## BC MINISTRY OF EDUCATION AND CHILD CARE Child Care Facility Design Guidelines Outline and Key Messages for Engagement

## **Overview of Document**

**Brief Summary:** This document was developed by the Ministry of Education and Child Care to provide a draft outline and key messages proposed for the Child Care Facility Design Guidelines.

**Intended for Engagement Purposes:** This document has been developed for engagement purposes and to gather feedback from partners and interested parties. This document does not include all the content that will be considered for final design guidelines. Final design guidelines will include additional details, incorporate diagrams, tables and graphics to support the content, and be edited for completeness and to ensure ease of use, readability and plain language. Some early examples of key diagrams have been included, but additional graphics would be developed to illustrate the written content.

**Engagement Intent:** The draft design guidelines are based upon four design principles reflected throughout the document. Through engagement, the Ministry is seeking feedback to confirm that:

- The draft content for the Child Care Facility Design Guidelines reflects the design guideline general principles; and
- The guidelines are feasible and will support the development of quality child care facilities.

## Child Care Facility Design Guidelines

## **1.0 Background and Context**

- The Child Care Facility Design Guidelines (design guidelines) are being developed by the Province of British Columbia to inform the design of child care facilities that receive space creation funding from the Province.
- The draft design guidelines build on the *Community Care and Assisted Living Act* and Child Care Licensing and Regulation minimum health and safety standards.
- These draft design guidelines may be used by a variety of audiences (to be listed in the complete document).
- Design and construction professionals would be expected to rely on their professional judgment in applying these guidelines to support project planning, design and development.
- This section will include key definitions, the purpose and scope of the design guidelines, and suggested applications for the design guidelines.

## **General Design Principles**

- The Child Care Facility Design Principles are intended to support and align with the principles identified and described in the Province's <u>Early Learning Framework</u>, the distinct BC First Nations and Métis Early Learning Frameworks, and the Indigenous-Early Learning and Child Care Framework (federal).
- The following four key principles form the foundational considerations for child care facilities that are constructed according to the design guidelines:
  - 1. **Principle #1:** Child Care facilities are welcoming, inclusive, accessible and culturally responsive.
  - 2. **Principle #2:** Child Care spaces facilitate children's learning, development, and well-being through a functional design that stimulates exploration, creativity and play.
  - 3. **Principle #3:** Child care spaces incorporate elements that enable healthy workplaces for staff and that support staff retention.
  - 4. **Principle #4:** Child care facilities are durable and long-lasting, are cost and energy efficient to run, incorporate climate resilient strategies to keep children and staff safe and healthy and consider environmental impacts over the lifetime of the facility.



The design guidelines are intended to reflect these general design principles in all aspects of facility design guidance, including interior and exterior spaces within a child care facility.

## 2.0 Typical Steps to Create a New Child Care Facility

- This section will explain the overall process and general steps involved in developing a new child care facility through a ground up build or major renovation.
- This will include a general description for each of the following steps: *early concept* planning, forming the project team and explanation of team member roles, community engagement, site considerations and selection, site planning, feasibility study stage, design stage, obtaining local government permits, procurement, construction, and licensing.
- This will cover concepts, such as:
  - when and with whom to consider engagement; including community, local Indigenous communities, and local authorities (i.e. local government, health authority)
  - o identifying which professionals to engage and when;
  - o steps that need to be taken that are specific to Indigenous Child Care facilities;
  - o general site development activities and costs;
  - o typically required permits;
  - o considerations for parking; and
  - o potential timelines.
- Guidance will be provided for the project owner (e.g., not-for-profit organization) on process, steps and decisions and on how to select a project team. Project success is dependent on the knowledge and expertise of professionals on the team (e.g., project managers, architects, child care professionals).

## **Engaging with First Nations, Métis and Inuit People**

## **Planning & Process Considerations and Recommendations**

- Work with the unique and distinct First Nations Governments and First Nations, Métis and/or Inuit community members the facility will serve
- Begin planning early and include informed engagement, including diverse perspectives (i.e., prospective parents, grandparents, Elders, staff, administration)
- Explore opportunities for engagement of First Nations, Métis or Inuit architects and experts

## **Design Considerations**

- Specific design considerations need to be determined alongside First Nations, Métis or Inuit partners and meet the unique needs of the community
- Potential additional considerations may include:
  - Designs that reflect the culture and community in which the facility is located
  - Ability to prepare and serve traditional foods
  - Spaces that facilitate Elder participation
  - Opportunities for land-based learning and use of traditional plants

# 2.0 Siting Considerations and Best Practices for Building Design

## **Best Practices**

- This section will provide an overview of considerations for identifying and selecting a child care facility site, one of the first steps in the development of a new or renovated child care facility. Information provided will include:
  - Overall site development requirements, including zoning, parking and review of by-laws and where applicable civil infrastructure services or site servicing, geotechnical considerations, an archeological survey and/or Phase 1 Environmental study
  - Opportunities to use public playground spaces if insufficient site area exists
  - o Surrounding land uses to ensure the site is healthy and safe
  - Considerations for child care facilities on upper levels and rooftops
  - o Siting facilities and play spaces to maximize natural light
  - Site access, including drop-off parking, space for accessible parking and bikelock up, ease of access, access to public transportation
- This section provides an overview and general principles related to the overall building design, including:
  - Consideration of building shape, simple shape to support sightlines and reduce costs and energy use

- Orientation of the facility to maximize natural light in the activity area and the outdoor play spaces
- Direct and easy access to outdoor play space and a strong visual connection to outdoor space
- o Modest ceiling heights to reduce construction costs and improve acoustics
- Provision of adequate shade
- Incorporating an energy efficient envelope to reduce operating costs and greenhouse gas emissions
- Provision for maintaining a healthy indoor environment in extreme weather conditions e.g., heat, smoky conditions
- Use durable and long-lasting construction materials

## 3.0 Child Care Facility Design Guidelines: Interior Spaces

This section will outline the best practices, design guidelines, area standards, and technical aspects that inform the design of a child care facility. It provides recommendations and best practices for interior space as well as mechanical, electrical, and environmental systems considerations.

## **Best Practices**

Principle 1: Welcoming, inclusive and accessible design	Principle 2: Facilitate children's learning development and well-being
<ul> <li>Designed with community input</li> <li>Culturally responsive space that reflects the community it serves</li> <li>Incorporates healing centered design principles</li> <li>Open, bright and spacious entrance area that encourages interaction and connection between children, families and staff</li> <li>Applies principles of universal design to include diverse abilities and considers sensory sensitivities</li> </ul>	<ul> <li>A large and flexible activity area that supports exploration and play and includes a focused area for quieter activities</li> <li>Open concept layout with easy access to support spaces and carefully considered connections to outdoor spaces</li> <li>A variety of flooring options for noise absorption, comfort and aesthetics.</li> <li>Clear sightlines to support staff overseeing children throughout the space</li> </ul>
Principle 3: Enable healthy workplaces for staff and support staff retention	Principle 4: Built to be durable and long-lasting, cost and energy efficient, include climate resilient strategies and

- Consideration for the layout of spaces, including shared spaces between programs
- Acoustic considerations that reduce ambient noise and exterior noise
- Sufficient bathrooms, with accessible design to accommodate all adults accessing the facility
- Staff office and/or break room to accommodate administrative tasks and breaks

#### consider environmental impacts over the lifetime of the facility

- Consideration of cleanability, durability and sustainability of materials, finishes, envelope, and systems
- Consideration of ongoing energy use and maintenance costs to maintain a high quality, functional facility in the long-term
- Mechanical systems address common extreme climate conditions (e.g. heat, smoke) to keep children and staff safe and healthy

## **Guidelines for Interior Facility Areas**

This section will describe the function, activity, elements, attributes, important connections, technology, building system requirements and example areas for each of the following interior facility areas. A photo of a successful example and floor plan will also be included for each area.

## The main areas that will be described in this section are:

#### Entrance

Main Entrance and Drop-Off Area	Cubby Area

## Key Interior Spaces

Activity Area		Nap Room with Storage	Quiet Room/Alcove	

Washrooms

Children's Accessible Washroom	Adult Accessible Washroom
--------------------------------	---------------------------

## Staff Support Spaces

Kitchen	Staff Office & Break Room	Separate Staff Break Room (for larger programs)
Laundry	General Storage	Staff Lockers

Janitor's Closet	Garbage/Recycling	Emergency Supplies Storage
------------------	-------------------	-------------------------------

An example table is provided below for the Activity Area to demonstrate the proposed layout for describing each interior facility area.

## Example Table: Recommended Elements for the Activity Area

Activity Area					
<ul> <li>Function:</li> <li>Supports group and solitary activities or programs directly involving children in distinct zones</li> </ul>	<ul> <li>Activities:</li> <li>Art, water, sand/texture, dramatic play, science, puzzles and games, reading, manipulative toys, blocks, gross motor, wheeled and construction toys, group activities such as dancing, singing, drumming, ceremony</li> </ul>				
<ul> <li>Elements:</li> <li>Sign-in area</li> <li>Staff communications centre</li> <li>Art sink and associated counter</li> <li>Storage units or shelving</li> <li>Hand washing sinks</li> </ul>	<ul> <li>Key Attributes:</li> <li>Natural light</li> <li>Easily cleaned</li> <li>Activity areas delineated by fixed and moveable elements including places to observe, play alone, play with others</li> <li>Clear sightlines within and from adjacent support spaces (e.g. kitchen)</li> </ul>				
<ul> <li>Important Functional Connections:</li> <li>Outdoor Activity areas &amp; Cubbies</li> <li>Children's washroom</li> <li>Nap Room, Quiet Room</li> <li>Kitchen</li> </ul>	<ul> <li>Technology:</li> <li>Access to data</li> <li>Power for laptop/tablet(s)</li> </ul>				
Building Systems Requirements:	Example Space Allocation:				
No special requirements	Program   No. of spaces Area (m <sup>2</sup> )				
	Under 36 mos.   12 63.1				
	30 mos. to School Age   16 68.2				
	30 mos. to School Age   25 98.9				
	Multi-Age Care   8 46.4				



Example Floorplan – To be developed

## **Elements of Selected Interior Facility Areas for Engagement**

Below are detailed elements of select spaces within child care facilities that have been included for engagement purposes because of their importance to quality child care design. These sections highlight information reflecting areas of particular interest during technical engagements. This information is provided for engagement purposes to demonstrate some of the proposed elements of these spaces.

Nap Room:

- Sized to Accommodate 100% of Infants and Toddlers
- Separated from the main Activity Area
- Opens to the Activity Room and away from outdoor spaces
- Includes additional sound-proofing measures for walls surrounding the nap room

#### Children's Washroom:

- Sightlines to enable staff to easily observe entrance to washroom from Activity Area.
- Includes:
  - > At least one wheelchair accessible stall with optional ceiling lift
    - Stall will accommodate changing older children standing up (in 30 months to school age and school-age care programs)
  - Change table and supply storage (oriented to enable viewing of washroom while changing)
    - In School Age Care settings, include a change table in the accessible stall to provide privacy for older children needing to be changed lying down
  - > At least one partially screened stall
  - > Children's toilets and furnishings accessible to children
  - > Hand wash sinks and waste bins accessible to children
  - > Consideration of sensory sensitivities, e.g. fan or hand dryer noise
  - A resource is available with Design Considerations for Inclusive Bathrooms in Child Care Settings

Cubby Area:

- Accessible cubby for each child
- Open floor area for changing including sitting on floor

- Enables approximately 10-12 children plus 1 staff person to change at the same time
- Access to outdoor play space
- Easy access to children's washroom
- Visual connection to activity area
- Separate cubby areas for each program

#### Kitchen:

- Include elements necessary to obtain a food service permit to cook and prepare hot food for children.
- Enables staff to supervise children in the activity room while in the kitchen.
- Includes:
  - > Dry storage
  - > Refrigerated and frozen storage sufficient for all children and adults in the facility
  - Prep area
  - Triple sink for washing
  - Hand sink, utility sink
  - Microwave(s)
  - Range/oven
  - Dishwasher with a sanitizing cycle
  - > Appropriate ventilation for cooking food
  - Waste/recycling/organics centre

## Staff Office and Break Room (for smaller programs):

- The Staff Office can be used for staff breaks for facilities with two programs or less. Facilities with three or more programs should have a separate staff break room.
- Staff office allows for supervision of Activity Area.
- Separate break rooms are removed from the Activity Area.
- Sufficient locker space will be allocated for staff working in the facility, with additional 'flex' storage space for other adults (e.g., elders, support workers)

## Functional Relationship Diagram for Interior Spaces Key Attributes:

- Simple floor plan centered around the Activity Area
- Children's Washroom and Kitchen located directly adjacent to the Activity Area so staff are available and can monitor activities (e.g., not down a corridor)
- Cubbies located close to the drop-off entrance and entrance to outdoor play space
- Children's washrooms located close to entrance to outdoor play space
- A good visual connection between the Activity Area and the outdoor play area and generally to the exterior
- Quieter play areas and the Nap Room located away from noisier activities but maintained within the line of sight

- Locate play space and amenities to the South of the building and service spaces to the North side
- Includes circulation pathways to facilitate movement of children or adults, including those using mobility aides

The below diagram (on the following page) illustrates the recommended organization for the interior spaces and shows important relationships between spaces and movement patterns for consideration in facility design (functional relationship).



## **Area Guidelines for Interior Spaces**

The Area Guidelines for Interior Spaces provide an overview of the recommended types and amount of space within a child care facility. A more detailed list of elements for each space will be included.

## Table: Recommended Interior Area Allocations for Child Care Programs

- Group Child Care (under 36 months): maximum 12 children per group
- Group Child Care (30 months to school age): maximum 16 or 25 children per group
- **Multi-Age Child Care** (various ages ranging from 0-12 years): maximum 8 children per group and not within a personal residence
- Group Child Care (School Age) & School Age Care on School Grounds<sup>1</sup>:
  - If a child in kindergarten or in Grade 1 is present: maximum 24 children per group
  - o If no child in kindergarten or in Grade 1 is present: maximum 30 children per group

Program	Gro	oup Child C	are	School Age Care		Multi-Age Child Care
	Under 36 Months	30 Months to School Age				
No. of Spaces	12	16	25	24	30	8
Overall Activity Area (m <sup>2</sup> )	63.1	79.4	115.6	88.8	111.0	46.4
Activity Area per Child (m <sup>2</sup> )	5.3	5.0	4.6	3.7	3.7	5.8
Total Area of Interior Spaces – Single Group	141.7	141.4	184.5	137.9	163.5	110.2
Total Area of Interior Spaces Per Child (m <sup>2</sup> )	11.8	8.8	7.4	5.7	5.5	13.8
Total Stand- Alone Building Area	185	185	240	165	195	165

## Usable Area Per Child Calculation of Activity Area

This section will outline a method to determine the usable area within the Activity Area to ensure the Child Care Licensing Regulation requirement of 3.7 m<sup>2</sup> per child is met, which will exclude:

- Space for counters and millwork
- Space adjacent to counters for staff to work

<sup>&</sup>lt;sup>1</sup> Group Child Care (School Age) has the same configuration of spaces as School Age Care on School Grounds.

- Space required for door swings and to access adjacent spaces
- A pathway through the space for the movement of children and staff in which activity centres or zones cannot be set up or installed

## **Considerations for Mechanical and Electrical Systems**

- This section provides considerations related to mechanical and electrical systems that support the safety of children and staff, contribute to the provision of a comfortable interior environment and include cost and energy efficient parameters.
- The following table outlines the mechanical and electrical systems elements that child care programs will be recommended to consider when designing a child care facility. These will be described fully in the final version.
- In addition, building a better building envelope (e.g., Step Code 3/4/5, Passive House) will reduce the size and complexity of the mechanical systems and lower lifecycle costs but will also typically increase upfront capital costs.

	Safety	Environmental		Heating/Cooling
•	Child-proofing considerations (e.g., safe location of outlets)	Ventilation systems that support healthy indoor air quality and windows that can open to allow fresh air and natural ventilation, when appropriate	•	Use of heat pumps with cooling capacity and Heat Recovery Ventilation (HRV)
•	Safety of materials used in build and furnishings	Air filtration that includes a charcoal filter for clean indoor air in smoky conditions	•	Air conditioning
•	Consideration of impacts to children with sensory sensitivities (e.g., noise levels, lighting)	Considerations for permit guidelines for development in 'environmental/natural hazard areas'		

## 4.0 Child Care Facility Design Guidelines: Exterior Spaces

This section outlines the best practices, design guidelines, area guidelines related to exterior spaces on child care facility grounds. This includes recommended play zones for outdoor play areas, a diagram for outdoor play areas and considerations for rooftop outdoor play spaces.

## **Best Practices**

- Research demonstrates that time spent outdoors has positive benefits for children's physical, intellectual, emotional, and mental health and wellbeing.
- In the development of exterior spaces, child care programs should address cultural considerations of the community and families they serve, particularly as they relate to Indigenous cultures.
- In certain situations, especially in urban settings, there may be space constraints that restrict the space available for outdoor play areas; however, wherever possible on-site play areas are recommended in accordance with the Child Care Licensing Regulation.

## Principle 1: Welcoming, inclusive and accessible design

- Outdoor play areas, including installed equipment, should enable children of all abilities to participate, eliminate barriers and be based on universal design principles that facilitate the participation of children with mobility challenges and those who may be using assistive devices such as wheelchairs.
- Design and placement of softscape should consider how to enable children with assistive devices to move around easily.

## Principle 2: Facilitate children's learning development and well-being

- Child care facilities should include the largest outdoor play area possible, as larger areas better support children's growth and development.
- Outdoor play areas should incorporate a variety of different play zones.
- Outdoor play areas should aim to include access to land, incorporate natural play zones with opportunities for informal nature play throughout and include materials that children can manipulate; natural areas and materials include shrubs, trees, raised planters, native plants, soil, rocks, logs, sand, water, mud. Incorporate a larger percentage of softscape and informal play spaces where larger outdoor play space is available (e.g., bushes, small trees, grass and other natural materials) and decrease hard surfaces, which can increase noise and stress levels.

## Principle 3: Enable healthy workplaces for staff and support staff retention

Principle 4: Built to be durable and long-lasting, cost and energy efficient, include climate resilient strategies and

- Adult seating for staff and elders
- Access to first aid supplies and outdoor washing facilities (to wash hands, bodies, toys, etc.)
- View corridors for easy supervision of children
- Ability to heat patio or deck spaces during colder weather and add curtains for shade or protection from the elements

#### consider environmental impacts over the lifetime of the facility

- 30%-50% of the play yard is shaded during the summer solstice for protection from the sun, rain and snow throughout the year; this includes a mix of shade sails and mature trees.
- Grass and sod may not be successful on smaller highly trampled play areas.
- Incorporate larger natural elements and play structures made from natural logs, which may be more renewable and longer lasting and cost effective than traditional play yard equipment.

## **Design Guidelines for Exterior Spaces**

This section will describe the function, activities, elements, and attributes for each of the following outdoor play spaces and will include a diagram showing example relationships between play space zones.

## **Recommended Play Space Zones of Outdoor Play Area**

Below are elements of the recommended outdoor play zones. This information is provided for engagement purposes to demonstrate the proposed elements of these spaces.

The recommended play zones for outdoor play spaces are outlined below.

Covered Canopy, Quiet Play & Art Area:

- Transition zone from indoors.
- Intended for quiet and focused activities such as art, carpentry, clay/water table activities and other messy activities, outdoor meals, and active play on rainy days.

#### Sand Play:

- Provides opportunity for sand play with an adjacent playhouse
- Best practice recommends including a mud kitchen to encourage projective and fantasy play.

#### Natural Elements Play Zone:

• Provides an experience of nature using natural elements and soft surfaces in spaces between play elements and in feature areas.

## Wheeled Toy Route:

• A paved path or route for wheeled toys, trikes, and bikes which winds around other activity areas.

Physical, Active and Dramatic Play Zones:

- Includes equipment for balancing, climbing, sliding, and swaying.
- Includes areas with loose parts for climbing, jumping, sliding, swaying and balancing.
- Include space for imaginative play and dress-up and space for a drumming log.

## Wet and Messy Play

- Provides space for larger scale exploration and experimentation with water and sand
- Includes water source and drainage area, provision to contain sand

## Support Spaces

- Sufficient storage for outdoor toys, equipment/supplies
- Dedicated space for garbage and recycling

## Functional Relationship Diagram for Exterior Spaces Key Attributes:

- Play areas should be organized with noisier more active areas removed from quieter areas or have dividers
- Active and dramatic areas may extend under the canopy
- Shade should be provided through all play areas using a variety of means, including permanent and movable canopies, deciduous trees, and building shading
- Climbing areas can be located next to fencing to reduce the amount of fall zone areas that are required
- Areas between defined play zones can include natural elements

The diagram illustrates the organization for the Exterior Spaces and shows important adjacencies between spaces and movement patters for consideration in design. Play elements may be distributed to suit the design and do not need to be physically grouped or fixed in size, use or location, as suggested by the diagram.



Source: City of Richmond Child Care Design Guidelines

## **Considerations for Rooftop Outdoor Play Spaces**

- This should only be considered when options to access land are not available
- Maximum height above ground for egress
- Acoustic Considerations
- Safety Considerations
- Accessibility considerations for individuals using assistive devices

- Access to washrooms
- Structures designed to support weight of play equipment and planting
- Provide for shade from the hot sun for at least one-third of the play area through trees or shade structures.
- For mixed-use developments, lighting, irrigation, and drainage should be separated from other building uses/areas.

## **Area Guidelines for Exterior Spaces**

The Area Guidelines for Exterior Spaces provide an overview of the recommended types and amount of space for the exterior spaces and particularly the outdoor play area.

## Table: Recommended Outdoor Play Space Area Allocations & Priority

25 SPACES - 30 MONTHS TO SCHOOL	LEVEL OF DISCRETION	6 M <sup>2</sup> - 14 M <sup>2</sup> PER CHILD	14 M <sup>2</sup> - 20 M <sup>2</sup> PER CHILD
AGE PLAY SPACE	Priority/ Best Practice	Total M <sup>2</sup>	Total M <sup>2</sup>
MULTIPURPOSE SPACE			
Covered Spaces: Quiet play & art	Priority	23.2 – 27.9	27.9
Small Social Gathering: Social/dramatic play	Priority	4.6	4.6
TOTAL		27.9 – 32.5	32.5
WHEELED TOY			
Wheeled Toy Path:	Priority	19.5 – 35.3	35.3 – 46.5
NATURAL PLAY			
Planters and Dividers/Food and Garden Boxes/Shrub Nature Crawling: For social and gross motor activities	Best Practice	0.0 - 26.5	5.6 26.5 – 39.0
Trees/Vines/Grass For shade, experiencing nature	Best Practice	0.0 – 20.4	20.4 11.1 – 81.7
TOTAL		0.0 - 46.9	46.9 – 130.1
SAND PLAY			
Small Sand Area:	Priority	18.6	18.6
Accessible Raised Sand Table and Water Table & Mud Kitchen	Priority	1.9	1.9
Water Play: For small motor skills, imaginative play	Priority	3.7	5.6
TOTAL		24.2	24.2 - 26.0

25 SPACES - 30 MONTHS TO SCHOOL	LEVEL OF DISCRETION	6 M <sup>2</sup> - 14 M <sup>2</sup> PER CHILD	14 M <sup>2</sup> - 20 M <sup>2</sup> PER CHILD	
AGE PLAY SPACE	Priority/ Best Practice	Total M <sup>2</sup>	Total M <sup>2</sup>	
WET AND MESSY				
Large Motor Sand:	Best Practices	0.0 – 23.2	23.2 – 27.9	
TOTAL		0.0 – 23.2	23.2 – 27.9	
PHYSICAL, ACTIVE, AND DRAMATIC PLAY				
Adventure, Physical Challenge:	Priority	22.3	22.3 – 27.9	
<u>Open Movement Area:</u> For gross motor activities such as running, climbing, parachute, ball chase	Priority	23.2 – 53.4	53.4 – 74.3	
Balancing/Child Cave or Crawl Tunnel	Best Practice	0.0 – 18.6	18.6	
Loose Parts/Construction Area	Best Practices	0.0 – 41.8	41.8 – 46.4	
SUPPORT SPACES				
Outdoor Storage	Priority	7.4	9.3	
Garbage and Recycling	Priority	2.0	2.0	
TOTAL		9.4	11.3	
Subtotal		126.4 - 307.6	311.4 – 432.2	
Gross Up		1.26 – 1.17	1.18 – 1.16	
TOTAL		159.4 – 359.4	511.3	

## 5.0 Appendices

This section is a compilation of the document's appendices. It includes space lists for the various child care types as well as regulatory documents and guides with embedded links to websites and PDFs.