children such as the studios found in many Italian ELC settings known variously as an 'Atelier' or 'Laboratoria'. These spaces are at the heart of the settings and provide an active environment rich in materials to promote inquiry-based learning for children, while also supporting research and professional practice development for the staff.



➤ 02 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- Large central lobby area ensures that as parents arrive the space is not crowded.
- Seating to side so parents can sit with their child as they prepare for the day or for going home.

### Design tip

- A lower level hand rail on both sides would provide support for people of smaller stature and children.



03 Laboratorio space in Pinocchio Infant and Toddler Centre, San Miniato, Italy.

### Design features

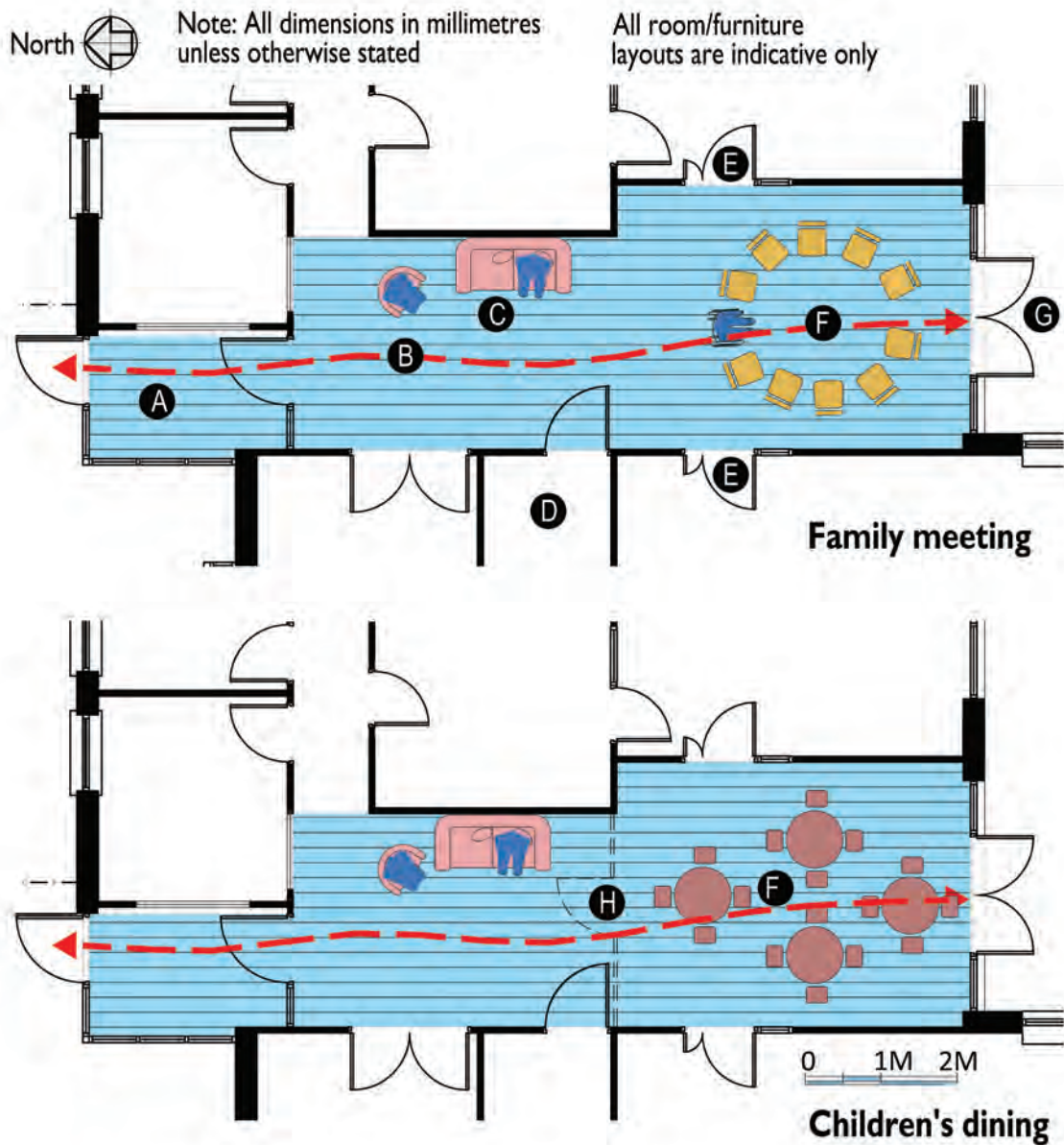
- A dedicated space, for creativity and exploration, with various arts and crafts materials that are accessible to children.
- The chairs suit children and adults as they can be used as a stool, when turned over.

### Universal Design Guidance

- Locate shared areas at the heart of the building where they are visible, easy to locate and accessible.
- Locate an accessible toilet near these spaces.
- Ensure the floor area of these spaces is sufficient in relation to the size of the setting.
- Provide access doors with a minimum clear opening width of at least 850mm.
- Consider how sliding doors or moveable partitions can be used to make these spaces more flexible and easier to integrate with the rest of the setting when required.
- Use colour or tonal contrast on the door leaf to make it visible and easily identified when entering and leaving the space.
- Provide these spaces with good levels of natural and artificial light (100 lux).
- Use non-slip (at least R10 slip resistance) and non-glare materials that avoid strong patterns or sharp tonal or colour contrast.



**Technical sketch 1: Indicative plan of shared central area showing two seating options.**



- |   |  |
|---|--|
| A Entrance lobby                                  | G Direct access to the garden                |
| B Circulation area                                | H Gate and low railing if required           |
| C Lounge/waiting area                             | I Flexible layout – dining area for children |
| D Visitor / accessible toilet                     |  |
| E Direct access to children's room                |  |
| F Flexible layout (dining, play or social event). |  |



## Family Rooms

### Design considerations and awareness

In larger settings a family room can provide space for social interaction between parents, family members, and ELC practitioners. It provides a comfortable space in which parents can wait while a child is settling or a quiet room for a mother to breastfeed. Family rooms can strengthen the relationships between ELC settings and families by providing a space for greater parental engagement and social interaction.

Family rooms can provide private and quiet spaces for various meetings between parents and practitioners, parental advisory boards or meetings with home-ELC liaison officers. A family room can also host designated staff with responsibility for supporting parents. While a family room should be centrally located and easily accessed from the main entrance area, it is important that it is relatively quiet and private. For instance, if a parent is using the family room during their child's settling in period, it is important that the space is out of sight of the child.

The size of the family room will be determined by the size of the setting, but ideally it should be large enough to handle small sized meetings up to 10 people. Meetings bigger than this can be held in one of the main children's rooms after hours. Where possible include a kitchenette to provide tea/coffee making facilities for parents. A sufficient number of electrical sockets and data connection points can be provided for the use of IT equipment for staff training, meetings, parent information sessions, or small social events.



04 Parent meeting in an ELC in San Miniato, Italy.

### Design features

- Meeting/family room provided in the heart of the setting.
- Adequate number of adult size chairs available when required.



➤ 05 Northside Family Resource Centre, Ballynanty, Limerick City.

### Design features

- Comfortable family room that doubles as a waiting area or social space.
- Spacious layout provides room for a buggy or wheelchair.
- Leaflet and information stand clearly visible and within easy access.

### Universal Design Guidance

- Place family rooms in a central location that is visible from the main circulation area, easy to reach and access.
- Locate an accessible toilet near this space.
- Ensure the floor area is sufficient in relation to the size of the setting and to allow for alternative layouts to suit various occasions or needs. Ensure adequate circulation space is provided within the room.
- Provide access doors with a minimum clear opening width of at least 850mm.
- Use colour or tonal contrast on the door leaf to make it visible and easily identified when entering and leaving the space.
- Provide these spaces with good levels of natural and artificial light (100 lux).
- Use non-slip (at least R10 slip resistance) and non-glare materials that avoid strong patterns or sharp tonal or colour.
- Where possible include a kitchenette to provide tea/coffee making facilities for parents.
- Provide sufficient electrical sockets and data connection points for the use of IT equipment.

## Eating and Dining Areas

### Design considerations and awareness

In some settings the main children's play room will be used for eating meals and snacks, while in other situations a shared or communal space may be used. In larger settings there may be a dedicated dining or eating area. If there is a designated dining space, try to ensure it is large enough that children from more than one room can eat together. This supports mixed age interactions and ensures mealtimes are not rushed.

Sometimes the dining area is part of a kitchen and in these situations, it will be necessary to use a safety gate or barrier to prevent children accessing the kitchen. A kitchen counter or island may provide a natural and more home-like barrier but this may also need to be supplemented with a safety gate.

Some settings involve children in the preparation of food and snacks, and in these situations, suitable facilities such as a kitchen table or low-level countertop in a safe location will be required. This approach promotes emotional warmth and security through the provision of more home-like spaces such as domestic style kitchens and dining rooms. These spaces and activities support engagement with routine activities such as making food or having a meal. Given that children can spend long days in full day care settings it is imperative that a cosy, familiar, homelike environment is provided.



06 Ballindereen Community Childcare and Education Centre, Ballindereen, County Galway.

### Design features

- Dining area in central location adjacent to main entrance lobby.
- Room is lit from both sides to create a bright and welcoming space.
- Low level shelving enables children to be independent by setting the tables.





➤ 07 Lux Children's Club, Moate, County Westmeath.

### Design features

- Domestic style space provides a homely environment for the children.
- Safety gate can be used to close off kitchen from children's dining area.

### Design tip

- Rounded edges or edge protectors to the counter top would reduce the impact if a child hits their head.

The dining area should be laid out to create a relaxing environment for children and practitioners to sit and eat together. Use low chairs and tables for babies and young toddlers where possible.

Each table should have no more than 8 children to encourage a calm conversational environment. An average 8-seat table for children would be approximately 760mm x 1520mm or 1220mm in diameter. These should be laid out to allow a 900mm-1200mm clear route along at least two consecutive sides of each table.

Somewhere within the dining area a turning circle of 1500-1800mm should be provided to make it easy for all users to manoeuvre easily and comfortably within the space.

Kitchens should be designed with a distance of at least 1200mm-1500mm between counters to make it easier for everyone to safely carry out kitchen work.



08 Cheeky Cherubs Early Years Schools, Ballincollig, County Cork.

If children are eating in their play-rooms, tables can take up too much floor space when not needed for dining. In this case consideration can be given to tables with detachable legs that take little space when the legs are removed (**see image 08 above**) but can be assembled quickly and easily at meal times.



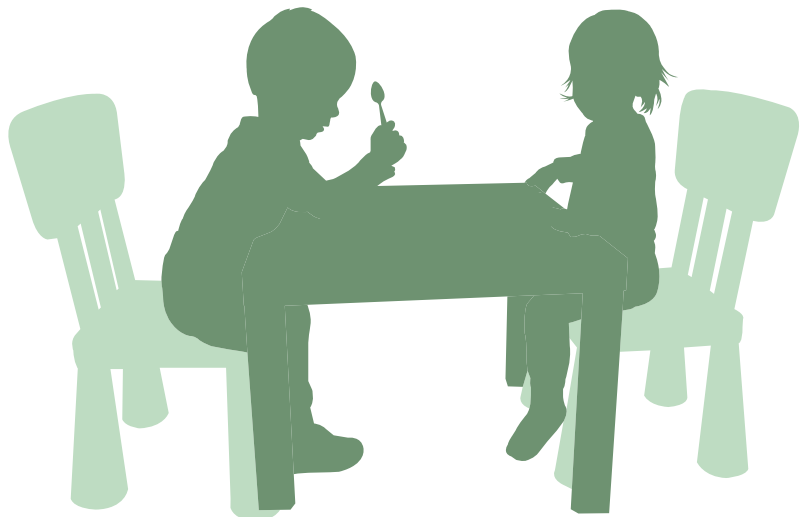
09 Infant and Toddler centre, San Miniato, Italy.





➤ 10 Infant and Toddler centre, San Miniato, Italy.

Providing small tables allow for mealtimes to be homely and social, with one adult at each table. Ensure that table and chairs allow for children of mixed ages to sit and eat together.





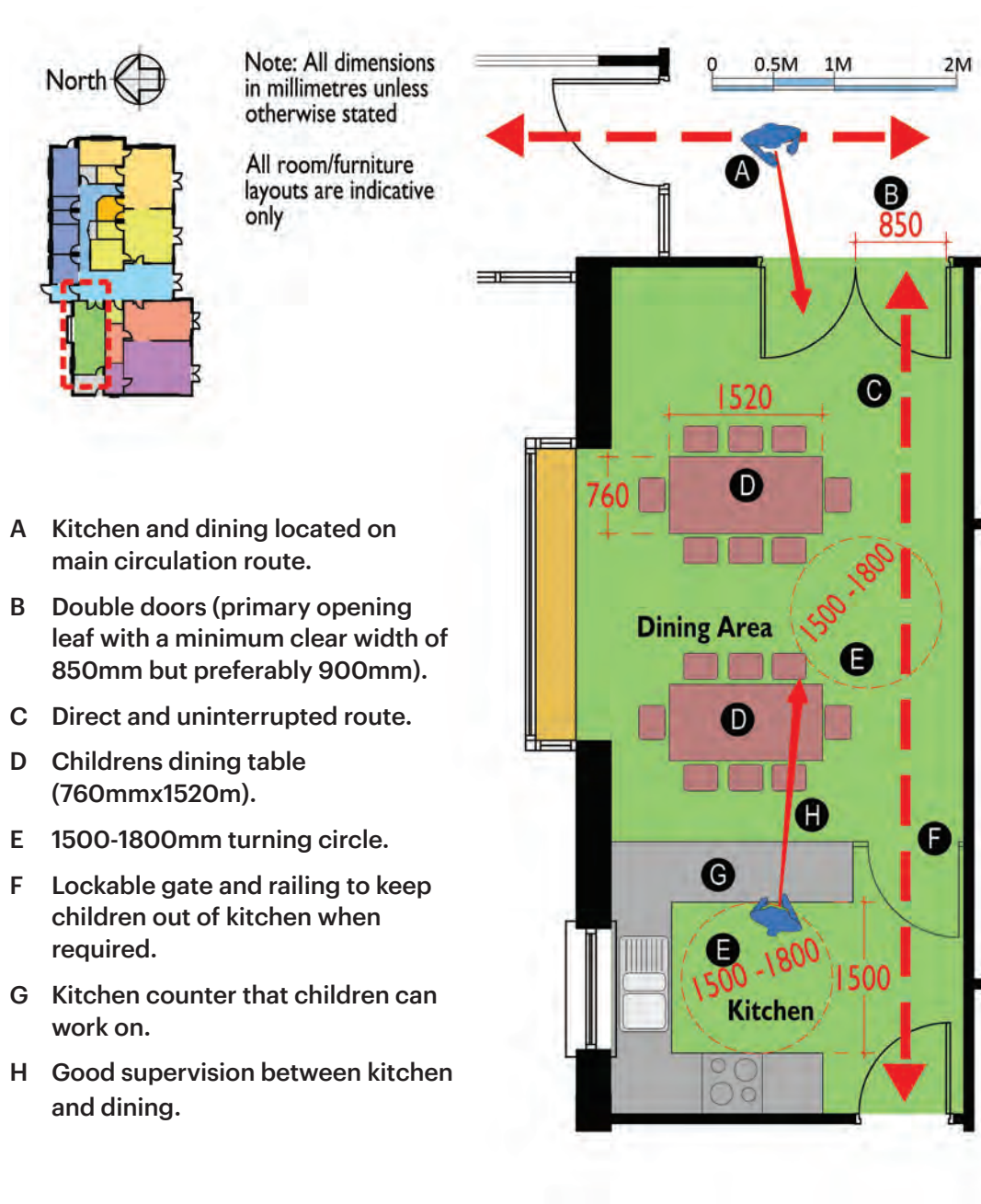
### Universal Design Guidance

- Place dining areas in a central location that is visible from the main circulation area, easy to reach and accessible.
- Ensure the floor area of this space is sufficient in relation to the size of the setting. (As a rule of thumb allow approximately 2M<sup>2</sup> per child. This includes dining area and circulation but excludes kitchen, storage area or other areas within the dining space).
- Provide sufficient space for alternative table layouts to suit varying needs. Ensure adequate circulation space is provided between tables.
- Provide domestic scale space with familiar furniture and finishes.
- Provide access doors with a minimum opening width of 850mm. For double doors ensure that the primary opening leaf has a minimum opening width of 850mm.
- Use colour or tonal contrast on the door leaf to make it visible and easily identified when entering and leaving the space.
- Provide these spaces with good levels of natural and artificial light (100 lux).
- Use non-slip (at least R10 slip resistance) and non-glare materials that avoid strong patterns or sharp tonal or colour.





### Technical sketch 2: Indicative plan of shared dining area with integrated kitchen.



## 3.2 Internal Spaces for Children



➤ 11 Ballindereen Community Childcare and Education Centre, Ballinderreen, County Galway.

### Design features

- Overall area provides a rich variety of spaces, including the main double-height space, a window seat or cubby space, and a loft area (The photo is taken from the loft area looking down into the children's space).
- Good levels of natural light with clear visual contrast between the floor and walls.
- Domestic style stairs provide a home-like setting and an opportunity to develop gross motor skills, balance, and climbing skills.

### Design tip

- Fewer visual displays would ensure calmer visual space.
- A lower handrail set between 600-750mm would benefit children and people of smaller stature.
- The handrail should extend 300mm past the last step. In this scenario a newel post or similar upright would have to be installed at the end of the handrail to ensure that people do not collide with the extended handrail.





## Overarching features: integrated, playful and multisensory spaces

### Design considerations and awareness

An ELC setting should promote play, movement, adventure and challenge through the creation of flexible, interesting and diverse spaces. The environment should provoke and celebrate investigation, risk taking and critical thinking, while promoting engagement with the senses including sight, hearing, touch, smell, and taste.

At the same time a balanced approach to multisensory stimulation should be taken to provide calm, uncluttered and carefully structured spaces. Providing an appropriate level of interest that avoids over stimulation or distraction is important. This benefits all children, not only those who are sensitive to their environment. Connected spaces tied together by a coherent and unified layout will help orientate all occupants and create a strong sense of place. Weaving together the inside and outside spaces will help bring nature into the building while also providing children and practitioners with direct access to the outdoors.



➤ 12 Naíonra Choill Mhic Thomasín, Kilmacthomas, County Waterford.

### Design features

- Space designed in line with a child's proportions to create an intimate and child-centred space.
- Restrained use of colour and materials create a relaxing and calm environment.
- The circular and horizontal windows create interest for children while providing them with a view to the outside.



13 Gambero Rosso, Infant-Toddler Centre, San Miniato, Italy.

### Design features

- Uncluttered space gives children room to engage in the environment.
- Materials are accessible to children, supporting choice and independence.
- Cleverly designed chairs that can be easily flipped over to provide seating for either children or adults.

### Universal Design Guidance

- Provide ample space for play, movement, adventure, and challenge.
- Provide connected internal and external spaces that allow movement.
- Provide multisensory stimulation that engages the senses including sight, hearing, touch, smell, and taste.
- Weave together indoor and outdoor spaces.
- Children's spaces should, in some way, relate to the community.
- Create a coherent and unifying building layout.
- Create a good sense of place.



## Overarching features: flexible spaces for movement and active play

### Design considerations and awareness

Successful children's spaces must balance flexibility and movement with structure and the creation of a good sense of place. Spaces should be designed for mixed-age groups and facilitate free movement between various groups and areas within the setting.

Many smaller ELC settings will contain one shared dedicated children's space and therefore this space must be varied and flexible enough for the range of age groups that attend the setting. Larger settings tend to have specific rooms or separate units dedicated to a particular age group who use this space at any one time. The use of each space may not be fixed throughout the week, or even the day, and may be used by different age groups at different times.



➤ 14 Fuji Montessori Kindergarten, Tokyo, Japan.

### Design features

- Large open plan space provides flexibility in terms of layout options.
- Large sections of the external walls are glass panels that fold back completely to fully integrate the internal and external spaces.
- Retention of existing mature tree within the building plan helps to connect the setting with the site context and provide direct contact with nature.

### Design tip

- Permanent manifestation on the glass at two levels, from between 850mm to 1000mm and between 1400mm to 1600mm above the floor, would make the glass more visible and prevent accidental collision.



Many settings will either require flexible and adaptable spaces suitable for mixed age groups, or the flexibility to cater for different age-groups throughout the day/week/year as needs dictate. In this context, the following sections do not provide guidance for specific spaces, but instead identify design features required by children at certain stages of their development. This allows the reader to pick and choose design features according to their context. A number of these features may be applied to a room used for mixed age-groups, or a space dedicated to specific ages.



15 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- Spacious and well-lit room with carefully selected materials gives children choice of what materials they wish to play with.
- The sliding door (in yellow) can be opened or closed so the space can be large or small.

### Design tip

- Permanent manifestation on the glass at two levels, from between 850mm to 1000mm and between 1400mm to 1600mm above the floor, would make the glass more visible and prevent accidental collision.

### Universal Design Guidance

- Children's spaces should be flexible and cater for multiple age-groups.
- Children's spaces should allow freedom of movement and active play.
- Within this flexible and more fluid environment provide break-out spaces and more intimate areas dedicated to smaller groups that can be composed of a particular age-group if required.



## Overarching features: design for all children

### Design considerations and awareness

There are common design features important for all children regardless of their age, size, or ability. These include:

- **High levels of natural light, with blinds to avoid glare.**
- **Good views to the outside.**
- **Internal finishes, colours and materials that achieve a calm and balanced sensory environment with appropriate stimulation and interest that avoids sensory overload.**
- **Shelving, cupboards, cabinets, and other storage units to organize toys and keep the space tidy and calm.**

Rooms should be spacious and flexible to allow various layouts for a range of activities, toys and play materials. Different areas within the room should provide diverse experiences and provide places for children to run, play, rest, be with others, or be alone.

Spaces should be large enough to provide adequate circulation for children with sensory, physical or cognitive difficulties. This supports children with sensory processing difficulties who may need additional personal space where they can withdraw from activities. Additional circulation space will also benefit specialist staff and those using bulky equipment. Direct access to outdoor space is important and should be provided to allow free movement between inside and outside. Double or sliding doors will allow a space to be opened up to create connections with nature and the outside world.



➤ 16 Northside Family Resource Centre, Ballynanty, Limerick City.

### Design features

- **Direct access and views to the outdoor space.**
- **Good natural light including rooflights.**

**Technical sketch 3: Indicative plan of mixed age room showing key areas for all children.**



Various areas within a typical mixed age room that offer a range of activities, experiences, and levels of social engagement, from interactions with others to time alone (see next page for corresponding images).





A Places for discovery



B Places to be active



C Places to work together



D Somewhere to make a mess



E Places to relax

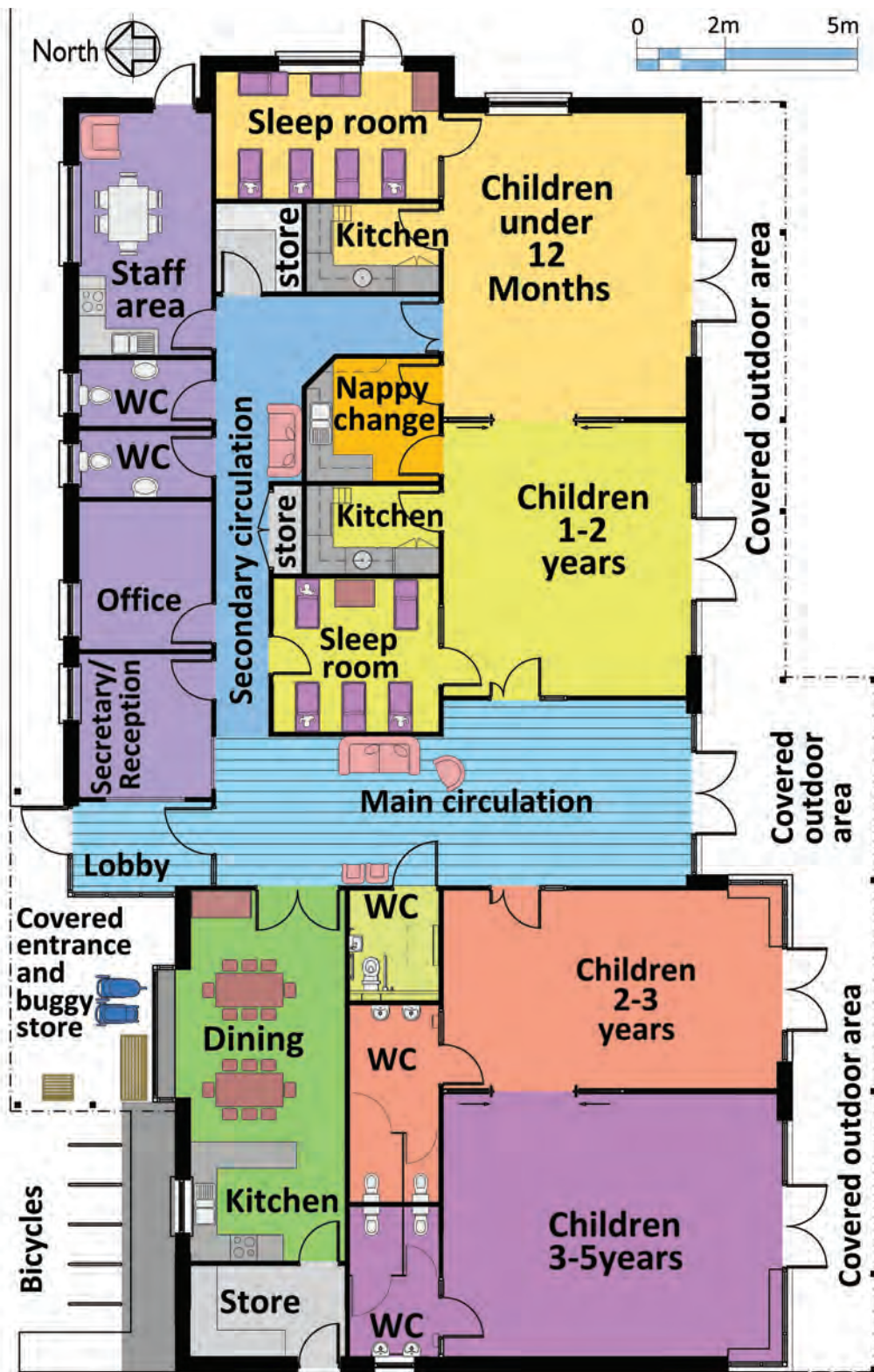


F Easy to go or look outside



See **technical sketch 4** for the location of these spaces on an indicative floor plan.

Technical sketch 4: Indicative overall plan of setting showing various key rooms.





### Universal Design Guidance

- High levels of natural light and the provision of low-level sills or floor-length windows to maximise views to the outside and support visual development (a sill of 300mm provides a nice place for a small child to sit).
- Toilet facilities attached to each room and easily accessed from the main activity space.
- Sufficient storage space within the room.
- Room flexibility through moveable elements to define different spaces.
- Space that facilitates good levels of staff supervision.
- Child level shelving and storage units. It is important that there are sufficient wall areas with load bearing and fixing capacity for wall mounted shelves.
- Direct access to outdoor spaces.
- Ground floor accommodation allows safe, level, easy access to the outdoors, preferably reached from indoor play areas.
- Children in ELC settings often eat their meals in the main play area. Some children, for instance those with sensory processing difficulties, may require additional space or may need to be a slight distance from the smell of food or the noise associated with mealtimes.
- Signage, vision panels and door handles (where appropriate) need to be low enough for young children to reach.
- Where ramps are required they should have very shallow gradients (max 1:20) to suit young children using wheelchairs or mobility aids.
- Consider how sensory spaces or soft play spaces can be used for all children including those with physical, sensory or cognitive difficulties.
- If possible, an additional quiet room or semi-enclosed space for support or therapy would be beneficial to many children.
- Storage for mobility equipment such as buggies, strollers and wheelchairs.
- Battery charging for wheelchairs.



## Design features for children under 12 months

During this stage the furnishings and floor finishes are very important. As babies learn to crawl, carpet can prevent the frustration of slipping and provides traction. Babies spend a lot of time on the floor and they learn in a sensory manner. Providing textures like shaggy rugs gives interest and variety for babies who are comfortable with these materials. When using soft furnishings like this ensure they are maintained in a clean condition and removed if there is a child in the room who suffers from allergies or does not like this kind of material. It is important to balance developmental needs with the obvious need for floor surfaces to be hygienic and easy to clean.

Babies need furniture and bars to encourage them to stand. Many children will be ambulant by 11 months and will benefit from furniture such as steps, platforms and ramps.

Sleeping areas and nappy changing areas are discussed on **page 165** and **175**.



17 Carraig Briste, Enniscorthy, County Wexford.

### Design features

- Soft finishes and natural, homelike materials.
- Soft furniture for a child to safely pull themselves up on and learn to climb.

### Design tip

- A less textured rug may be required if a child has allergy problems.



➤ 18 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- Low level mirrors in a baby room allowing mirror play that has been shown to have developmental benefits.
- Soft objects, cushions and floor mat to provide a safe and comfortable environment.
- Comfortable chair for a practitioner to sit with a baby.
- Glazing providing supervision to sleep room.



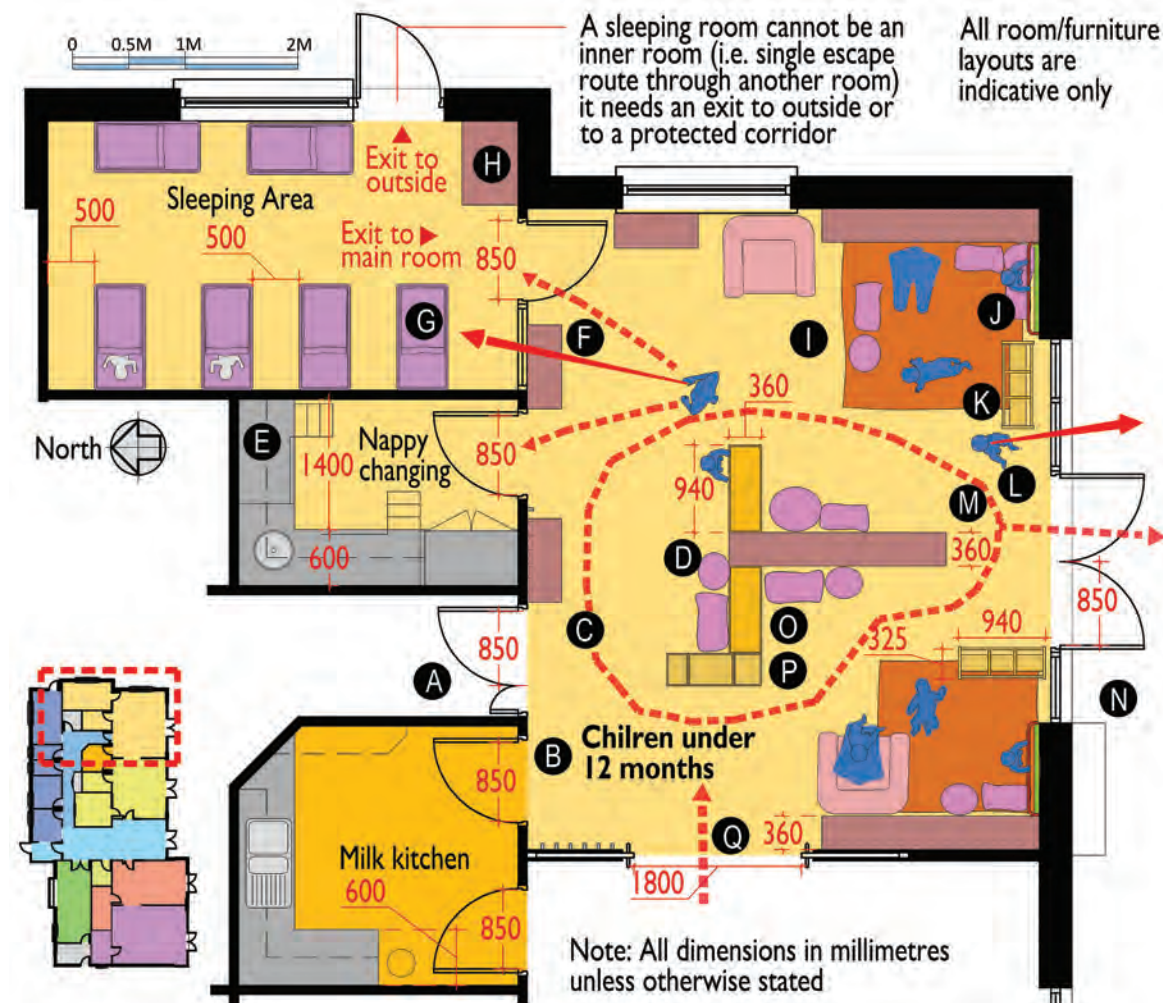
➤ 19 Cheeky Cherubs Early Years Schools, Ballincollig, County Cork.

### Design features

- A cosy enclosed space for babies to crawl into.



### Technical sketch 5: Indicative plan of room for children under 12 months.



- |   |  |
|---|--|
| <p><b>A</b> Cat-and-kitten door (door and a half) with a primary opening leaf with a minimum clear width of 850mm but preferably 900mm.</p> <p><b>B</b> Door with a minimum clear width of 850mm but preferably 900mm.</p> <p><b>C</b> Continuous route for children and staff to circulate within the room.</p> <p><b>D</b> 1800mm shelving or partition to creating two quieter and calmer zones within the room.</p> <p><b>E</b> Changing tables and counter tops.</p> <p><b>F</b> Direct access to sleeping room along with glazing to provide supervision from the main room.</p> <p><b>G</b> Cots (500mm minimum separation to other cots, walls and other fixed objects).</p> <p><b>H</b> Storage or wardrobe.</p> | <p><b>I</b> Cosy corner with a soft mat, cushions, and an armchair.</p> <p><b>J</b> Low level mirror and horizontal grab rail for children to pull themselves up.</p> <p><b>K</b> Browser box with toys and soft books.</p> <p><b>L</b> Floor level glazing providing good views for babies to the outside.</p> <p><b>M</b> Direct access to covered outdoor area and the garden.</p> <p><b>N</b> Storage for outdoor gear.</p> <p><b>O</b> 410mm high baby shelf for children to play on and pull themselves up.</p> <p><b>P</b> 100mm (approximately) platform with ramps to develop baby's motor skills.</p> <p><b>Q</b> Cavity sliding doors providing flexibility to connect or separate rooms (a cavity sliding door is where the door leaf is hung from a top rail and slides into a cavity or a pocket within the wall).</p> |
|---|--|





### Universal Design Guidance

- Free space for crawling.
- Infant level shelving units or storage to allow retrieval of toys and support a child's efforts to pull themselves up to a standing position.
- Low level glazing and partitions to aid supervision.
- Low level mirrors to support visual development.
- Sound absorbing materials that are non-allergic, anti-static, and stain/moisture resistant.
- Direct access to nappy changing area.
- A milk kitchen with sink, fridge and storage areas (this may be located in the main kitchen depending on the size of the setting).
- A small covered outdoor space that is separate but adjacent to the main outdoor area will ensure that infants get fresh air and a change of scene in a safe and sheltered location that still provides contact and visual access to the older children at play.



## Design features for children aged 1 to 2-years

Children continue to go through the stages of walking. Their balance develops and soon they learn to crawl upstairs, push, pull, carry and build. They spend much of their time on the floor, crawling, squatting, sitting, kneeling or mastering their walking skills. Their balance can be uncoordinated up to about 18 months and they can tend to fall heavily. Many will have mastered self-feeding and be able to identify some simple familiar items. At 18 months many children are capable of running. There can be much spillage and falling and they need a lot of supervision. Sleeping areas and nappy changing facilities are an important facility for this age group.



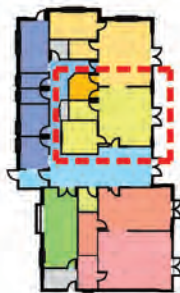
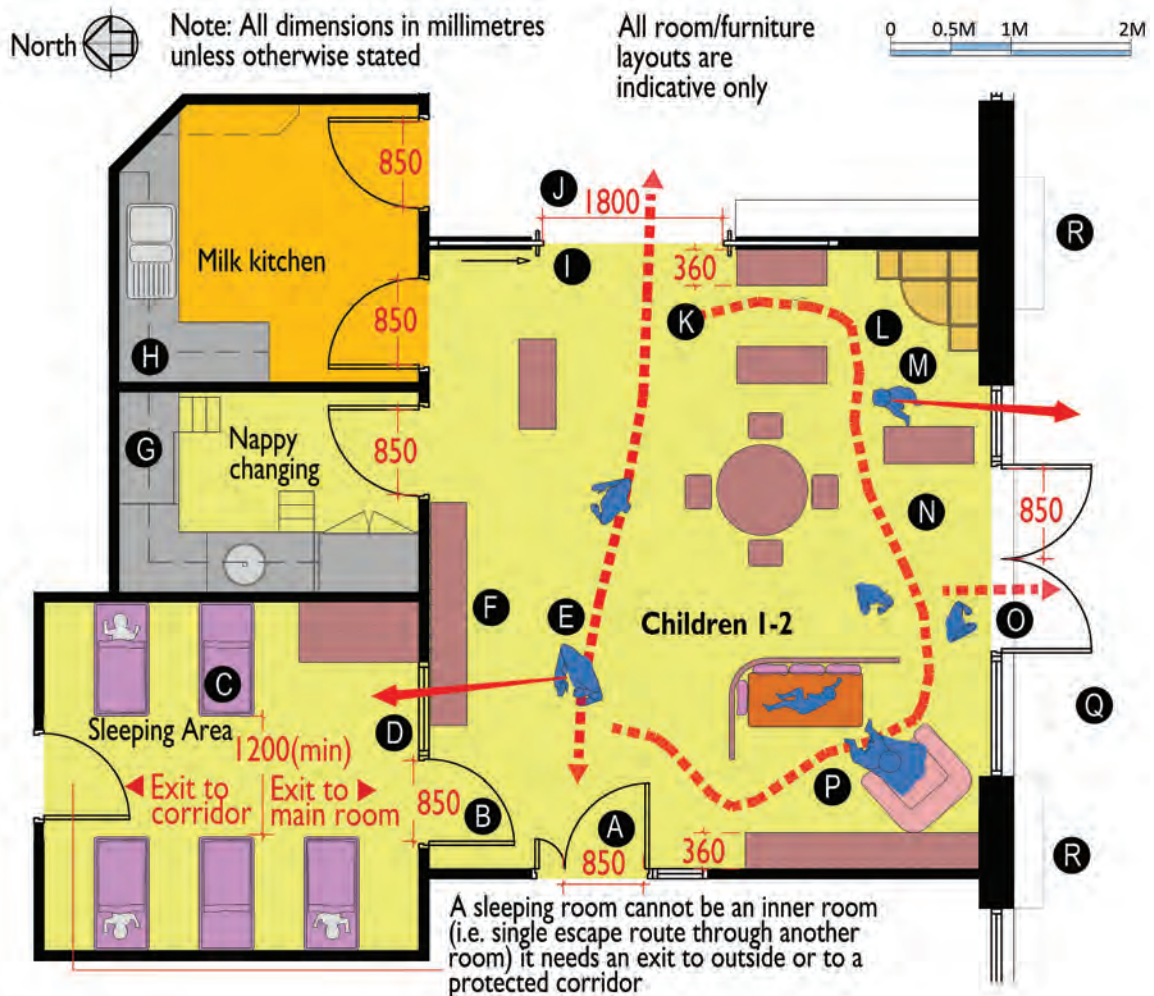
➤ 20 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- Furniture that encourages children to climb stairs and ramps.
- Steps to develop gross motor skill.
- Different areas within the room create various experiences and activities for children.
- Window from main children's room into adjacent room to aid supervision.

### Design tip

- Better colour contrast between the furniture and the floor would improve visibility.

**Technical sketch 6: Indicative plan of room for children aged between 1 and 2-years.**

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|---|---|
| <p>A Cat-and-kitten door (door and a half) with primary opening leaf with a minimum clear width of 850mm (but preferably 900mm).</p> <p>B Door with a minimum clear width of 850mm but preferably 900mm.</p> <p>C Cots.</p> <p>D Glazing to provide supervision from the main room.</p> <p>E Direct route through room leading directly to adjacent children's room.</p> <p>F Coat hangers and bench with storage below.</p> <p>G Changing table.</p> <p>H Kitchen counter.</p> | <p>I Cavity sliding door.</p> <p>J Clear opening of over 1800mm when fully open.</p> <p>K Continuous route for children to move from one activity to the next.</p> <p>L Active corner with platform and ramp, work benches and loose play materials on shelves.</p> <p>M Direct views to outside through glazing carried to floor.</p> <p>N Level access threshold.</p> <p>O Direct access to outside.</p> <p>P Quiet corner with low partition, armchair, rug and cushions.</p> <p>Q Covered outdoor space.</p> <p>R Coat hangers and boot storage in covered outdoor space.</p> |
|---|---|







➤ 21 Tigers Childcare, Balgriffin, Dublin.

### Design features

- Steps to develop gross motor skill.
- Different areas within the room create varied activities and experiences for children.

### Design Tip

- Permanent manifestation on the glass at two levels, from between 850mm to 1000mm and between 1400mm to 160 mm above the floor, would make the glass more visible and prevent accidental collision.
- Avoid patterned floors as these can cause problems for people with vision difficulties.

### Universal Design Guidance

- Safe floor surface and room layout to support children at this stage of development who need clear running areas but who are prone to falls and spillages.
- Steps and age-appropriate levels to develop gross motor skills.
- Coats and storage areas at an accessible level to help them recognise their belongings and encourage independence.
- Access to level changes, small ramps etc.
- Toddler level shelving units or storage to allow retrieval of toys and support a child's efforts to pull themselves up to a standing position.
- Enough space for more than one child in any designated area.
- Low level mirrors to support visual development.
- A milk kitchen with sink, fridge and storage areas (this may be in the main kitchen, depending on the size of the setting).
- Direct access to nappy changing area.



## Design features for children aged 2 to 3 and aged 3 to 5 years

While there is quite a difference in development between a 2-year-old and a 5-year old, there is significant overlap in the design features appropriate for these age-groups, therefore both these age groups are discussed in this section.

Children between 2 and 3 years will have started to develop fine motor skills such as holding chalk, crayon or pencil, playing with timber blocks, or manipulating smaller toys or objects. Spaces for children in this age group should provide plenty of objects and materials to investigate and explore, these should be stored on accessible shelves or tables in an organised and uncluttered manner. Suitably sized tables or worktops and chairs should be provided for children to play and work with these objects, with others or alone.



➤ 22 Family Tree Creche, Limerick.

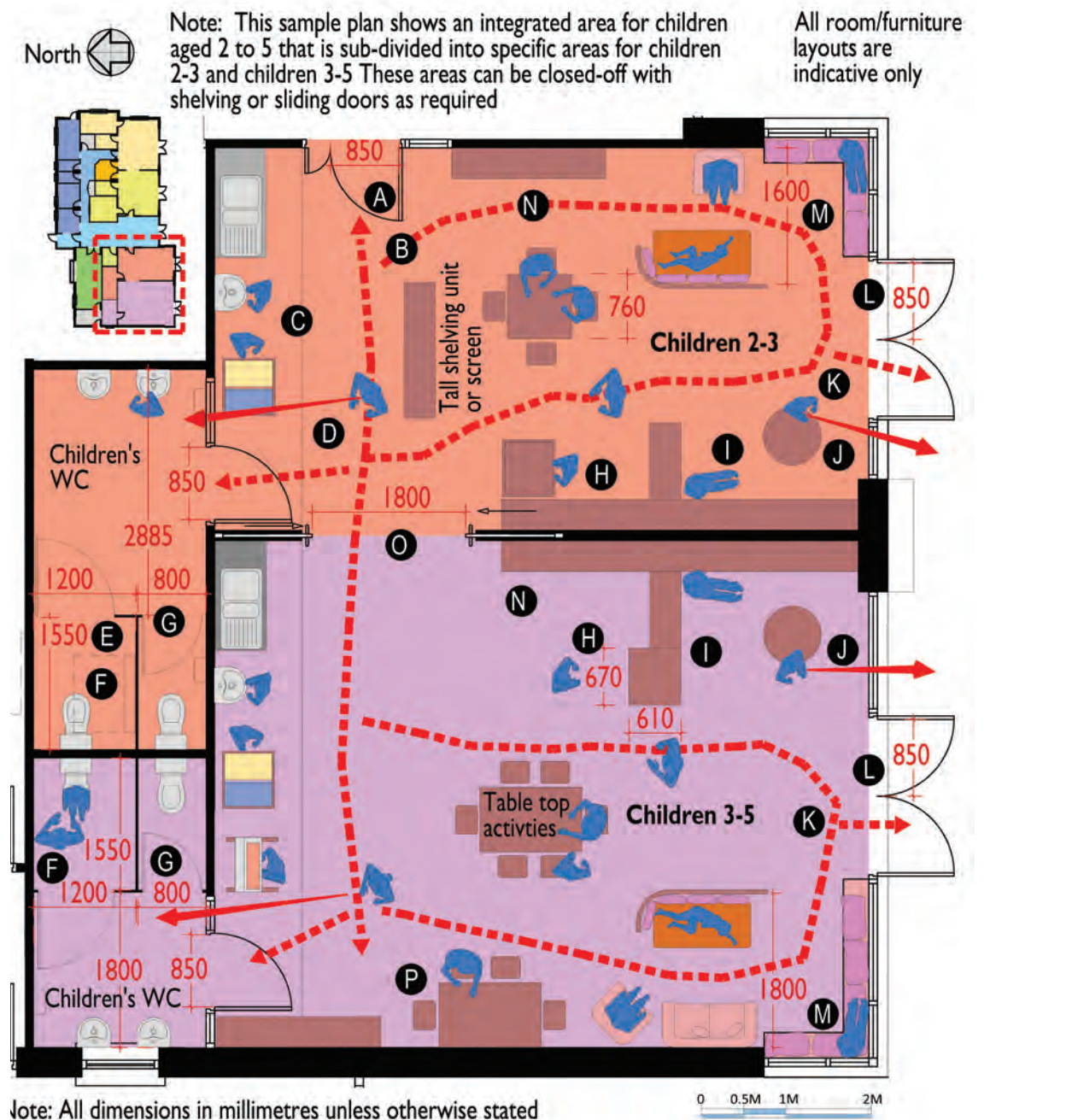
### Design features

- The floor length window gives the children in the room real opportunities to see the ever-changing natural world outside.
- Children can interact with the other children outside, especially important for siblings to see each other at times when they are not in the same group.

### Design Tip

- Permanent manifestation on the glass at two levels, from between 850mm to 1000mm and between 1400mm to 160 mm above the floor, would make the glass more visible and prevent accidental collision.

### Technical sketch 7: Indicative plan of rooms for children aged between 2 and 5 years.



- |   |  |   |
|---|--|---|
| A Cat-and-kitten door (door and a half) with primary opening leaf with a minimum clear width of 850mm but preferably 900mm. | D Direct access to children's WC and nappy changing (with glazing to aid supervision). | J Direct views outside.                             |
| B Continuous route for children and staff to circulate within the room.   | E Enlarged WC cubicle  | K Direct access to covered outdoor space and garden |
| C Messy play with water/sand table, children's sink, and easel  | F Wall mounted drop-down changing table.   | L Level access                                      |
|   | G Standard WC cubicle.   | M Quiet/book area                                   |
|   | H Construction play area.  | N Cloak / bag area                                  |
|   | I Home area/ imaginative play.   | O Sliding door providing access to Pre-school room. |
|   |  | P Mark making area                                  |





➤ 23 Graiguecullen Parish Childcare Centre, Graiguecullen, County Laois.

### Design features

- **Low table and height adjustable chair enables equal access to activities for all children.**
- **Restrained use of colours and materials create a visually uncluttered and calm setting.**

2 and 3 year-olds will have mastered many gross motor skills and they can run with confidence, climb, and build towers. In addition to stimulating internal spaces, easy access to outdoor space is critical. This is also the toilet training stage of development so children should have free and convenient access to the child-size toilets or potties and appropriate height wash hand basins.

In general, play areas for these children should allow enough space for free movement, should include a mixture of open areas and smaller nooks to accommodate various activities and provide an interesting environment for play and rest. This variety of spaces will give children the choice and opportunity to find somewhere with a bit more personal space or an area to withdraw from activities, when they are tired, while remaining in the room and part of the group.



### Design features

- This bay window seat provides visibility between the play room and the corridor and enables children to see each other as they pass by.
- The window seat provides a cubby space for a child to play or rest.

For pre-school children aged between 3 and 5 years, much of the above still applies. At this age they will usually have developed good locomotive skills and can jump, pedal and hop. They will also have greater control over their fine motor skills and will be able to complete more complex tasks such as using scissors or threading beads. Socially and emotionally they begin seeking more independence and they greatly enjoy imaginative play.



➤ 25 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- **Nooks and window openings between spaces provide interesting opportunities for children to interact.**

Older children in this age group will benefit from greater levels of challenge and risk in their environment. Direct access to outdoor space will complement the internal area by providing additional challenges and space for play, while also facilitating direct contact with nature.





➤ 26 Naíonra Choill Mhic Thomasín, Kilmacthomas, County Waterford.

### Design features

- Climbing wall within activity room provides an exciting level of challenge for pre-school children.
- The floor beneath the wall has padded mats to ensure soft landings.

### Universal Design Guidance

- The room plan should guide the child from one activity to the next.
- Separate quiet/noisy, tidy/messy, and active/calm spaces (including nooks and crannies).
- Sink provided adjacent to messy areas.
- Floor surfaces to reflect activity (waterproof for messy, calm or cosy for quiet area etc).
- Toilet, potty training, or nappy changing rooms directly accessed from the playroom, in a way that balances supervision with privacy for the child.



## Design features for children aged 6 to 14 years

Considering the potential age range within the school-age group, careful design and flexible environments are required to support different developmental stages. Creating the right environment supports emerging independence, and the development of young people to their full potential. It provides security and opportunities for relaxation, along with activities, interactions and ongoing development in an appropriately designed environment.

The location of the school-age service within a building is important. In certain circumstances an upper floor of the building will be considered suitable. Primary school children need space that appeals to their intellect, sense of fun and need for physical and mental exploration. It is helpful to provide a number of seating options to facilitate various social arrangements and this should be reinforced through a management approach which allows children and staff to adapt to the space.



➤ 27 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- School-age childcare room located on the first floor of the setting. The space provides for various activities from dining booths, to a comfortable couch, to a play area to the rear.



28 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- The room is only for school age children and provides a homelike space with the kitchen and dining area divided with an island and booths for mealtimes.

### Universal Design Guidance

- Careful location within the setting to provide more independence, space to relax, and take part in activities or social engagement. This could be located on an upper floor.
- Environment should offer choice and flexibility for SA children to influence layout.
- Consider space for the storage of school bags and other personal items.
- Provide storage for long term children's projects.
- Furniture, fittings should be suitable and specifically for this age group.
- Allow for storage space for children to work on long term projects.
- Where possible a separate entrance and dedicated access route to the school-age room is preferred.
- Create a distinct identity for the school-age setting to distinguish it from the early years setting.
- Provide access to kitchen for cooking/baking or a facility to prepare a snack or drink.
- Provide dedicated, suitable size, toilets.
- Dedicated outdoor space that reflects the competency of older children and the higher-level of risk associated with play. Factor in skateboards, scooters and bicycles.
- Consider how older children who use wheelchair or mobility aids can be enabled to physically challenge themselves.





## Design features for sleep and rest

Rest and sleep should be child-led, so comfortable and quiet sleeping areas are essential for young children to rest when they need to. Ideally, these rooms should have windows for natural light and ventilation. Natural and artificial light should be easily controlled through safe and appropriate window dressing (i.e. avoid cords from blinds) and dimmable lights to achieve comfortable and subdued lighting conditions. Easily operated and responsive heating systems and natural or artificial ventilation/cooling should maintain healthy and comfortable room temperatures between 16-20°C.



➤ 29 Happy Days Community Creche, Ballyporeen, County Tipperary.

### Design features

- **Cosy cot room with ample maneuvering space.**

Depending on the design of the main children's room and the age groups being served, the following sleeping requirements apply:

#### Children younger than 2-years

- These children should have access to a cot, the number of cots required depends on the age of the children and the type of service.

↩ For further details see Regulation 20: **Facilities for Rest and Play in Tusla (2018) Quality and Regulatory Framework: Full Day Care Service and Part-Time Day Care Service.**

➡ Note: Refer to **Section 04** for more information on blinds and cords.

- Where there are more than 6 children under 2-years in the main room a separate sleeping room is required. Where there are 6 or less children in the main room, cots can be accommodated in the same room if there is a minimum of 4.2m<sup>2</sup> per child in the room, and if comfortable, quiet and restful conditions can be achieved.
- Dedicated sleeping rooms should be located away from noisy or busy parts of the setting. They should be directly accessible to the main children's room to enable high levels of staff supervision. Supervision will be enhanced by glazed doors and panels between the sleeping room and the main room that provide staff views into the sleeping room.
- All sleep rooms should be spacious and allow for easy entry and good circulation within the room. Cots should be set a minimum of 500mm apart and allow a 500mm access space to at least 3 sides and should never be placed against possible hazards such as windows, curtains or blinds, or heated radiators.

### Children older than 2-years

- These children can rest and sleep on mats or low-level beds in the main room where restful conditions can be achieved. There should be an area provided in the room where a child who does not want to sleep can undertake quiet activities. Equally there should be a quiet space for a child to sleep when they are tired.



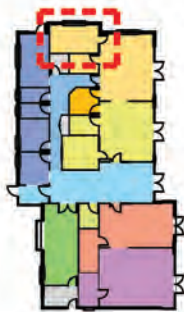
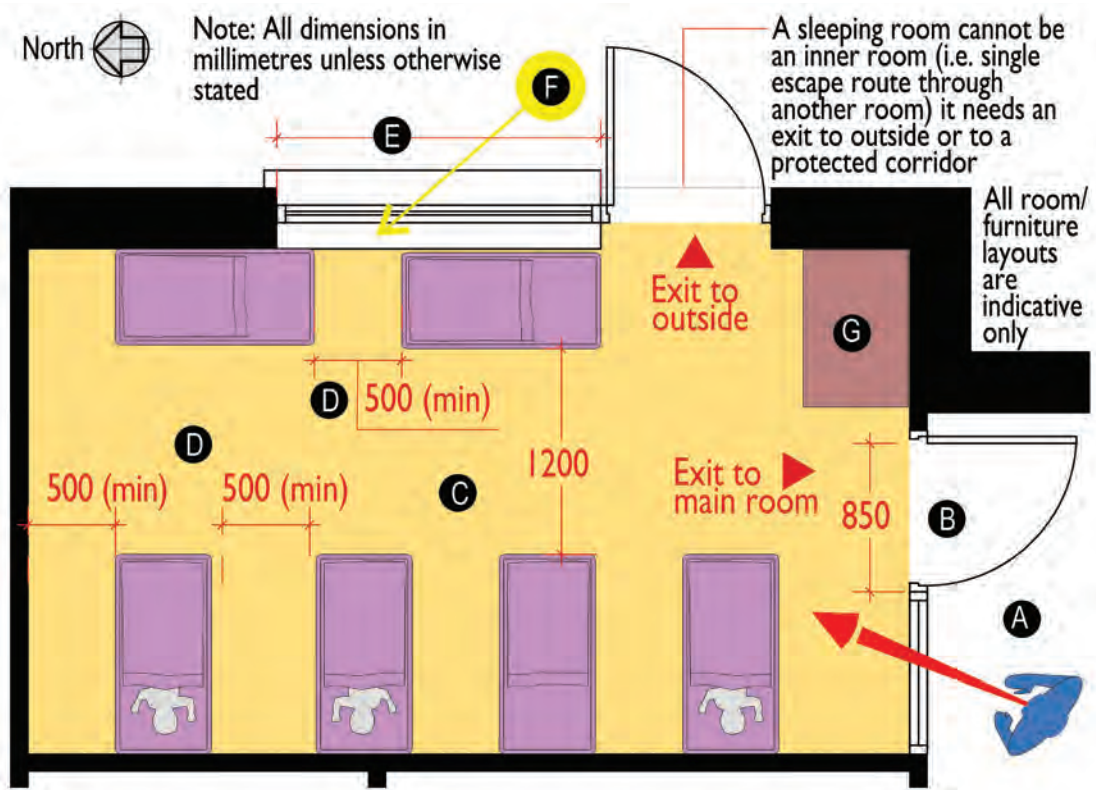
30 Le Cheile Family Resource Centre, Mallow, County Cork.

### Design features

- **Stacking beds** can be placed in a quiet corner of a play room, when an older child needs a rest.



**Technical sketch 8: Indicative plan of sleeping room.**



- A Glazing to provide supervision from the main room.
- B Door with a minimum clear width of 850mm but preferably 900mm.
- C Minimum 1200mm clear width.
- D Minimum 500mm separation between cot and other cots, walls, or large furniture.
- E High level window to out of reach for an infant (Sill level at a minimum of 1500mm above floor level).
- F Window dressing such as curtains or blinds to control daylight (see Section 4 for safety issues around blind cords and similar choke hazards).



### Universal Design Guidance

- For children aged under 2-years cots can be accommodated in the same room if there are 6 children or less and a minimum of 4.2m<sup>2</sup> per child in the room.
- For children 2-years and over low-level bed and mats can be used within the main room for sleeping and rest. In these situations, a separate activity area should be provided in the room for a child who does not want to sleep at the same time as others.
- All rooms used for sleeping and rest should achieve comfortable, quiet and restful conditions removed from busy or noisy internal and external areas of the setting.
- For sleeping, room temperatures should be kept within 16-20°C and receive 3 air changes per hour.
- Natural light should be easily controlled through safe blinds or curtains that do not contain cords or plastic pull chains that may cause a choking or strangulation hazard (See Section 4 for more information on window blinds).
- Artificial light should be easily controlled to achieve subdued and relaxing lighting conditions through dimmable lighting, ambient lighting, or lighting layouts that allow selected light fittings (i.e. 'low voltage downlighters' or floor lamps) to be turned on or off.
- Where there are more than 6 children in the main room, a separate sleeping room with an appropriate number of cots should be provided for children under 2-years.
- Sleep rooms should be directly accessible to the main children's room to enable supervision this will be enhanced by glazed doors and panels between the sleeping room and the main room.
- Sleep rooms should be spacious and allow for easy entry and good circulation for all users.
- The size of the sleeping room is dictated by the number of cots required, however a maximum of 6 cots is recommended. A standard cot is 1140mm x 550mm and requires 500mm clearance on at least 3 sides. Cots should not be placed against windows or hazards such as radiators – this will impact on floor space requirements.
- Space should be provided to store additional cot mattresses and bed linen.
- Ideally sleeping rooms should be provided with windows providing natural light and ventilation.
- All natural and artificial lighting, room temperatures, and ventilation in dedicated sleep rooms to be regulated as described above.



## Children's toilets

Toilet facilities should be provided for each unit or group dedicated space at the rate of one toilet and **one wash-hand basin for every 11 toilet-trained children**. Accessible toilets should be co-located with other toilets. Some children may need the toilet immediately on arrival and this needs to be considered in the design and layout of toilet facilities.

The toilet area should provide enough space for all children including those with sensory, physical and cognitive difficulties. It should provide unrestricted access to the children and promote independence and development of toileting practices. All access doors to toilets, cubicle doors, WCs, and washbasins should be easily located, accessible, easily understood and used by all children.



➤ 31 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- Low level trough provides easy access for young child.
- Foot operated tap.

### Design tip

- Due to its depth and foot operated taps this trough would not be suitable for a child using a mobility aid. Consider providing a lower level sink with taps accessible to children at the side.



### Design features

- Low level washbasins provide easy access for young child.
- Good colour contrast between counter top and basins.

### Design tip

- Built in units below basins may prevent a child using mobility aids from easily accessing the washbasins.

Toilets should be designed to be spacious and provide adequate levels of supervision so staff are within hearing range and can observe children to ensure safety and offer support when needed. Supervision will be strengthened by glazed observation panels in the toilet wall, and low-level cubicle doors. In all cases the dignity and privacy of the child must be respected.

Individual cubicles should be provided and there must be space for potty areas for children who are toilet training. Cubicles should be designed to provide sufficient space for a child to comfortably, independently and safely use the WC. The size and design of the cubicle should account for the cubicle door opening inwards as this will impact on the internal manoeuvring space when opening or closing the door. One larger cubicle should provide space for a staff member to assist a child if required. Ideally, this cubicle would have space for assisting staff on both sides of the WC pan.

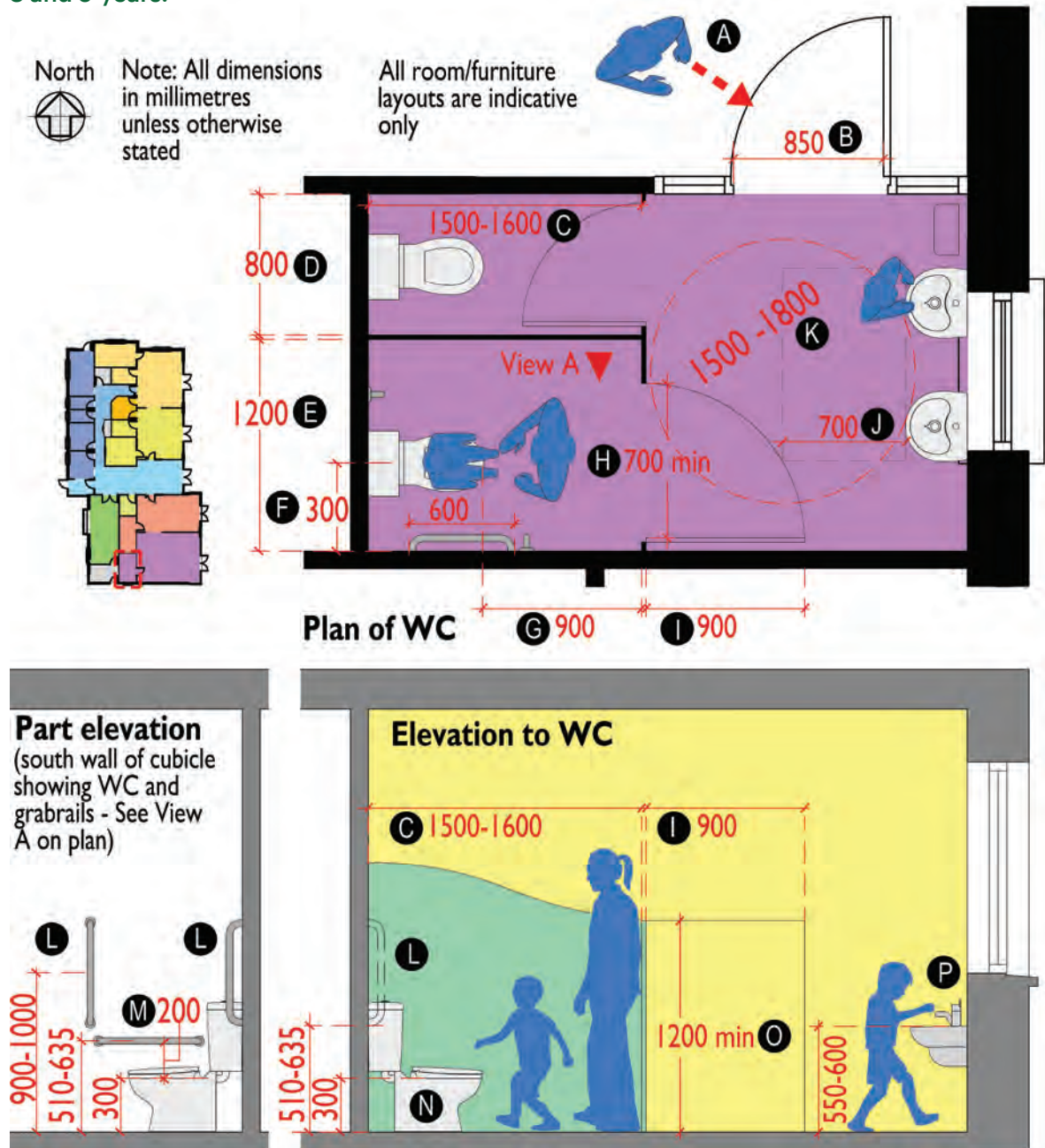
Consideration should be given to toilets to serve outdoor play areas, or internal toilets that can be accessed from outside.



See **Section 3.4** for information regarding outdoor toilets.



### Technical sketch 9: Indicative plan and section of WC for children aged between 3 and 5-years.



- A Direct access and supervision from main room.
- B Door with a minimum clear width of 850mm but preferably 900mm.
- C Standard cubicle length of 1500-1600mm.
- D Standard cubicle width of 800mm.
- E Wide cubicle for a child that needs assistance - minimum width 1200mm.
- F Centre line of WC - minimum 300mm from wall.
- G 900mm clear space.
- H 700mm minimum clear width for door.
- I 900mm space for door to open.
- J 700mm minimum clear space between door and any obstacle.



33 Beginnings Creche, Mahon, Cork.

### Design features

- Spacious children's toilet cubicle with low level doors and partitions for supervision.
- Good colour contrast between doors and the partitions.
- A portable toilet step is useful for children who are not big enough to easily access the toilet. Ensure the top is non-slip and it is strong enough for the age of a child using it.



Note: For more information about ELC toilets see Tusla (2018) **Quality and Regulatory Framework: Full Day Care Service and Part-Time Day Care Service.**



➤ 34 Horizons Montessori, Bishopstown, Cork.

### Design features

- Wider cubicle allows space for a frame for a child who has mobility difficulties to independently use the toilet.
- The cubicle has generous space to the right to allow a staff member to assist the child if needed.

### Design tip

- A toilet seat in a contrasting colour could aid recognition for a child with visual difficulties.

### Universal Design Guidance

- One toilet and one washbasin should be provided for every 11 toilet-trained children.
- All main children's rooms should be near and within easy access of children's toilets.
- Toilets should be located and designed to provide unrestricted and independent access for all children.
- Toilets should be designed for optimum supervision so that staff in the main children's room are within hearing range and visual observation of the toilets. Supervision may be enhanced by glazed vision panels into the toilet area.
- Where possible, toilets should be located along an exterior wall for ventilation and natural light.
- Cubicles should be provided for children that provide sufficient space for a child to comfortably, independently and safely use the WC. A suitable cubicle would have internal dimensions of 800mm (width) x 1500mm (depth).



### Universal Design Guidance

- The height of partitions and doors should provide both privacy for the child and facilitate supervision. Children under 5 years of age will be afforded privacy with a partition or door that extends up to 1200mm above floor level, while 1400mm may be more appropriate for an older child.
- One larger accessible cubicle for children who require assistance from a staff member. This may be approximately 1200mm (width) x 1500mm (depth) and have an outward opening door. This will allow staff to comfortably and safely assist a child, particularly staff members who are pregnant or have mobility difficulties. This cubicle must be carefully located to ensure the outward opening door does not open onto a circulation route.
- A drop down changing table in one cubicle will enable staff to change a slightly older child's nappy, if needed.
- All cubicles should be easily opened by children from the outside and inside and should be easily opened by staff from the outside.
- Child-sized WC pans should be provided in line with the age groups of children in the setting. For toilets serving mixed age groups a median height may need to be chosen. The following heights and spacing of WC pans are provided as a guideline only:

Ages	3-4 years	5-8 years	9-12 years
WC Pan Height	280-305mm	305-380mm	380-430mm

- Potty areas should be provided for children who are toilet training. Where potties are used, ensure there is a suitable space for them to be cleaned and stored after use.
- Child sized washbasins should be provided at heights appropriate to the age groups in the setting. These heights would range from 550mm above floor level for children under 2-years, 600mm for pre-school children, or 680mm for after-school children.
- Taps should be easily operated using push-down or lever arm fittings. Provide both cold and hot water, with a maximum hot water temperature of 43°C.
- Handrails and grab bars will provide additional support for staff or children who need it. The following heights and spacing of WC pans are provided as a guideline only:

Ages	3-4 years	5-8 years	9-12 years
Grab Bar Height	455-510mm	510- 635mm	635-685mm

- Hand drying facilities using disposable, single-use drying cloth or paper towels should be provided at between 500mm to 900mm above floor level depending on the age group being served. Electric hand dryers are not suitable.
- A sluice sink and non-slip, washable flooring will help with spillages within the toilet area.



## Nappy changing areas

Spaces for infants and young toddlers need direct access to nappy changing areas that are separate from the main space but still provide visibility for the staff and children. It should also be noted that some older children with sensory, physical or cognitive difficulties may also need changing facilities. In these circumstances an adjustable changing table or ceiling mounted hoist may be required. Slide or fold out steps reduce manual handling for staff members and promote independence for young children. Consideration should be given to the extra space required for children using a mobility aid, wheelchair or mobility device. Adequate space is also important for staff to assist all children, particularly if a staff member has mobility difficulties.



➤ 35 Beginnings Creche, Mahon, Cork.

### Design features

- Fold-out steps means that older children can climb to the table top with adult assistance and be folded back when not needed.
- The recessed top ensures a young child cannot roll off.
- Slide out steps provide a wider, stable stairs for older toddlers to climb to have their nappy changed.

### Design tip

- Position shelves above changing units well out of reach of children's heads.

The provision of nappy changing facilities for slightly older children can be a challenge, particularly if space is limited. In Mallow Community Childcare they found a solution by installing a drop down nappy changing unit in one of the children's toilets. The toilets are adjacent to the pre-school room. Installing this unit ensures that the child who may need to have a nappy changed is in the same type cubicle as the other children, ensuring inclusion, as they do not feel they are being taken somewhere else. The door can be closed, ensuring privacy and respect. When not in use, the table is clipped in the upright position and the toilet can be used as usual, so no space is being lost. The space also allows for a child to have a nappy change, while they remain standing, if a child is too heavy for the adult to lift and the child is comfortable with this.



**Note:** For more information about ELC toilets see Tusla (2018) **Quality and Regulatory Framework: Full Day Care Service and Part-Time Day Care Service.**



36 Mallow Community Childcare, Mallow, County Cork.

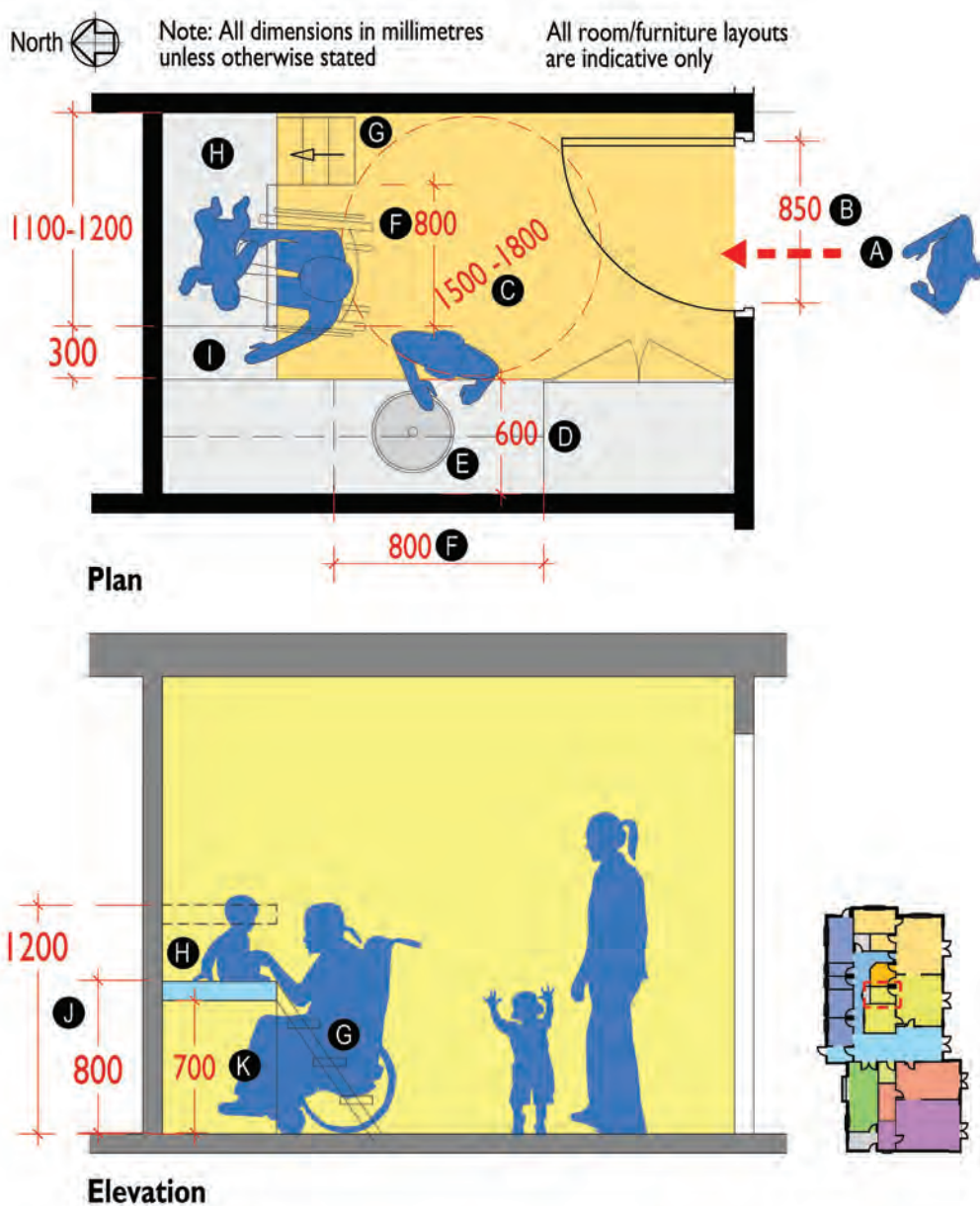
### Design features

- The drop down nappy changing table means that a slightly older child can have a nappy changed.
- The cubicle can function as a normal toilet cubicle at other times.

### Design tip

- Increased colour contrast between the floor and dividers would provide better visual recognition.



**Technical sketch 10: Technical Drawing: Indicative plan and section of nappy changing room.**

- A Direct access from main room.
- B Door with a minimum clear width of 850mm but preferably 900mm.
- C 1500-1800mm turning circle.
- D Standard 600mm deep kitchen units.
- E Washbasin.
- F Ensure minimum of 800mm wide leg space.
- G Consider fold down steps to enable a child to mount the table with adult assistance.

- H Consider height adjustable changing table.
- I Provide storage for supplies within reach of a person seated or in a wheelchair.
- J Table to be adjustable between 800mm and 1200mm.
- K Maintain 700mm clearance for legs.



➤ 37 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- Internal windows providing views to adjacent spaces.
- Wall hung storage above changing table providing access to supplies.
- Corner washbasin providing handwashing facilities directly adjacent to changing area.

### Design tip

- If the knee space below the changing table extended across the full width of the table it would make it easier to use for a person seated or in a wheelchair.
- Supplies provided at a lower level would make them accessible for a person of smaller stature or person in a wheelchair.

### Universal Design Guidance

- The nappy changing area should be of a sufficient size to allow staff to comfortably and safely operate within the space. This is of particular importance for a staff member who is pregnant or has mobility difficulties. It should also allow staff to assist a child in a wheelchair or using a mobility aid.
- Handrails and grabrails provide additional support for staff or children who need it.
- Provide handwashing facilities next to changing area.
- Changing areas to receive a minimum of 6 to 8 air changes per hour but higher levels of ventilation are desirable. Natural ventilation through windows is preferable (this also allows natural light).
- Provide an adjustable changing table to suit people of various heights or a wheelchair user, or ceiling mounted hoist to cater for children with more profound physical difficulties.



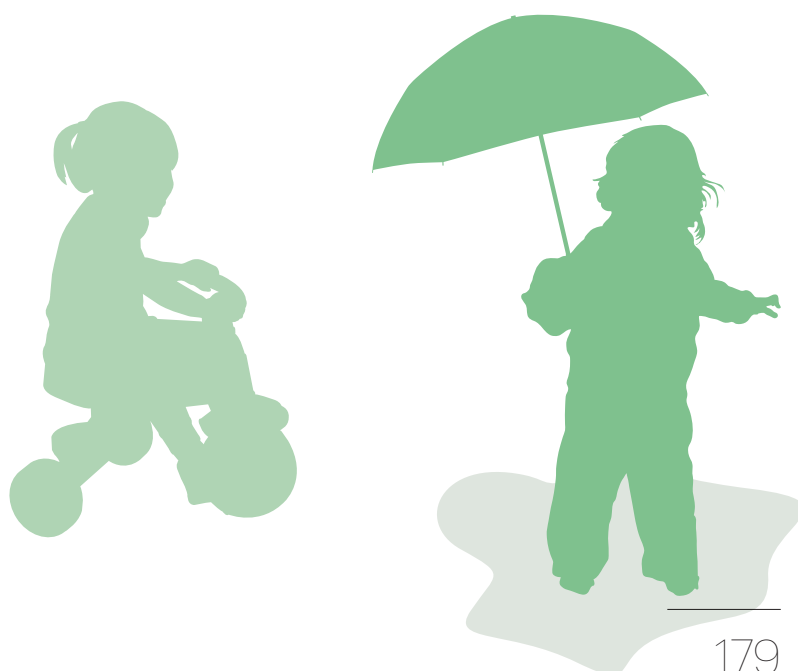
## Outdoor clothing and footwear changing areas

A dedicated outdoor clothing and footwear changing area that can also be used to store and dry wet gear and boots is helpful in the ELC setting. Depending on the size of the setting, this can be provided as one central space and shared among different age groups, or in larger settings, there may be a few changing areas provided for individual groups. Locating these directly adjacent to the main outdoor area creates a good transition space between the main children's rooms and outside and provides easy access and egress.

In all cases these spaces must be large enough to cater for the high levels of activity associated with children changing clothes and boots. There will be a combination of children standing, sitting on benches, and sitting or lying on the floor. Consideration should be given to the extra space required for children who may need room to manoeuvre a mobility device, more personal space or a calmer environment. Adequate space will also be needed for staff to assist all children. The actual amount of space required will be dependent on the size of the setting. Allow space for children to sit on benches or the floor and for adults to move around to assist as required.

Coat hangers and storage shelves should be positioned so they can be reached independently by children, and sufficiently spread out so each individual clothing item is clearly visible and accessible. High levels of natural ventilation will provide good drying conditions, especially for items that may get very wet such as waterproof overalls or wellingtons.

If these changing areas are situated adjacent to a covered outdoor space, then this covered space can also be used for storage and drying, especially for items that may get very wet such as waterproof overalls or wellingtons. It is also worth noting that these changing spaces are important social and play areas for children and this should be considered as part of the design.







38 Cheeky Cherubs Early Years Schools, Bishopstown, Cork.

### Design features

- Direct access from internal outdoor clothing and boots changing area to covered space. This provides drying and storage for wet gear while also providing a transition zone between inside and outside.
- The roof lights ensure there is still good light to the interior of the building, while providing the covered space that provides for shelter and shade.
- Low level seat for children to put on or take off boots (see arrow).



ELC practitioner, Northside Family Resource Centre:

**“The garden space is great for children of mixed ages to play.”**



➤ 39 Cheeky Cherubs Early Years Schools, Bishopstown, Cork.

### Design features

- Dedicated outdoor clothing storage and changing area adjacent to garden access door. This door leads to a covered area that opens out onto the garden.
- Children's coats hung at a low level, so they can be independently accessed by children.

### Universal Design Guidance

- In small settings the outdoor clothing and footwear changing area can be located in a central area and shared among all children. In larger settings, there may be a few changing areas provided for individual groups.
- Locate these spaces adjacent to the exit point to the main outdoor space to create a transition space to outside and provide easy access and egress.
- Good levels of natural light will help with visibility while direct views to the outside will help children understand that they are getting ready to go outside.
- These spaces must be large enough to cater for high levels of activity. A spacious changing area will support children or staff who may need more room to manoeuvre a wheelchair or mobility aid or more personal space. This will also help staff when assisting children.
- Coat hooks, or shelves for clothing items should be located between 900mm to 1100mm maximum above floor level, depending on the age group served.
- Seating benches should be provided for changing clothes and shoes. The seat height of these should be approximately 200mm to 300mm for toddlers, or between 300mm to 425mm for pre-school children and older.
- Handrails and grab bars in the changing area will provide additional support for children if required.

## 3.3 Ancillary Spaces



➤ 40 Staff Room, Mallow Community Childcare, Mallow, County Cork.

### Design features

- Spacious staff room with good visibility from the circulation areas.
- A selection of tables means that staff can have breaks alone or in a larger group, as they choose.
- Good circulation space, facilitates staff who may use a wheelchair or mobility aids.

### Design tip

- Having blinds on the windows would provide privacy if the circulation area is in use.





## Staff Areas

### Design considerations and awareness

In settings that are open all day, a comfortable, relaxing staff room in a location that provides good acoustic and visual separation from children's activities is an important part of staff welfare. The staff room should be provided with a kitchenette, dining table and chairs, easy chairs, and lockers (a TV and/or radio may also be included). This space can be used for staff training. In most settings an office space will be required for administrative duties. This office space is beneficial for ELC practitioners in terms of completing paperwork, research, or similar activities that require a quiet space within the setting.



➤ 41 Le Cheile Family Resource Centre, Mallow, County Cork.

### Design features

- Dedicated staff office with space for 2 desks.
- Sliding glass panel means the office can double as a reception area (see arrow).

### Universal Design Guidance

- Place staff rooms in a quiet location which is accessible.
- Provide sufficient space for alternative table layouts to suit varying needs. Ensure adequate circulation space is provided between tables.
- Use non-slip (R10), non-glare flooring materials that avoid strong patterns or sharp tonal or colour contrast.

## Kitchens

### Design considerations and awareness

A setting may have a working kitchen separated from the main children's area and deliberately inaccessible to children at the times when meals are being prepared. **First 5, A Whole-of-Government Strategy for Babies, Young Children and their Families** calls for the introduction of a meals programme in some ELC settings. When assessing kitchen design or development settings should reflect on the need for the production of hot meals or the adequate storage and reheating of meals cooked off site. Consideration should be given to children and staff using the kitchen at other times to experience cooking and baking as an activity, in a safe manner. The size of the kitchen will be determined by the number of children to be catered for, but the following guidelines may be useful.

← **Note:** For more information about kitchens in ELC settings see Tusla (2018) **Quality and Regulatory Framework: Full Day Care Service and Part-Time Day Care Service.**



↘ 42 Ballindereen Community Childcare and Education Centre, Ballindereen, County Galway.

### Design features

- Spacious kitchen with good artificial lighting.
- Good colour contrast between counter top and kitchen units/wall.

### Design tip

- A protective screen on the hob should be in place if children are in the kitchen for cookery activities.



### Universal Design Guidance

- A bottle and baby food preparation zone with sterilising facilities.
- Washing machines should not be located in the kitchen.
- All kitchens should be separated from sanitary areas with a ventilated lobby.
- The size of the kitchen will depend on the size of the setting and the meal preparation arrangements.

The following areas are for guidance only:

Number of Children	Floor Space
Less than 10	9.5m <sup>2</sup> (minimum)
11 to 20	9.5 to 14m <sup>2</sup>
21 to 30	14 to 18m <sup>2</sup>
31 to 40	18 to 21.5m <sup>2</sup>

## Laundry and Utility

### Design considerations and awareness

Laundry and utility areas are an essential part of ELC settings and will typically contain a washing machine, dryer, or airing cupboard. An area for cleaning equipment and products may be included in this room or be stored in a separate room. The cleaning area should contain a large sink and draining board, a lockable storage area, and a low-level sluicing sink.

The laundry and utility should not be accessible to children and it should be separate from the kitchen or food preparation area.

### Universal Design Guidance

- Ensure laundry and utility areas are lockable and inaccessible to children.
- Ensure all appliances are accessible and usable for a person with sensory, physical or cognitive difficulties.
- Provide adequate space to allow people with physical challenges, a pregnant mother, or a person with mobility aids to comfortably and safely use the space.



## Internal Storage for Toys, Materials and Equipment

### Design considerations and awareness

In addition to storage located directly within children's rooms, a general storage area accessed by a corridor or common space such as the entrance or reception area should be considered. Buggy/ car seat storage is critical, although as discussed in **Section 2.1**, this can be provided externally. Storage of bulky items such as children's mobility aids or hoists will also need to be considered. This may arise if, for example, a child using a mobility aid or hoist is not in the setting every day.

A well organised storage area (either internally or externally) will also allow the rotation of toys and play equipment as required. Toys and materials need to be rotated from time to time as children interests and needs change and progress. Storage must also be provided for natural materials and 'loose parts'.



➤ 43 Carraig Briste, Enniscorthy, County Wexford.

### Design features

- Well organised storage area with dedicated shelves for toys and materials.
- This allows well planned rotation of toys within the setting when appropriate.

### Design tip

- Care must be taken when storing items on high shelving to ensure they cannot fall off.



➤ 44 Aghada Community Preschool, Aghada, County Cork.

### Design features

- Good ventilation to the storage area ensures that any damp material such as the canopy does not get musty.

### Universal Design Guidance

- Provide ample storage within each children's space and ensure this is accessible, usable and easily understood by all staff.
- Provide similar accessible storage space along circulation routes for shared materials.
- Where storage requires a person to physically enter the space ensure the door width is adequate for a person using a wheelchair.
- Provide high levels of artificial light to ensure the contents are visible.
- Provide a storage shelf/space for ongoing projects.
- Provide storage space for recyclable materials.



## 3.4 External Spaces and the Outdoors



45 Bernie's Pre-school, Knockainey, County Limerick.

### Design features

- Trees, flower planting, rough logs and bark providing a natural, multi-sensory play area.
- Challenge and risk on logs and swinging tyres.
- Table and benches for outdoor eating.

### Design tip

- Ensure that there are areas outdoors and accessible routes that children and adults who use wheelchairs or mobility aids can use easily.





## Overall Design considerations and awareness

Traditionally, Ireland has placed a greater focus on indoor rather than outdoor play environments. There is now a recognition that high quality early learning is best facilitated through a balance of indoor and outdoor learning opportunities.

**The Child Care Act 1991 (Early Years Services) Regulations 2016** require a full daycare, part-time daycare, sessional or childminding service registered for the first time after 30th June 2016 or moves to new premises after 30th June 2016 to have daily access to a suitable safe and secure outdoor space on the premises. Full daycare, part-time daycare or childminding services registered before that date, must ensure outdoor space on the premises is suitable, safe and secure. Where no such space is provided on the premises children should have access on a daily basis to a suitable outdoor space. For sessional, temporary or preschool in a drop in centre, the outdoor space where provided on the premises must be suitable, safe and secure. Where children attending a sessional, temporary or service in a drop in access, a space not on the premises must be suitable. While the Childcare Act 1991 (Early Years Services) Regulations 2016 do not have a recommended minimum outdoor space, based on International research the National Children's Nurseries Association (2002) suggests that consideration be given to 9m<sup>2</sup> per child.

Indoor and outdoor space is essential for learning and development and an increasing number of settings spend more time outside. The indoors and outdoors should be complimentary and integrated, with all key children's spaces having easy access to the outdoor environment.



➤ 46 Fuji Montessori Kindergarten, Tokyo, Japan.

### Design features

- Folding external walls and level access help to integrate internal and external spaces.
- Projecting roof creates a transition space and reinforces the connection and flow between inside and outside.
- The entire roof forms a roof terrace providing extensive play areas for the setting.

## Creating a relationship between indoor and outdoor spaces

Direct physical access, views to the outside, and an awareness of the outside world is important for all children, therefore a good relationship between inside and outside is vital.

As part of this relationship, a building should express what is going on outside. This can be achieved through what Reggio Emilia settings call 'filter spaces', such as verandas, conservatories and interior courtyards, or installations that highlight natural elements such as wind or rain. Similarly, window seats that create 'edge' spaces between inside and out will allow a child to sit in a snug protected space with a good view out to the outside.



47 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- Glazed doors admit light, afford views to the world outside and provide for mixed age interactions between children.

### Design Tip

- Permanent manifestation on the glass at two levels, from between 850mm to 1000mm and between 1400mm to 1600mm above the floor, would make the glass more visible and prevent accidental collision.



➤ 48 Ballindereen Community Childcare and Education Centre, Ballindereen, County Galway.

### Design features

- **Window seat and low-level ceiling providing edge space between inside and outside. This allows a child to sit in a protected space but feel close to the outside.**

On a physical access level, this interconnectedness between internal and external space is facilitated by easily operated doors and windows, adequate door opening widths, and ideally double doors or large sliding doors to bring the outside into the setting. A level access threshold at all exit points will provide all users with barrier free access to the outdoors, particularly people using wheeled mobility equipment or buggies.





49 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- Sliding glass doors providing good visual and physical access between interior and exterior spaces.
- Projecting roof providing a transitional space between inside and outside.

### Universal Design Guidance

- Provide good views to the outside from all key internal spaces ensuring low-level views are provided for infants, small children and people sitting in wheelchairs.
- Provide filter spaces such as porches, verandas, canopies, conservatories, interior courtyards, outdoor spaces, and installations that highlight the natural elements such as sun, wind or rain.



## Covered outdoor spaces

The use of verandas and other covered outdoor space attached directly to a building provide a transition space between inside and outside, while providing a sheltered and shaded outdoor play area. It is important for children to experience all weathers. They can be encouraged to play in the rain or in wind. However, at times when rain is excessive or it is very windy, a covered area ensures children can experience climate conditions without being out in it. In time of excessive heat a covered area provides shade for children so they have fresh air without exposure to dangerous levels of sunlight. In Ireland, the UV is strongest (UV index above 3) from April to September. Children need sun protection between 11.00am and 3.00pm. In the ELC setting covered areas provide intermediary space and a sense of enclosure and protection for all children. This is helpful for a child who may be anxious about going outside, as it allows the child to preview the outdoors or an outdoor activity, as a step towards going fully outside. It also provides a changing, drying, and storage area for rain gear, wellingtons, and other outdoor apparel.

In line with the **Department of Health's 2019 Skin Cancer Prevention Plan** the provision of shade is the best way to provide maximum protection against UV exposure for children and staff.

There are many types of built structures that can provide effective shade, including:

- permanent structures (pergolas and verandas);
- demountable shade (marquees and tents);
- adjustable systems (awnings);
- shade sails.

Materials used can range from glass, fibreglass, canvas and polyvinyl chloride (PVC) to steel sheeting. If choosing a sail type canopy choose a dense weave cloth that states the level of UV protection it provides, either as an Ultraviolet Protection Factor rating (UPF) or percentage figure. Shade structures should allow adults to view and access the children's play areas. A head clearance of about two metres is recommended for shade structures. It would be desirable to design shade structures that offer protection from both UV radiation and rain. Natural shade from trees and shrubs can also provide an important element of shade in an outdoor play space.

Covered outdoor spaces can take many forms and provide different levels of protection that vary from expansive covered areas, to cloister style covered areas that enclose a central outdoor space and provide a continuous perimeter walkway, to lean-to style covered areas attached to one exterior wall of the setting. In all cases it is vital to provide direct and level access between the covered area and the internal space that it serves.



50 Aghada Community Preschool, Aghada, County Cork.

### Design features

- Covered outdoor area providing spacious sheltered play.
- Covered area provides storage and drying space for outdoor clothing.



Parent, Lux Children's Club:

**"I think every age group is considered, both in the indoor and outdoor areas. There is something for them all to do, especially outdoor. Kids get to be kids and use their imagination."**





➤ 51 Tigers Childcare, Blanchardstown, Dublin.

### Design features

- Cloister style covered outdoor area providing a continuous perimeter walk.
- Central open area providing contact with nature and the elements.



➤ 52 Ballindereen Community Childcare and Education Centre, Ballinderreen, County Galway.

### Design features

- Canopy outside the playroom provides a transitional space where sand and water play can take place, as well as providing shelter and shade.

Covered outdoor areas can also take the form of freestanding structures such as sheds or garages and these can provide space for play, social activities, or outdoor learning. They may also have a more functional role as drying or storage space.



53 Totally Kids Pre-school, Tipperary Town, County Tipperary.

### Design features

- Standalone covered outdoor spaces not directly attached to a setting building.
- Level and wide footpath providing access for a staff member who through injury is temporarily using a crutch.

### Design tip

- Level access or a ramp up to the covered area would provide a more accessible and usable environment for all users.
- Painting the shelter in a bright colour would make it stand out more from the fence.

### Universal Design Guidance

- Provide covered outdoor spaces directly adjacent to the building and ensure direct level threshold access.
- Ensure covered outdoor spaces are wide enough to facilitate people using mobility aids.
- Handrails and grabrails within these spaces will provide additional support for staff or children who need it.





➤ 54 Northside Family Resource Centre, Ballynanty, Limerick City.

### Design features

- Choice of ground finishes providing grass and mud while also providing an accessible path.
- Covered outdoor area providing shade and shelter.



➤ 55 Asilo Nido La Chiocciola, San Miniato, Italy.

### Design features

- Between April and September, children's skin needs protection from UV radiation from the sun. Shade must be provided in open areas. A sail type canopy provides shade and allows a breeze.



## Outdoor spaces: designing for all children

Outdoor space provides ideal conditions for free play, adventure, risk taking and challenge. Play opportunities should be freely available, accessible, appropriate and well-resourced with toys and play materials. Provide as much open space as possible to enable children to run, jump and climb. The guidance here relates to all children, but later in this section (page 204) we look at the specific requirements of children under 2-years in outdoor areas.

Toys and play materials influence the social, emotional and cognitive affordances of play and the quantity and quality of available materials requires careful consideration. It is important to balance structured materials with more unstructured or open-ended materials such as featureless toys and loose parts.

Materials which are more open-ended and suggest many possible uses are increasingly associated with high quality learning. Natural materials offer more possibilities as they have multiple uses and consequently inspire a range of creative and problem-solving behaviours. When organising the outdoor environment, it is important to facilitate children using materials from various areas. This ensures freedom, choice and exploration.



56 Waterford Childcare Centre, Waterford City.



Open-ended materials, also called loose parts, are materials, such as blocks, stones and reels, that can be used in numerous ways, indoors and outdoors, by babies, toddlers and young children. They can be moved, carried, combined and redesigned in any way the child decides. For more information see:

<http://aistearsiolta.ie/en/Creating-And-Using-The-Learning-Environment/Resources-for-Sharing/Open-ended-materials.pdf>

The environment needs to balance young children's need to revisit favoured play materials with their need for new and novel experiences. This can be achieved through rotating materials and introducing new materials. Toys and play materials should be evaluated in terms of their potential to promote:

- Thinking and learning (e.g. studying objects or commenting on new discoveries).
- Problem-solving (e.g. overcoming challenge).
- Curiosity and inquiry (e.g. engaging in exploration/experimentation).
- Sustained interest (e.g. persisting).
- Creative expression (e.g. using toys in novel ways).
- Symbolic transformations (e.g. making one thing represent another).
- Interacting, communicating, and collaborating with peers.
- Autonomous play with toys (e.g. without adult assistance).
- Space to run, jump and climb.



➤ 57 Aghada Community Preschool, Aghada, County Cork.

### Design features

- The outdoor area provides varied experiences for children, ranging from planting, (so children can observe plants and trees growing and smell scents such as herbs and scented flowers) to hard surface paths for trikes and tractors and a slide so children can access fixed apparatus.
- There is ample open space, so children can run, jump and climb.





58 Bernie's Pre-school, Knockainey, County Limerick.

### Design features

- The large sand pit gives children the opportunity to explore sand and provides for children to climb in to it.

### Design tip

- Ensure the sand pit drains well so water does not pool in very wet weather.

The outdoor play environment offers unique opportunities in terms of readily available natural play materials which allow children to take responsibility for building their own play environment. Traditional play activities such 'den making' are highly attractive to children, encourage engagement with natural materials and loose parts, inspire various types of play such as constructing and pretence, and encourage collaboration between peers as children use materials to build their own play environments.



59 Lux Children's Club, Moate, County Westmeath.

### Design features

- The use of willow provides a den type space for children to experience enclosure and privacy, while enabling supervision.





➤ 60 Puddleducks Playschool, Ballylanders, County Limerick.

### Design features

- A large outdoor sand pit allows for a number of children to play together.

### Design tip

- A solid lid would prevent animal access and avoid water stagnation.

Outside space provides opportunities for a greater variety of natural materials and sensory experiences. Outdoor space should allow children to experience nature, to feel the grass under their feet, to grow things, to climb trees, and to get dirty. A good outdoor area requires multiple spaces, surfaces and materials to provide the variety of experiences required.

When multiple materials and finishes are present in an outdoor space, the following should be considered:

- **Surfacing should not have any sharp protrusions or edges.**
- **It should have no entrapments (small gaps where fingers or feet could get caught).**
- **Impact absorbing surfaces should be used where falls over 600mm are possible.**
- **The minimum thickness of impact absorbing tiles is 25mm. The edging and joints between the tiles should not form a trip hazard and ideally should be at the same level as the surrounding hard surfacing.**
- **Hard surfaces should only be used outside the impact area.**
- **Topsoil or turf may be used in areas where falls will be from heights no greater than 1m.**
- **Loose fill impact absorbing surfacing includes sand and bark chips which should be installed to a minimum depth of 300mm.**

- **Materials should be laid to prevent pools of water from gathering. Small grated drains may need to be fitted. Such grates should be located strategically so any excess surface water is drained away.**
- **Hard surfaces should be used where there is constant play and for paths, but never where climbing takes place.**



➤ 61 Bernie's Pre-school, Knockainey, County Limerick.

### Design features

- **Natural materials and objects used to create a stimulating and healthful environment for children.**

### Design tip

- **Ensure suitable, firm access routes to and within areas where there is bark mulch to enable all children and adults to use it.**

Children of varied ages, staff or visitors with differing physical, sensory or cognitive difficulties will have diverse needs within the outdoor space and therefore Universally Designed surfaces and finishes need to be considered. Many outdoor play areas provide barriers for children with sensory, physical or cognitive difficulties, for instance where sand causes difficulties for children in wheelchairs, or the use of grey coloured play equipment that is hard for children with visual difficulties to see. It has also been found that when children with physical, cognitive or sensory challenges could use the play area, they did not interact with their peers to the same extent as other children, because they were typically unable to use the space independently and often required assistance from an adult (**see garden plan**).

Ground surfaces in outdoor areas are a key part of their design, and as discussed above should provide a wide variety of experiences. **Impact absorbing surfacing (IAS)** may be appropriate in certain circumstances, but its use should be carefully considered, and it should only be used in areas of heavy wear, in locations where drainage is an issue, or in places where falls may occur from a height greater than 1m above ground level.





➤ 62 Crawford Childcare, Glanmire, County Cork.

### Design features

- Subtle and minimal use of impact absorbing surfacing combined with grass and clay.
- The padding around the support columns ensures no injuries if a child bumps into a column.

### Design tip

- Low level planting and climbing plants, in addition to the hanging baskets would soften the space.

In other areas, for instance where falls may occur from heights less than 1m and where heavy wear or drainage is not an issue, grass, mud, or wood chippings may be more appropriate. The use of natural materials is important, and a balance should be struck between loose fill natural materials (e.g. bark or sand), and synthetic material such as wet-pour, which will facilitate wheeled play and access for those with mobility difficulties. It should also be noted that smooth and level materials such as wet-pour will also support staff and visitors with sensory, physical or cognitive difficulties.





63 Ballindereen Community Childcare and Education Centre, Ballindereen, County Galway.

### Design features

- Small enclosed play space for infants and toddlers.
- Covered area providing shelter and shade as well as a transition space between indoors and outdoors.

## Outdoor spaces: designing for infants and toddlers

Provide a small covered outdoor space for infants to ensure fresh air and a change of scene while being sheltered from very wet or windy weather or strong sun. This area should be in a safe and sheltered location that is physically separated from the main play area, but still provides contact and visual access to the older children at play.



64 Ballindereen Community Childcare and Education Centre, Ballindereen, County Galway.

### Design features

- A grassy slope provides challenge for toddlers.



These spaces should contain planting and other multisensory stimulation, along with soft level surfaces, but must be carefully maintained to ensure they are free from potentially dangerous items or debris. Physical separation in the form of low fences or railings will be required between infant, toddler, and older children's play areas to avoid accidents.



➤ 65 Tigers Childcare, Blanchardstown, Dublin.

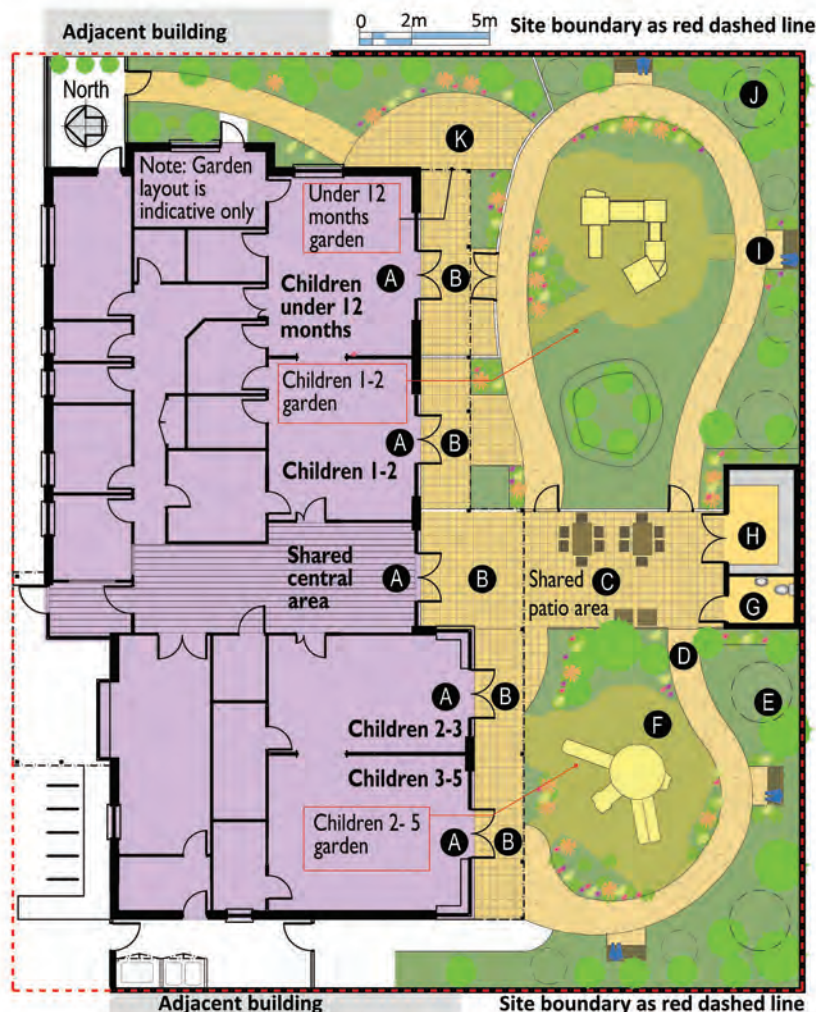
### Design features

- Sheltered cloister space for infants and toddlers.





### Technical sketch 11: Indicative plan of outdoor play area.



- |  |  |
|--|--|
| <p>A Direct access from the main building.</p> <p>B Covered outdoor areas.</p> <p>C Central patio area for play, social events, dining and other activities.</p> <p>D 1500mm accessible path providing continuous route that connects the key areas within the play area. Where possible this should be 2000mm.</p> <p>E Various spaces with loose fill and natural ground surface materials (e.g. bark or sand).</p> <p>F Selected areas of synthetic material such as wet-pour to facilitate wheeled play and greater accessibility.</p> | <p>G Accessible outdoor toilet.</p> <p>H Outdoor toy and play material storage that children can access independently.</p> <p>I Seating for staff in key locations to provide resting points with good supervision.</p> <p>J Various spaces for dens, mud kitchens and other children's play areas (connected by accessible route).</p> <p>K Dedicated outdoor areas for children under 12 months.</p> |
|--|--|



Note: For more information about outdoor play see Tusla (2018) **Quality and Regulatory Framework: Full Day Care Service and Part-Time Day Care Service.**





### Universal Design Guidance

- Provide a diverse outdoor play environment that supports a range of play from structured to unstructured activities.
- Provide loose materials and loose parts to facilitate creative expression and encourage engagement with the world around them and each other.
- Provide a variety of loose fill and natural ground surface materials (e.g. bark or sand) within the play area to support multi-sensory experiences.
- Provide a path within the outdoor space that provides an accessible route from the building to the main areas within the outdoor space. Ideally, this path should be 2000mm wide to facilitate two wheelchairs or staff pushing buggies to pass each other. Where this is not possible, a width of 1500mm is acceptable. For a path that is 1500mm wide, passing areas that are 2000mm wide by 2500mm long will be beneficial.
- Accessible routes should be smooth, flat and even, and non-slip, non-glare materials that avoid strong patterns or sharp colour contrast.
- Consider the need for impact absorbing surfacing (IAS) and think about places where grass or bark can be used instead. For instance, where falls may occur from heights less than 1m and where heavy wear or drainage is not an issue, grass, mud, or wood chippings may be more appropriate than IAS.
- Provide areas of synthetic material such as wet-pour to facilitate wheeled play and greater accessibility to certain features within the play space.
- Provide toy and play material storage areas that children can access.
- Provide dedicated outdoor areas for infants and toddlers. A small covered outdoor space for these age-groups affords fresh air and access to nature regardless of weather conditions.
- Where balconies or terraces are used as outdoor spaces provide guardings at least 1200mm high and that have gaps that a 100mm sphere cannot fit through, in a format that cannot be climbed by children.
- Provide covered outdoor spaces where children and staff can take shelter, play, eat, or carry out activities during very wet weather or strong sun.
- Provide an accessible outdoor toilet or direct access to one in the building.
- Provide comfortable seating for staff in selected locations that provide good supervision throughout the play area. This will provide a resting point for staff members or a place to sit with a young child, or child who needs a rest or some time-out from play.
- Staff seating should have back and arm rests and be located where they are visible and easily reached.

## Outdoor spaces: roof terraces and balconies

Roof terraces and balconies can provide outdoor spaces and play areas. These areas will require appropriate guarding and an external fire-escape staircase may be required depending on the circumstances.



➤ 66 Fuji Montessori Kindergarten, Tokyo, Japan.

### Design features

- The entire roof of the setting forms a continuous ring of roof terrace play space.
- Roof terrace provides views down into the building, affords direct contact with mature trees, and provides slides and steps down from the roof to ground level.





➤ 67 Realt Beag, Ballyfermot, Dublin.

### Design features

- Play area provided at first-floor level with direct access to internal children's room.
- Covered area providing shelter and shade.
- The retractable awning can be rolled back when not needed.
- The fire escape to the ground level opens straight off the roof garden, ensuring a safe exit in case of an emergency.

### Design tip

- If installing a retractable awning ensure it is waterproof, allows for rainwater to run off and the surface beneath is drained appropriately.
- The addition of tubs for planting would enhance children's experience of nature.



## Outdoor spaces: outdoor toilets or direct access to toilets

The provision of external toilets or direct access to toilets from external play areas will benefit children and staff and promote children's independence and sense of competence due to easier toilet access.



➤ 68 Cheeky Cherubs Early Years Schools, Ballincollig, County Cork.

### Design features

- An accessible toilet located in or close to the outdoor play area makes the area more usable.

### Design tip

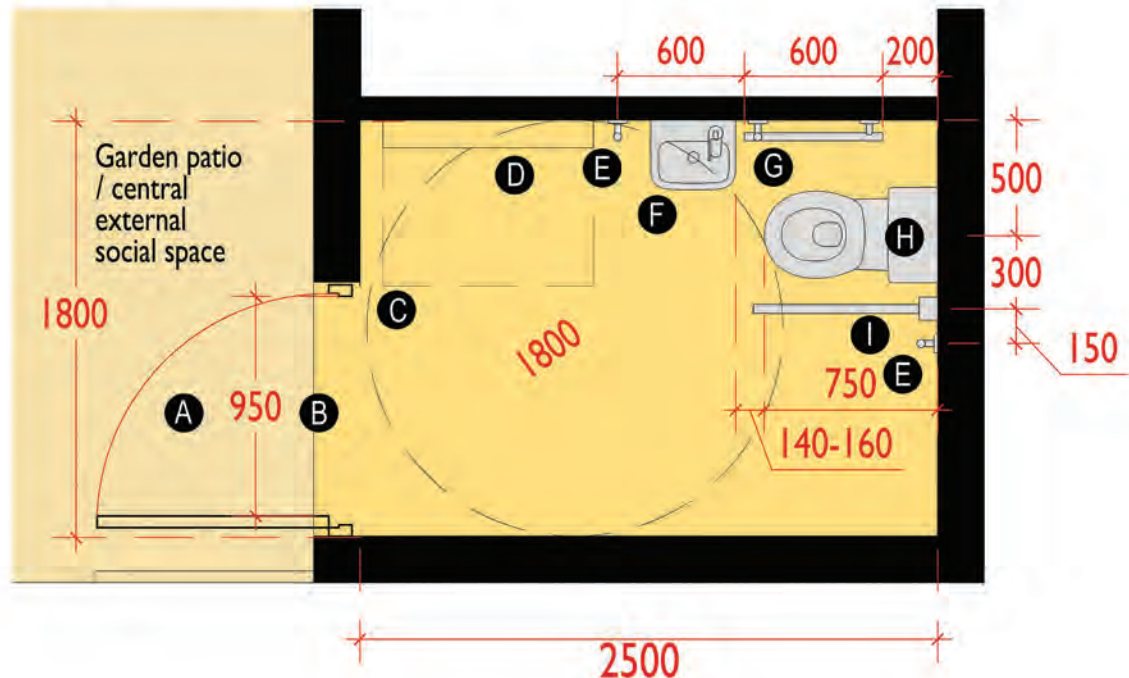
- Ensure the doorway and toilet are spacious to allow access to all users.
- If a child sized toilet is not available add a non-slip portable step that is strong enough to take a child's weight.



### Technical sketch 12: Technical Drawing: Indicative plan of outdoor toilet.



Note: All dimensions in millimetres unless otherwise stated



- |   |  |
|---|--|
| <p>A Door with 950mm minimum clear opening width.</p> <p>B Level access threshold.</p> <p>C 1800mm turning circle to provide wheelchair turning space. This will also provide manoeuvring space for people with mobility devices or for staff to assist with a child.</p> | <p>D Fold down nappy changing table provides a space to change a child's nappy without having to go inside.</p> <p>E Vertical grabrail.</p> <p>F Washbasin.</p> <p>G Horizontal grabrail.</p> <p>H WC pan with backrest.</p> <p>I Dropdown grabrail.</p> |
|---|--|

Parent, Bernie's Pre-school:

**"It is a homely, welcoming environment with excellent facilities for the children to play, explore and develop in the outdoors."**

## External storage of outdoor toys and materials

### Design considerations and awareness

Storage may also be required for outdoor toys, materials or resources.

The dispersal of storage areas throughout the external space, close to the area where the respective objects are being used, may be beneficial. This storage should be designed for adult access but should be usable by children when supervised. Consideration should also be given to safe external storage that can be accessed independently by children.



### Design features

- Image to the left shows outside view of the external storage while the right image shows the internal view. This storage is located close to play areas and provides easy access for toys and materials.
- Level and smooth concrete path providing good access.

### Design tip

- If garden maintenance equipment is stored in a shed, ensure it is lockable.





➤ 70 Lux Children's Club, Moate, County Westmeath.

### Design features

- Image to the left shows external view of the external storage while the right image shows the internal view. This storage is located close to play areas, as can be seen by proximity to the grass and provides easy access for toys and materials.
- Level and smooth concrete path providing good access.
- Spacious interior allows space for toy and material storage, and storage and drying of outdoor footwear and rain coats.

### Universal Design Guidance

- Disperse external storage to key locations within the outdoor space.
- Ensure the storage is accessible, usable and easily understood by all staff ensuring level access. Keep storage tidy and free from clutter.
- Consider the provision of storage that can be independently used by children so they can access resources as they choose, ensuring any dangerous equipment is not stored in this space.



Friendship bench at WigWams, County Kildare.

# Learning Stories

**Geraldine Delahunt, WigWams:**

Evan was 2-years 10 months old when he first arrived at **Wigwams** in 2014. He could not walk unaided and was nonverbal. He has a visual impairment and this condition affects his bilateral frontal cortex. He cannot see anything: no shadows, no vision at all.







Wigwams is a fully inclusive preschool and when I learned what his needs were, I decided I needed to make changes, so he could participate fully. I designed a purpose built sensory garden to support his needs and interests. I wanted to ensure this little child was given every possible opportunity to enjoy his early years in my setting.

Evan had never felt grass before, so initially, he was unsure as he navigated the sensory garden. But he soon became a whizz and nothing fazed him. On the entrance to the garden I placed a minty sensory plant, so he knew we were entering and at the exit was a lavender plant. A yellow hand rail all around the garden gave easy independent access for Evan, supporting his hand over hand movement as he learned to walk, giving him freedom to navigate the entire garden unaided.

At the left there is a friendship bench, where we all sat, read stories and chatted. As he moved down the garden using his hand rail we placed tiny hills for him to climb. At each of these was a sensory or tactile opportunity, like brushes, sponges of different grades, and many other items we could replace easily. These were at his waist level, glued or screwed to the fence. I placed a hill with a slide so his friends could join him, pulling themselves up the grass to the top of the hill and then, with support, slide down into a sandy area. He and all the children loved it. This provided support for balance, their proprioceptive senses and their vestibular system. I observed many children gain confidence in their spatial awareness and balance while playing in this garden.

Evan went on to navigate our larger outdoor spaces with his friends, almost 1/4 acre of uneven terrain, going from space to space sometimes using a dolls buggy to navigate the pathways. This was because he was now confident, empowered and had developed the skills he needed. He left us in 2017. I am super proud of this little man: he knows no boundaries.





