

Think. Dream. Design. Dare. A New Early Childhood Center!



Presented by: Catherine Kochanski &
Nandita P. Mishra, Assoc. AIA, ALEP, LEED AP

THINK

“The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

– Alvin Toffler



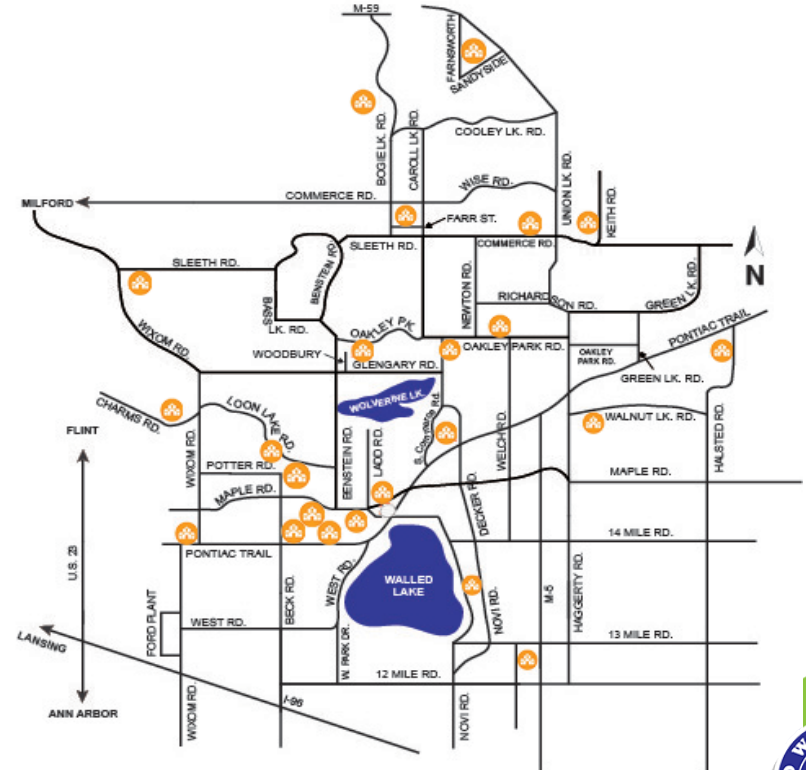
Walled Lake Consolidated School District

- *Our mission is in partnership with parents and the community, is to become the best educational system in America so all students demonstrate they are caring, responsible and knowledgeable citizens.*
- *Instruction is at the core of making a significant difference in improving student achievement. Walled Lake Schools is relentless toward achieving our goal of Every Child, Every Day.*



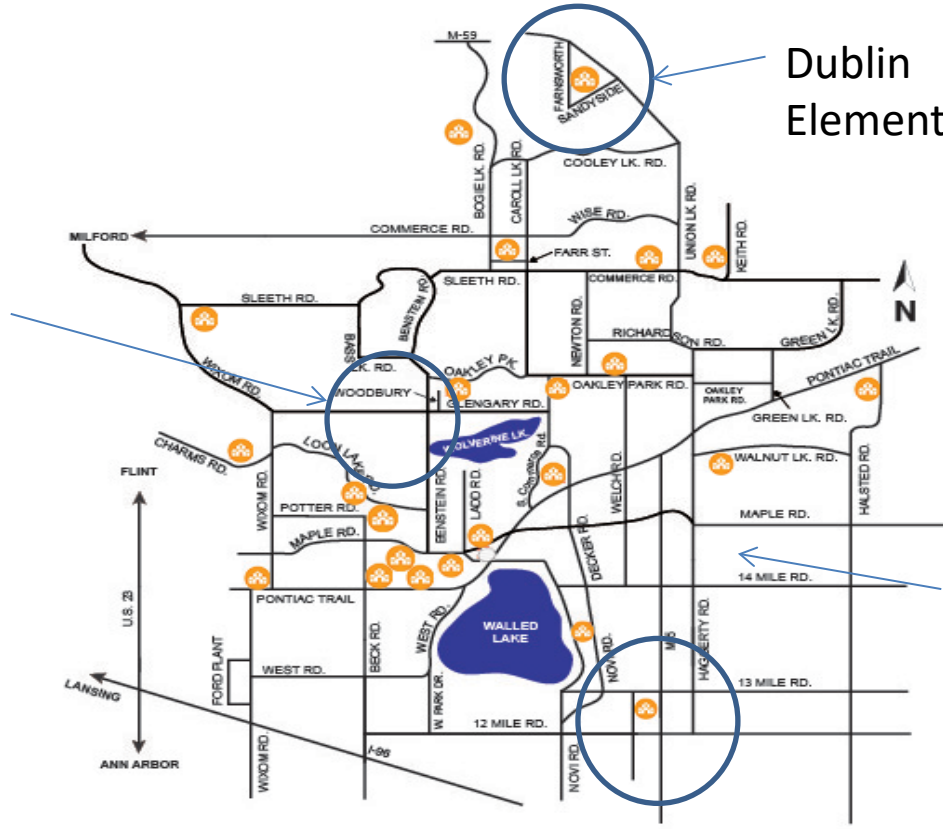
Walled Lake Consolidated School District

- 19 Schools
 - 12 Elementary
 - 4 Middle
 - 3 High
- Educational Services Center
- Outdoor Education Center
- Operations/Transportation
- Twin Sun Early Childhood
- Enrollment of approx. 13,000
- 55 square miles
- 9 municipalities



Walled Lake Consolidated School District

Twin sun



Dublin Elementary

New early childhood center



DREAM

“If you can dream it, you can do it!”

– Walt Disney





$$y = \sin x$$

$$\int \frac{1}{x} dx = \ln|x| + C$$

$$y = 2^n$$

$$A = \frac{1}{2} \pi r^2$$

$$y = \sin x$$

$$u(t) = u_1(t) - u_2(t)$$

$$= C \cdot \cos(\omega t)$$

$$y = \sin x$$

$$\sqrt{a^2 + b^2} = \sqrt{a^2 + b^2}$$

$$= C \cdot \sin(\omega t)$$

$$y = \sin x$$

$$\begin{cases} 0 < x < 0 \\ 0 < x < 0 \\ 0 < x < 0 \end{cases}$$

$$y = \sin x$$

$$y = \sin x$$

$$\frac{1}{a} \frac{1}{b} \frac{1}{c}$$

$$y = \sin x$$

$$y = \sin x$$

$$\frac{6 + \sqrt{D}}{2a}$$

$$y = \sin x$$

$$y = \sin x$$

$$\frac{1}{a} \frac{1}{b} \frac{1}{c}$$

$$y = \sin x$$

$$y = \sin x$$

WHOLE CHILD

PHYSICAL SPACE

ACADEMIC

WRITING

READING

BEHAVIORAL

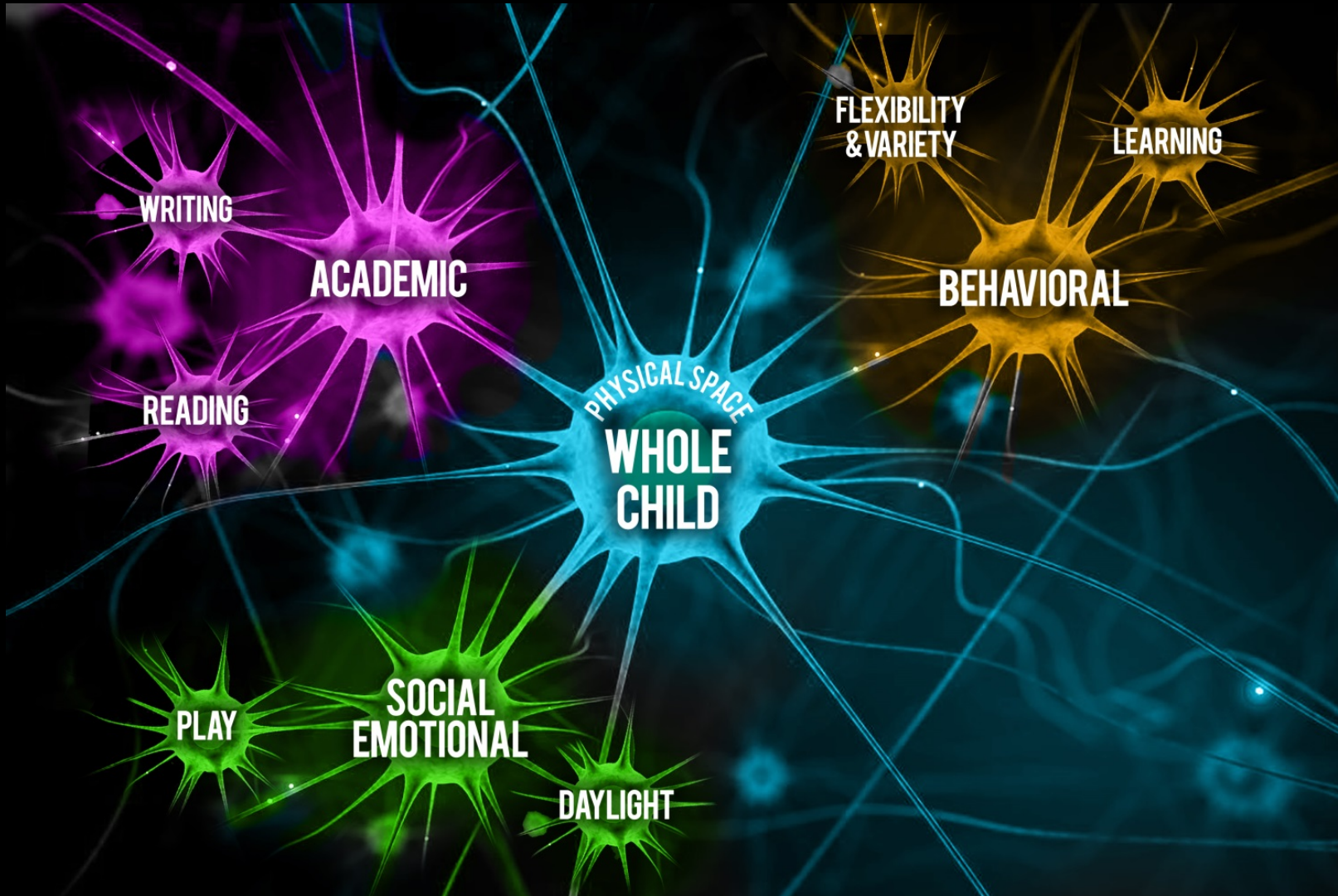
**FLEXIBILITY
& VARIETY**

LEARNING

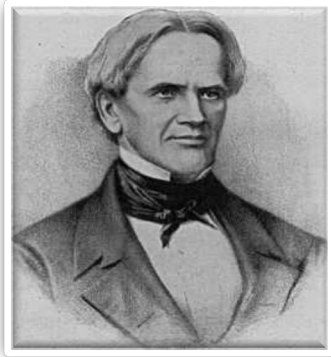
**SOCIAL
EMOTIONAL**

PLAY

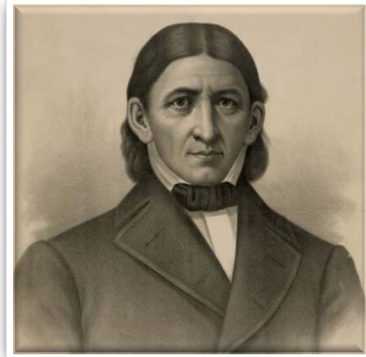
DAYLIGHT



Pioneers in Early Childhood Education



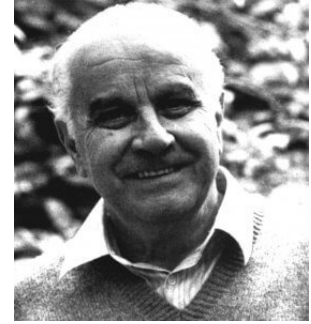
Horace Mann



Freidrich Froebel



Stuart Shanker



Loris Malaguzzi



Maria Montessori

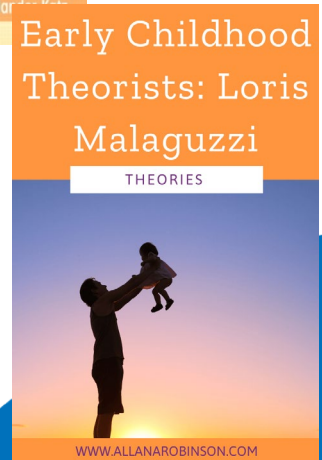
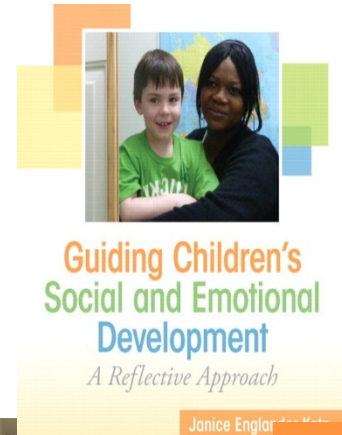
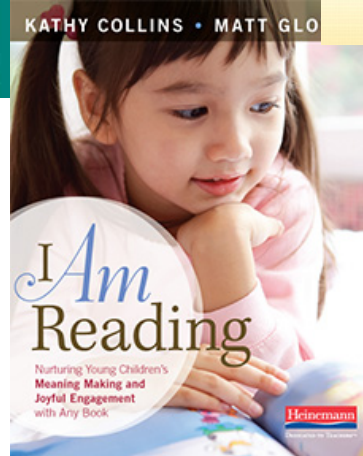
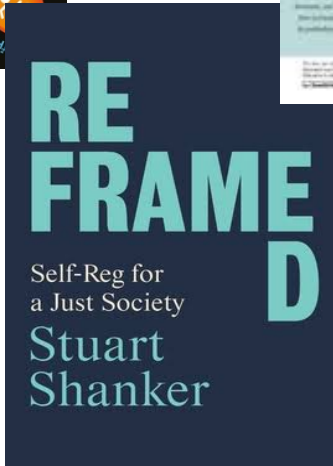
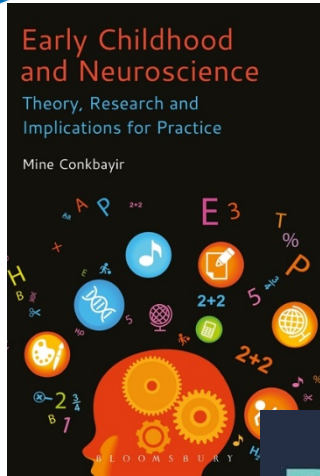


Jean Piaget



Jean Clinton

Current Research



Play



“Play is really the work of childhood” - Fred Rogers

Social Emotional



Academic



Inclusion



DARE

“Why fit in when you were born to stand out?”

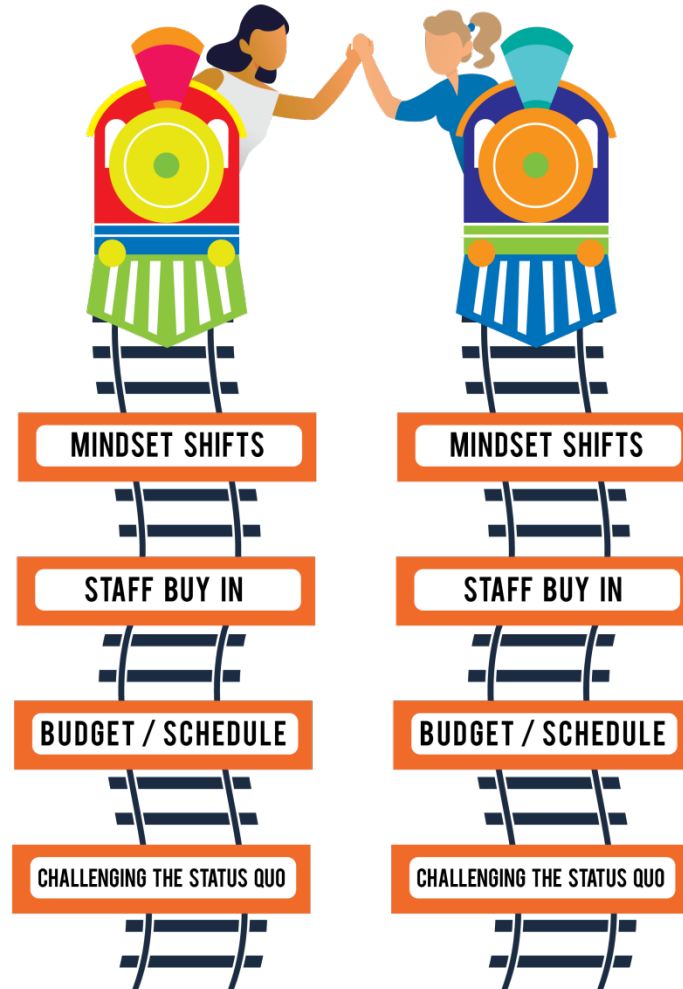
– Dr Suess



*We're going
to make our
dreams come
true...*



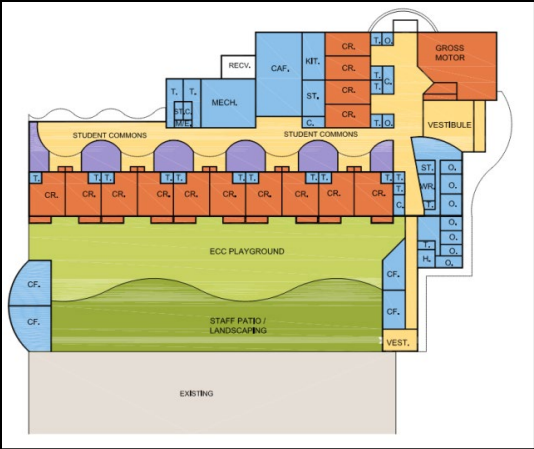
Roadblocks



Mindset Shifts



Staff Buy In



Budget/Schedule



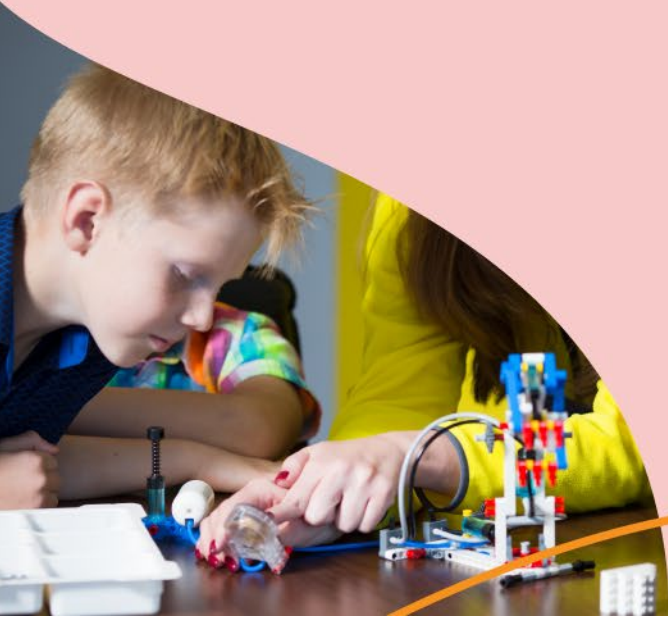
Challenging the Status Quo

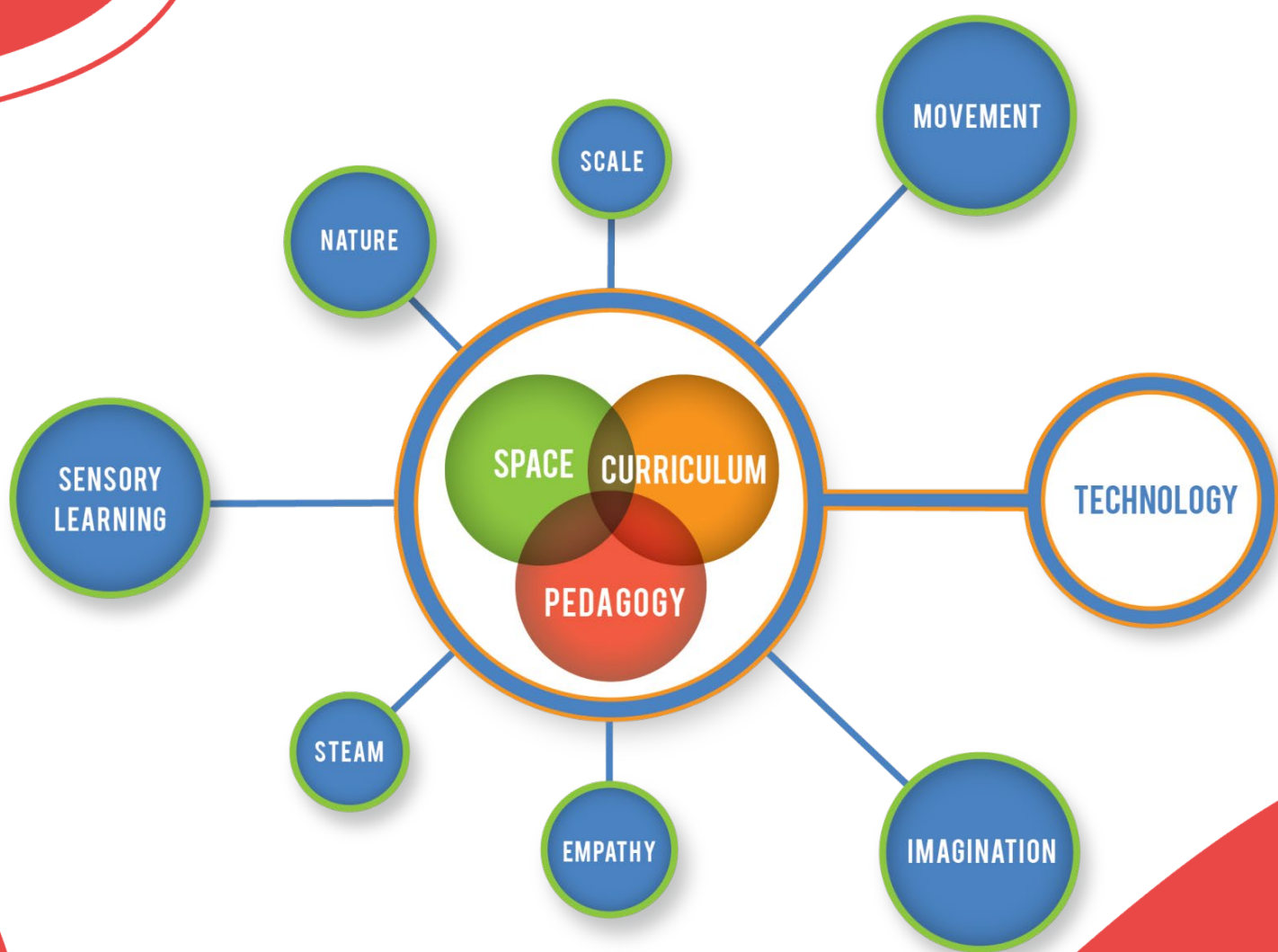


DESIGN

“The best way to predict the future is to create it”

– Abraham Lincoln





SCALE

MOVEMENT

NATURE

SENSORY
LEARNING

SPACE CURRICULUM

TECHNOLOGY

PEDAGOGY

STEAM

EMPATHY

IMAGINATION

Outdoor Learning – Master Plan

A OUTDOOR CLASSROOM EXTENSION

Three spaces extend opportunities for classroom learning. They consist of materials that can demonstrate regular use and also provide the opportunity for experiential experiences. Fresh air, a view of the sky, and changing light conditions contribute to their purpose and value. Edges not defined by a building wall could be defined by a structured screen.

B WOODLAND ABSTRACTIONS

These will be planned and a "visual filter" created to complement the wooded setting of the school and serve as a natural wall that filters harsh light and diminishes the visual presence of vehicles where classrooms spaces border parking areas.

C AMPHITHEATER

Seated seating will be constructed of concrete. The surface between the concrete steps will be artificial turf. Steps on both ends are shown, as accessible seating will also be provided. The stage will be constructed of exposed aggregate concrete and is defined at its back edge by an 8" steel wall. A second wall rises to the back edge of a planting area that will contain the planted background for the stage.

D MOUNDED PLAY SPACES

Mounds ranging from 12" to 30" in height define space within the larger play area. They will be constructed with an aggregate core covered with a 2" sand surface for turf.

Note: The entire play area will be surfaced with artificial turf that meets all applicable safety and accessibility standards. Patterns and colors to be determined. A subsurface drainage system will be part of this play system.

E SWINGS

This will be a structure of swing types with code required safety zones. Support structure will be timber. Artificial turf safety surface will cover the entire area.

F LOG STEPPERS

This will be log sections of various heights that can be climbed upon, that will provide steps to the balancing beams, and that can serve as seating for smaller groups.

G BALANCING BEAMS

Natural timbers will be used as balance beams to provide mild challenges for children and create alternative ways to creatively navigate and play within the space.

H HILL SLIDES

Aluminum slides of multiple lengths follow the existing slope down. Stepped returns, safety surface landing areas, and slightly elevated take-off points will be included as part of this play element.

I SAND PLAY AREA

This enclosure for sand will have a subsurface system so that the enclosure does not get water. A concrete curb edge will be used to define the edge.

J WATER SOURCE

A water source, perhaps a hand operated pump, will provide water to mix with sand.

K GRASS COVERED MOUND

This 30-foot diameter mound will be approximately 7.5 feet high and covered with turf. Turf should be allowed to grow and only be mowed monthly. This mound can be used for sitting, for sitting and observing, and possibly for water play.

L WOOD POLE FOLLY

Within the play area, logs cut at sitting heights define the boundary between the general play area and the water area. As the top of the folly extends into the woodland, later wood poles define its art through the existing trees. The wood elements that define this folly should be tapered, painted in bright colors, and oriented with the existing trees that emerges more vividly in the winter months and recedes as foliage emerges. The "color" should be allowed to age and fade – and then be periodically refreshed.

M SPRING

This 30-foot diameter circular basin is set approximately 18 inches below surrounding grade. The slight embankment that rises to the edge will be treated in the surrounding Slope. The space will be uniformly surrounded by a planting of trees that have unique "spring" qualities. The basin will be approximately 1,200 gallons that will cater to "Spring". Mowed paths will enable access into and through the space while the Callulias are flowering and their fragrance will be enjoyed by the spring's rapid performance. After a Michigan winter, Spring should be announced with joy and beauty.

N HIDDEN GARDEN

This can be a hidden gem, a small space large enough to accommodate one class and small enough to be enjoyed by smaller groups. This space might contain a small water feature, environment of a spring, and plantings that give emphasis to the surrounding woodland floor.

O OUTDOOR CLASSROOMS

These classrooms, used to accommodate one classroom at a time, can be simply structured with stone and tree-trunk section seating and both accessible surfaces and much surfaces are sufficient for all students. They are elevated based on the natural wood – leaves, acorns, bark types, insects, creatures – but they can also serve as alternative seating for a class period or an exceptionally beautiful day.

P WETLAND OVERLOOK

Standard wood construction of a 200 square foot overlook space and a boardwalk, approximately 10-15 feet long by 9 feet wide, leading to it along the edge of the wetland.

Q SCULPTURE

A sculpture – playful? colorful? something that captures a child's imagination? can be set at the end of the long run coming through the center of the building.

R ACCESS TO ADDITIONAL PARKING

As appropriate, concrete rubber mulch set in a polyethylene binder can be used to create accessible paths that are in keeping with the woodland setting and that minimize disruption to the site.

S ACCESSIBLE WOODLAND PATHS

As appropriate, concrete rubber mulch set in a polyethylene binder can be used to create accessible paths that are in keeping with the woodland setting and that minimize disruption to the site.



Site Plan

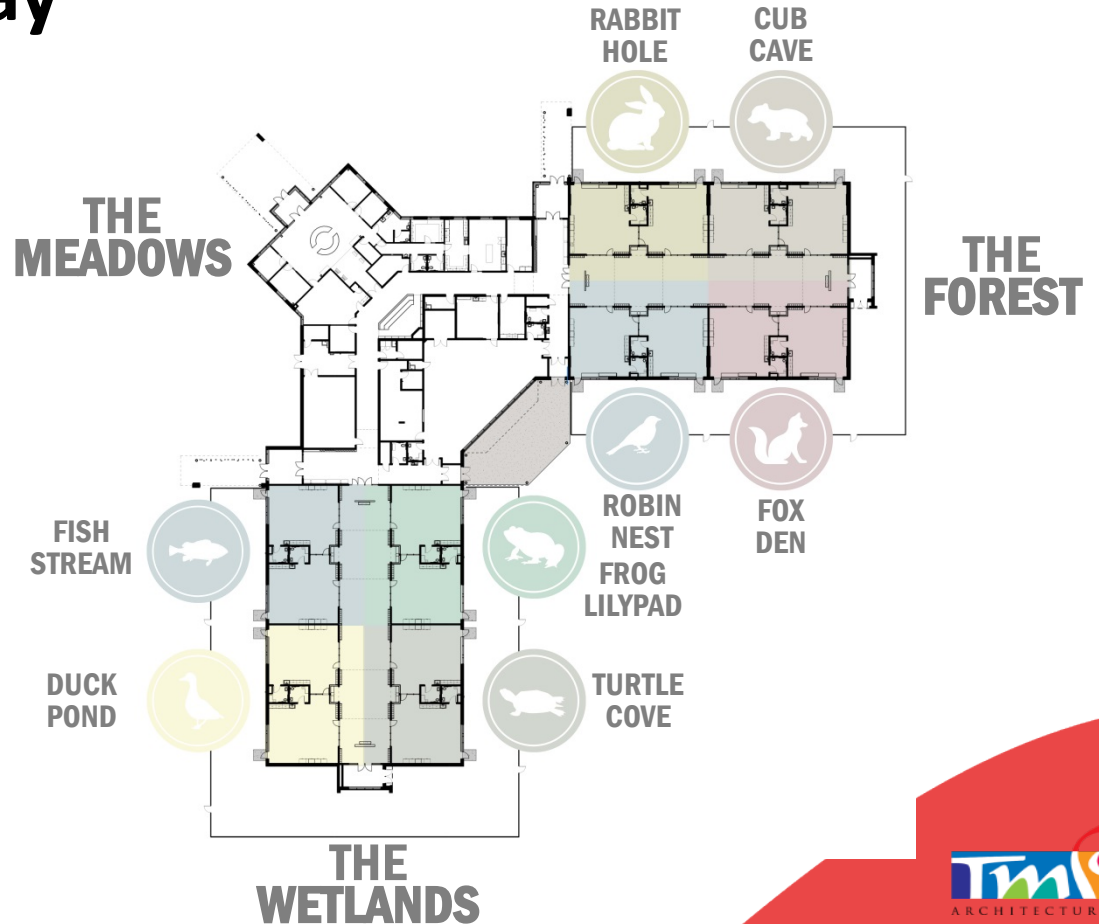
13 MILE ROAD

- STUDENT ENTRY
- GUEST ENTRY
- SERVICE ENTRY



Biophilic Design/ Play

- Nature as inspiration in direct and indirect methods
- Natural light
- Views to nature
- Natural building materials
- Soft color palette based on nature
- Nature murals and design motifs
- Wetland and Forest themed classrooms wings



Outdoor Space

Natural Playground featuring:

- Turf climbing mound
- Balance beams
- Accessible swings
- Slides built-in to hill
- Play structure

Outdoor Learning:

- Covered outdoor classroom allows children the opportunity to learn in an outdoor environment with less exposure to weather
- Each classroom will have an exterior door to access their own backyard. This could be used as extension of the classroom when weather allows

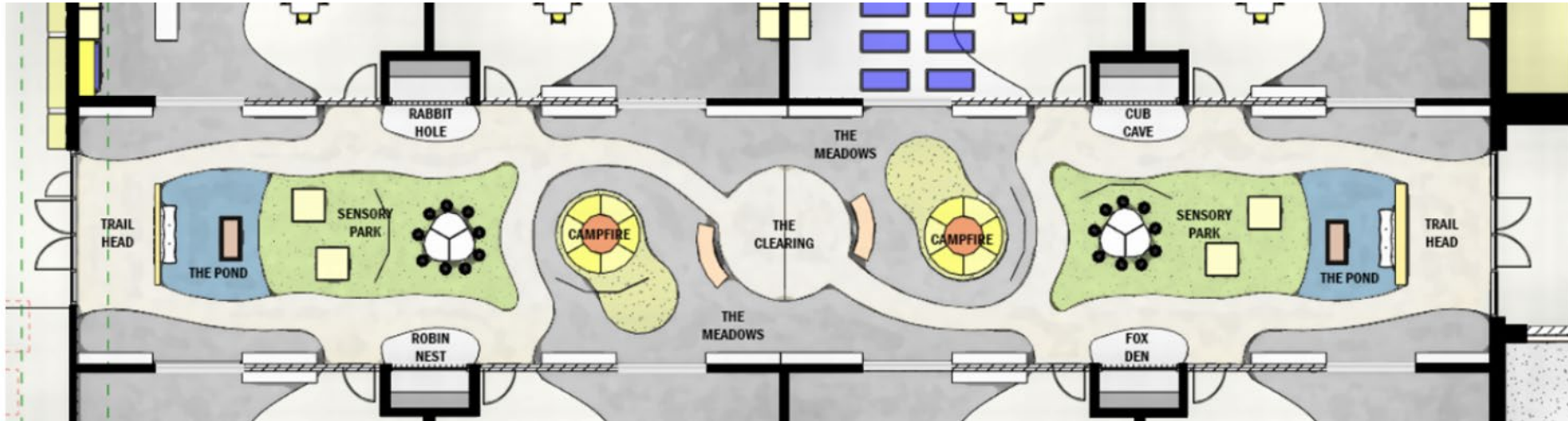


Building Plan

- CLASSROOMS
- MULTI-PURPOSE
- SERVICE / KITCHEN
- OFFICE
- CIRCULATION / COMMONS

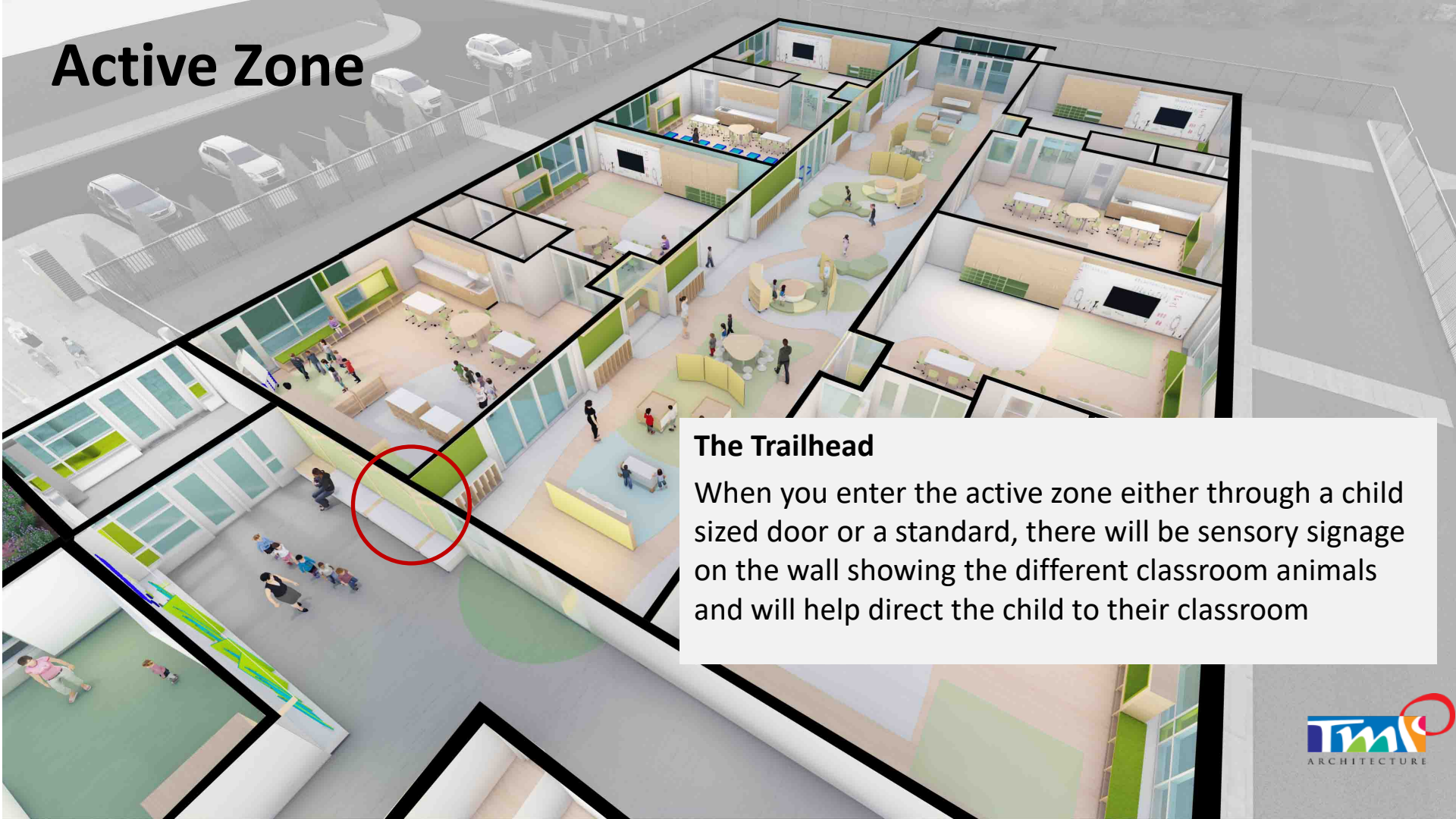


Active Zone



- Classroom wing - 8 classrooms - connected to a central active zone
- Active zone - extension of classroom - learning beyond classroom walls
- Active zone - flexible space - variety of furniture pieces - facilitate different types of learning and play

Active Zone



The Trailhead

When you enter the active zone either through a child sized door or a standard, there will be sensory signage on the wall showing the different classroom animals and will help direct the child to their classroom

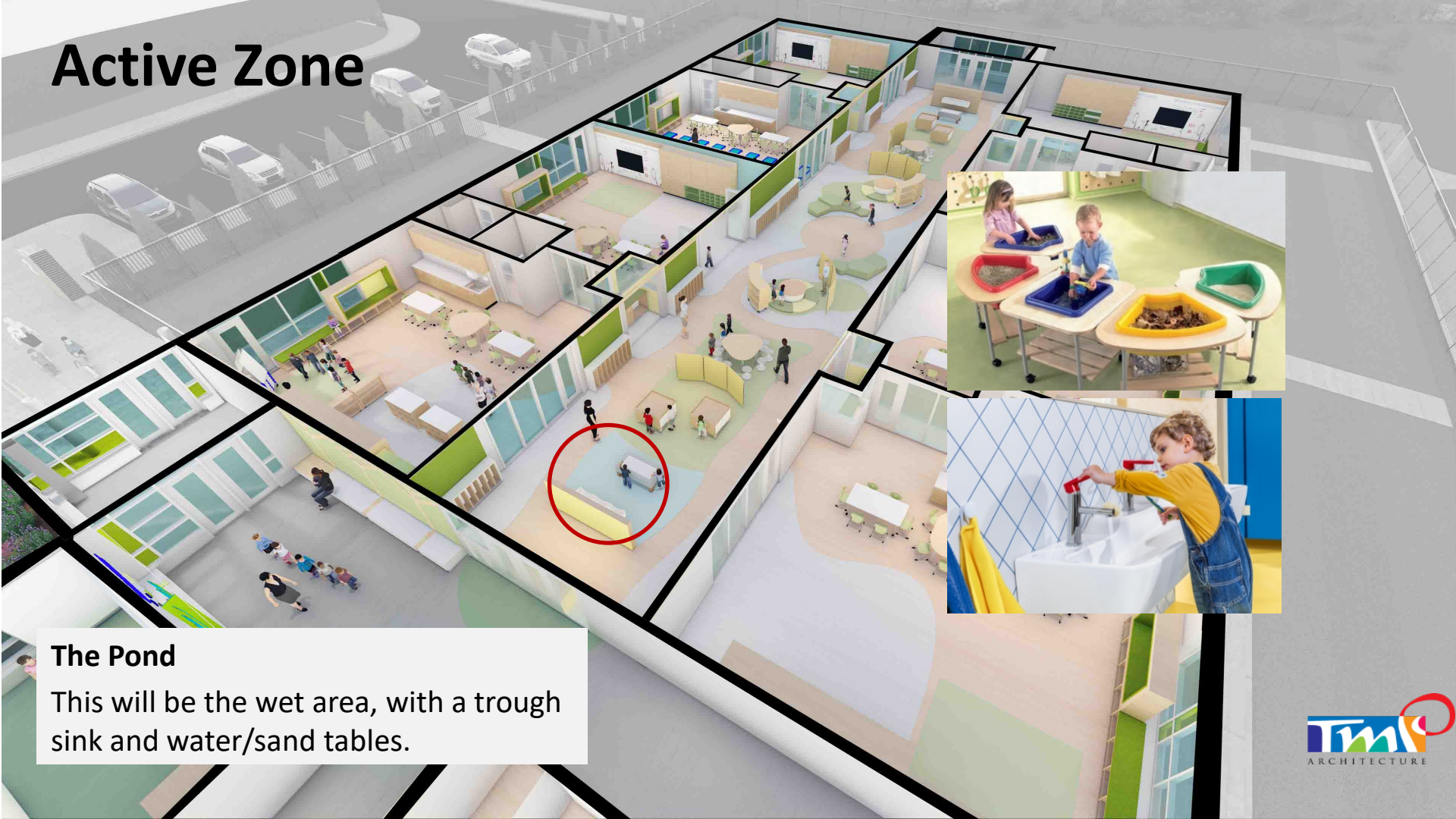
Sensory Lobby – Student Entrance



Sensory Lobby – Student Entrance



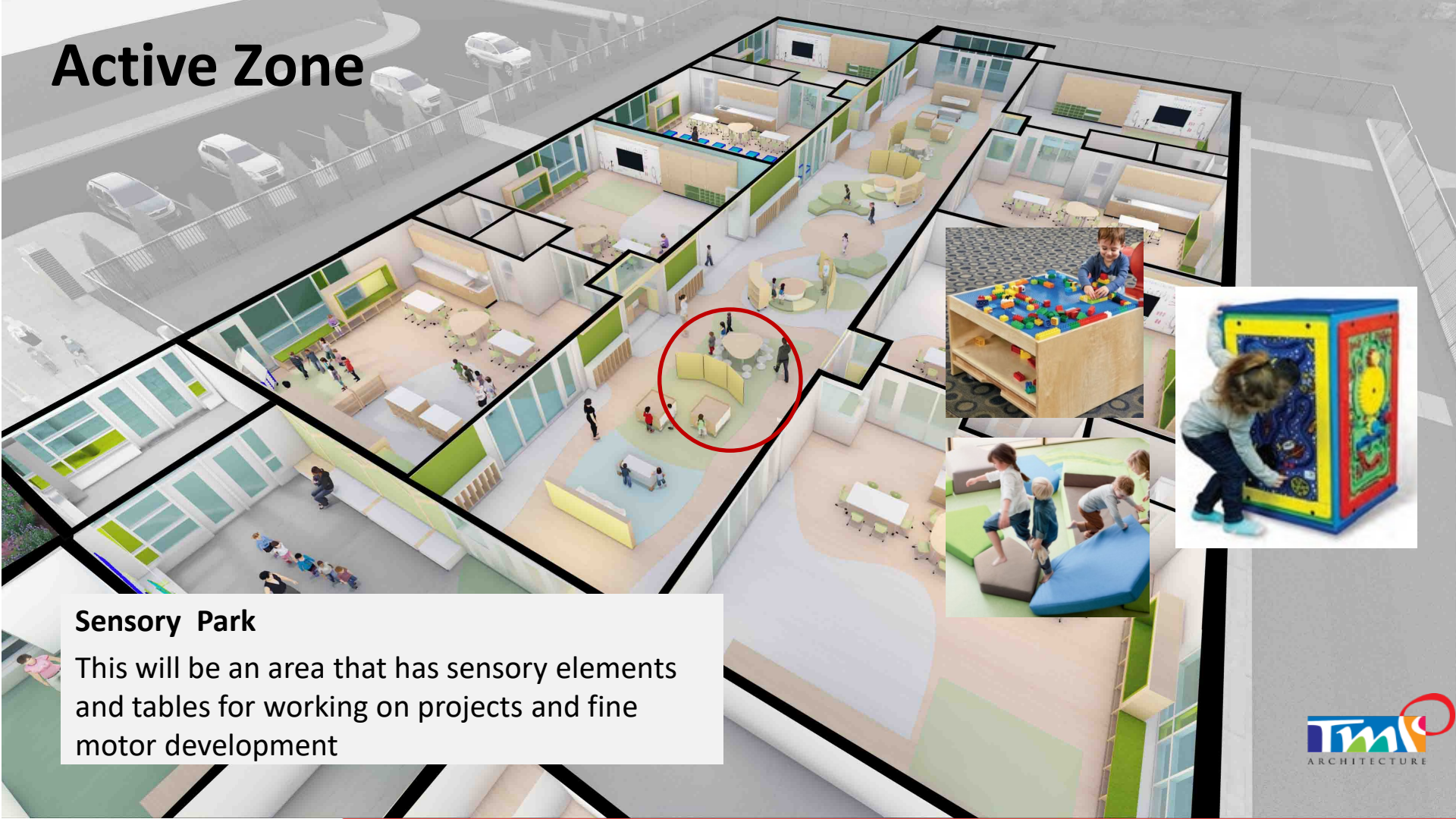
Active Zone



The Pond

This will be the wet area, with a trough sink and water/sand tables.

Active Zone



Sensory Park

This will be an area that has sensory elements and tables for working on projects and fine motor development

Active Zone



Campfire

This will be an area with mats on the floor for playing or reading in a small group

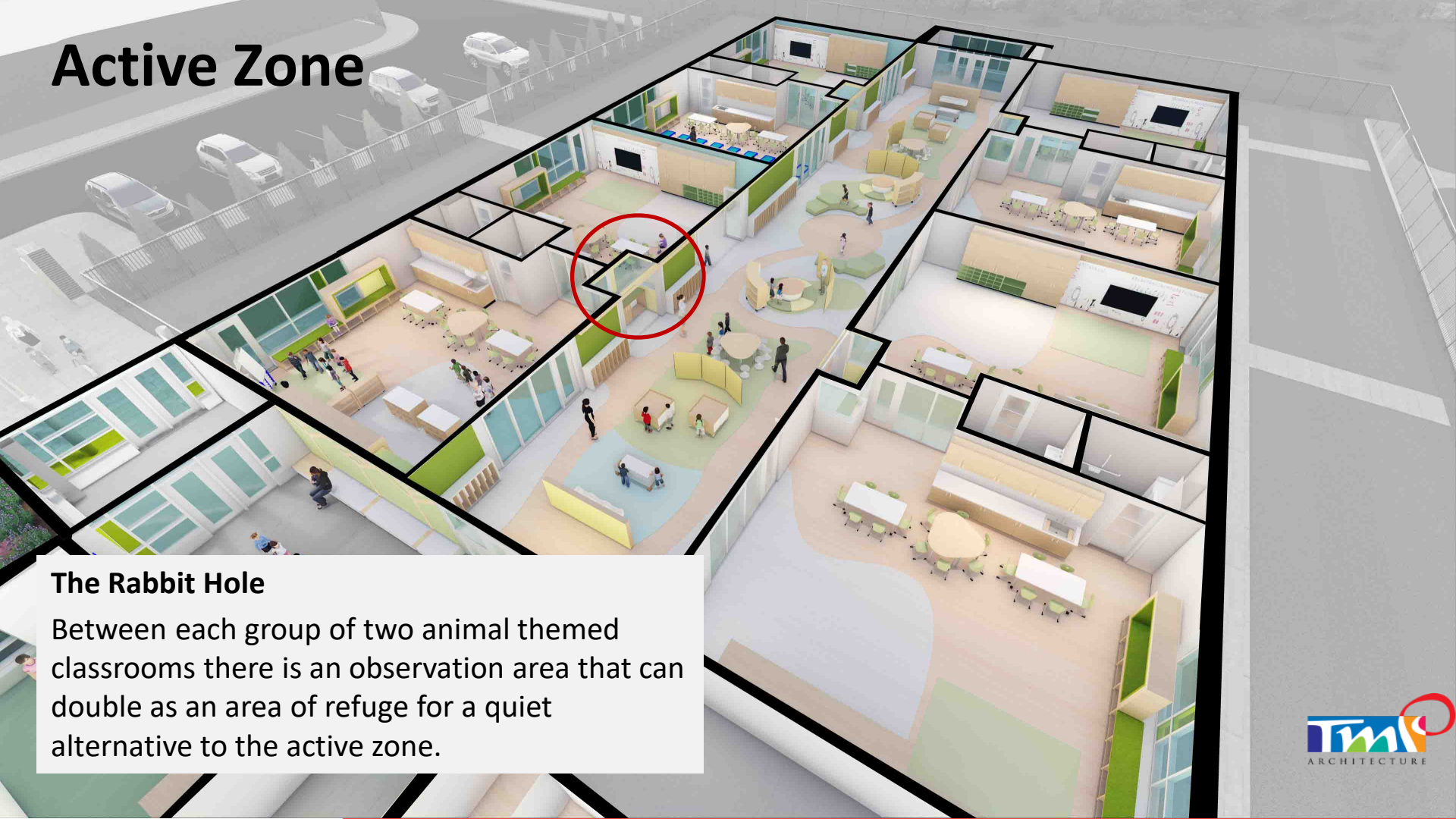
Active Zone



The Clearing and the Meadows

This will be a mostly open area with some soft climbing objects for play and gross motor development.

Active Zone



The Rabbit Hole

Between each group of two animal themed classrooms there is an observation area that can double as an area of refuge for a quiet alternative to the active zone.

Active Zone



Student Storage

Each classroom will have 18 student open lockers for storage of coats, boots, and bags.

Student Display

Outside every classroom in a tackable surface that allows teachers to display student work.

Active Zone



Active Zone



Classrooms



Classrooms



Classrooms



Gross Motor Area



Office



Office



Student Spaces- Flex











THANK YOU!

