

FINAL
SCHEMATIC DESIGN
AUGUST 14, 2019

TEMPLE
CHILDREN'S
MUSEUM



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THE CHALLENGE & OPPORTUNITY

- According to the 2017 US Census in Temple, children aged 5 and under make up 8.8% of the population.
- Between the 2016-17 school year and 2017-18 school year there was 10.1% decline in Kinder Readiness in the Temple ISD.
- Out of 191 eligible children who did not attend Pre-K in Temple ISD in 2017-18, only 46 or 24.1 % passed Kinder Readiness Assessments.

“Kiddos who don’t attend Pre-K are not prepared for Kindergarten. They don’t know their numbers, letters or shapes.”

- Scott Elementary School Teacher



“They won’t realize they are learning!”

- Conversation with Board and Community Members

“Every inch of this space can be a learning opportunity: for parents and kids.”

- Conversation with Board and Community Members



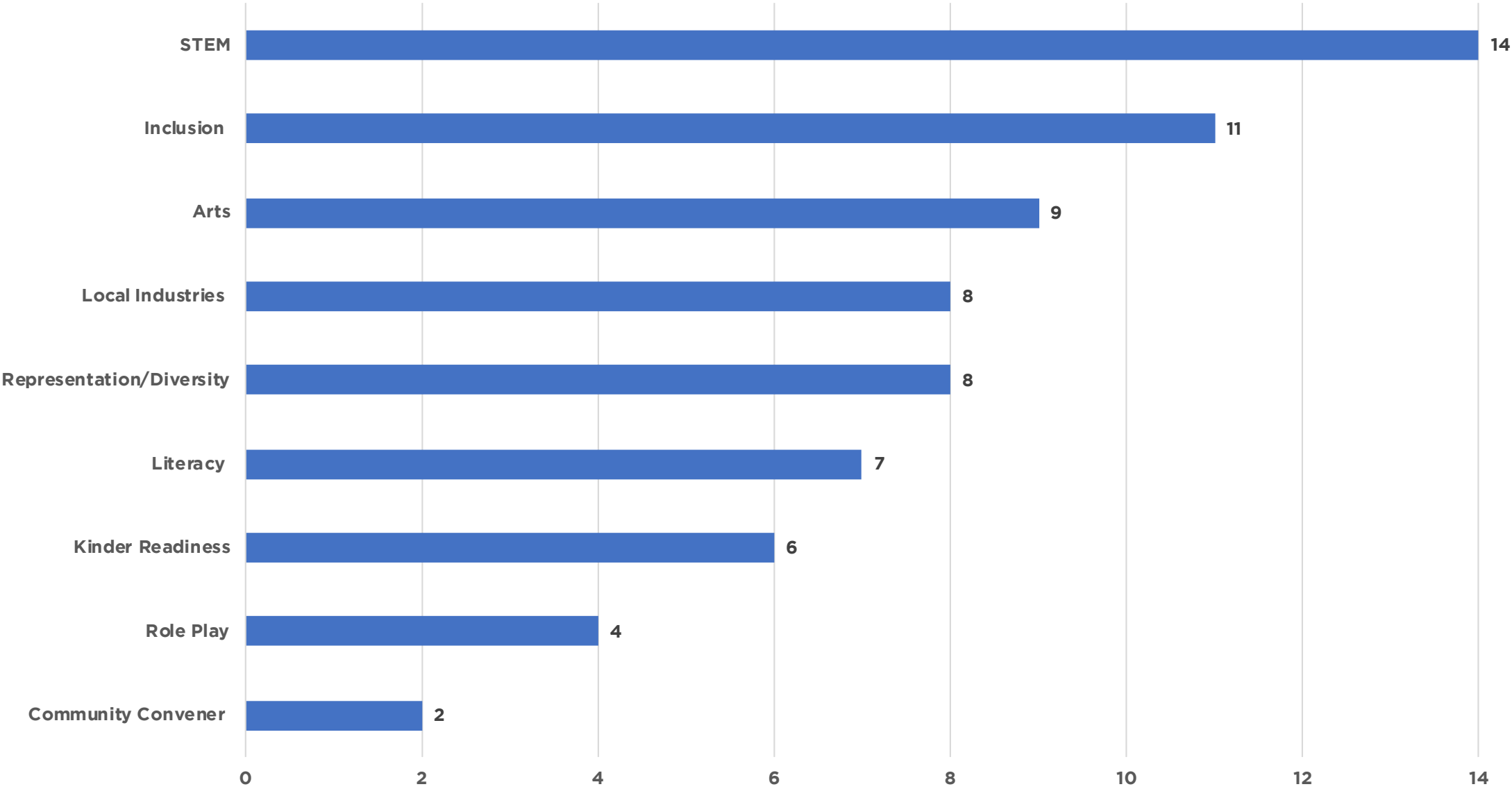
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COMMUNITY ENGAGEMENT: IMPORTANT CONCEPTS

We met with community stakeholders, board members, and children. We discussed that challenges and opportunities of the project. We used these sessions to begin to determine what are the most important elements for the Temple Children's Museum. Here are some of our findings.

23 Participants chose their top 3 Concepts

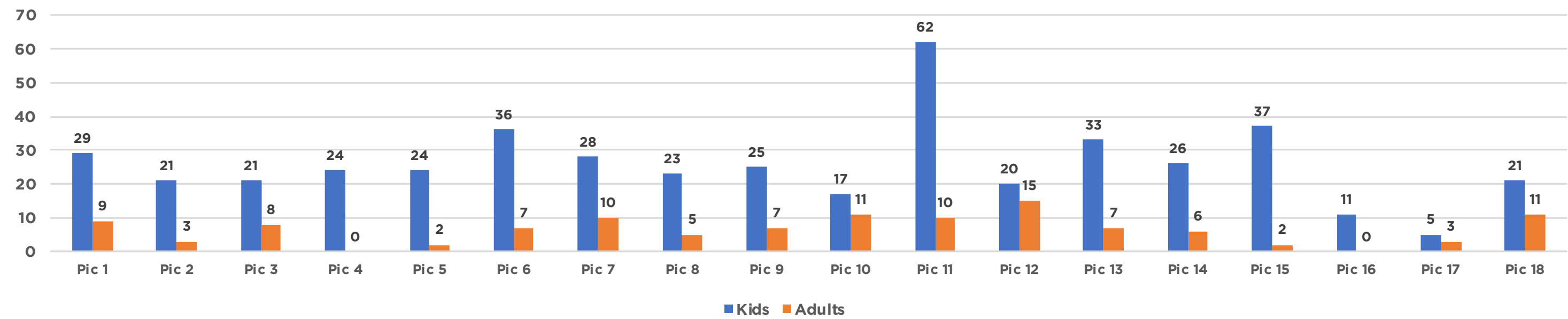


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COMMUNITY ENGAGEMENT: LOOK & FEEL IMAGES

Look and Feel Poll Adults vs. Kids



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COMMUNITY ENGAGEMENT: INCLUSIVITY

We asked Temple Stakeholders, “How we can show inclusion at TCM?”

Visible Inclusion	Outreach	Goals for Children	Exhibit Ideas
<ul style="list-style-type: none">• Celebrate different holidays based in different months• Changing exhibits based off different cultures and holidays• Chances to read and learn about other cultures (significant Albanian, Jewish and Hindu populations)• Cultural understanding with respect• Infant and nursing space• Info cards in multiple languages (languages spoken include Spanish and Albanian)• Lower admission for low income families (no more than \$7)• \$1 Lonestar and EBT• Discount Field Trips (preferably under \$5) and able to accommodate 80-100 kids at a time (an entire grade at most elementary schools)• Transportation is an issue	<ul style="list-style-type: none">• Offering food for larger turn outs• Somehow connect minority families with the rest of the city• Cultural or community events on a consistent schedule• Participate in a city-wide 1st Fridays	<ul style="list-style-type: none">• Expose children to other cities and cultures• Help with Kinder readiness• Get children to practice social skills• TEKS goals – literacy and math	<ul style="list-style-type: none">• The grosser, the better• Exhibits that assign children different jobs and tasks• Include a railway exhibit to encourage railway museum attendance• Share the culture and history of the city (perhaps through photos?)• Something that has to do with lights• Literacy focused exhibit• Drones (space X nearby)• Many people (and children) suggested a grocery store (i.e., HEB)



When we asked the children of Temple if they could design exhibitions for their own Museum, these are the themes that we discovered.

Transportation:

Toy Cars, Helicopter, Airplane, Military Tank, Car, history related vehicles

Active Play:

Trampoline, Playground with sling, swing and animal worlds, Play Gym, Slide, Slide into a Wi-Fi tower, Ladder you climb up and then jump off!, Climbing Structure, Rock Wall, Hammer

Science/Life Science:

Fish, Mountain, Dinosaur, Me being a scientist, X-Rays of a snake, Owl, Playground with a slide, swing and animal worlds, Beautiful Sun, Solar System, Rainbow, Tree you can decorate, Duck, Fake grass with fake flowers, Solar system you can spin and learn facts about it.

Social Role Play/Fantasy:

Pegasus, Escape Room, Store named "Awesome Market", Empire State Building to learn tall buildings, HEB, Buy things like a grown up, Scales, Toys, Teepee to go inside of, Random Things, Slanted Building

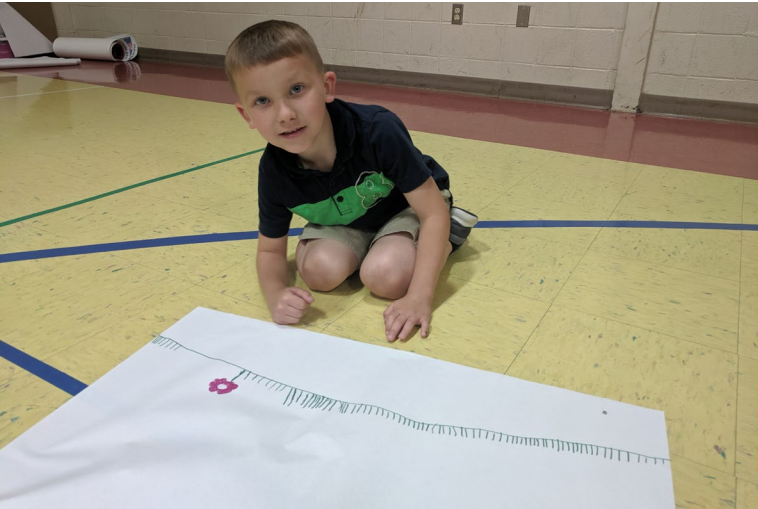
Tech/Future Tech :

Me being a scientist, Cell tower for Wi-Fi, Technology that connects to your brain and allows you to connect to PS1 like VR but you don't have to wear anything, Slide into a Wi-Fi tower, Rockets

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“It should be a place to learn about animals.”



“Outside needs a big garden!”



“It should have things that go fast!”



“I want a grocery store!”



“It could have a ramp from top to bottom.”



“It should look cool.”

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BIG IDEA

To create a children's museum that provides a love of learning, fosters meaningful child and caregiver engagement, and provides an educational resource for the whole community.



GOALS

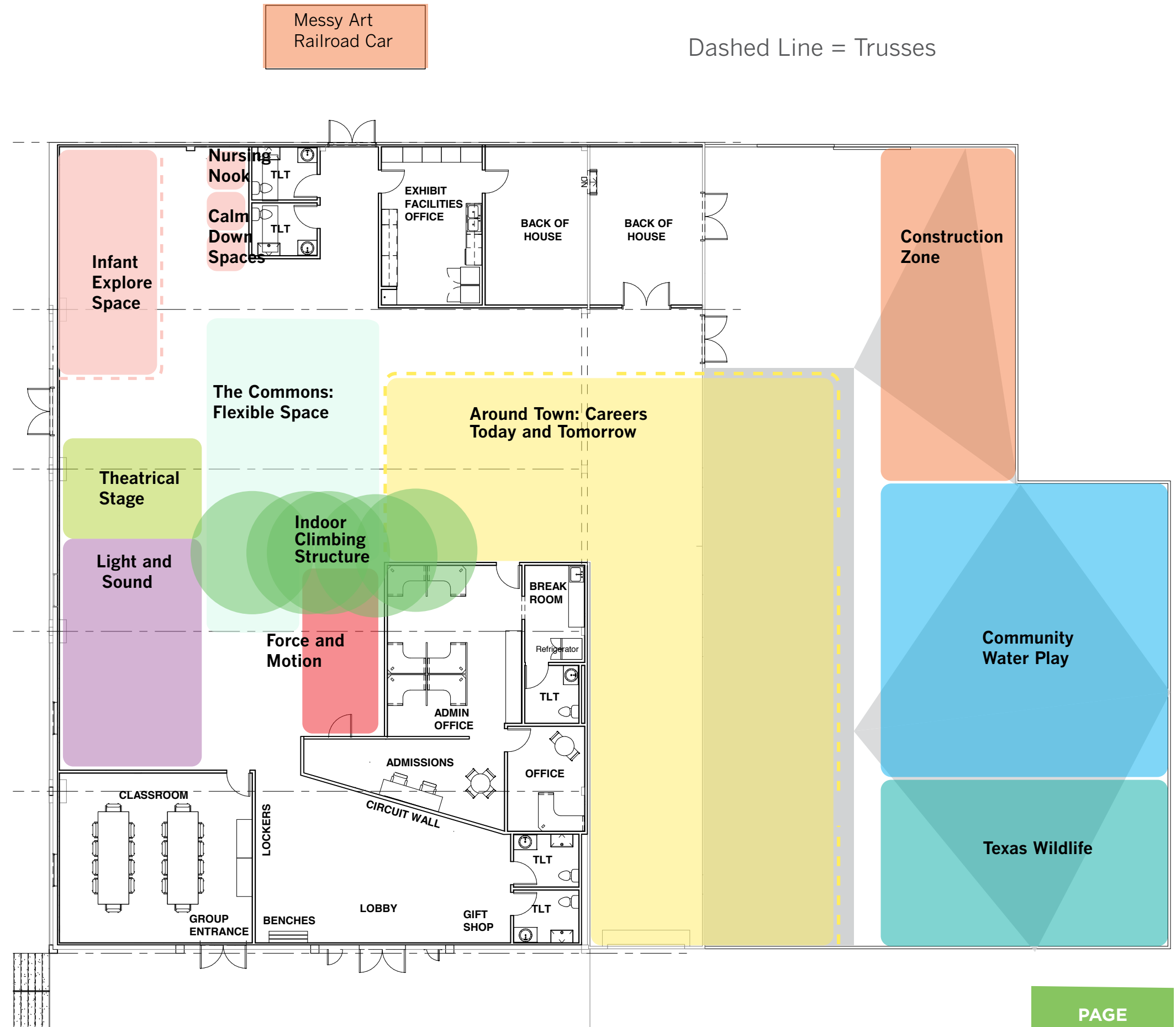
- Kindergarten readiness will be improved.
- The entire Temple community will feel welcomed and included.
- Children will develop a lifelong love of learning.
- Children will discover new interests and new careers.
- Children will practice important social and soft skills in a safe and inclusive environment.
- Diverse guests will collaborate together in ways they do not typically do outside the museum.
- Parents will receive a foundational resource in early childhood education.
- Guests will have an opportunity to celebrate Temple's current industries and shape future industries.



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FLOOR PLAN: OVERVIEW

We propose maintaining the original structure as much as possible. We will creatively utilize the tall ceilings and expansive warehouse atmosphere. The current loading dock will need to be leveled. A landing will need to be built to the Railroad Cars. In the yard, we suggest an overhang over the Around Town area with shade sails over Water Play, Texas Wildlife, and the Construction Zone. A vertical slat fence will provide safety for guests while offering views from the outside. The back alley will need to be leveled to provide access to the Back of House area and a potential pull up area for Food Trucks on busy days.



FLOOR PLAN: EXHIBIT DETAILS



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FLOOR PLAN: DIMENSIONS

The proposed floor plan closely matches the percentages of space distribution that we have at The DoSeum.

	TCM Square Footage	TCM %	DoSeum %
Entrance Area	910	7%	-
Admin Offices	1,006	8%	8%
Storage/ Back of House	873	7%	6%
Interior Exhibit Space	4,729	36%	32%
Outdoor Exhibit Space	5,672	43%	49%
Total	13.189		

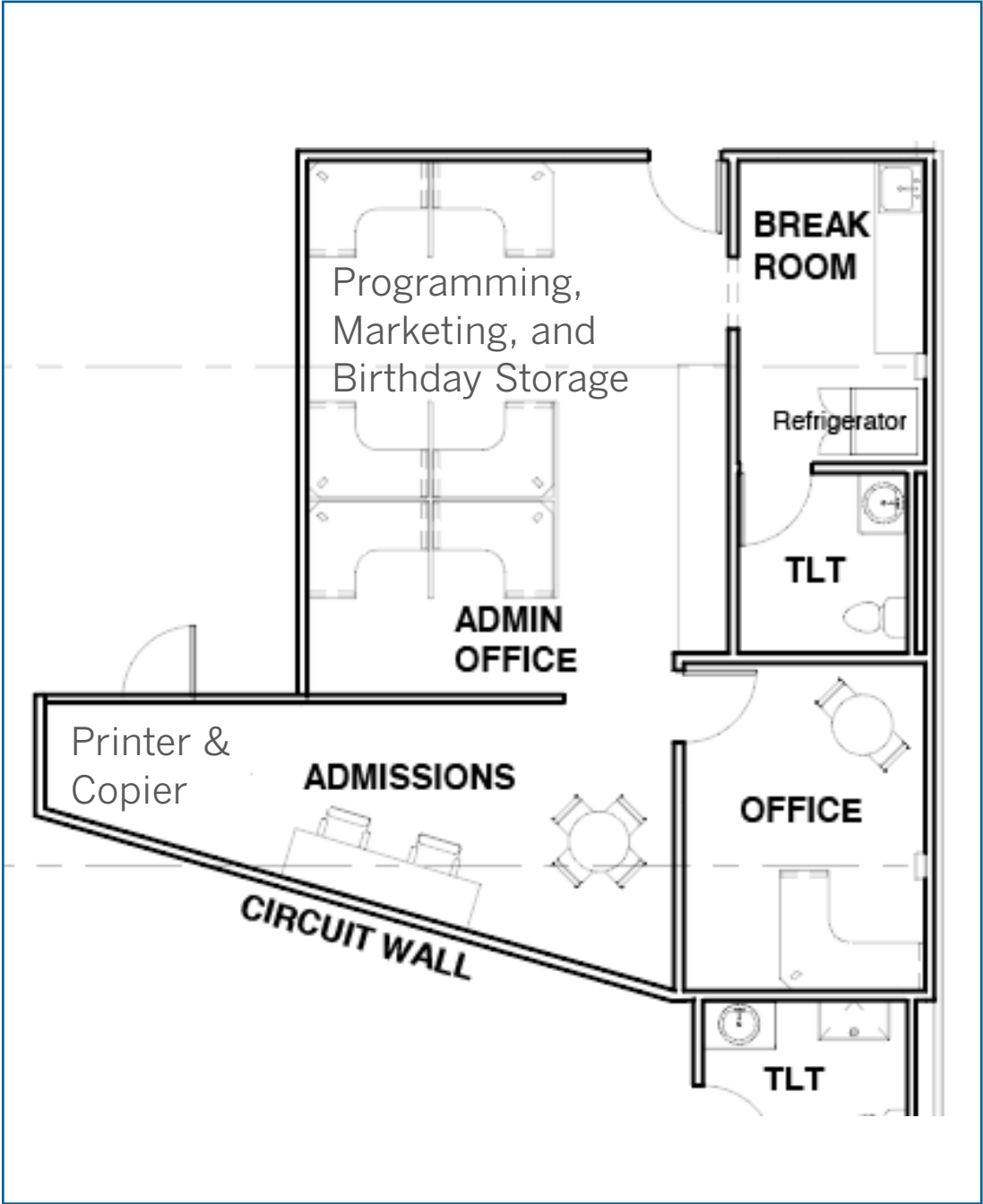


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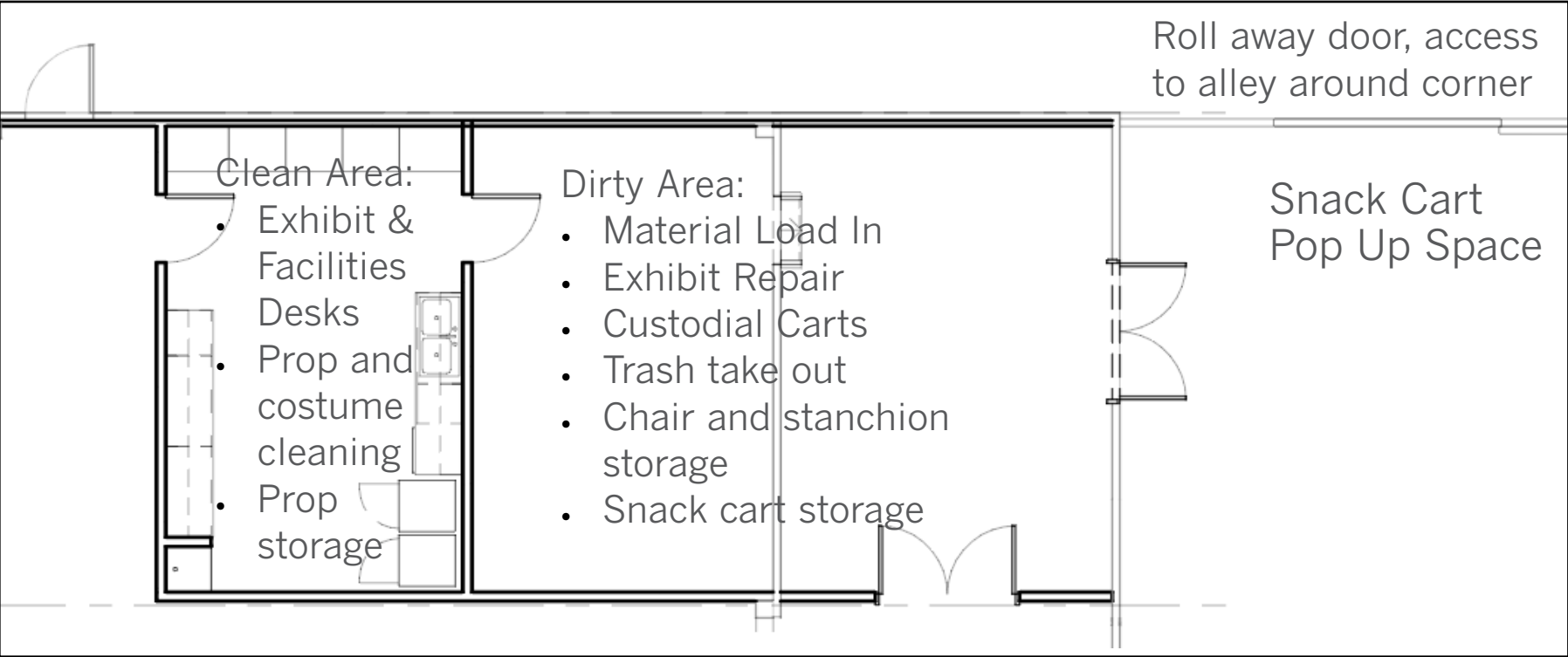


SPACE PLANNING

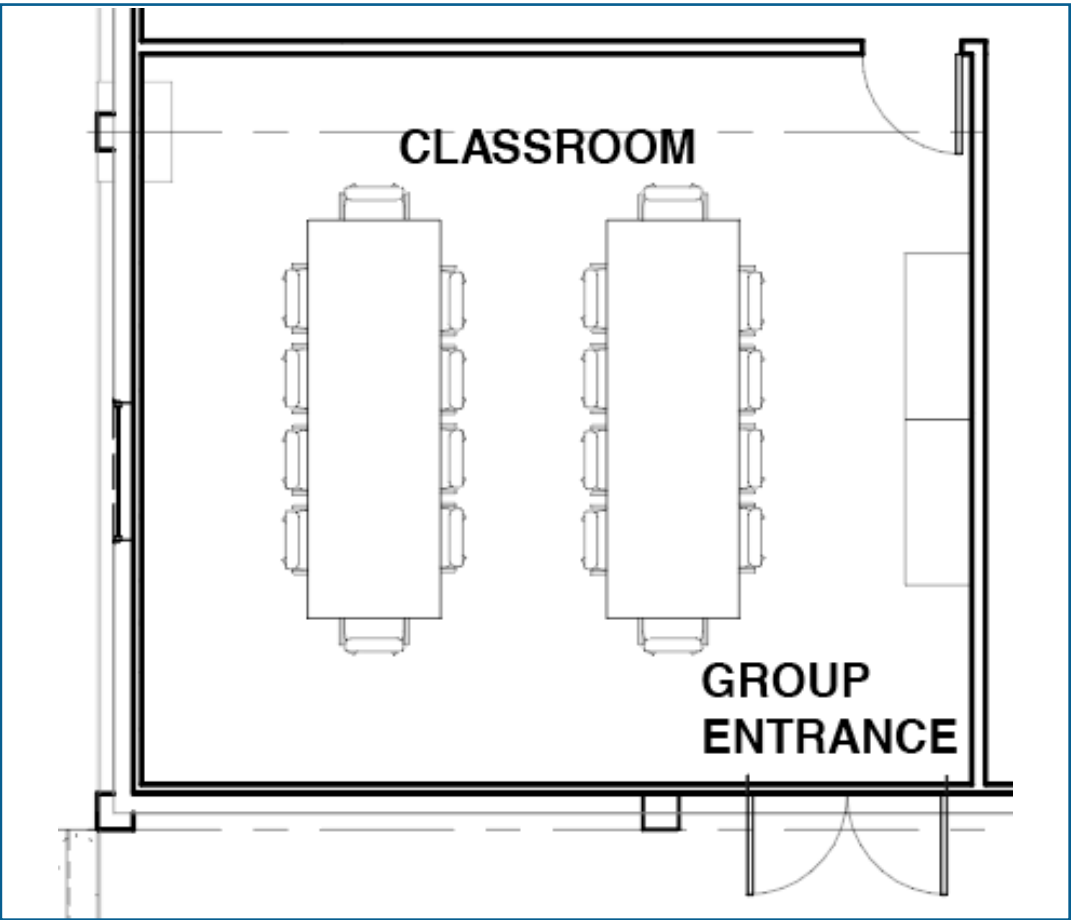
ADMINISTRATIVE OFFICES & ADMISSIONS



BACK OF HOUSE & STORAGE



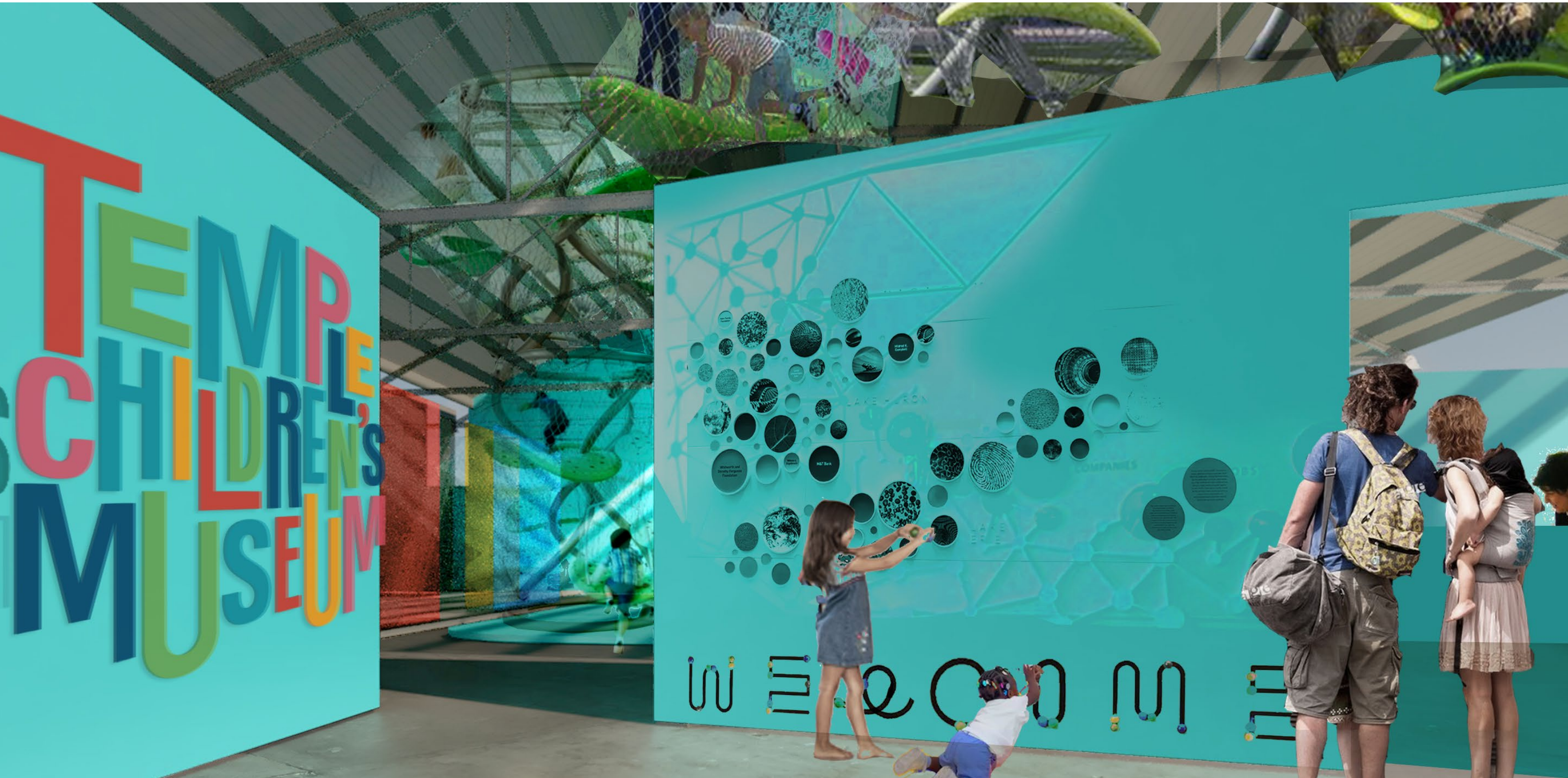
MULTIPURPOSE ROOM



- School Year
- Field Experience load in and activities
 - Parent Workshops
- Summer
- Camps
- Year Round
- Birthday Parties
 - Meeting Rentals
 - Special Events & Programming



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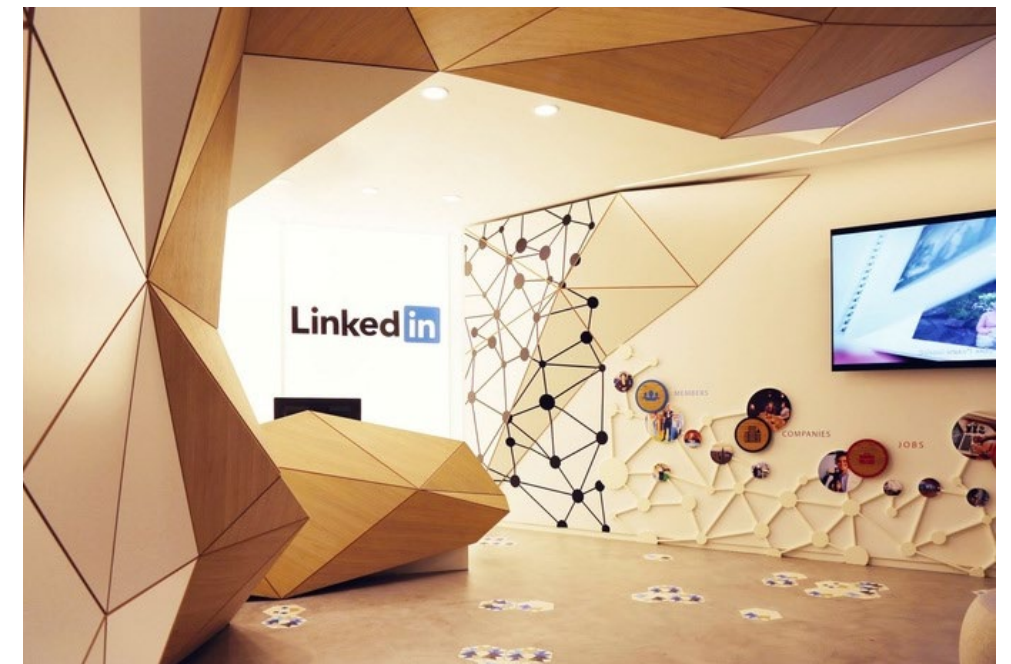
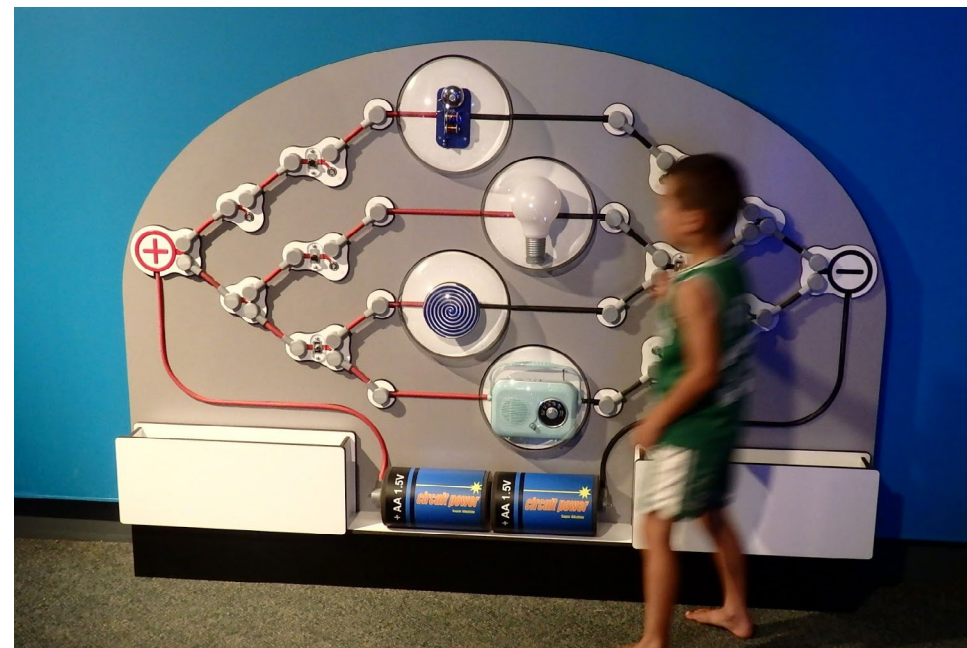
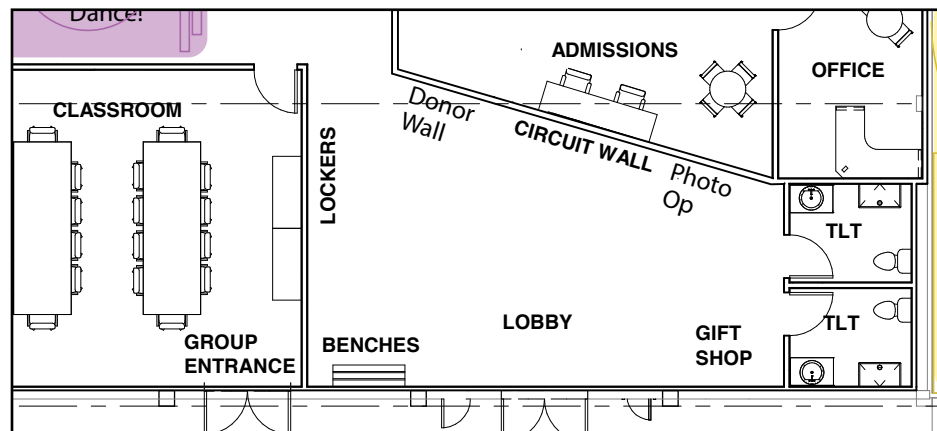
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EXHIBITS WALK THROUGH

Welcome

Guests walk up to a former warehouse, transformed into a energetic children's museum. From the outside they can catch glimpses of a farm and water play. They can even peek in on a town built just for kids! At the front entrance children are delighted to find their very own door, just their size. Upon entering Temple Children's Museum guests are welcomed by a friendly Admissions Desk. This desk is part of the Administrative Offices to optimize space and make use of a smaller-sized staff. In this welcome area is an interactive circuit wall for children to play with while the adults talk. All guests' basic needs are met including benches, water fountain, family-style restrooms, and lockers. Within view above the welcome desk, kids are climbing throughout an indoor tree! Joyful shouts can be heard from up above. It serves as a teaser of what is to come...



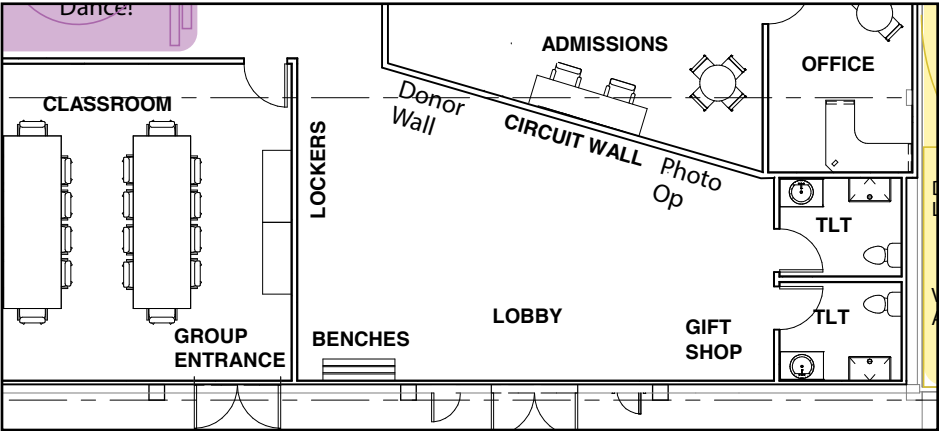
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EXHIBITS WALK THROUGH

Photo Op and Donor Wall

Families can make their memories last with a custom TCM Photo Op, encouraging guests to post to social media. This can be a classic like a Van der Graaf Generator. A local artist can be commissioned to create a unique TCM sculpture for the entry. Right before the entrance to the museum is a playful donor wall celebrating all of those who made this museum possible!



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EXHIBITS WALK THROUGH

Force and Motion

Guests immediately enter a dynamic space utilizing the full height of the refurbished warehouse. Above looms a tree-themed climbing structure. Below, kids may enter balls in pneumatic tubes wound throughout the tree. They may send baskets up to the top of the climber with playful props such as fruit and kittens. A simple machine wall and a Newton's Cradle introduces young learners to key physics concepts.

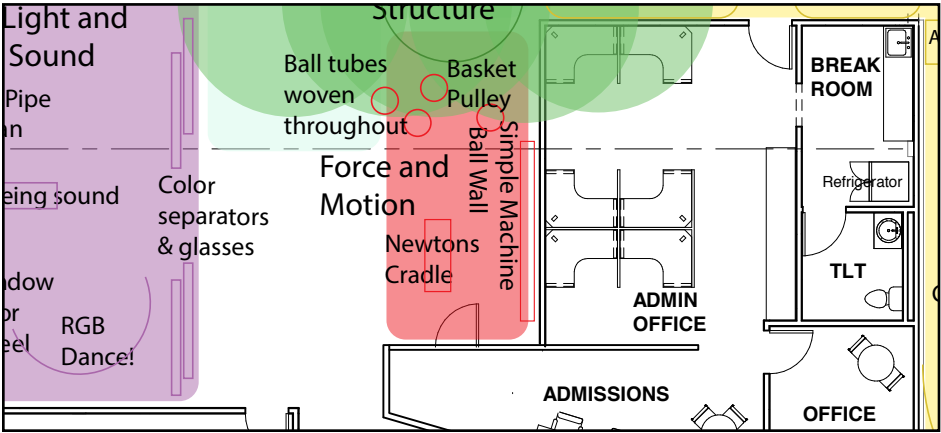


TEKS Alignment

Science:

K.6(C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside

K.6(D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow



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EXHIBITS WALK THROUGH

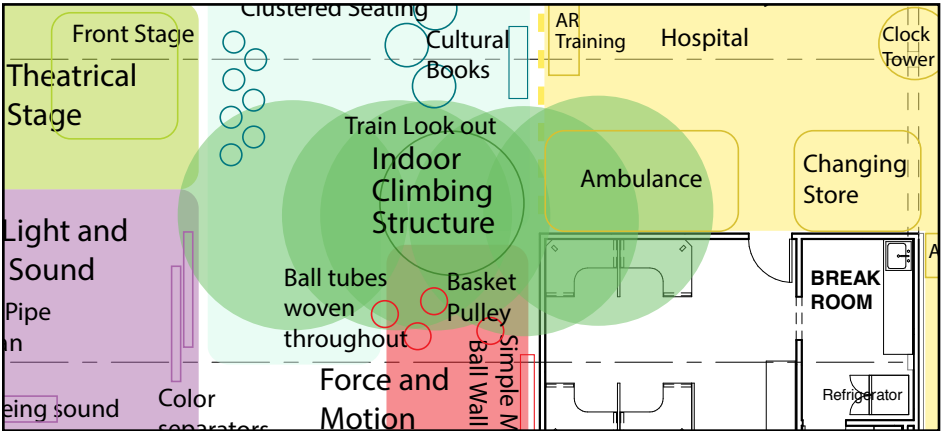
Indoor Climbing

The central heart of the Temple Children's Museum is a Live Oak themed indoor climbing structure. Kids may climb from branch and leaf up to the top. Climbing structures encourage children to develop their motor skills while engaging in imaginative play. Children can test out their abilities in a safe (and air conditioned) environment. At the top is a platform to look out towards the train tracks. If you wait long enough a train might just come by; listen for the whistle and make your own whistle response!

TEKS Alignment

Physical Education:

K.3(b) participate in moderate to vigorous physical activities on a daily basis that cause increased heart rate, breathing rate, and perspiration



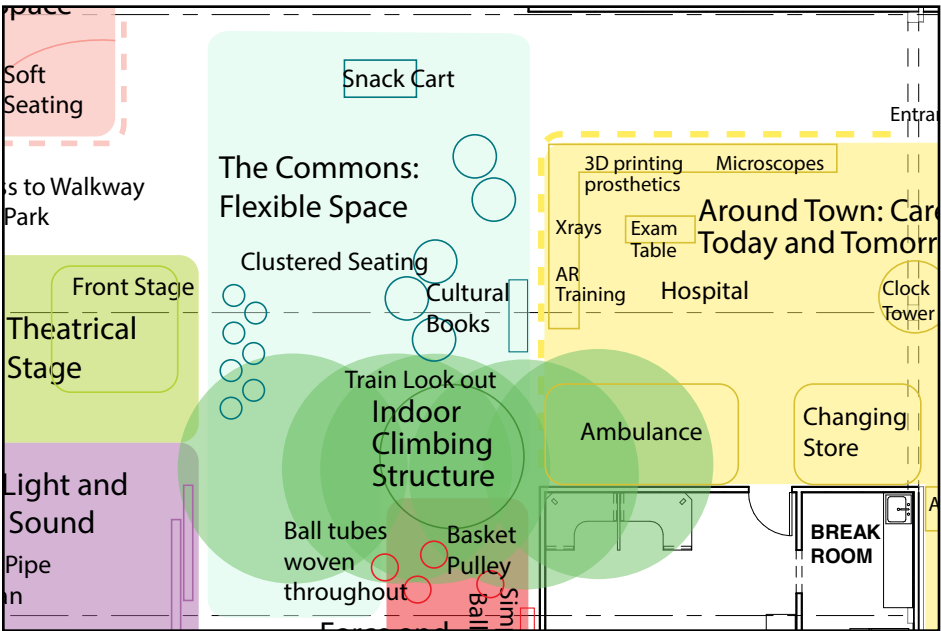
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EXHIBITS WALK THROUGH

The Commons

In the heart of the museum is The Commons. A changeable area that can act as convener, programming space, resting space, reading nook, whatever! Moveable chairs can be stored away. The museum can invite in different cultural groups to curate the area with materials, books, or snacks for purchase. The snack cart can park here on busy days. Throughout the museum, and in common areas like this, are the Association of Children's Museum's Vroom decals. These decals share the science of early childhood development to parents. They provide helpful tips to turn everyday moments into brain building. [Click here for link.](#)



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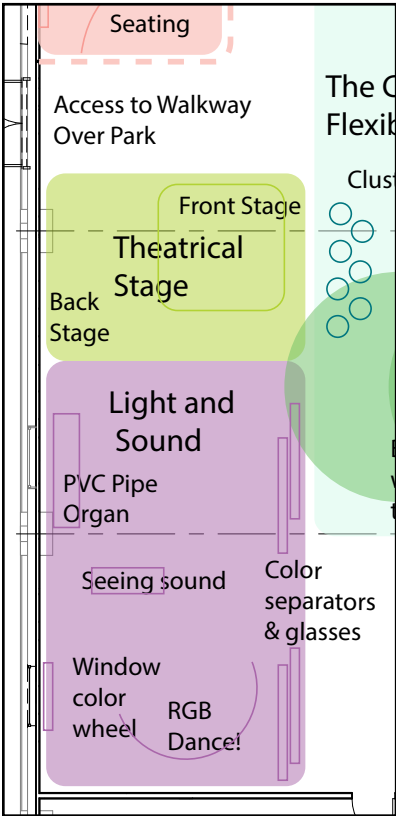


EXHIBITS WALK THROUGH

Light and Sound

This space will encourage children to use light and sound to discover phenomena. Kids will explore the physics of sound and light waves.

Guests will enter through a series of color panels, immediately witnessing the how certain colors are created by the interaction of two or three colors. Children can experiment with this phenomenon at the nearby window with a giant color wheel that playfully uses the exterior light.



Guests are encouraged to put on color glasses. Artwork and messages throughout the gallery are written in color text. Children explore how the interaction of colors can reveal and conceal things in the world.



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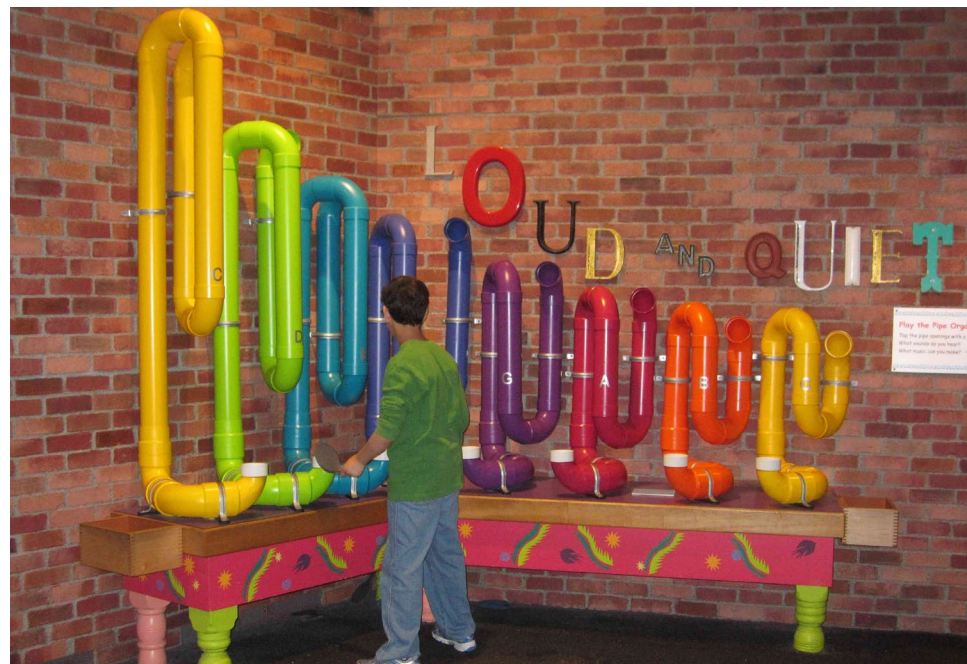
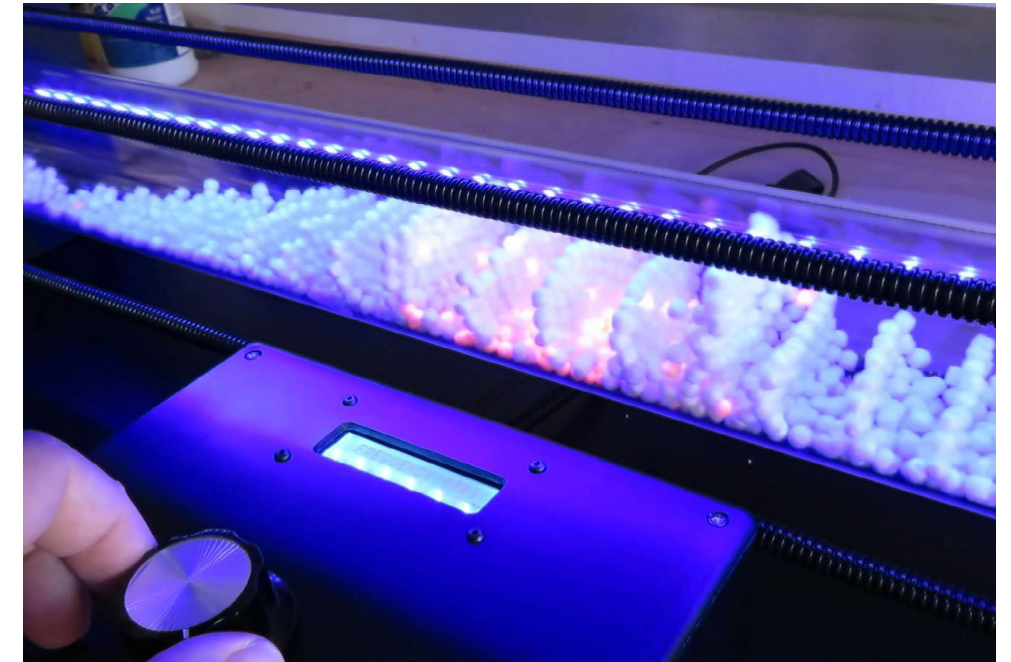


EXHIBITS WALK THROUGH

Light and Sound (continued)

The exploration continues with an RGB Dance pod. Children can move and groove and see their shadow broken up into red, green, and blue, the elements that create white light.

The physics of sound is playfully revealed with a Seeing Sound- a classic kundt tube that shows a sound wave in real time with beads. Nearby is a PVC pipe organ where children can make music and understand pitch.



TEKS Alignment

Science:

K.6(A) use the senses to explore different forms of energy such as light, and sound

K.2(A) ask questions about organisms, objects, and events observed in the natural world

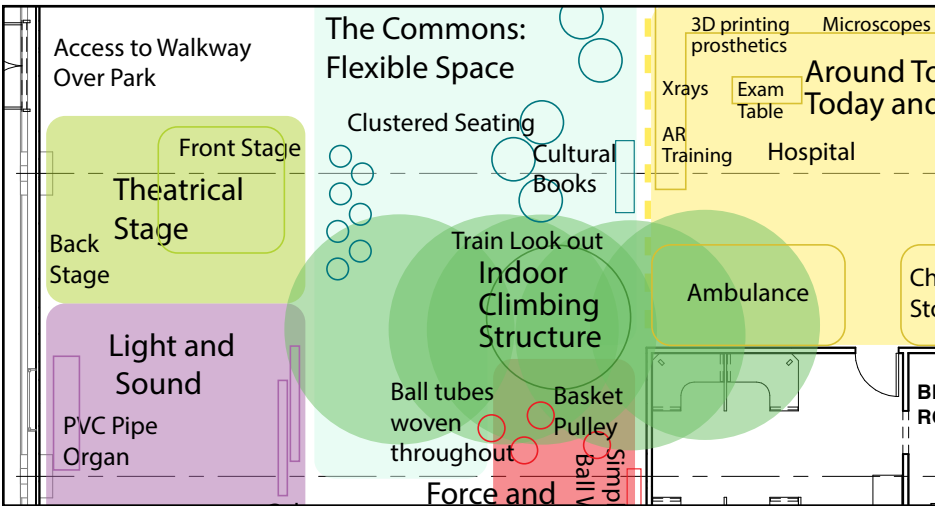
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EXHIBITS WALK THROUGH

Theatrical Stage

Parents can sit in the Commons while their kids act it out on a theatrical stage. The fine arts incorporate the study of dance, music, theatre, and the visual arts to offer unique experiences and empower students to explore realities, relationships, and ideas. Back Stage, kids can experiment with light effects and gobos. Costumes and prompts can rotate throughout the year to give the kids some direction in their imagination. Pop-up activities can allow kids to build sets or create small shadow box activities. On special occasions a community cultural group can use the space for performances.



TEKS Alignment

- (1) Foundations: inquiry and understanding. The student develops concepts about self, human relationships, and the environment using elements of drama and conventions of theatre. The student is expected to:
- (A) develop self-awareness through dramatic play;
 - (B) explore space using expressive movement;
 - (C) imitate sounds; and
 - (D) imitate and recreate objects in dramatic play.
- (2) Creative expression: performance. The student interprets characters using the voice and body expressively and creates dramatizations. The student is expected to:
- (A) demonstrate safe use of movement and voice;
 - (B) assume roles through imitation and recreation;
 - (C) identify the characteristics of dramatic play; and
 - (D) participate in dramatic play.

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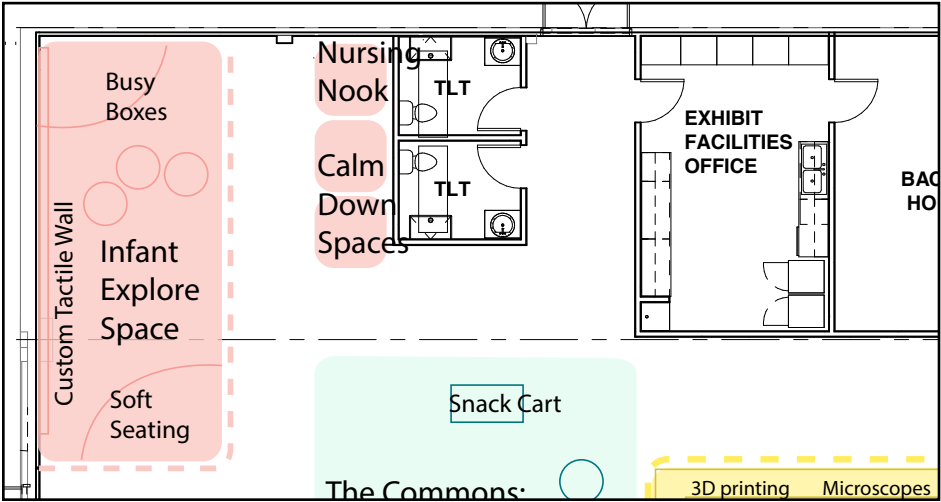
EXHIBITS WALK THROUGH

Infant Explore Space

A space dedicated to crawlers and their caregivers with soft sculptural furnishings encouraging movement and exploration. Pull-up bars and cause and effect activities foster early childhood development. Comfortable seating for parents, grandparents and caregivers. Along the building wall is a large scale tactile mural, custom made to represent Temple.

Nursing Nook & Calm Space

Mothers may use the Nursing Nook nearby while still keeping their eye on older brothers or sisters. Alternatively the entire family can enter with simple activities inside. Two Calm Spaces are also available for anyone who needs a break. These spaces are especially important for those with sensory challenges.



Messy Art Railroad Car

Through the glass double doors, guests are drawn towards the back yard of the museum. Out on the railroad tracks is a bare bones railroad car, encouraging wild, fun, and messy creativity. Kids can paint inside, outside, and around the car. The museum could potentially commission a mural for the exterior. Students develop aesthetic and cultural awareness through exploration, leading to creative expression. Creativity, encouraged through the study of the fine arts, is essential to nurture and develop the whole child.



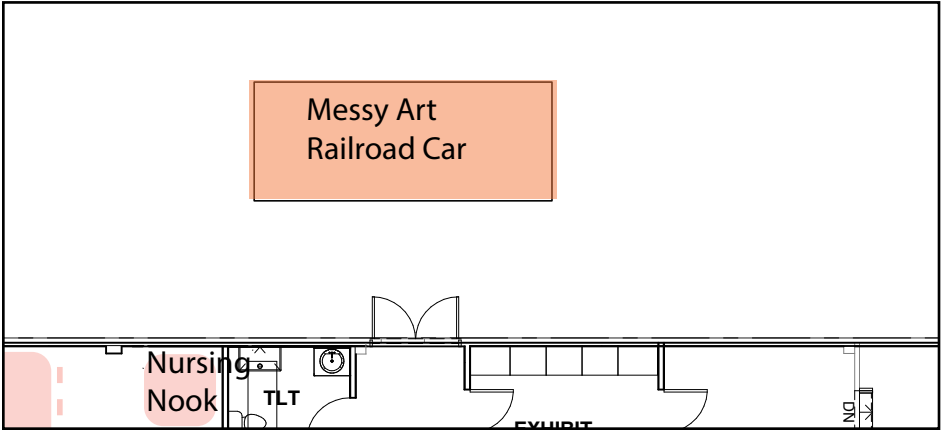
TEKS Alignment

K.1(B) - identify the elements of art, including line, shape, color, texture, and form, and the principles of design, including repetition/pattern and balance, in the environment.

SLAR:

K.1(A) listen actively and ask questions to understand information and answer questions using multi-word responses

K.1(C) share information and ideas by speaking audibly and clearly using the conventions of language



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TEMPLE
CHILDREN'S
MUSEUM



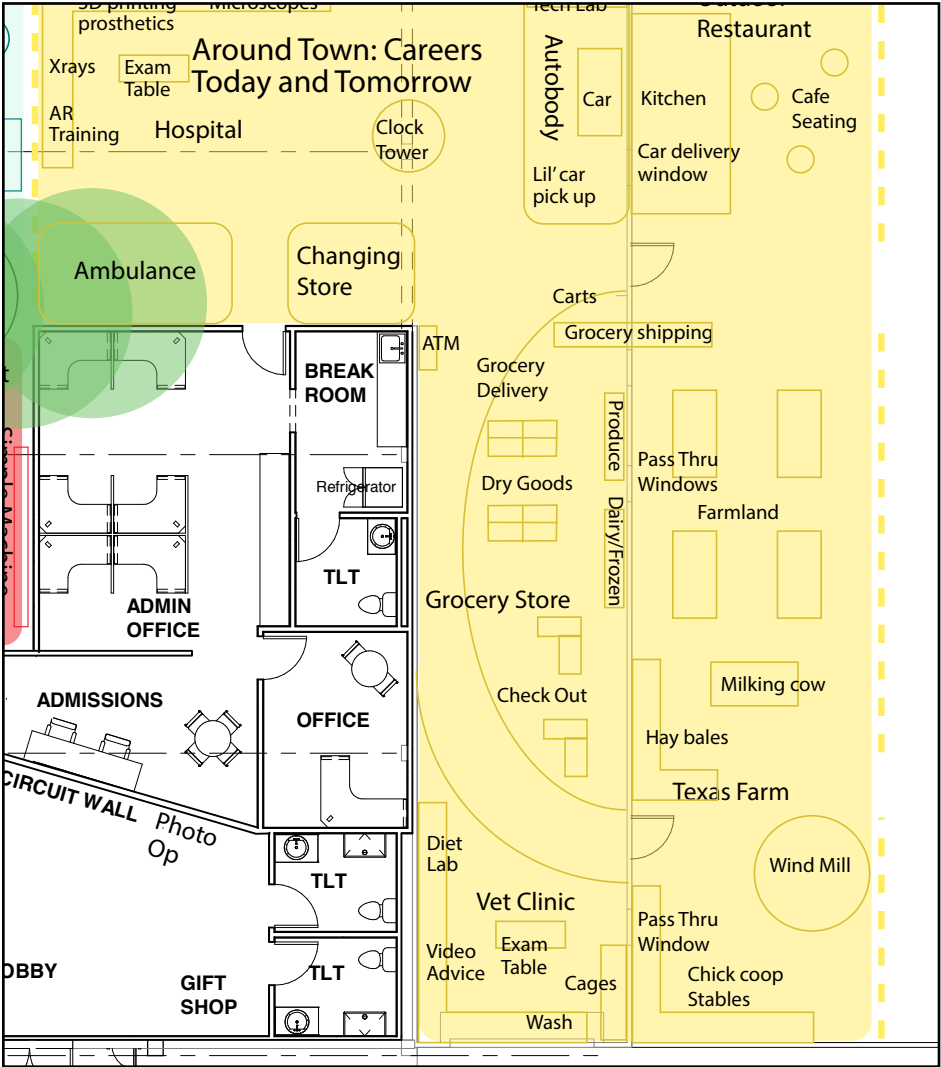
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EXHIBITS WALK THROUGH

Around Town: Careers of Today and Tomorrow

The largest part of the museum is devoted to the Around Town exhibition. Children learn early numeracy and literacy actively and joyfully. They role play the adults they see in their lives today and the adults they may be tomorrow. The entire area is fenced in and straddles both indoor and outdoor elements



TEKS Alignment

Social Studies:

K.16 The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings.
K.15(B) create and interpret visuals, including pictures and maps
K.13(B) describe how technology helps accomplish specific tasks and meet people's needs

Math:

K.9(C) - list simple skills required for jobs
K.9(D) - distinguish between wants and needs and identify income as a source to meet one's wants and needs;
K.9(C) - list simple skills required for jobs;

SLAR:

K.1(A) listen actively and ask questions to understand information and answer questions using multi-word responses
K.1(C) share information and ideas by speaking audibly and clearly using the conventions of language

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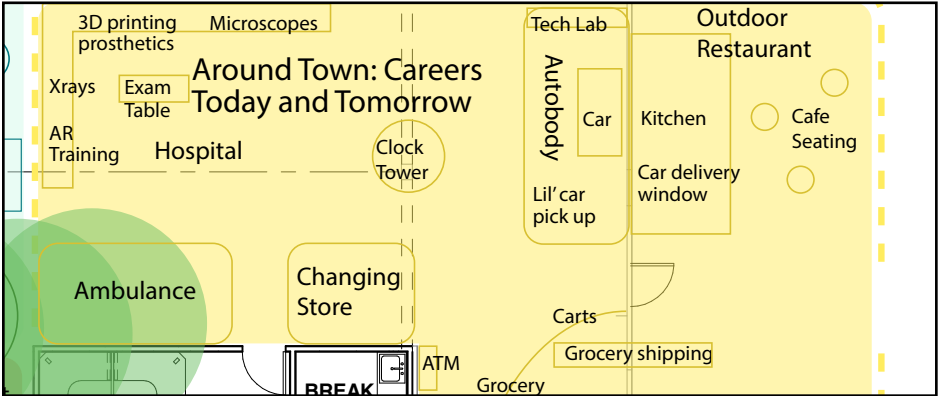
EXHIBITS WALK THROUGH

Around Town: Town Center, Changeable Store, and ATM

Every town needs a center and TCM Around Town is no different. Guests are greeted to the town with a central clock tower and welcome sign.

Across the way is a storefront that can change over time. With an investment made to the museum, a company may brand the store for a period of time. This can have many different possibilities: a flower shop, a restaurant, a delivery service, a car wash, etc.

Around the corner is an ATM where kids can pick up special Around Town Cash, accepted throughout the town!



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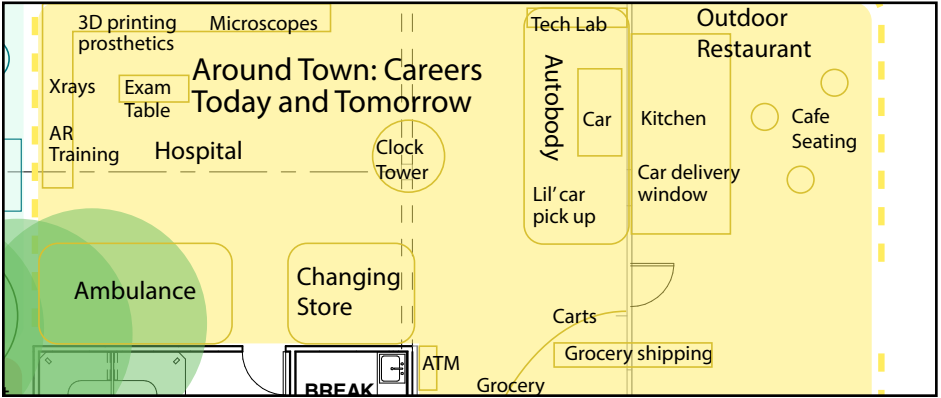


EXHIBITS WALK THROUGH

Around Town: Medical Center

In the Medical Center kids can role play as medical professionals, learn about new technologies in the field, and become more familiar with medical atmospheres in a fun and playful setting.

Kids can learn role play as an EMT with a mock ambulance. Kids can jump in the drivers seat or help a patient in the back. Role play will allow them to get familiar with First Aid materials.



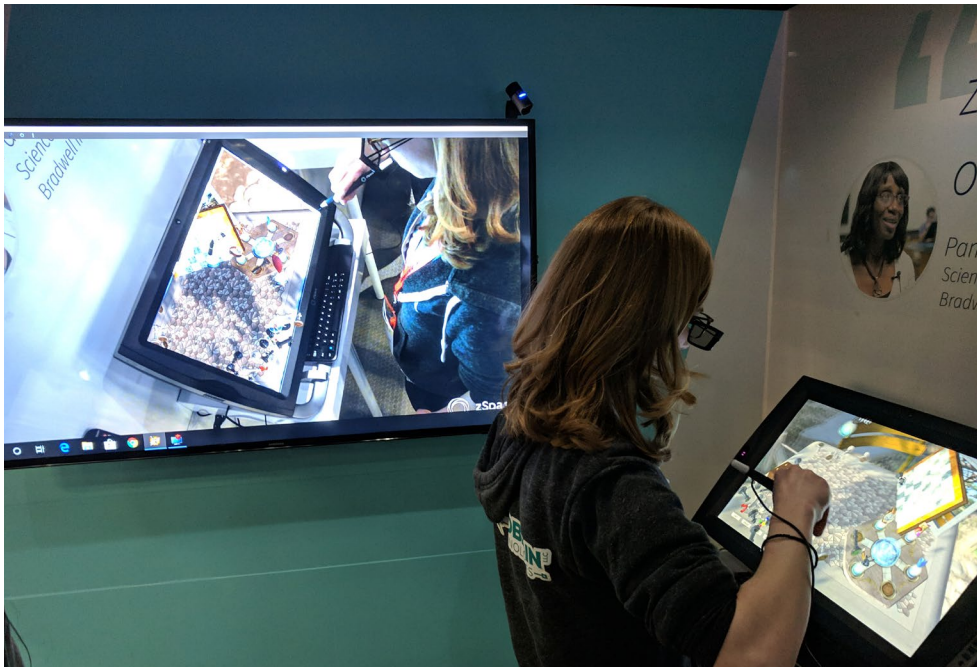
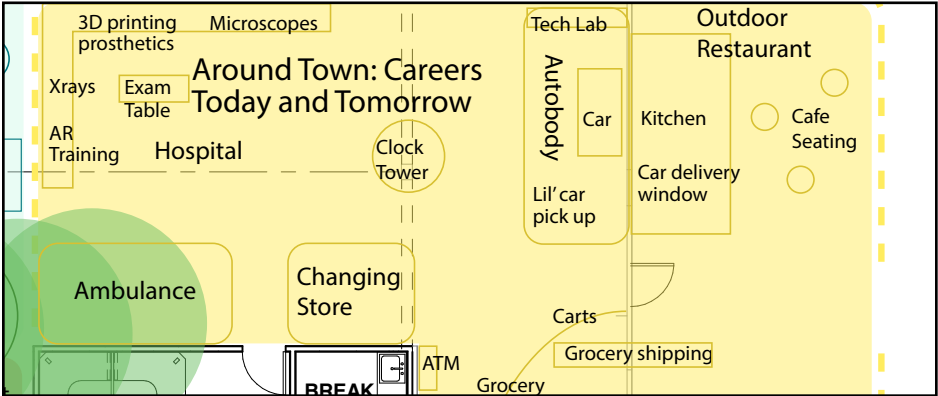
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EXHIBITS WALK THROUGH

Around Town: Medical Center (continued)

In the hospital lab kids can begin building the skills towards a future medical career. They can problem solve with x-rays and microscopes. They can even perform surgery using augmented reality. A game similar to “Operation” can play out using zSpace, a 3D AR training program. Parents and caregivers can observe and offer encouragements overhead. A multi-touch table will allow them to discover more about the human body. They can even do a mock CT scan to understand the brain a little bit more. Kids could check out wearable technology which will monitor their heart rate as they travel throughout Around Town. Upon exiting they can see data on their heart rate, calories, and steps. Kids will be introduced to important health concepts in a fun, inquiry-driven atmosphere.

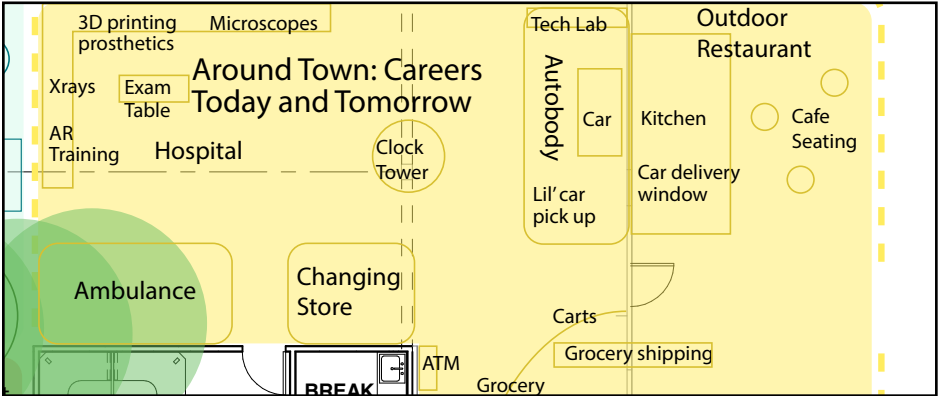


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Around Town: Autobody & Car Pick Up

A mock car on a lift allows kids to slide underneath and work on the parts and pieces of a car. They can even look under the hood and understand how an engine works. As cars have more and more software incorporated, a lab in the back of the shop gives kids a chance to work on car software coding and implementation. Maybe they can even design a new driverless car. Adjacent, is the Little Tykes car pick up zone. Here kids can collect a regular car, or maybe a vehicle representing a community hero such as police, fire, and EMT.



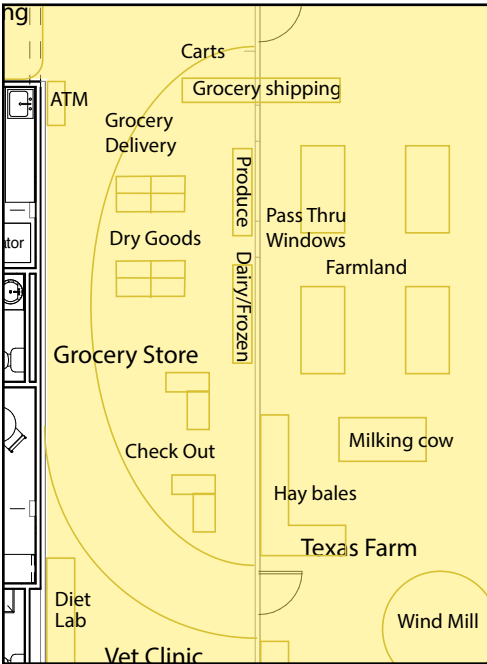
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EXHIBITS WALK THROUGH

Around Town: Grocery Store

Kids can practice and enhance numeracy-related skills. They can stimulate curiosity about the world, its cultures, and the systems that support it. An international foods section will raise familiarity with Temple's diverse population as well as highlight a food item one may have at home. Considering the grocery store of the future, a delivery station at the front entrance allows kids in Little Tykes cars to deliver food supplies throughout Around Town. A shipping and receiving conveyor belt allows kids to box things up ready for delivery. Pass through windows by the Produce and Dairy section connect the grocery store to the outdoor Texas Farm.



kids in the farm can hand fresh-picked produce and fresh-squeezed milk to the grocery shoppers. Kids can make an important connection to where their food comes from.



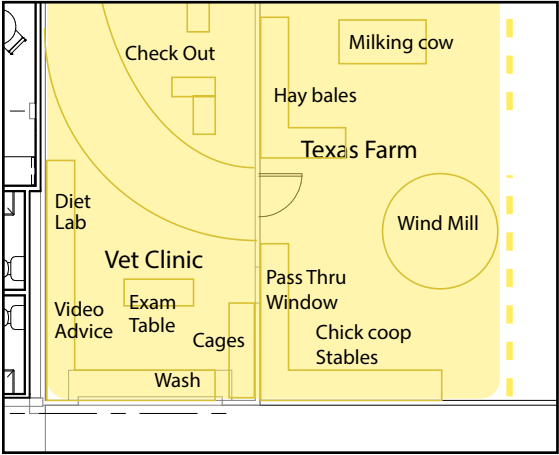
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EXHIBITS WALK THROUGH

Around Town: Vet Clinic

Kids can role play the care of their favorite pet, or even a farm animal. They can pick up a pet in need of help from the cages or perhaps a farm worker will pass them a farm animal in need from the Texas Farm. They can examine them on the table with x-rays and give them a bath. Many of the medical advances we see today in human medicine are also available for veterinarians. Kids can role play with these future technologies, preparing them for any variety of future careers. In the lab kids can test blood to diagnose illnesses and concoct a perfectly balanced diet for their favorite pet.



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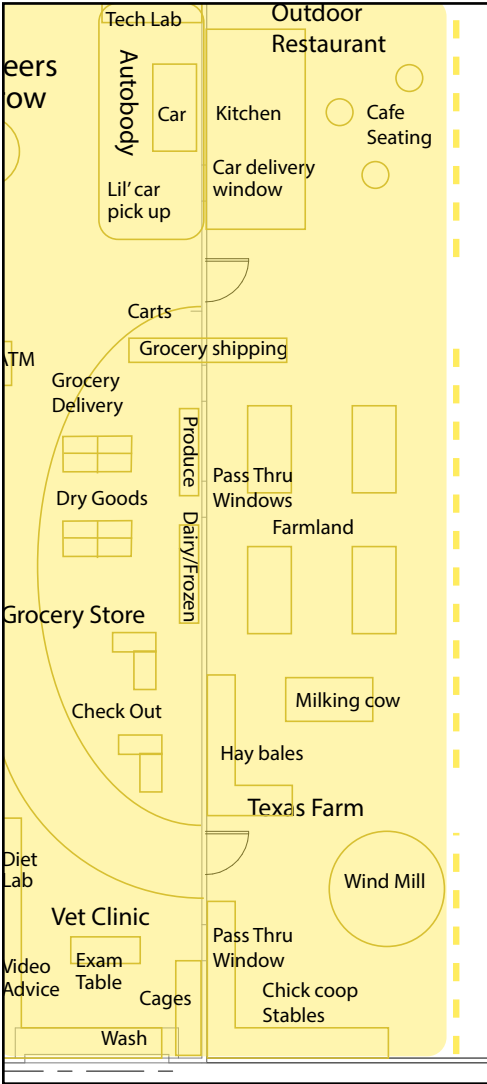


EXHIBITS WALK THROUGH

Around Town: Texas Farm

On the other side of the windows is the outdoor Texas Farm. Children can begin to connect the system that brings food from the farm to the store to their table. The Texas Farm allows children to explore an environment all around them but which they may not have access to. The exhibit will stimulate curiosity about the

local industries and the systems that support it. The focal point of the exhibit is a large mill, visible from outside on the street. Kids can role play with a chicken coop and small stables and perhaps even pass an injured animal to the kids working the in Vet Clinic. Kids can buck hay and arrange their farm with a pulley system, referencing the pulley first played with in Force and Motion.



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EXHIBITS WALK THROUGH

Around Town: Texas Farm

Kids can continue to work the farm with a milking cow, providing the Grocery Store with some fresh milk! A series of garden boxes provide a plethora of fruits and vegetables to be picked. Kids can move throughout with wheel barrows and baskets, collecting their crop. These crops can be passed off directly to the Farm to Table Cafe or passed through the window to the Grocery Store. Only the freshest food is at the Temple Children's Museum!



TEKS Alignment

Science:

K.10(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape

Social Studies:

K.13(C) describe how his or her life might be different without modern technology.

Math:

K.9(C) list simple skills required for jobs;

K.3.9(E) - determine a solution to a problem involving length, including estimating lengths

K.2.9(A) - find the length of objects using concrete models for standard units of length

SLAR:

K.1(A) listen actively and ask questions to understand information and answer questions using multi-word responses;

K.1(C) share information and ideas by speaking audibly and clearly using the conventions of language



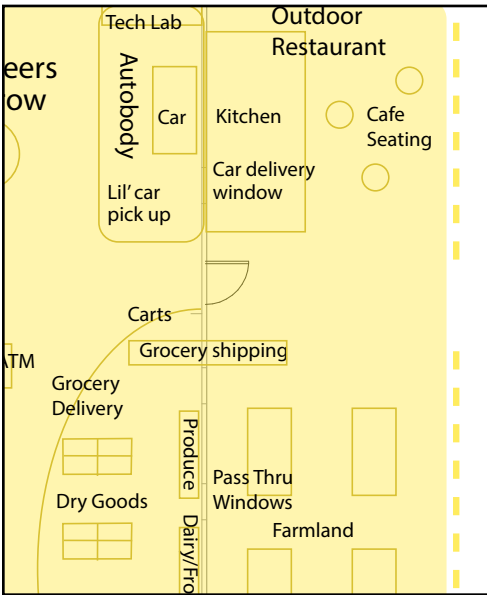
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EXHIBITS WALK THROUGH

Around Town: Outdoor Restaurant

Just next to the farm is a fresh and delicious restaurant. Kids can work the kitchen, wait the tables, and take orders while caregivers relax at the cafe seating. In the kitchen kids can pass the delivery orders through a door directly to the Little Tykes car parking- ready to deliver to the Cultural Kitchen or elsewhere. The restaurant can be named or adjusted depending on a sponsor.



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EXHIBITS WALK THROUGH

Texas Wildlife

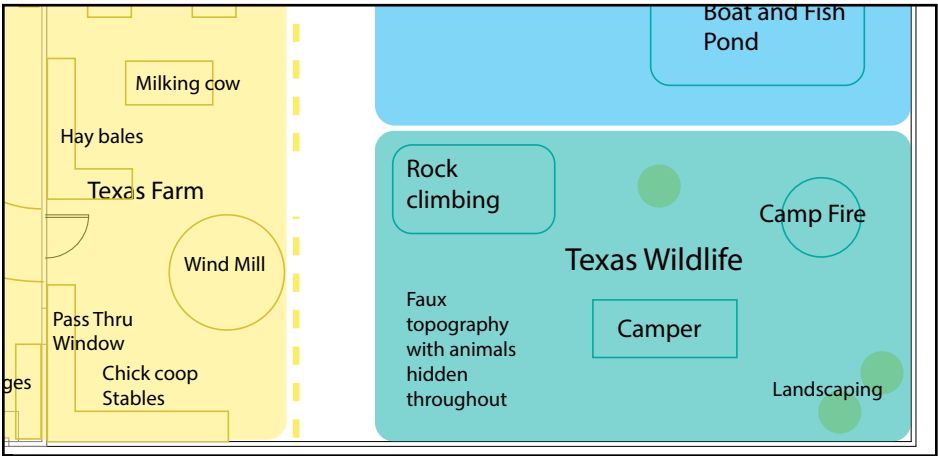
Learners will go on a camping trip and explore the great Texas outdoors to discover the many animals that call our state home. Look and listen closely for the many clues that surround us, from footprints and calls to animal sightings.

At the center of the area is the TCM Camper. Kids will explore the surroundings, finding replicated animal homes tucked throughout. If kids search hard enough they may even find a fossil or two! A fossil dig site will reference The Waco Mammoth National Monument. Audio tracks play animal sounds overhead. Kids can climb through a rock climbing structure with footprints along the base and more small animals hidden inside.



TEKS Alignment

Science - K.5(A) observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture.
K.7(A) observe, describe, and sort rocks by size, shape, color, and texture.
K.8(A,B,C) Earth & Space. The student knows that there are recognizable patterns in the natural world and among objects in the sky.
K.9(A,B) Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival.



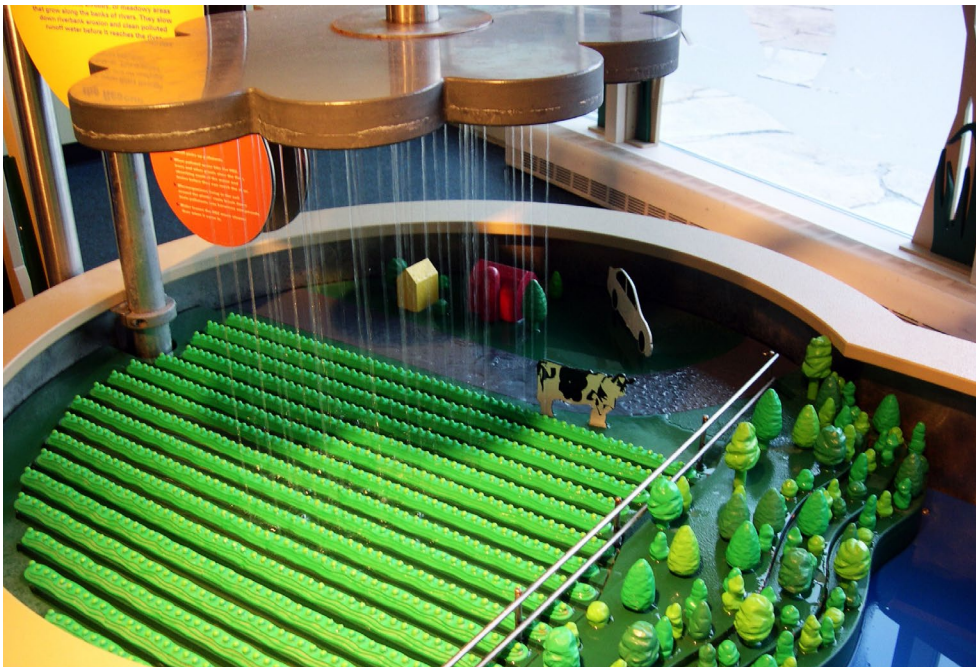
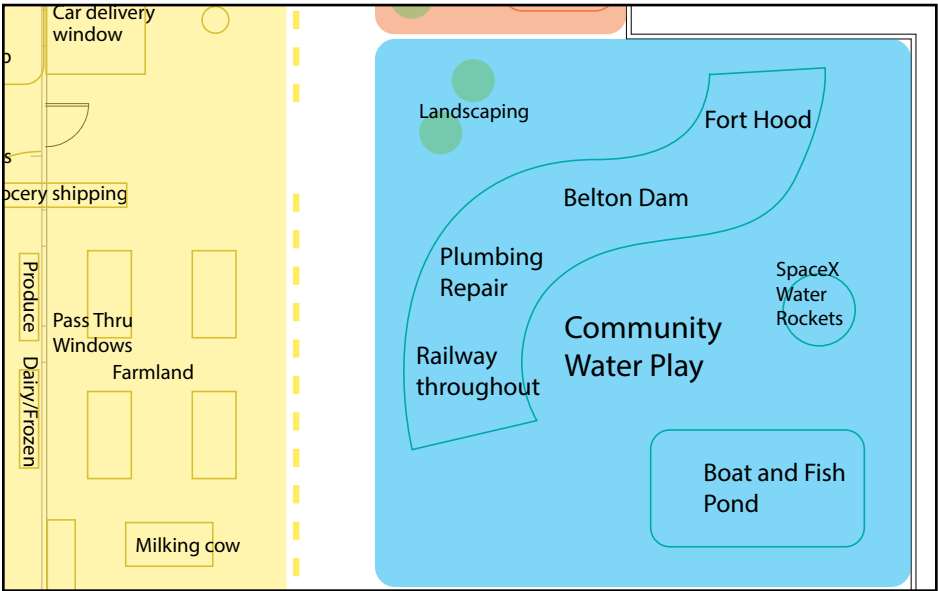
SCHEMATIC DESIGN



EXHIBITS WALK THROUGH

Community Water Play

Kids can play with a model of Bell County, but with the fun of water! Water Play demonstrates the power of water and gives children the opportunity to test physical forces and their outcomes when put into action. Through hands-on play, children see physics in action. The design will reference Belton Dam and Fort Hood with a railway and boats running throughout. A boat exhibit allows kids to climb into a boat and try their hand at some Texas fishing!



SCHEMATIC DESIGN



Community Water Play (continued)

Paying homage to the SpaceX location in McGregor, kids can explore the classic bottle rocket launch. Water pressure will launch the bottle into the sky! Programming can be done where children design, build, and test their own rocket. Signage explains SpaceX's presence in Texas and most up to date advances.



TEKS Alignment

Science:

K.7(B) observe and describe physical properties of natural sources of water, including color and clarity; and
K.7(C) give examples of ways rocks, soil, and water are useful.

SLAR:

K.1(A) listen actively and ask questions to understand information and answer questions using multi-word responses
K.1(C) share information and ideas by speaking audibly and clearly using the conventions of language

Math:

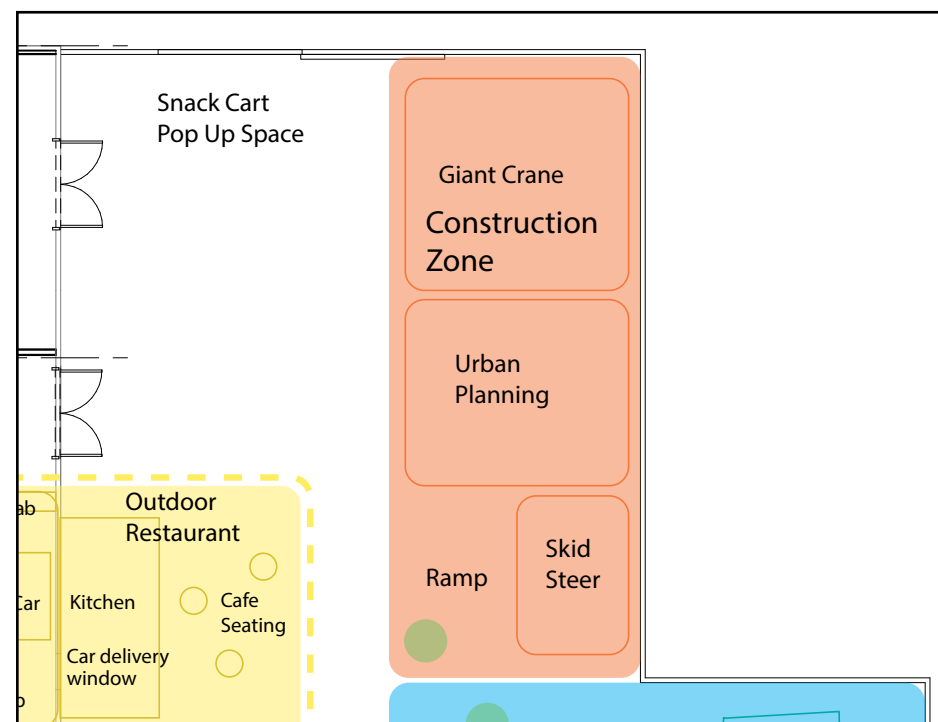
K.7(E) determine liquid volume (capacity) or weight using appropriate units and tools

SCHEMATIC DESIGN



Construction Zone

An outdoor space allows for more exploratory constructing. Children can design solutions to problems by constructing devices and structures. Kids can work together to move blocks with a giant crane. These blocks become part of a future Temple in the urban planning zone. Foam blocks represent different types of building (commercial, industrial, residential, etc.) Working off of a ground plan, kids can use blocks to create new forms of transportation, living, and working. A wheelchair accessible Skid Steer gives kids the chance to get in the driver seat of a favorite piece of construction equipment.



TEKS Alignment

Science:

K.6(C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside

K.6(D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow

Math:

K.9(C) - list simple skills required for jobs

Social Studies:

K.13(B) describe how technology helps accomplish specific tasks and meet people's needs

Children and caregivers leave having spent an incredible day together. Having only scratching the surface on the museum, they have a strong desire to come back. The kids ask to come back because it's fun, the caregiver come back because they know it's educational. The museum becomes the ideal educational resource for the whole community.



THANK YOU