

**VANCOUVER**  
CHILDREN'S MUSEUM  
— CLIENT FOLIO —

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# DESIGN TEAM



SOPHIE JOHNSON  
ERIN MORRIS  
JENNA BERGANTINE

# MISSION, VISION, & VALUES

## THE MISSION

Interactive Play | Hands-On Learning | Child-Centered Environment

Creativity | Curiosity | Imagination | Life-Long Learning

## THE VISION

Community | Passion | Readiness | Development

## THE VALUES

Play Time | Learning | Curiosity | Value | Respect

# STATEMENT OF INTENT

As a dedicated student team, our mission is to focus on the creation of an engaging and educational children's museum. Our statement of intent highlights our commitment to this project, emphasizing key areas of significance.

We recognize the unique challenges involved in designing a children's museum, where the interior environment plays an important role in promoting learning, creativity, and fun for young visitors. Understanding the complexity of this task, we recognize the importance of ensuring the health, safety, and well-being of the children who will interact with the museum's interior spaces. Our team is dedicated to assessing the relationships between various interior elements and making recommendations that enhance the educational and recreational experiences of young visitors.

Our approach involves a deep understanding of children's needs, behaviors, and developmental stages, allowing us to design in a way that caters to their unique requirements. We recognize the significance of addressing specific issues relating to child development, inclusivity, and cultural diversity, ensuring our museum design is both enriching young minds, and universally accessible. We will evaluate technological options in the form of lighting and audio/visual elements and integrate them into the museum experience while sticking to performance criteria and ensuring age-appropriate interaction. We want to create new and original solutions that encourage children to love learning and exploration by incorporating different design theories and bodies of knowledge. Our dedication extends to exploring various design options by drawing from different fields of knowledge to make sure the museum provides a well-rounded educational experience.

As a group, we will follow a thoughtful research approach to guide our design decisions for a children's museum. This involves conducting in-depth research and analysis, including thorough literature reviews, interviews with professionals in the interior design industry and the museum industry, and touring noteworthy museums to stay updated on the latest trends in education and design for kids. We will then organize this information in a child-friendly way, setting clear project goals that emphasize both education and fun. Our commitment to research supports our goal of creating spaces that both entertain and educate. Our design process is structured and based on a framework that combines elements of play, learning, and creativity, ensuring a well-rounded experience for young visitors. We will also create clear program requirements that are geared toward the diverse needs of children of different ages. Acknowledging the complexity of designing for children, we carefully consider both the big picture and the small details, instilling creativity into every aspect of our design.

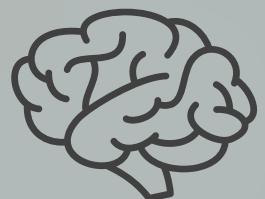
We will support our design choices with critical and strategic thinking, focusing on how they positively impact children's development. We're dedicated to clearly identifying and explaining the outcomes and benefits of our children's museum design, ensuring it makes sense both educationally and economically. We also aim to think about how our design will impact the community in terms of its social and cultural aspects. We understand that the museum will be important for engaging and educating the community. We understand the connection between the children's museum, the physical environment, and the community, all of which aim to enhance the lives of local children and families.

In summary, our team is excited to design a children's museum that entertains, educates, and inspires. We believe that our experience in the interior design program has prepared us for this project through our previous work with pediatrics, codes, ADA, and space planning. In addition, our comprehensive approach, rooted in a deep understanding of children's needs and a commitment to creativity and education, will result in a museum that becomes a hub of learning and enjoyment for generations to come.

# GOALS & OBJECTIVES

## Create a space fit for kids with neurosensitivities.

- Integrate elements fit for children with neurosensitivities into main exhibits and features (Coffey, 2018).
- Consider color and how it can affect the psychological and physiological well-being of children (Khalili, 2010).
- Be conscious of lighting choices to help lower visual stimuli for children on the spectrum (Habbak & Khodeir, 2023).
- Use strategic wayfinding throughout the entirety of the museum so children of all abilities are able to feel independent (Sakya et al., 2017).



## Design the interior environment in a way that makes visitors feel welcome and eager to return.

- Interior elements such as temperature, air quality, lighting, and aesthetics should be considered as they affect a visitors experience (Han et al., 2019).
- Incorporate layers of lighting throughout the museum to provide a unique and comfortable experience for all visitors (Filova & Rollova, 2019).
- Be mindful of acoustics and include sound-absorbing elements where necessary (Kaup et al., 2011).
- Incorporate kid-friendly illustrations and wording in signage to encourage independence (Puchner et al., 2001).



## Implement various exhibit types to satisfy the needs of a broad range of children.

- Include exhibits where roles are clear and well-defined, and parents can feel comfortable playing with their children (Shine & Acosta, 2008).
- Include a variety of different exhibits including large and fine motor skills that will appeal to all children (Puchner et al., 2001).
- Have multiple exhibits in the museum be tactile and/or kinesthetic in order for children to have a higher chance of retaining what they did and learned (Anderson et al., 2002).
- Design exhibits that warrant more open-ended play and exploration so that children can set their own goals and feel successful in their choice of play (Sobel et al., 2022).



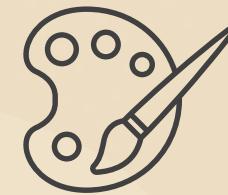
## Create a space that is accessible beyond-ADA.

- Simple changes such as a shift from generic general lighting to dimmable ambient lighting can completely alter the overall experience of a child with sensory sensitivities (Habbak & Khodeir, 2023).
- Designing the museum around accessibility goes into every element: flooring, space, lighting, colors, and scent (Habbak & Khodeir, 2023).
- Reach beyond the physical design and consider the cognitive design to accommodate for children with neurodivergence (R. Barrett, personal communication, October 5, 2023).



## Incorporate a color palette that encourages playfulness and excitement.

- Use neutral colors to leave the excitement to the activities within the museum (R. Barrett, personal communication, October 5, 2023).
- When using color, it is crucial to use color contrasts and harmonies to create an effective space (Khalili, 2010).
- Balance colors in order to bridge the gap between overstimulation and understimulation (Filova & Rollova, 2019).



# REVIEW OF LITERATURE - KEY POINTS

"It is evident that kinesthetic experiences with large-scale sculptures were enjoyable, recalled in great detail, and had a strong educational impact for children in keeping with our epistemology of learning" (Anderson et al., 2002, p. 222).

"When children engaged in behaviors such as making observations and asking and answering questions, they learned more than when they did not engage in these behaviors" (Golinkoff et al., 2017, p.39).

"Hands on activities were the leading effective activities for facilitating children's learning in most children's museums and a representation of child-environment-adults/peers interactivity" (Andre et al., 2016, p. 59).

"To support children with ASD, museums currently recognize that these visitors have diverse learning needs that necessitate the implementation of a broad variety of educational strategies, resources, and environmental modifications" (Coffey, 2018, p.1).

"Interactive exhibitions aim to saturate all three areas of learning defined in Bloom's taxonomy: the cognitive aspect (e.g. learning, understanding), affective area (e.g. motivation, values, attitudes) and psychomotor learning (e.g. physical skills, coordination)" (Filova & Rollova, 2019, p.73).

"In the age where creative thinking and innovations are boosters of the development of science and technology, it is essential that we cultivate young learners' creativity to better prepare them for study, work, and personal life" (Gong et al., 2020, p.9).

# INFORMATION GATHERING

## SITE VISITS

Otter Cove Children's Museum - Fergus Falls, MN

Science Museum of Minnesota (SMM) - St. Paul, MN

Minnesota Children's Museum (MCM) - St. Paul, MN

## INTERVIEWS

Peter Olson : Museum Project Director

Katie Ganoe : Executive Director at Otter Cove

Jessica Turgeon : Director of Strategic Projects at MCM

Caillean Magee : Visitor Experience Manager at SMM

Roger Barrett : Design Director at SMM

## SURVEY

13 Questions

Surveyed 48 Caregivers of Children

Purpose of Visiting a Children's Museum

Lobby & Reception Design

Restroom Types and Function

Children's Preferences of Exhibit Types

Children's Sensory Sensitivities to the Interior Environment

Preference on Lighting Experience

Additional Suggestions from Personal Experience

# SURVEY DISCOVERIES

Survey results showed that children were **least** sensitive to **smell** and **socialization**

35 participants voted that an **informal learning environment** was important or very important to a child's development

Children have the **highest** sensitivity to **crowds** and **sound**

**Cause and effect play** and **water play** are tied for most popular with **veterinary play** having very few votes

**Nine** of 48 total responses, or 19% of participants considered one or more of their children to be **neurodivergent**

Fig. 1 Interest in Interactive Exhibit Types

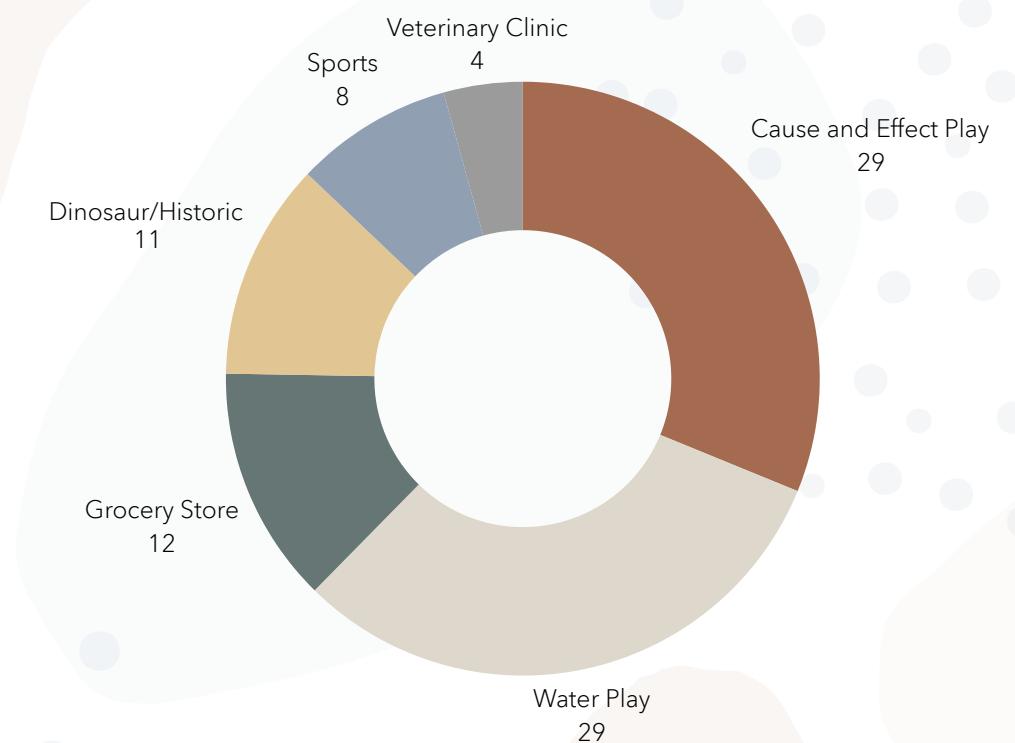
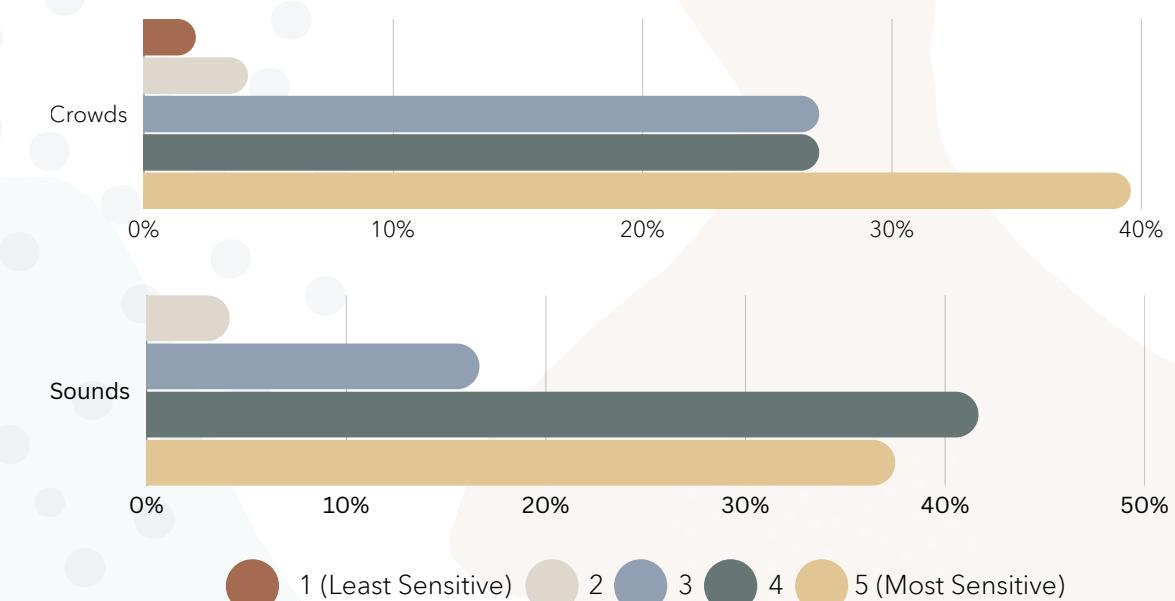


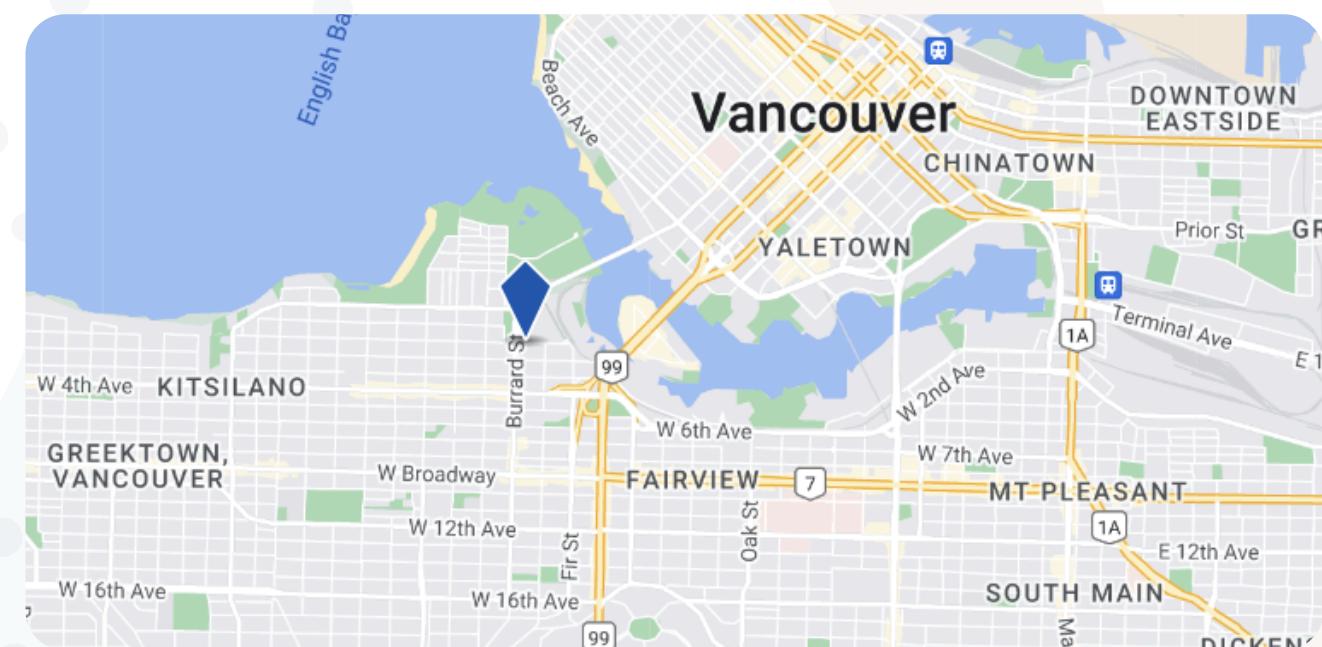
Fig. 2 Sensory Sensitivities



# THE SITE

## 1770 BURRARD ST., VANCOUVER, CANADA

- Estimated Population Approximately 675,000 (World Population Review, 2024)
- Moderate, Oceanic Climate
- Average 47 in / 1,200 mm Yearly Rainfall
- City Size Estimates 44 sq miles / 115 sq. km
- Located 140 miles / 225 km North of Seattle, WA



# THE SITE

1770 BURRARD ST., VANCOUVER, CANADA

## NOTABLE FEATURES

- 1 Mile West of Granville Island
- Family Friendly Area
- Pedestrian Access on 3 Sides of the Building
- 4 Public Transportation Stations Nearby
- Surrounding Architecture Includes a Mix of Commercial Businesses and Multifamily Residences



# THE BUILDING

**Floor I:** 31,923 square feet / 2,965 meters

**Floor II:** 25,602 square feet / 2,378 meters

**Both Floors:** 12'-0" AFF ceiling height



## NOTABLE FEATURES

- A Concept from ICON Architectural Group
- Large Windows
- High Rise Lookout
- Ample Overall Square Footage
- Modern Architecture

Back of House, High Rise Lookout and Floor II are allocated spaces outside of our team's scope of work.



# RENDERED FF&E PLAN

## KEY

1. Reception/Lobby
2. Storage
3. Custodial
4. Comfort Room
5. Family Restroom
6. Restroom
7. Cafe
8. Library
9. Infant/Toddler Exhibit
10. Sports Exhibit
11. Dining Space
12. Grocery Exhibit
13. Township Exhibit
14. Tactile Exhibit
15. Turf



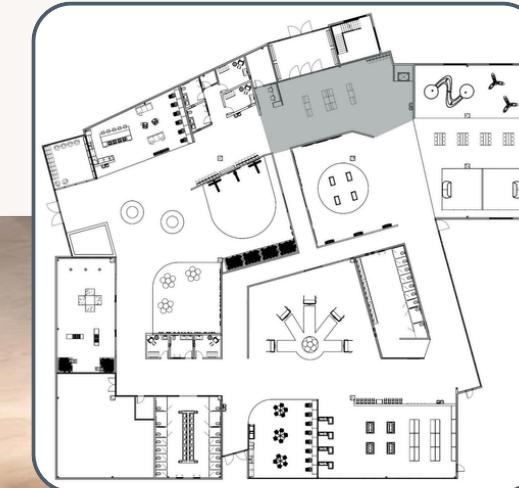
Implement several hands-on exhibits such as sand, water, physics, building, etc. (Andre et al., 2016).

Integrate elements fit for children with neurosensitivities into main exhibits and features (Coffey, 2018).

Be mindful of acoustics and include sound-absorbing elements where necessary (Kaup et al., 2011).

Design exhibits so that children of all ages are able to interact with the environment and prompt their exploration to learn and grow (Sobel et al., 2022).

# RECEPTION/LOBBY



MODULAR SEATING



UPHOLSTERY

UPHOLSTERY

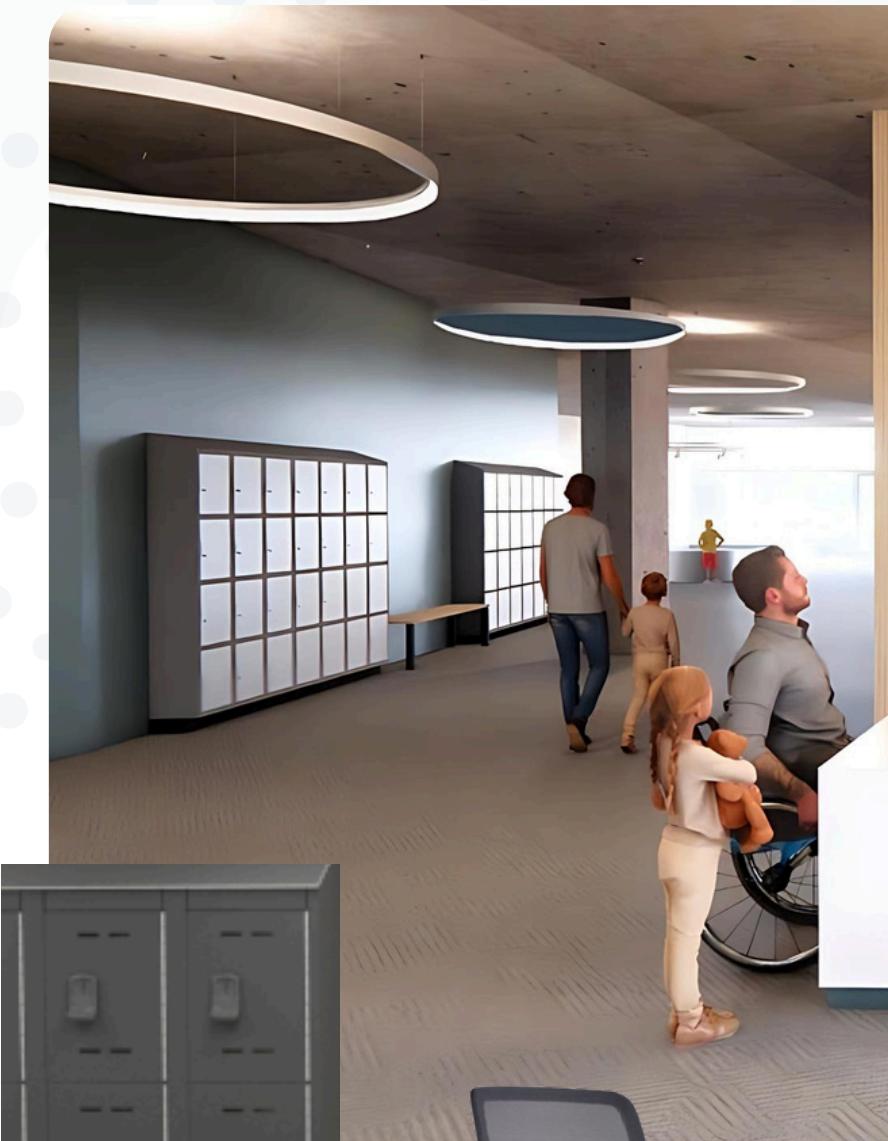
PLASTIC LAMINATE



CARPET

Be conscious of lighting choices to help lower visual stimuli for children on the spectrum  
(Habbak & Khodeir, 2023).

# RECEPTION/LOBBY

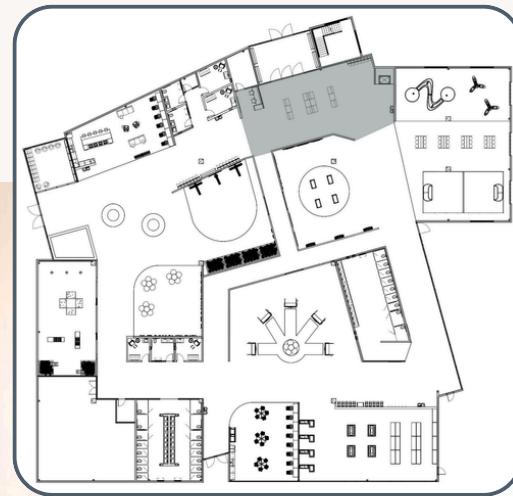


HDPE LOCKERS

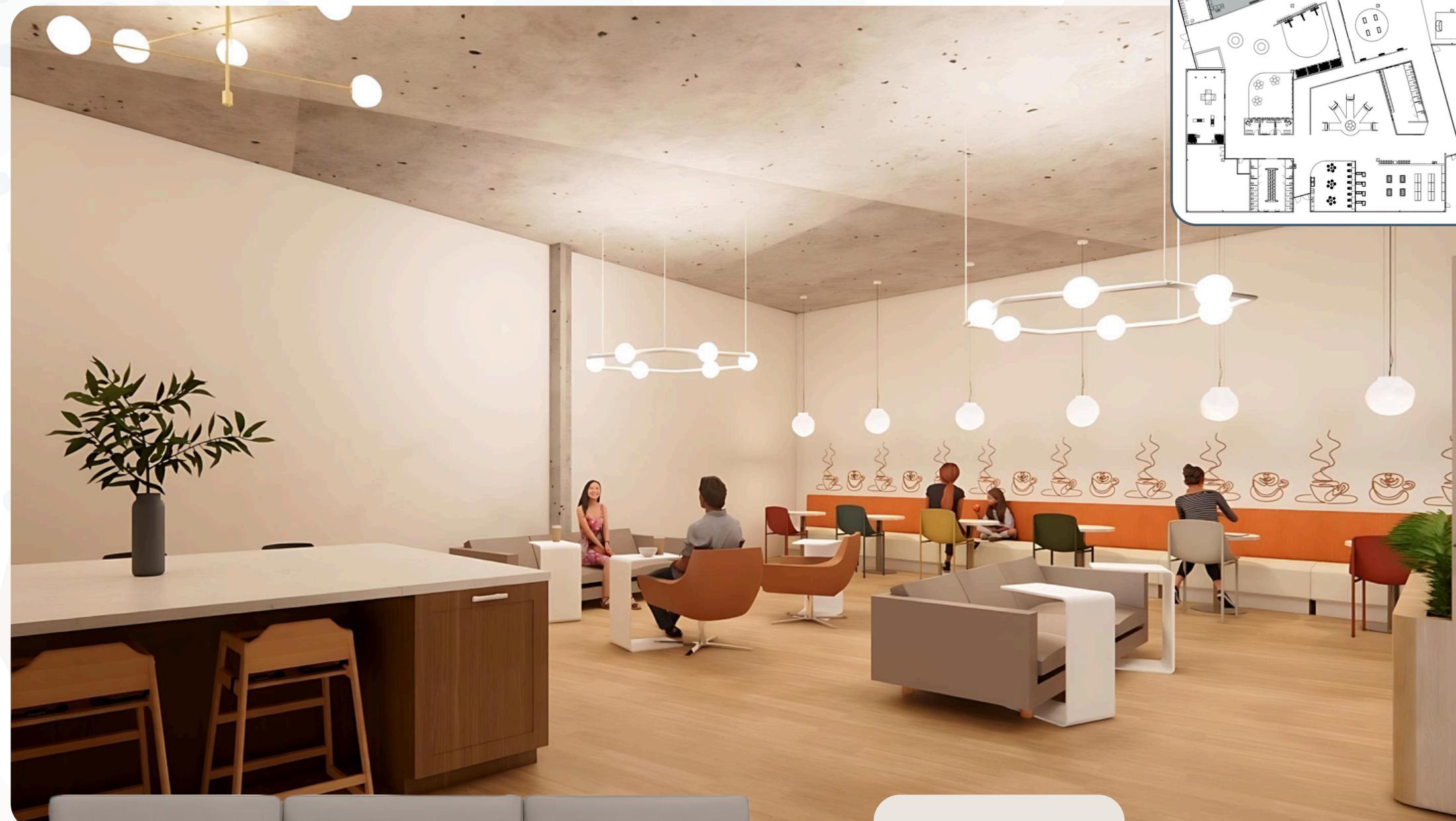


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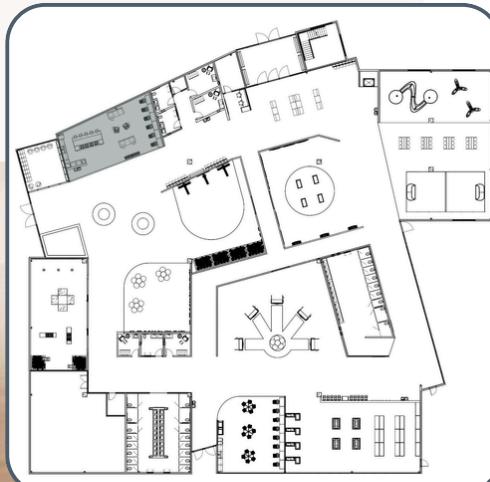


# CAFE



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LUXURY VINYL TILE



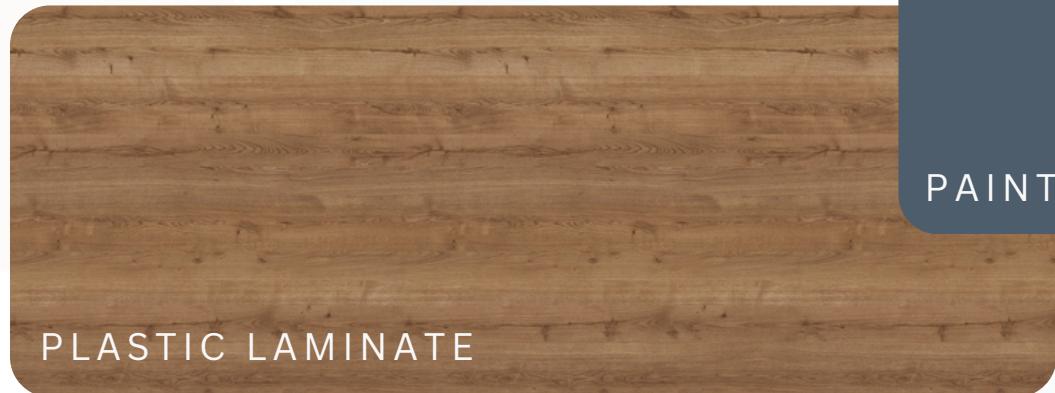
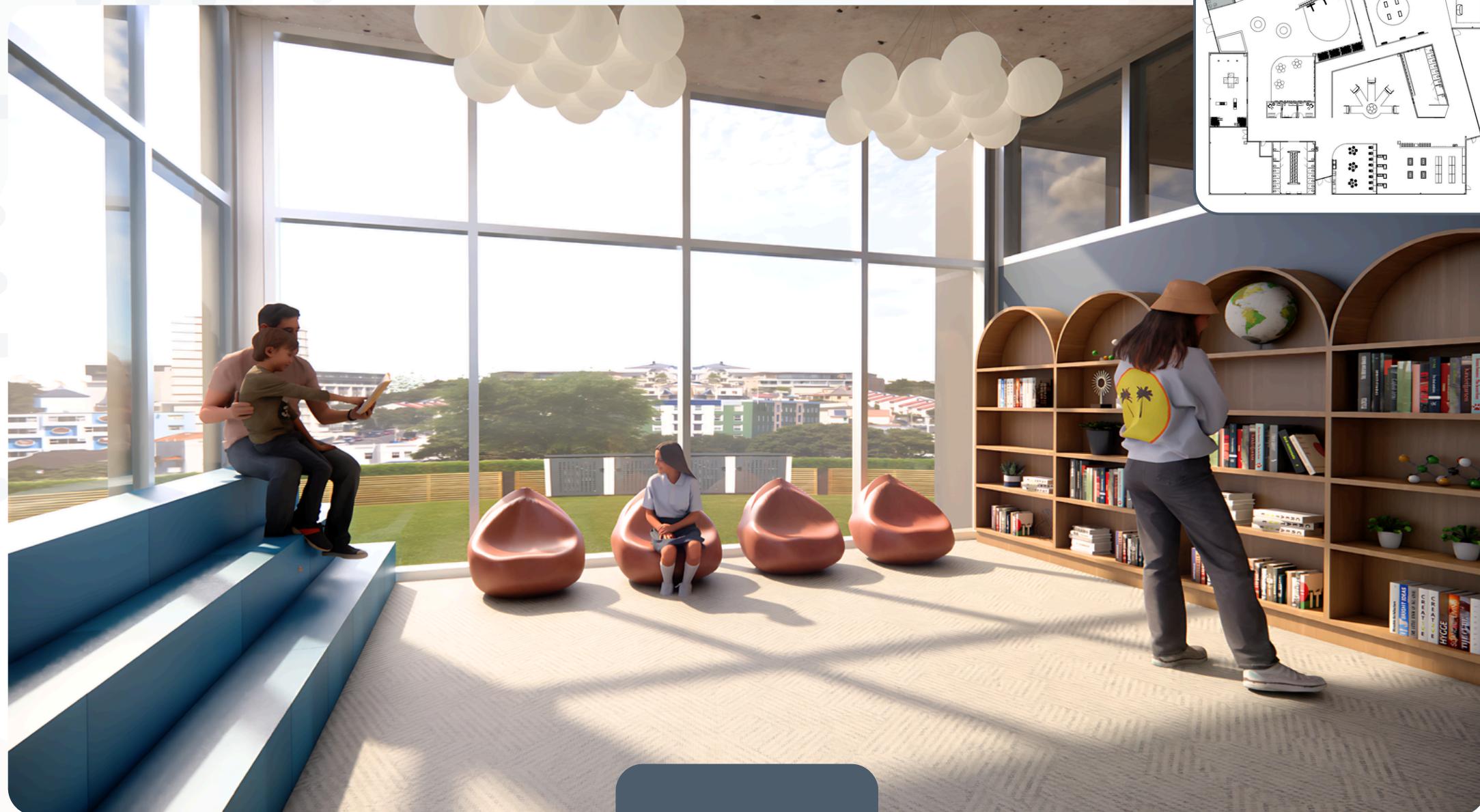
PLANTER



C-TABLE

Balance colors in order to bridge the gap between overstimulation and understimulation (Filova & Rollova, 2019).

# LIBRARY



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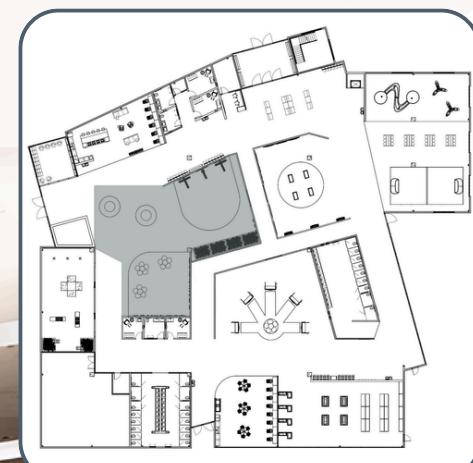


CARPET

Incorporate flexibility throughout the museum to allow every visitor to have an enjoyable experience (Kaup et al., 2013).



# SPORTS EXHIBIT



LUXURY VINYL TILE



CARPET

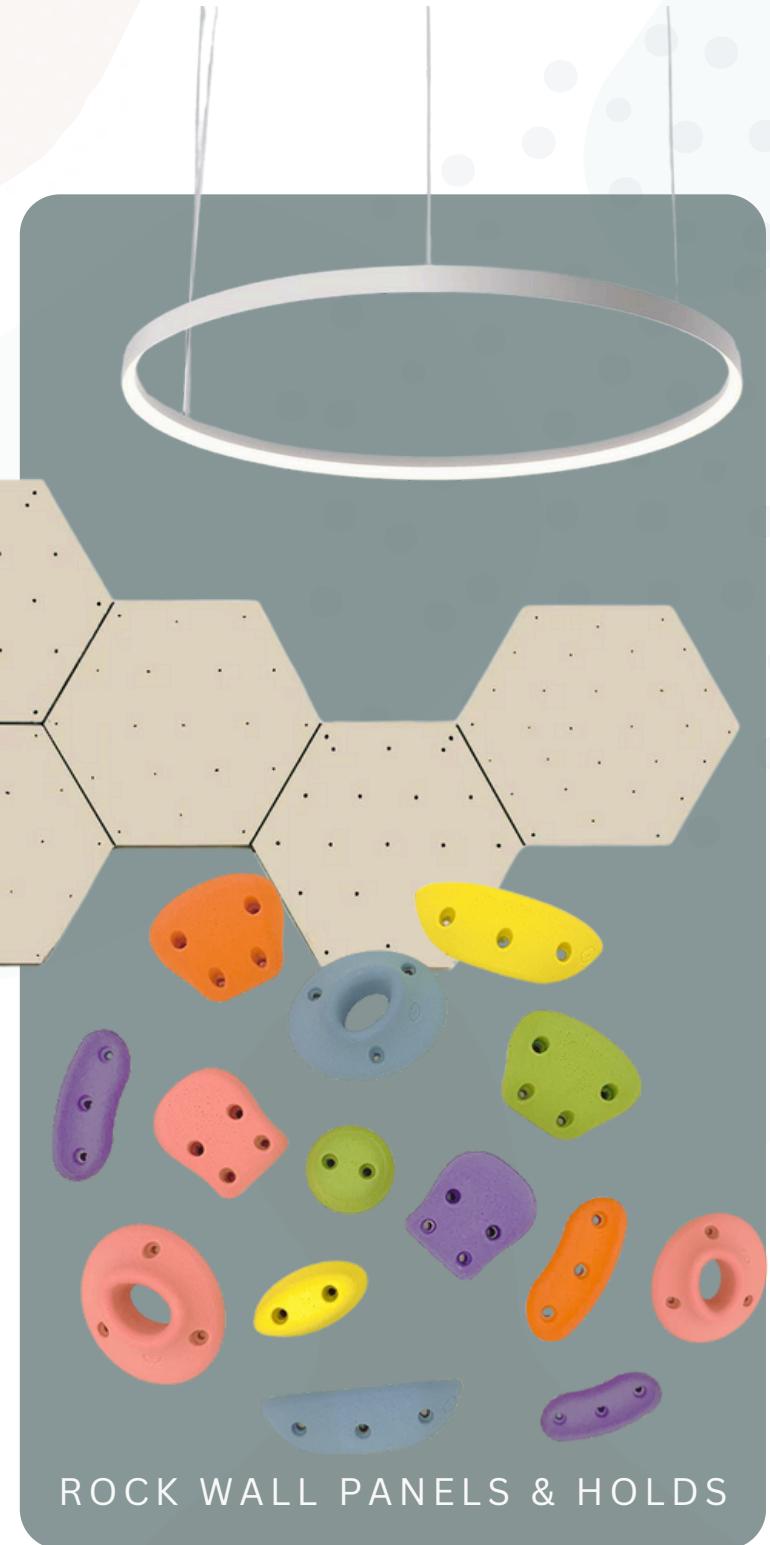
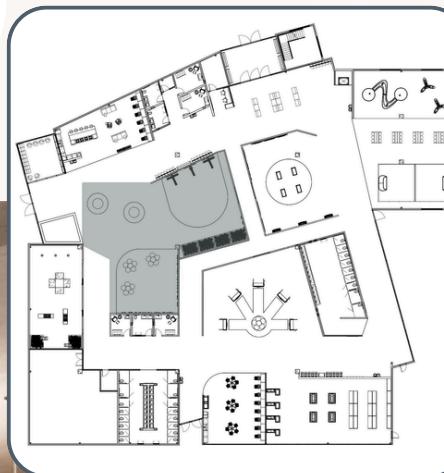


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Custom exhibit including a climbing wall, monkey bars, rope swing, and foam block pits.

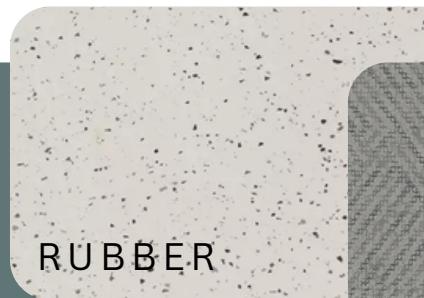
# SPORTS EXHIBIT



## ROCK WALL PANELS & HOLDS



## FOAM SEATING



## RUBBER



## CARPET

Designate space for parents to watch while their children are playing independently at an exhibit (Shine & Acosta, 2008).

# INFANT/TODDLER EXHIBIT

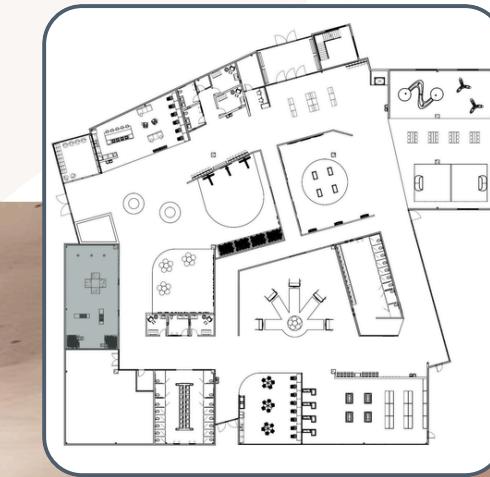


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CARPET

BALL PIT WITH STEPS AND SLIDE



FOAM CLIMBING BLOCKS

Consider color and how it can affect the psychological and physiological well-being of children (Khalili, 2010).

# TOWNSHIP EXHIBIT



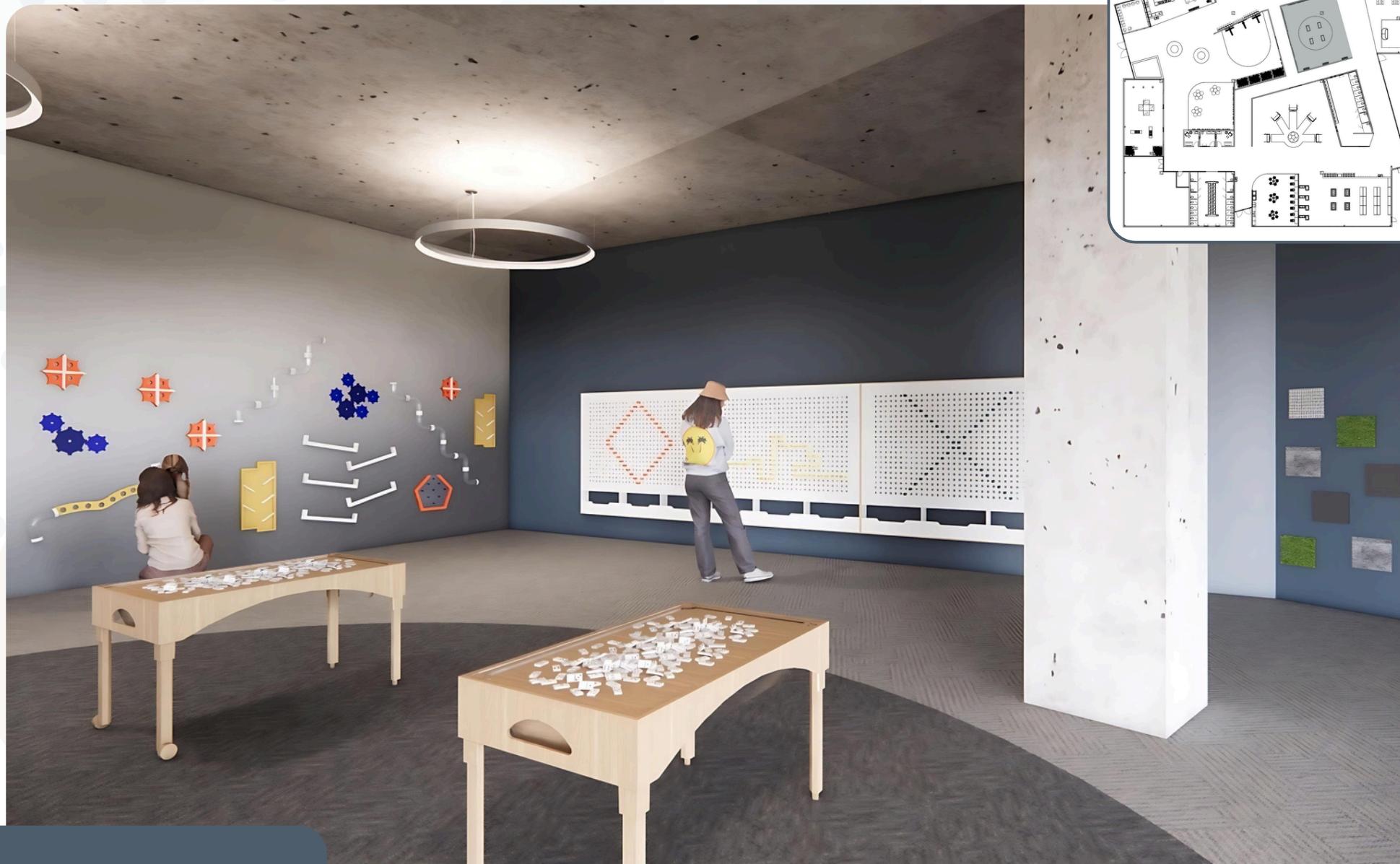
DISCOVERY STATIONS



Design exhibits that warrant more open-ended play and exploration so that children can set their own goals and feel successful in their choice of play (Sobel et al., 2022).



# TACTILE EXHIBIT

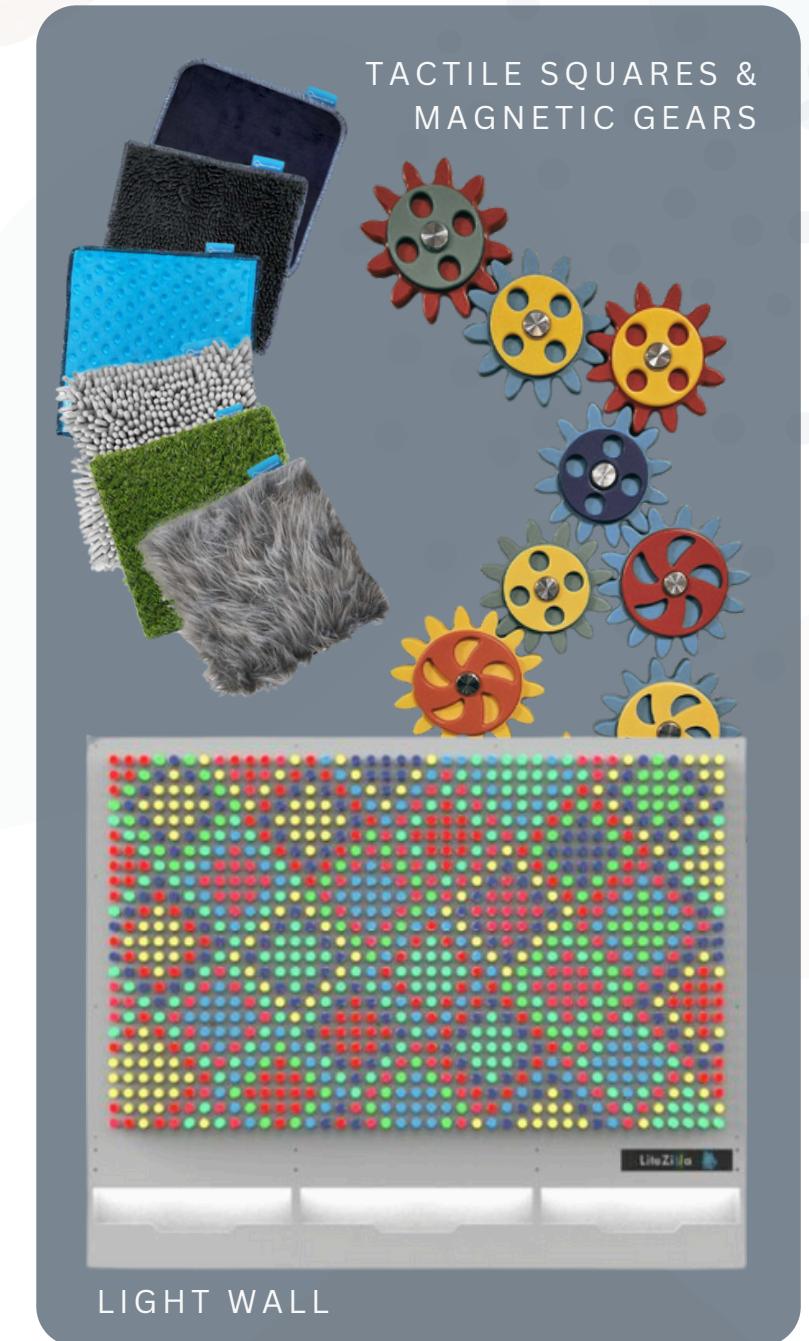
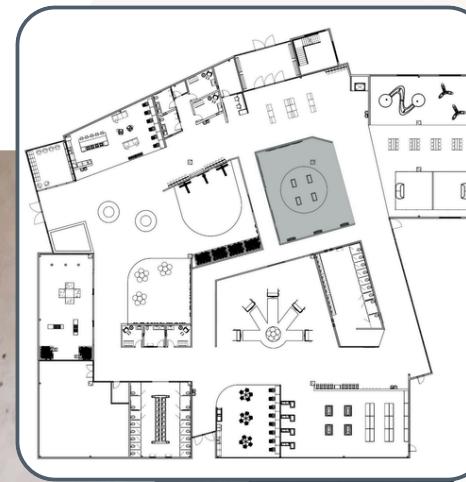


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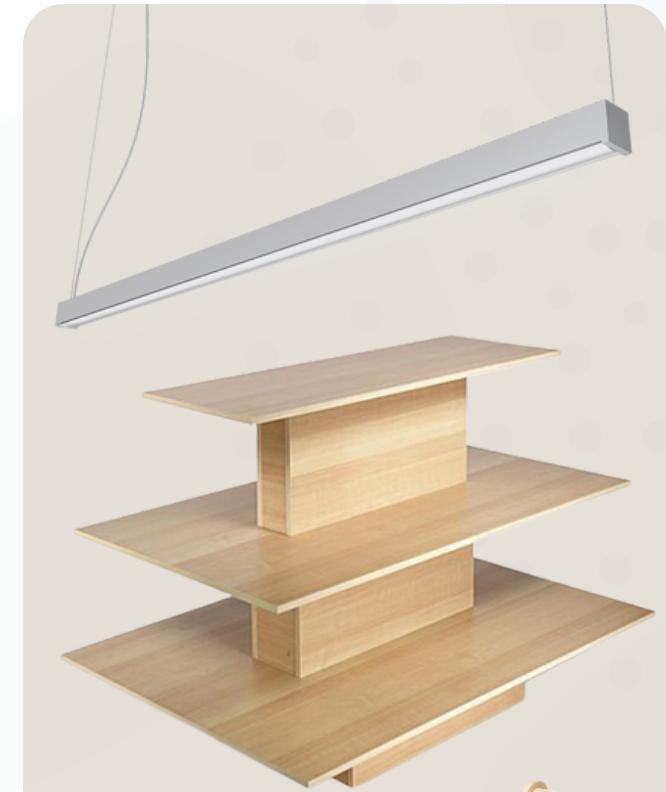
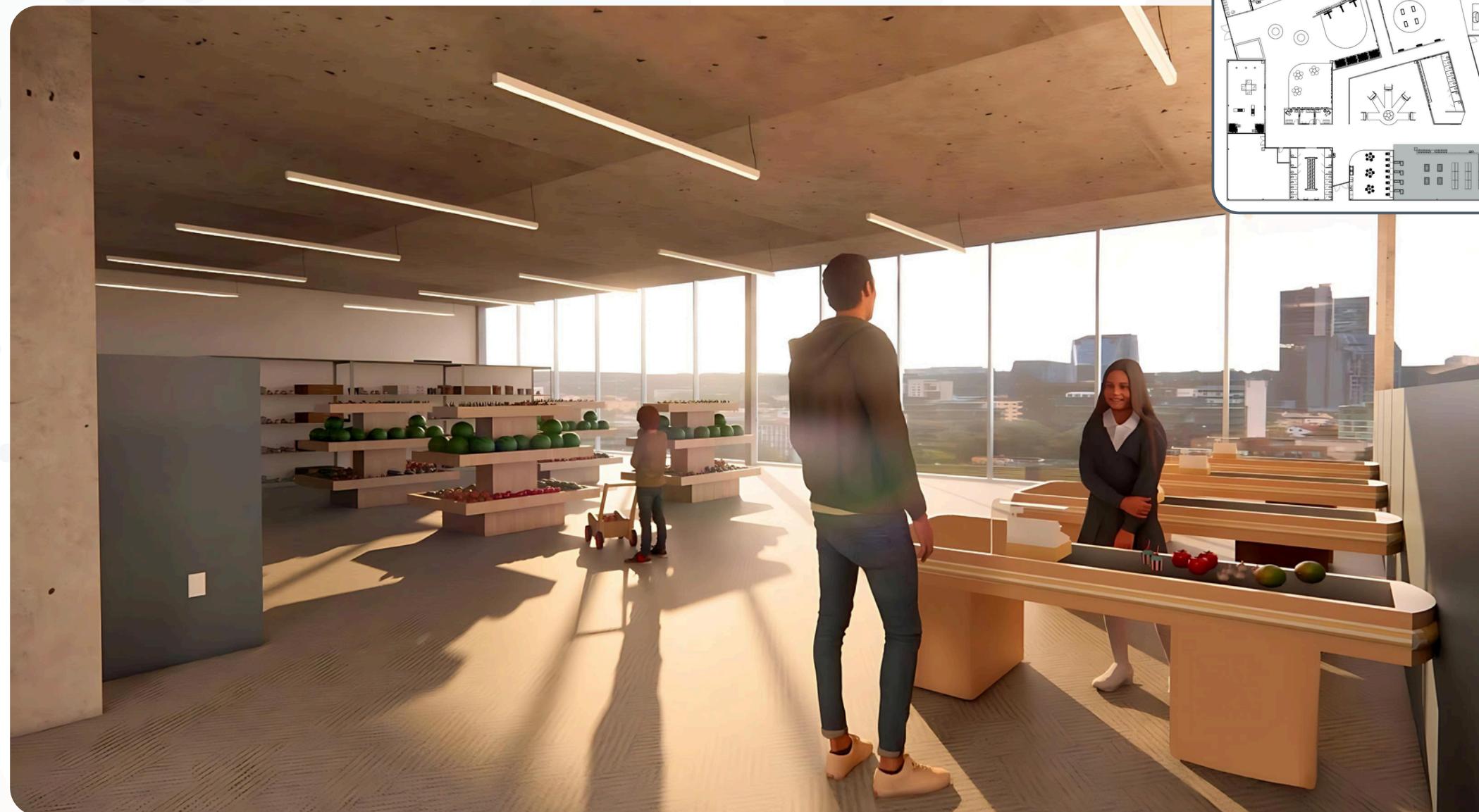
CARPET



TACTILE SQUARES & MAGNETIC GEARS

Have multiple exhibits within the museum be tactile and/or kinesthetic in order for children to have a higher chance of retaining what they did and learned (Anderson et al., 2002).

# GROCERY EXHIBIT



PRODUCE STAND  
& PUSHCART



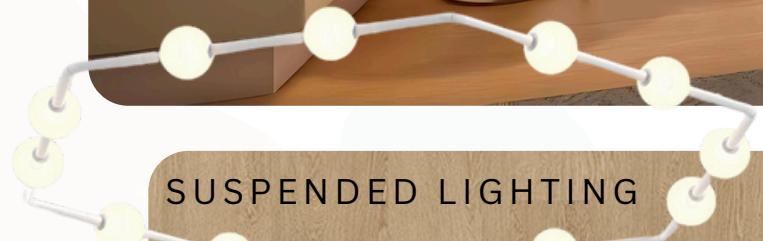
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Create an environment that nurtures young children to be creative and be themselves without pressure from external factors (Gong et al., 2020).

# DINING SPACE



SUSPENDED LIGHTING

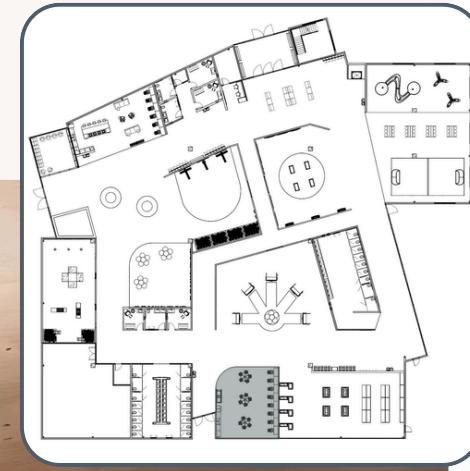


LUXURY VINYL TILE



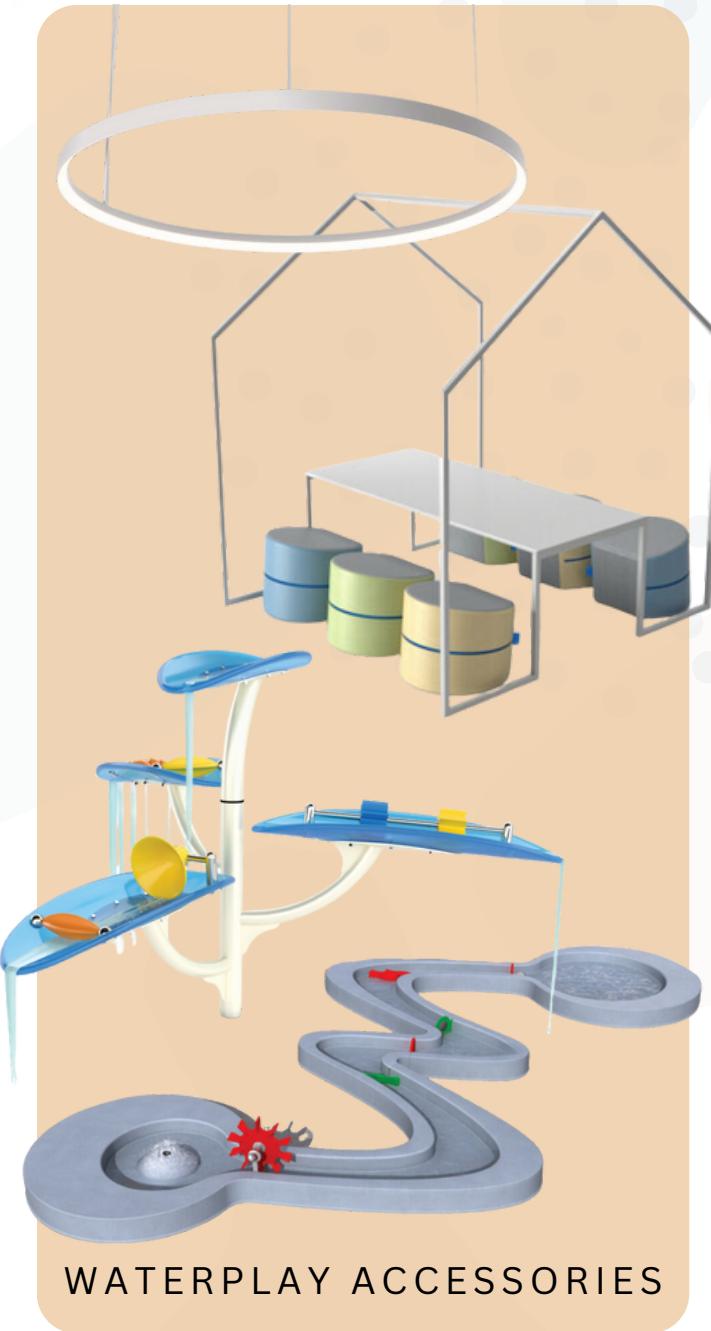
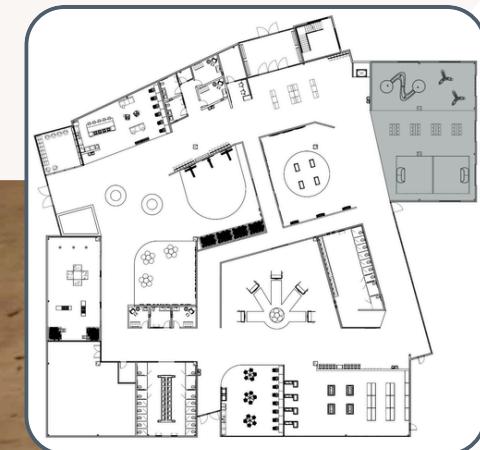
UPHOLSTERY

UPHOLSTERY

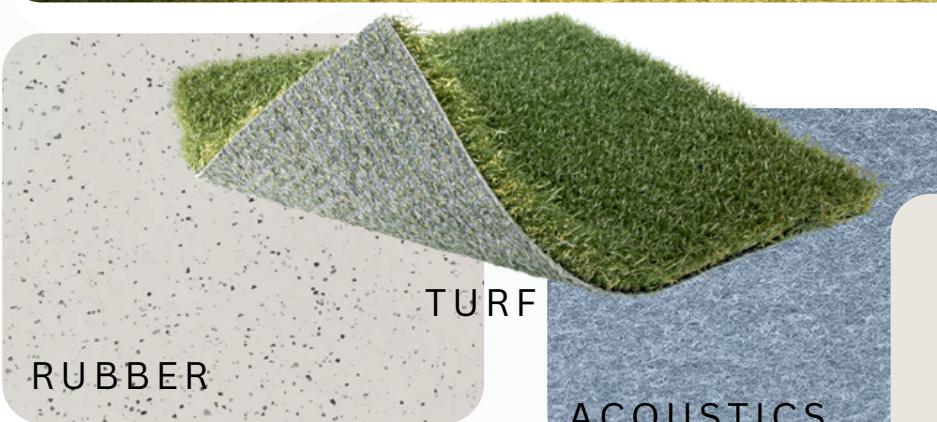


Use both natural and artificial lighting in a way that provides a comfortable atmosphere for visitors (Han et al., 2019).

# TURF



WATERPLAY ACCESSORIES



Designate an area within the museum to include a green space where therapy/service animals can roam and be played with (Knowles & Schwartzman, 2022).

# COMFORT ROOM



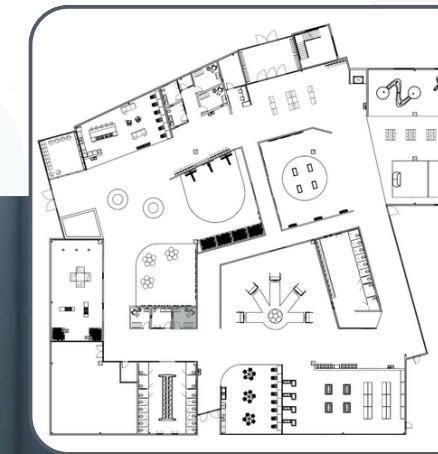
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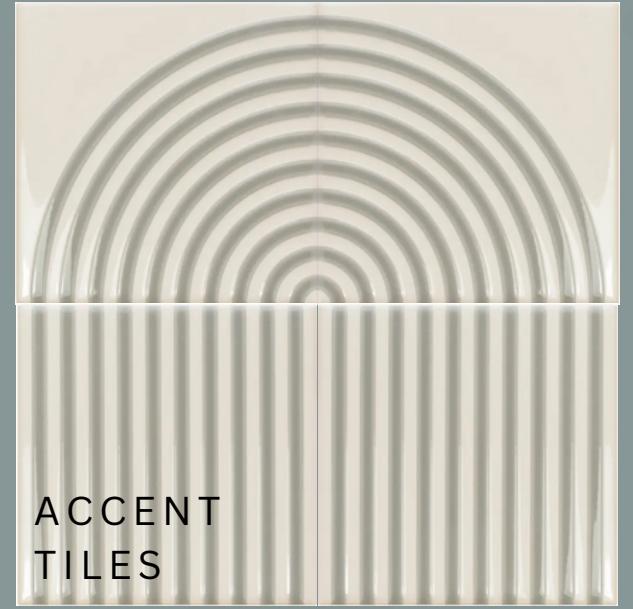


ACOUSTIC  
CEILING/LED



QUARTZ

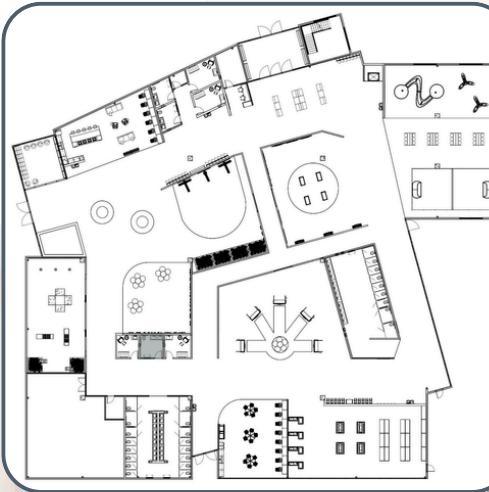
ADULT CHANGING TABLE



ACCENT  
TILES

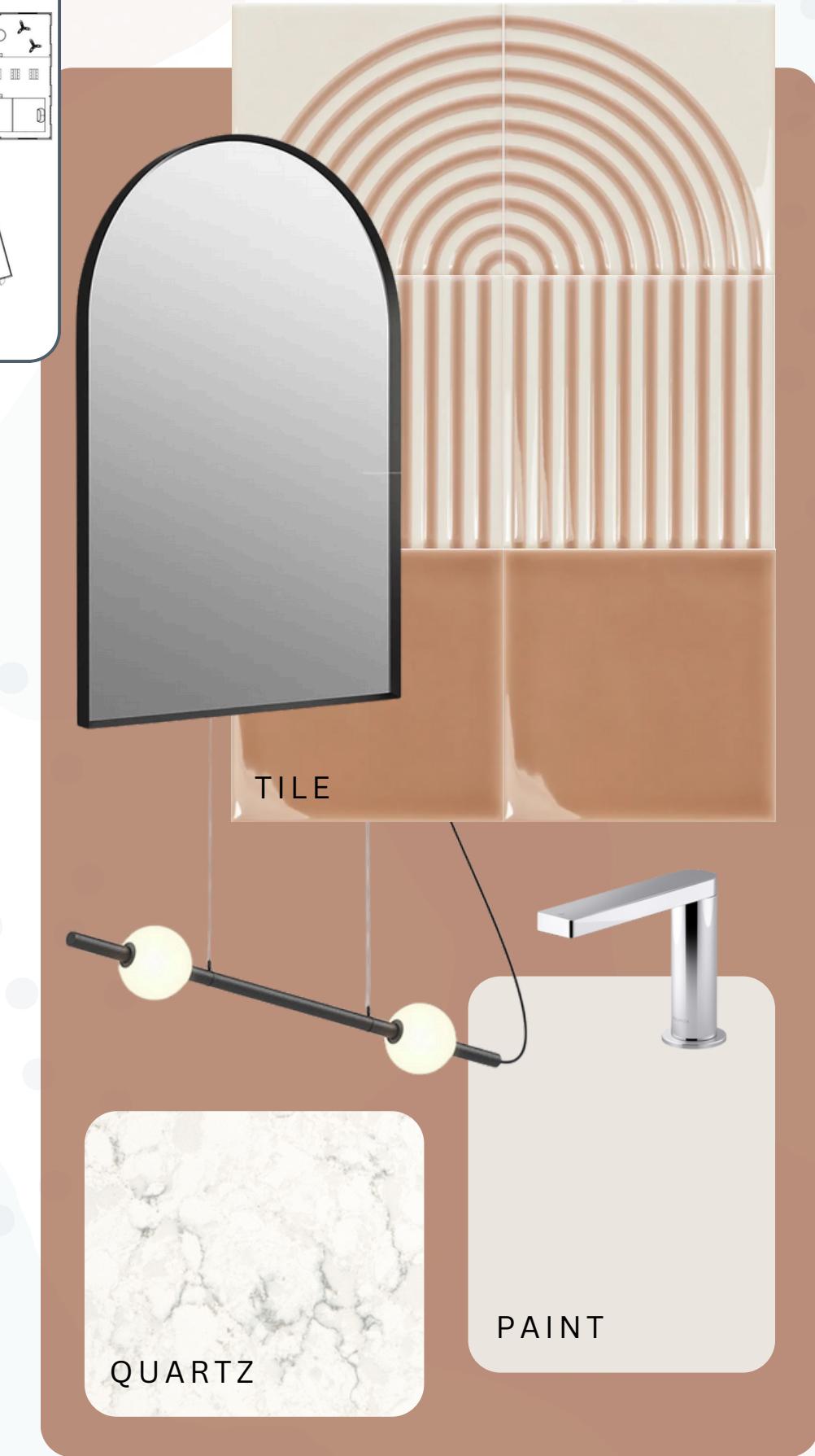
Implement comfort rooms to aid in relaxation and satisfaction for neurodivergent children, as well as families that may want to decompress (Golden & Walsh, 2013).

# FAMILY RESTROOM



TERRAZZO

Consider color and how it can affect the psychological and physiological well-being of children (Khalili, 2010).



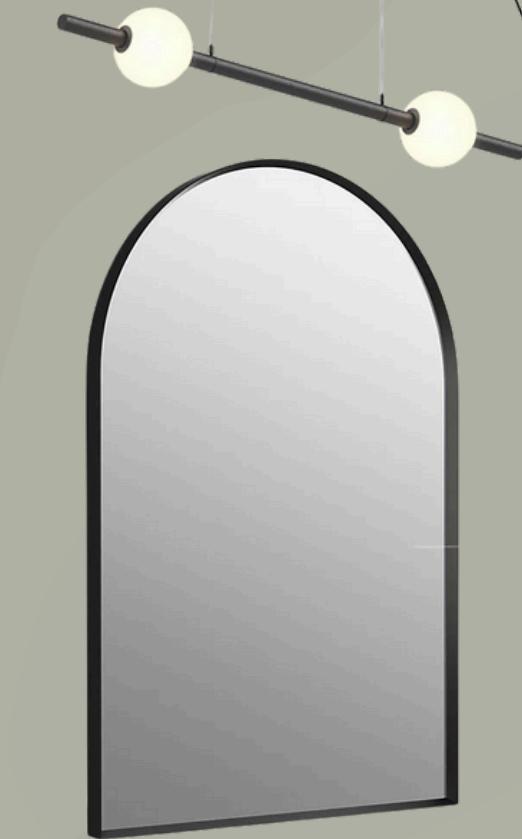
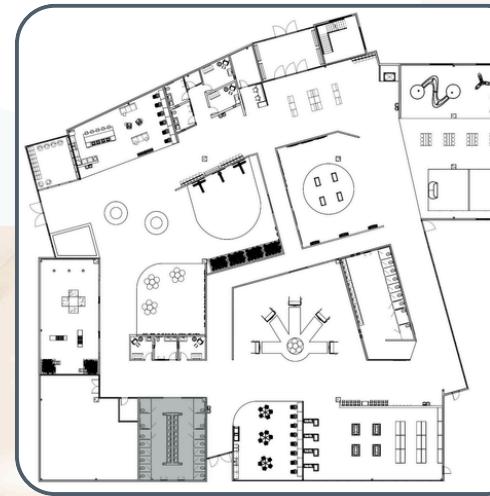
# RESTROOM



Full-height partitions  
for increased privacy.



TERRAZZO



PAINT



TILE

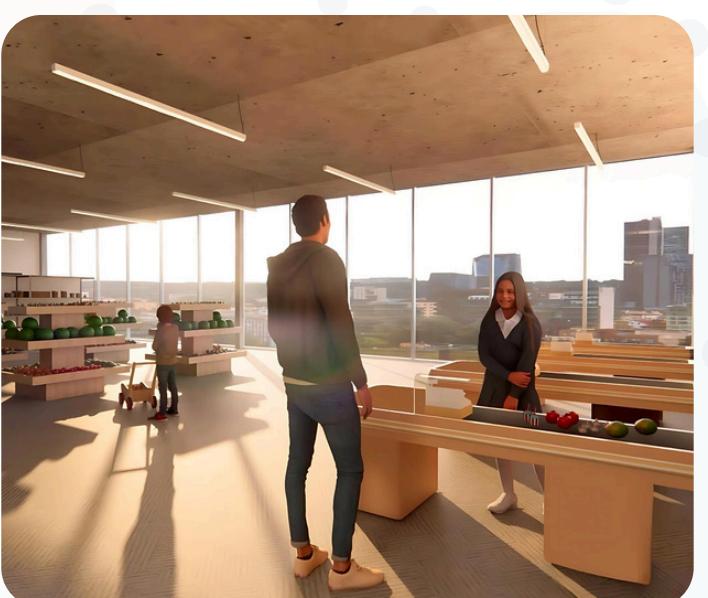
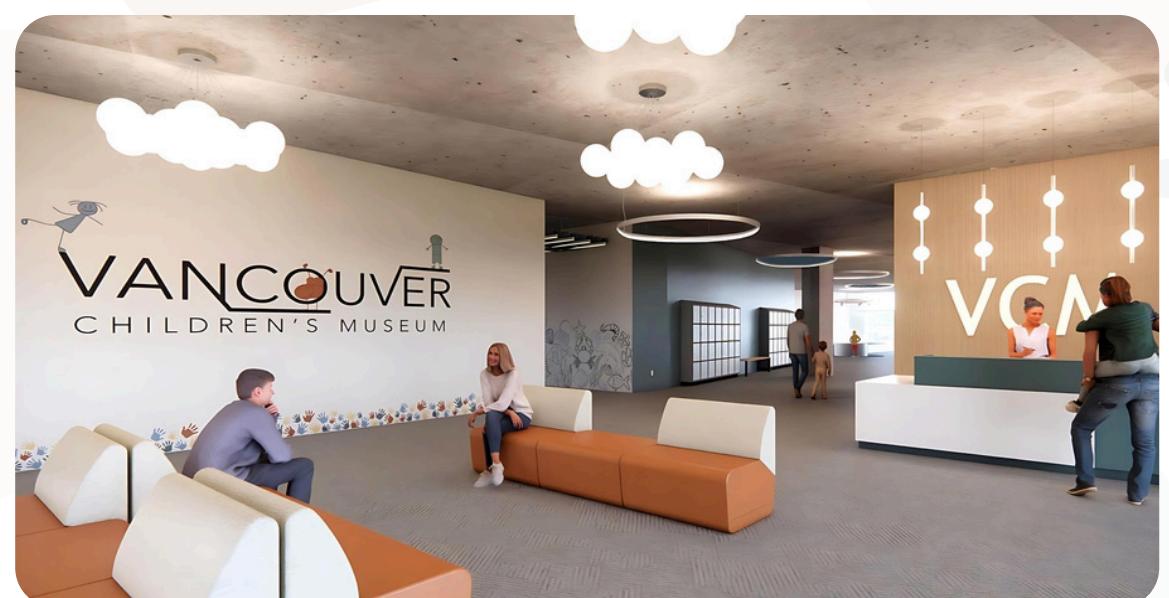
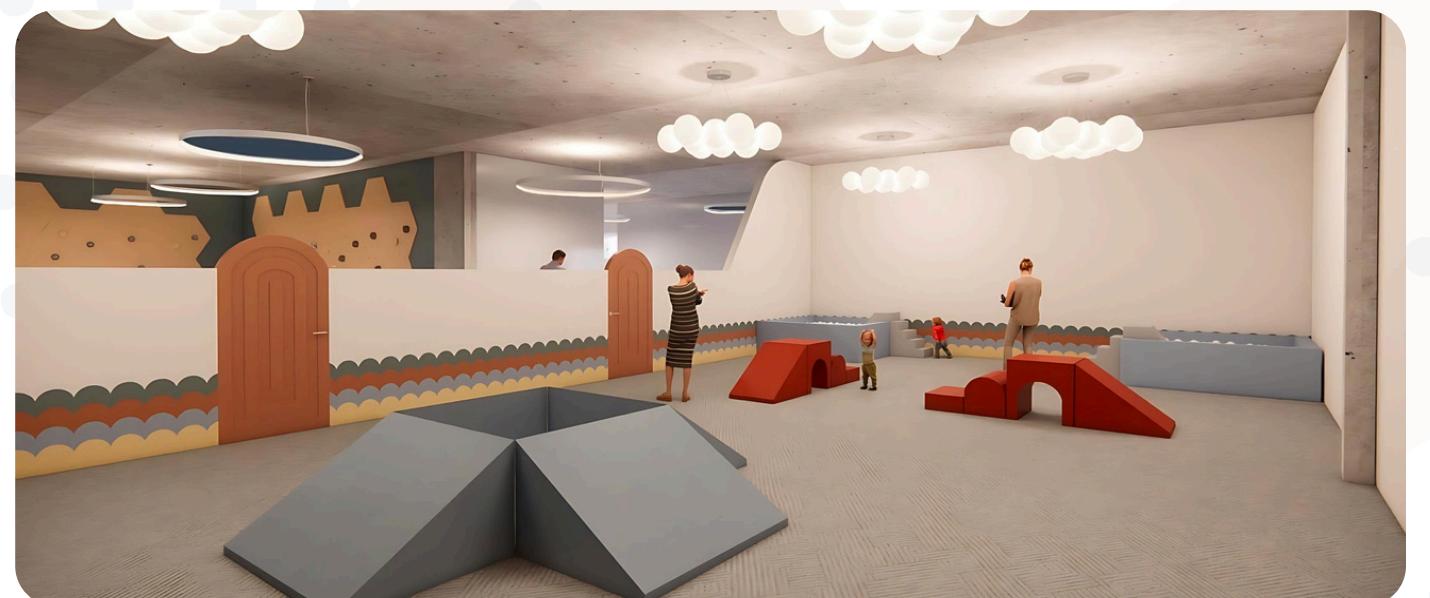
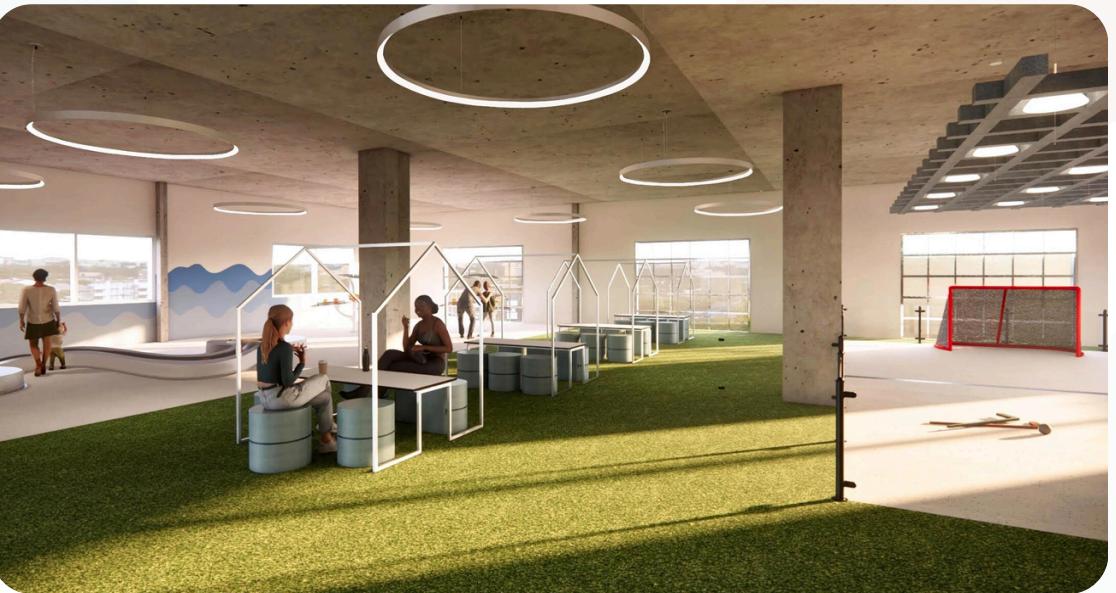


QUARTZ



TOILET PARTITIONS

Design a space centered around  
ADA/ACA guidelines to make all children  
feel welcome (Filova & Rollova, 2019).



# THANK YOU



SOPHIE JOHNSON | ERIN MORRIS | JENNA BERGANTINE