Landscape Takes the Lead in Developing Learning Environments:

Storytelling in the Schoolyard

Introductions

Julia Hawkinson | Los Angeles Unified School District
Jennifer Zell | MIG, Inc.
HongJoo Kim | HKLA

A4LE LearningSCAPES 2025 PHOENIX

Learning Objectives

1. Participants will learn different ways of developing outdoor learning environments and green school yards that engage and inspire students.
2. Participants will learn how the selection of plants and trees and schoolyard design can provide opportunities for learning nature-based lessons for the teachers and students.
3. Participants will learn the value of outdoor learning and connecti
4. Participants will gain knowledge about ways to use story to enga connect and reflect the school community and culture.

A4LE LearningSCAPES 2025 PHOENIX

Activity 1

Draw or write a memory of your first schoolyard.

LAUSD UNIFIED

Who We Are

2nd-largest school district in the country, serving nearly **575,000** students

520,000 students in TK-12th grade

13,000 in early education

42,000 in continuation, option and adult education programs

We serve an area totaling **710** square miles, including the city of Los Angeles and parts of **25** other cities and areas in Los Angeles County.

1,197 Schools and centers, including:

300+ Magnet programs

200+ Dual language programs +

56 California Pivotal Practice School Awardees 2022

29 California Distinguished Schools Awardees 2021

98 languages spoken by students

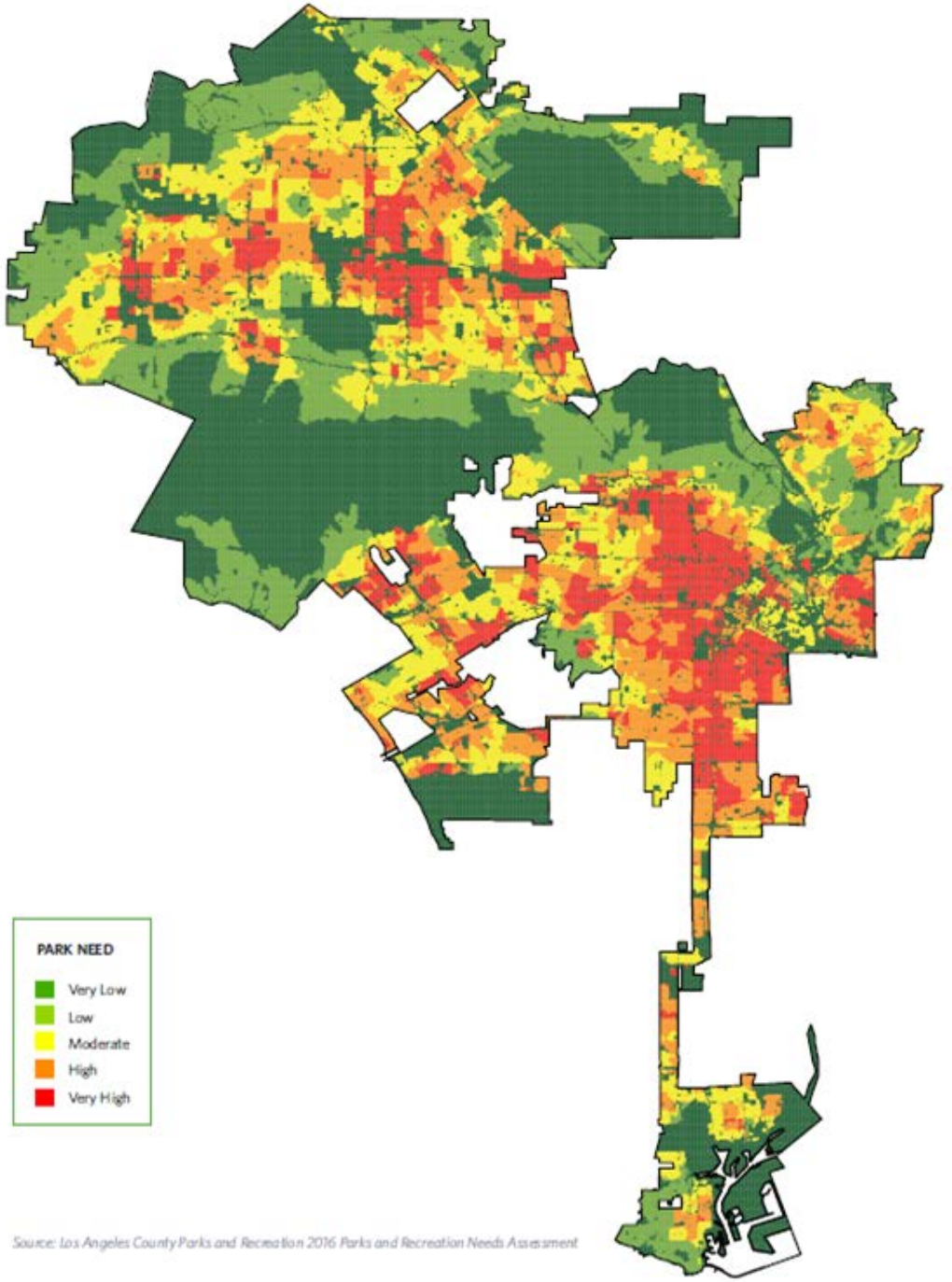
Over **86,000** students are learning to speak English proficiently

Incredible Cultural Diversity

Los Angeles Unified is privileged to serve an amazing and vibrant community, and our plan has been designed to celebrate all of these wonderful strengths.

Park Needs and Park Access

- Roughly 4 out of 10 Angelenos do not live within walking distance of a park or open space.
- Residents in low-income communities generally have less access to open space in Los Angeles and suffer from poorer health outcomes.
- In the United States today, more than 1 in 3 children are overweight or obese.
- In LA County, 71.3% of children 6-17 years old do not obtain the recommended amount of exercise each week.



Source: Los Angeles County Parks and Recreation 2016 Parks and Recreation Needs Assessment

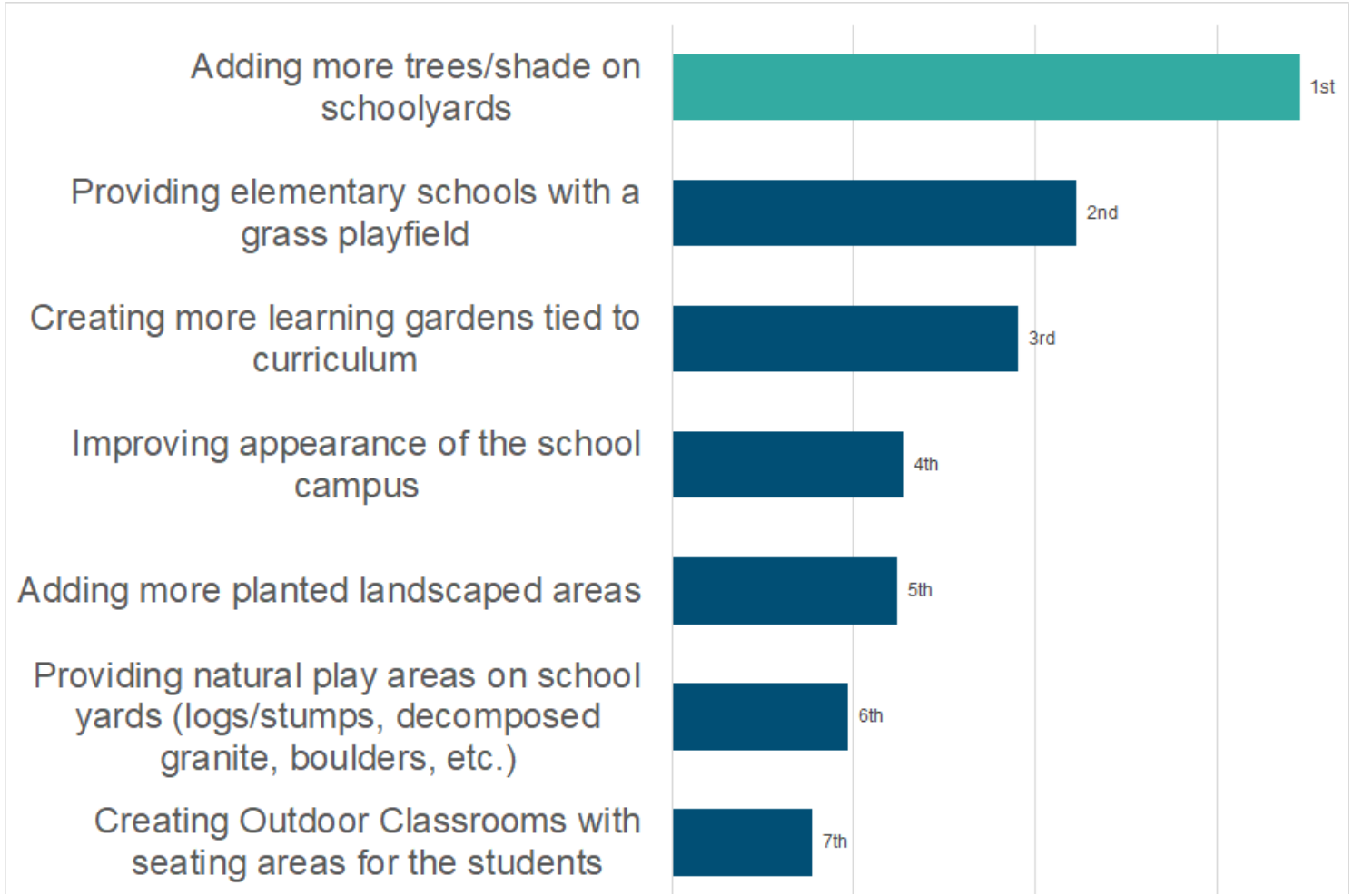
Benefits of Green Schoolyards

- Improve Engagement
- Access Nature
- Improve Sense of Belonging
- Inspire Collaboration
- Improve Learning Outcomes
- Cooler Spaces
- Enhance Campus Appearance
- Improve Health
- Reduce Anxiety and Stress
- Improve Attendance
- Provide Shade
- Save Energy and Water
- Support Creative Play

Grant HS – IBI/MIG

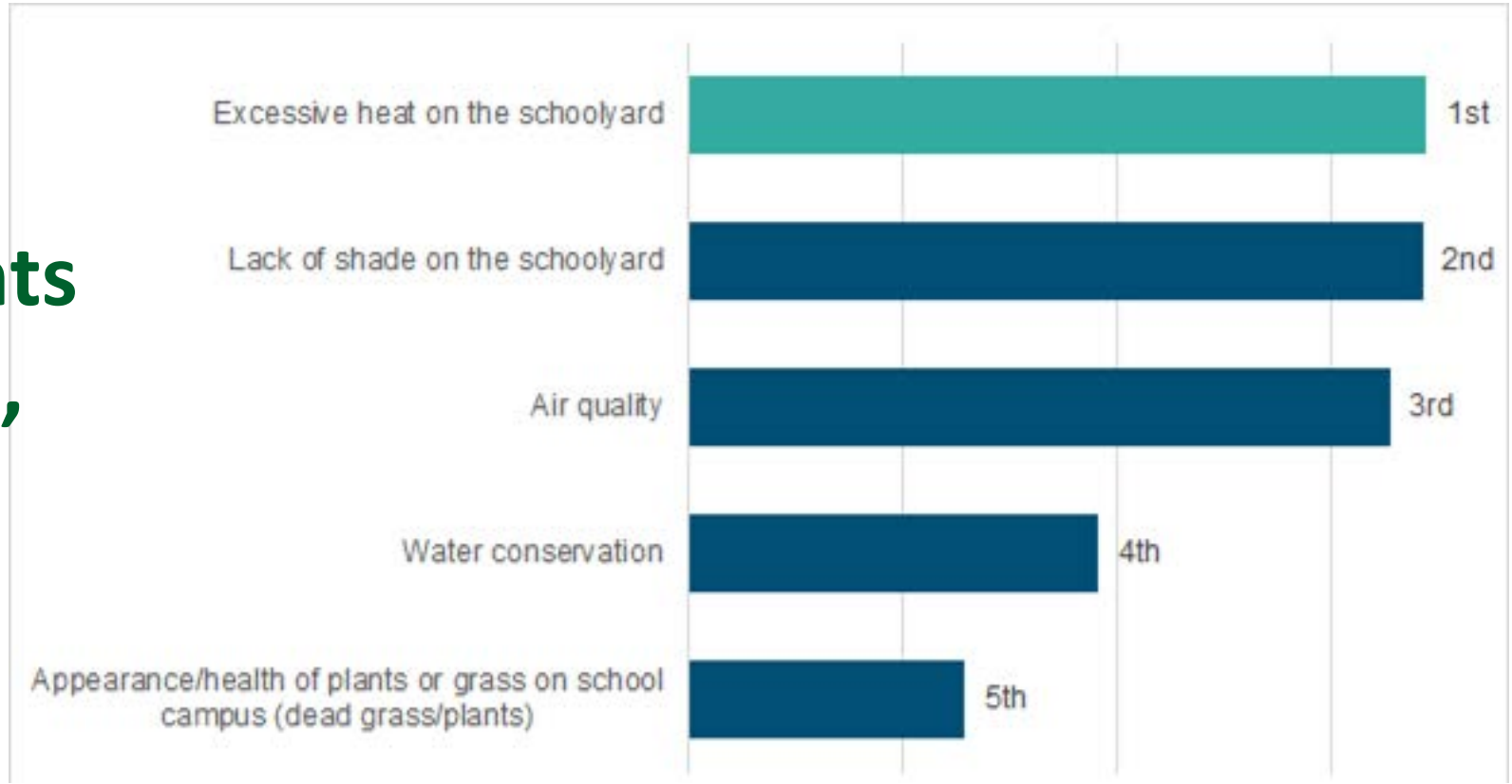
Community Input

Which do you feel the District should focus on when greening schoolyards?



Community Input

When it comes to climate-related concerns for students on a school campus, which of the following are most important to you?



The Lesson of the Mulberry Tree

A physical facility manifestation of integrated project-based interdisciplinary outdoor learning and environmental education.

Historically in California, elementary schools have a mulberry tree on their sites in support of a silkworm project.

Still a current LAUSD Design Standard.

Standard science focused unit:

- silkworms' dependence on mulberry trees
- how they create silk
- their life cycle
- may also integrate math, history, etc.

Green Schoolyards For All

Green Schools for All Resolution (September 2022) adopts the standard of 30% green/natural space for all District schools.

- Over 600 District schools do not meet the Resolution's goal ~ 80% of all schools.
- Approx. 15 Million sq. ft. (350 acres) of paved schoolyard areas need to be upgraded to green/natural space.
- $4 Billion needed to meet 30% green/natural schoolyard goal.

Green Schoolyards Plan

- Focus on elementary schools with less than 10% green/natural schoolyards.
- 205 elementary schools ~ 27% of all District Schools.
- Include goal of 20% shading of schoolyard from trees

Types of Outdoor Learning Environments

- Design, Size, And Elements Vary Across Elementary, Middle And High Schools
- Accommodate General Classroom Use – For Cross Disciplinary Lessons
- Provide Informal Gathering Spaces and/or Play Spaces For Elementary Schools
- Provide Overflow Seating For Nearby Library/Multipurpose Rooms
- Provide Space For Outdoor Performances/Speakers
- Provide Outdoor Work Areas Adjacent To Classrooms
- Planted Areas May Be Utilized By Class Curriculum

Belvedere MS - NAC/SALT

Crenshaw High School
Quad with seating areas
Architect: NAC
Landscape Architect: SALT

Berendo Middle School
Habitat Garden
Architect: CO Architects
Landscape Architect: AHBE/MIG

Ascot Elementary School
Literacy Garden
Architect: CO Architects
Landscape Architect: RELM

Jefferson High School
Quad with seating areas
Architect: HMC
Landscape Architect: Mia Lehrer + Associates

Venice High School
Science Quad and Main Quad
Architect: NAC
Landscape Architect: STOSS Landscape Urbanism

International Studies Learning Center
Outdoor Classroom
Architect: GGA
Landscape Architect: Rabben/Herman Design Office

Green Schoolyard - Definitions

Schoolyard is defined as:

The exterior areas of the school site to which students have general, unrestricted, and secure access within the school fence line.

Areas that are Permeable (Green/Natural) but are not within the Schoolyard do not count as part of the school's 30% Greening goal

- For example - green area that is not accessible to students unrestricted during the school day (i.e., lawns or planted areas on the exterior of the campus)

Green Schoolyard - Definitions

Permeable (Green/Natural) areas are defined as incorporating the following surface materials:

- In-ground planting/trees
- Grass/lawn/natural turf
- Dirt/mulch
- Decomposed granite (DG)
- Permeable pavers

Not Permeable materials and surfaces include:

- Synthetic turf
- Cool coating
- Non-permeable pavers
- Raised planter beds (installed on top of non-permeable paved area)

Green Schoolyard – Shade Definitions

Schoolyard Shade is defined as:

Shade provided to students via tree canopies within the exterior areas of the school site to which students have general, unrestricted, and secure access within the school fence line.

A school's **Schoolyard Shade** percentage is measured:

- Utilizing the amount of shade provided by trees measured at noon, in summer solstice
- Based on estimated canopy sizes per trees' 15 years maturity
- Calculating measurement of shade that falls within schoolyard (tree canopy shade that falls outside of schoolyard is not included)

Green Schoolyard Projects

- **Over 60 active projects in design and construction**
  - **15 GSY Upgrades**
  - **29 PACEUPs**
  - **16 Major Projects with new GSY**
- **Our Progress (data collected for 172 projects)**
  - **Increasing permeable Schoolyard from 7.4 M sf to 9.8 M sf**
  - **Increase number trees from 10,000 to 15,000**

Planning for Success

- **Join** – We must be ALL-IN. We need our entire community: architects, landscape architects, maintenance, teachers, students, families, partners
- **Maintain** – We need a plan for Maintenance of Green Schoolyards
- **Teach** – We need to align with Instruction and make nature-based learning accessible and engaging
- **Joy** – We need our Landscape Architects to share their love for nature

Shenandoah Elementary School

Site Plan

- Main Play Yard (A)
- Outdoor Reading/ Classroom (B)
- Outdoor Platform (C)
- Assembly Area (D)
- Lunch Shelter (E)
- Lunch Queuing Area (F)
- Makerspace Yard (G)
- Kindergarten Play Yard (H)
- Field (I)
- Instructional Garden (J)
- Main Campus Entry (K)
- Outdoor Waiting (L)

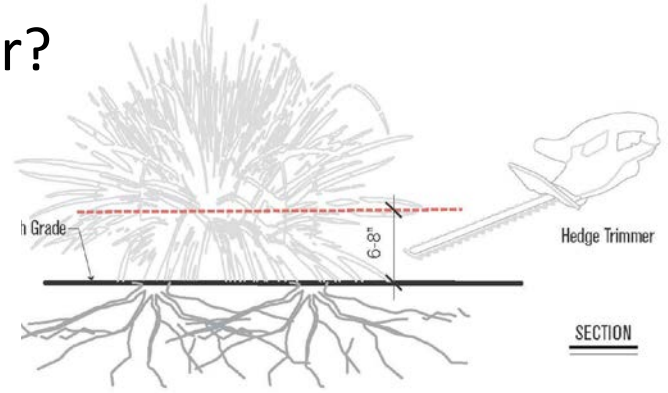
Cannon Design/
Pamela Burton & Co.

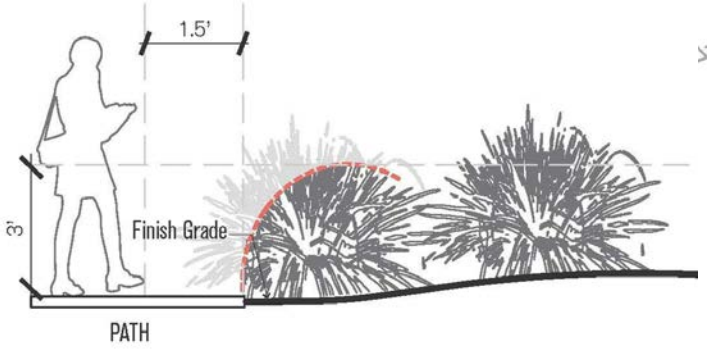
All-in

- **Over 90 architects and landscape architects joined us at a site visit to Shenandoah ES**
- **Toured with LA, project team**
- **Lessons Learned**
- **Creating a Community**

Landscape Manual

- The problem of Maintenance
  - Not enough funding
- Training
  - Learning about Native plants
  - What is a weed?
  - How to prune?
  - When to water?





Status	Weed	Season	Location
Weed	Yes	Winter or Summer	Park

Landscape Habit

Foliage

Flower

wild radish / *Raphanus sativus*

PREVENTION

- Cal-IPC Rating: Limited.
- Remove weeds from site before flower and seed dispersal.
- Regular applications of mulch with a depth of 1-3" will discourage weeds.

TREATMENT SEQUENCE

1. Seedlings: Hand Pull or Trowel Tillage.
2. Mature Plant: Weed wack/ remove prior to flowers setting seeds.
3. Post-Emergent shall be applied by a licensed pest applicator only in areas with high density weed conditions, and only as directed by a park supervisor.

Plant Category	Leaf	Mature Size
Annual or Biennial	Compound, Lobed or unlobed but not separated into leaflets.	2' Tall

Alignment With Educational Programs

Input from all Disciplines, including:

Science, STEAM, Outdoor Education, Physical Education, Social & Emotional Learning, Library Services, Arts, Special Education, Food Services, CTE/Linked Learning

Green schoolyards provide:

- Nature-based learning experiences and investigation
- Places for movement and physical education
- Places for relaxation and mindfulness meditation
- Break-out spaces for making and creating
- Support for cooperative and collaborative projects
- Classroom spaces for instruction
- Gathering spaces for presentation and performances
- Opportunities to learn career skills including gardening and farming
- Opportunities to build environmental stewardship

Grant HS – IBI/MIG
Dixie Canyon ES – DLR/RELM

Landscape Takes the Lead in Developing Learning Environments

- LA are in it because they love nature
- They want everyone else to love nature, too
- Let’s listen to them
- Why does nature bring you joy?
- What stories does nature tell you?


“GO OUTSIDE AND PLAY”

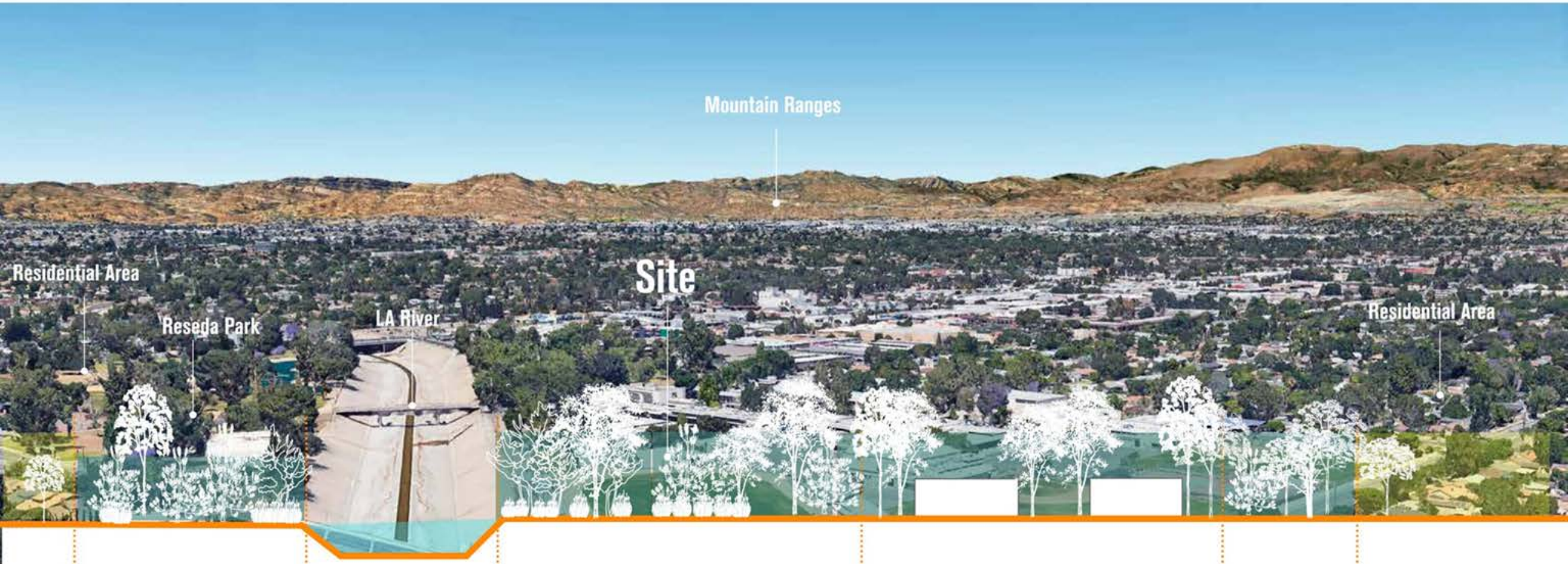
SETTING

CHARACTERS

PLOT

PROBLEM

RESOLUTION

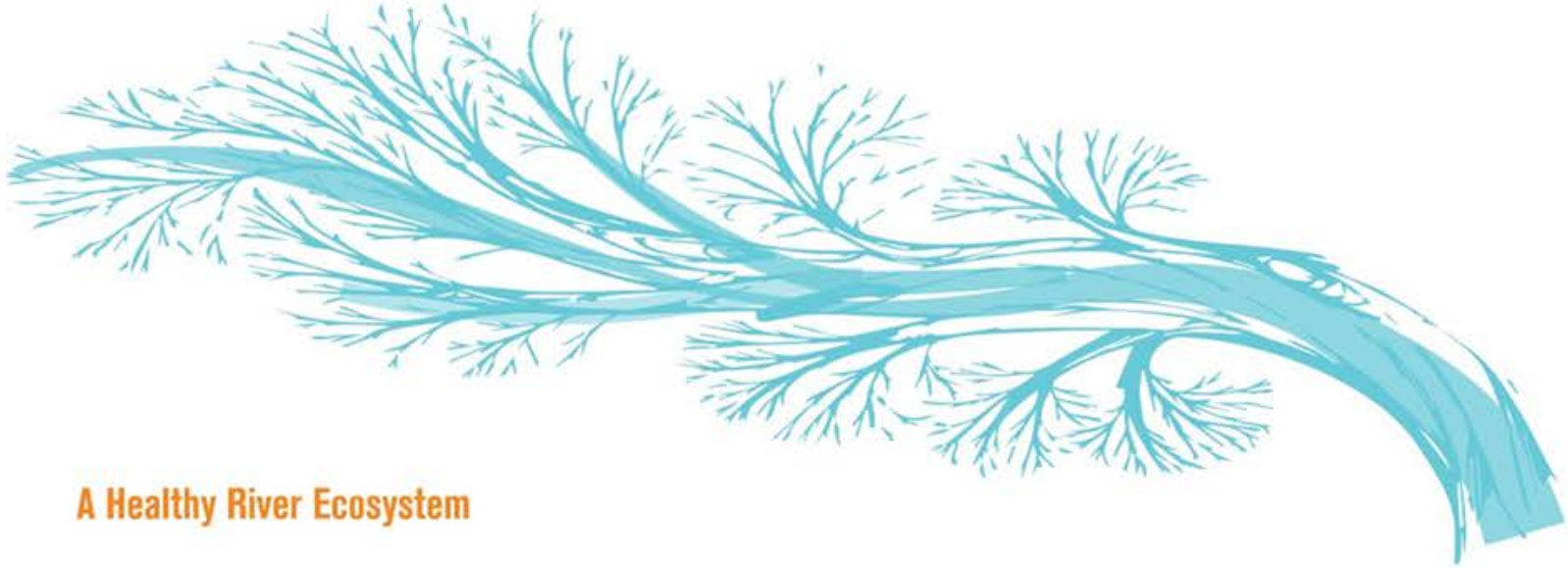


Reseda Park | LA River | Riparian Forest | Historical Quad / Outdoor Classroom | Entry Gate | Urban Matrix

The Confluence

SETTING

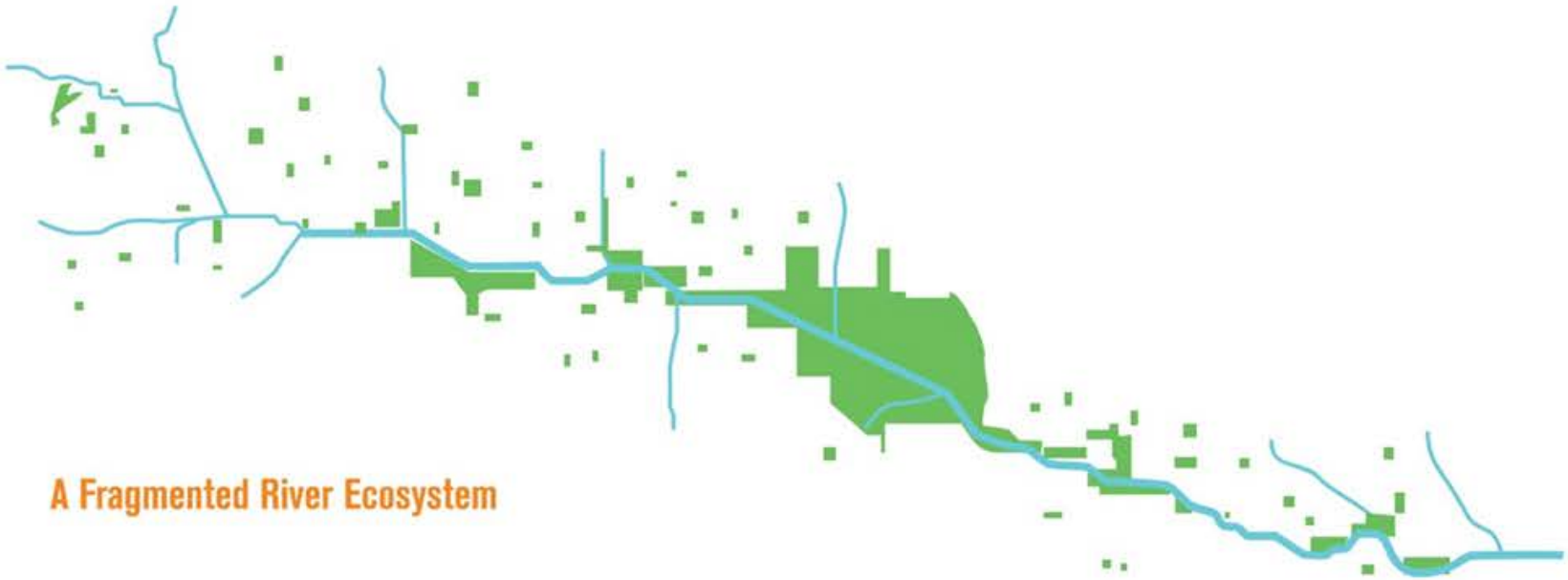
CHARACTERS



A Healthy River Ecosystem

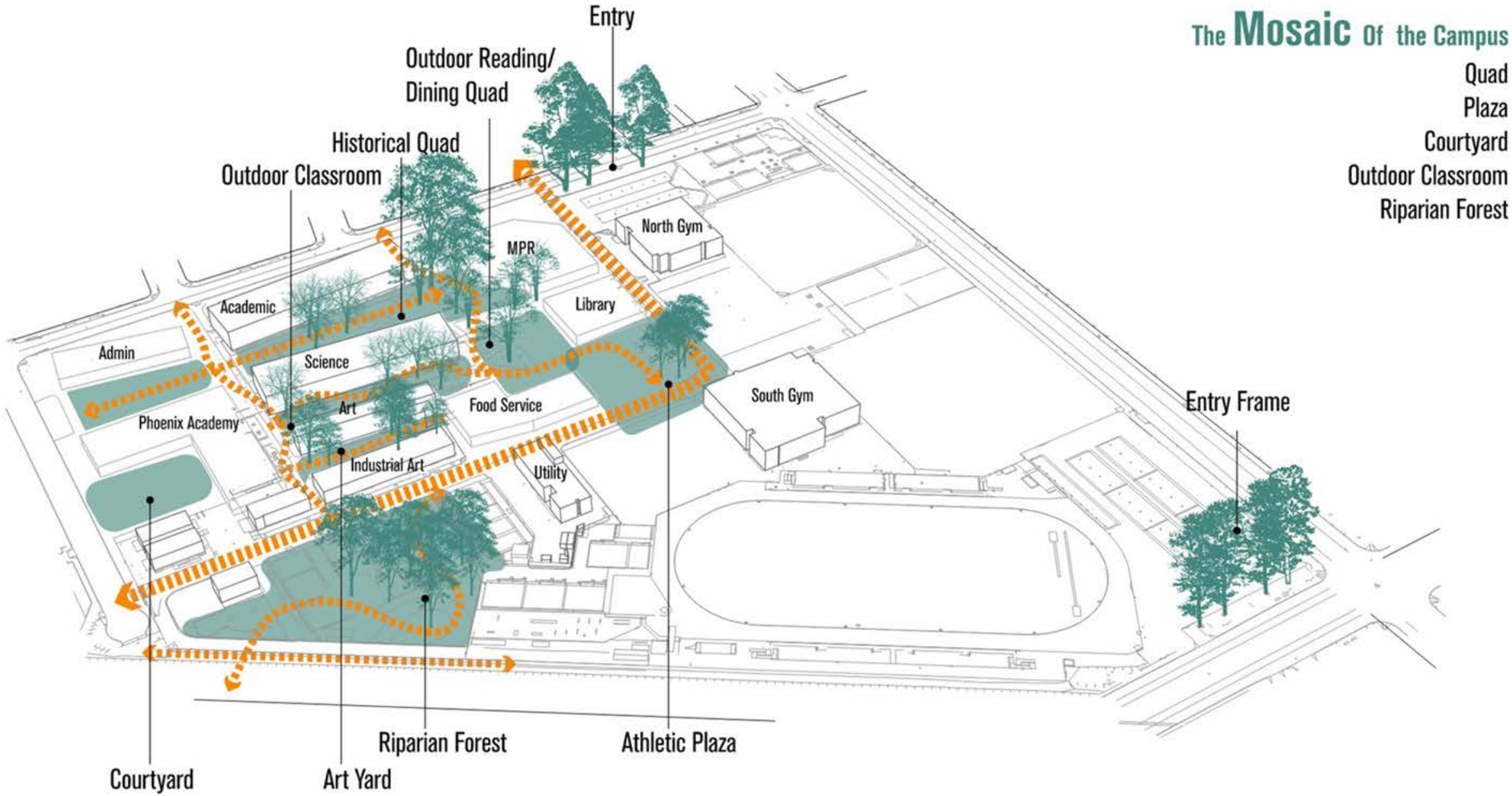
Patches

Corridor



A Fragmented River Ecosystem

Mosaic



The **Mosaic** Of the Campus

Quad
Plaza
Courtyard
Outdoor Classroom
Riparian Forest

imaginitive play

EXPLORE NATURE

Create and build

An area to build, play in mud sticks, rocks and natural surroundings

BUILD/CREATIVE or IMAGINARY PLAY

LEARN FROM NATURE
Climb, build, read journal

provide them an area for passive choice play where they could explore & observe

Teach outside

SIT IN A CIRCLE for a group pow-wow.

HAVING WRITING LESSONS OUTSIDE

Conduct English class Take advantage of sensory aspects sometimes for writing but also to have entered area to talk, read, work using NATURE

FIND OUTSIDE SPACE for QUIET, INDEPENDANT & REFLECTIVE WORK

OUTDOOR CLASSROOM
dry erase, Materials

Fourth Grade Thoughts about the OUTDOOR LEARNING SPACE!

(We are very excited and grateful for this opportunity.)

the field for sports

places to jump off of on the play structure

climbing on the monkey bars

the steps for chatting with friends

the swings

The play structure isn't big enough for older kids

Four Square is too close to the b-ball court and kids run into each other

We don't have soccer nets on the field

We can't climb the trees

Falling on the fun bark hurts

I wish...

an obstacle course

tunnels

field goals

a stream

Zip lines

play structures for doing stunts!

trees to climb

rock wall

bird feeders

a water fountain

a tree house

trees!

tire swings

a rolling wheel

What If...?

they get rid of the bars?

they get rid of the swings?

they get rid of the basketball court?

Louise's plan showing her favourite activities

Monkey Bars

Flying fox

Trampoline

Seesaw

Swing

fruit trees

Waterslide into a pool

Donut to slide with

Plants on

and a slide

4-square

School

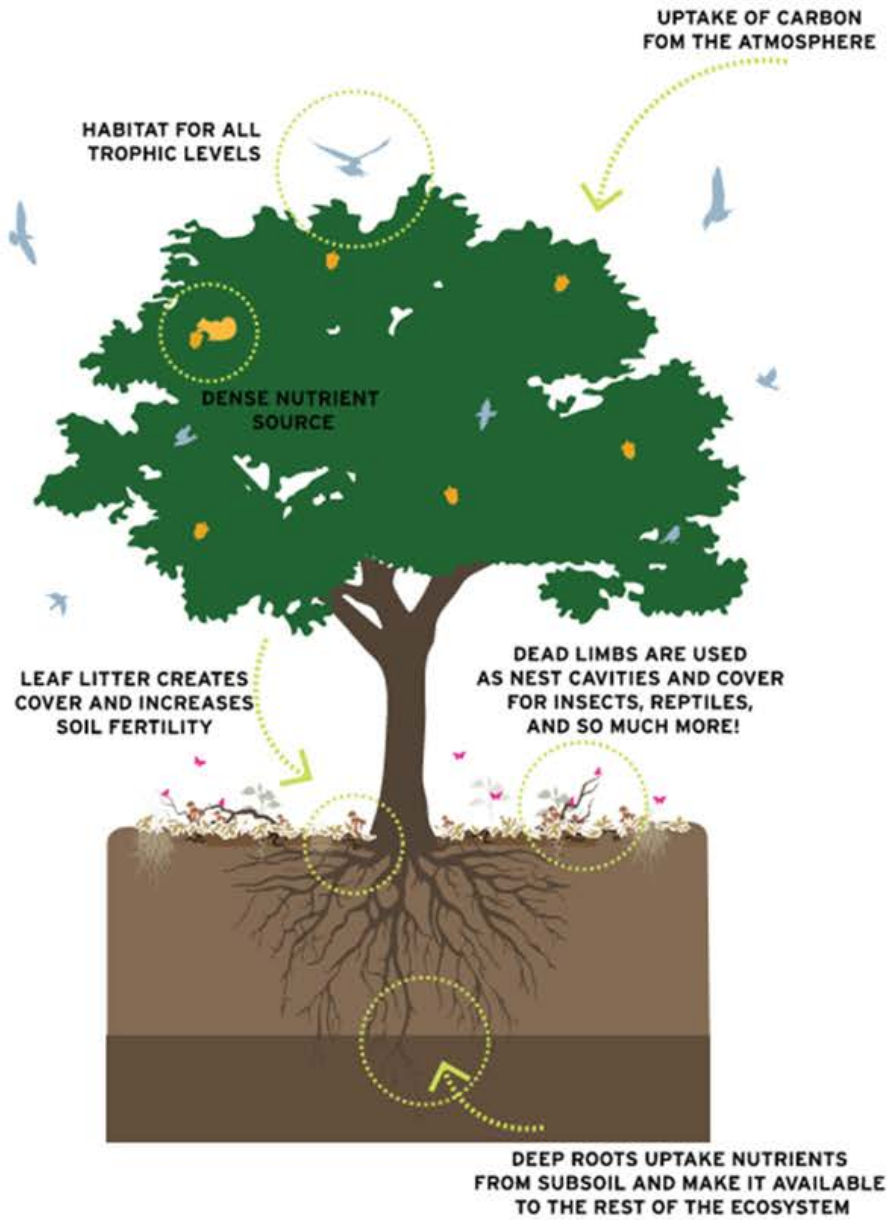
Roads

OUTDOOR LEAR

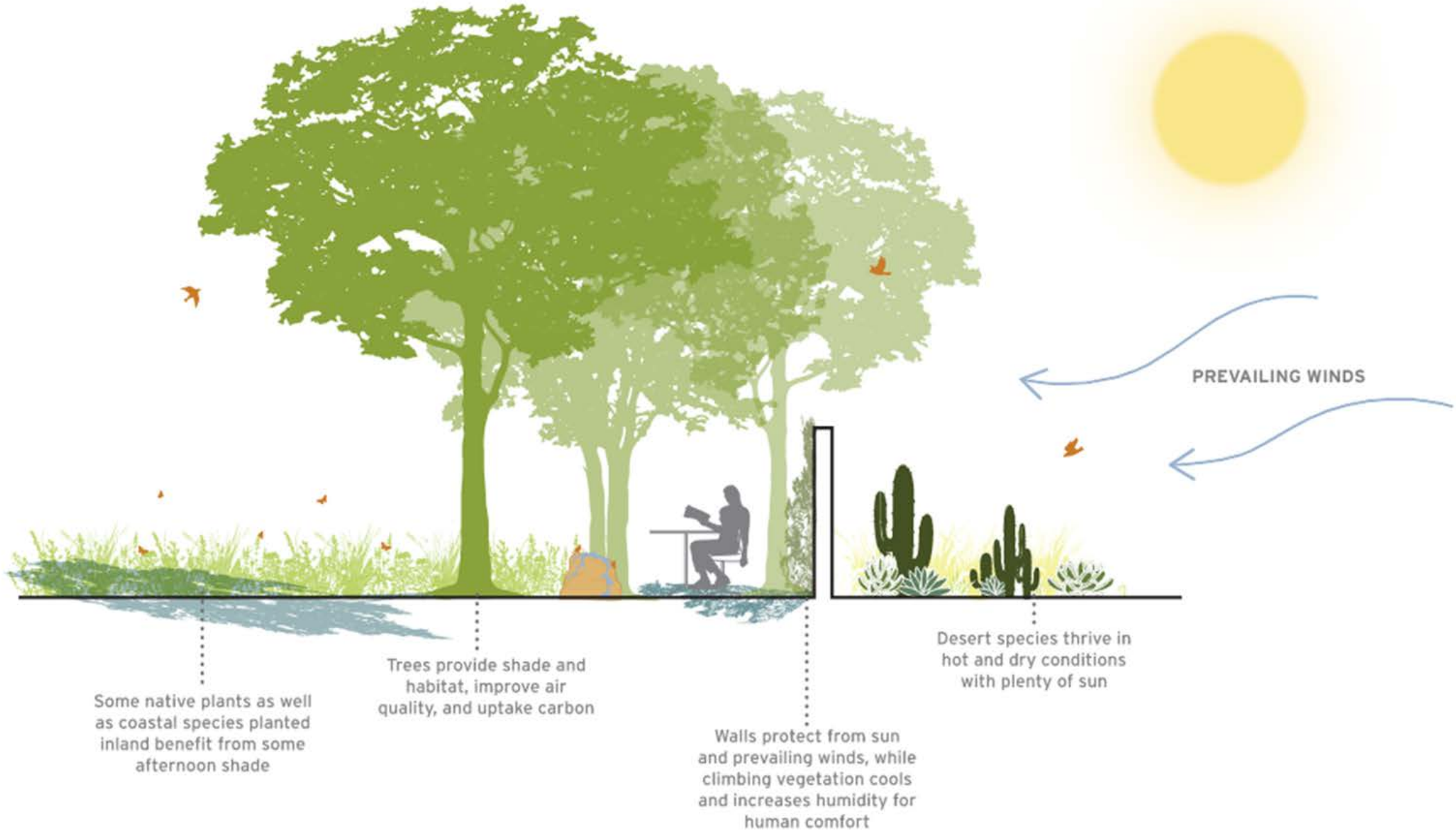
Library

PLOT

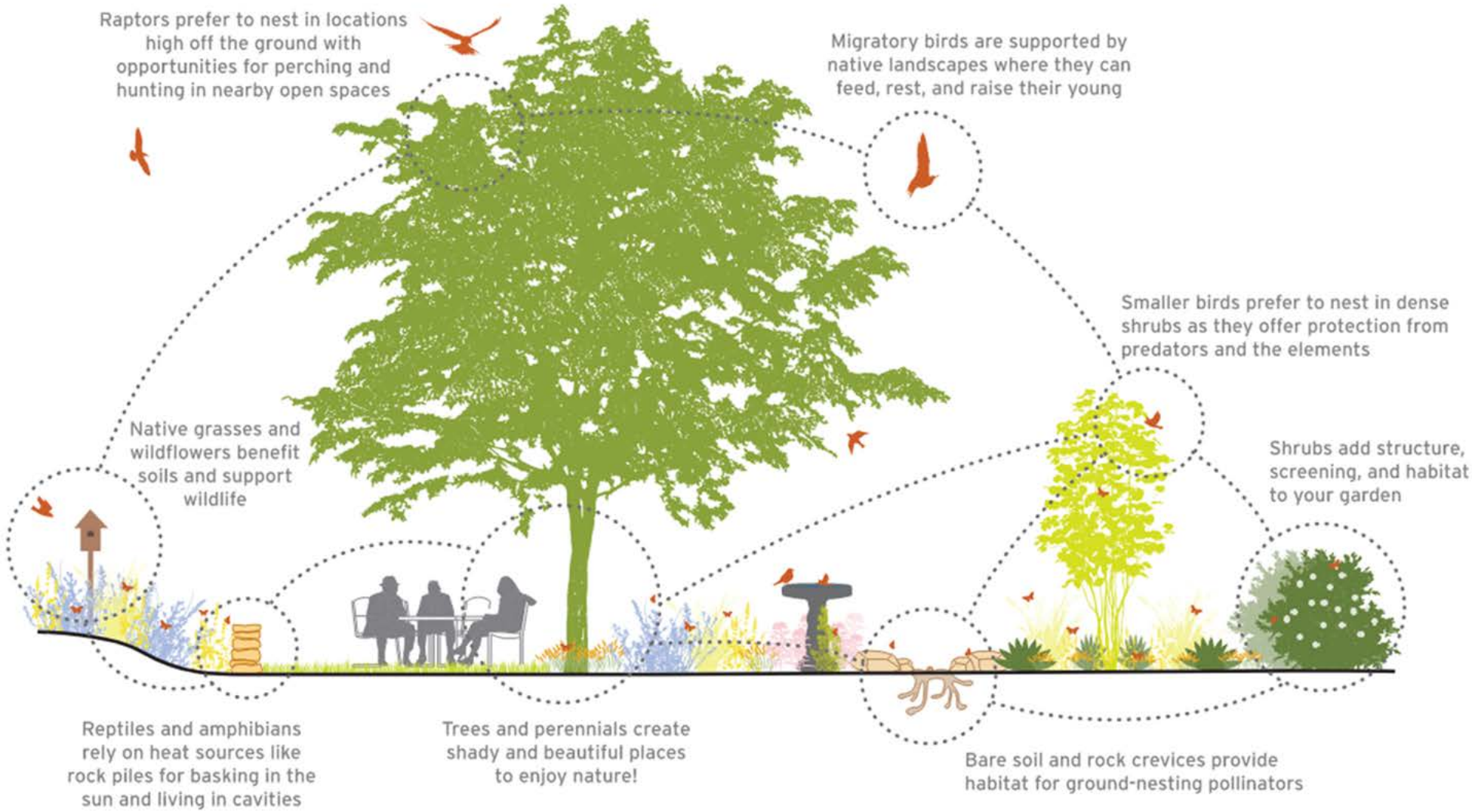
PROBLEM


UPTAKE OF CARBON
FOM THE ATMOSPHERE
HABITAT FOR ALL
TROPHIC LEVELS
DENSE NUTRIENT
SOURCE
LEAF LITTER CREATES
COVER AND INCREASES
SOIL FERTILITY
DEAD LIMBS ARE USED
AS NEST CAVITIES AND COVER
FOR INSECTS, REPTILES,
AND SO MUCH MORE!
DEEP ROOTS UPTAKE NUTRIENTS
FROM SUBSOIL AND MAKE IT AVAILABLE
TO THE REST OF THE ECOSYSTEM

MICROCLIMATES

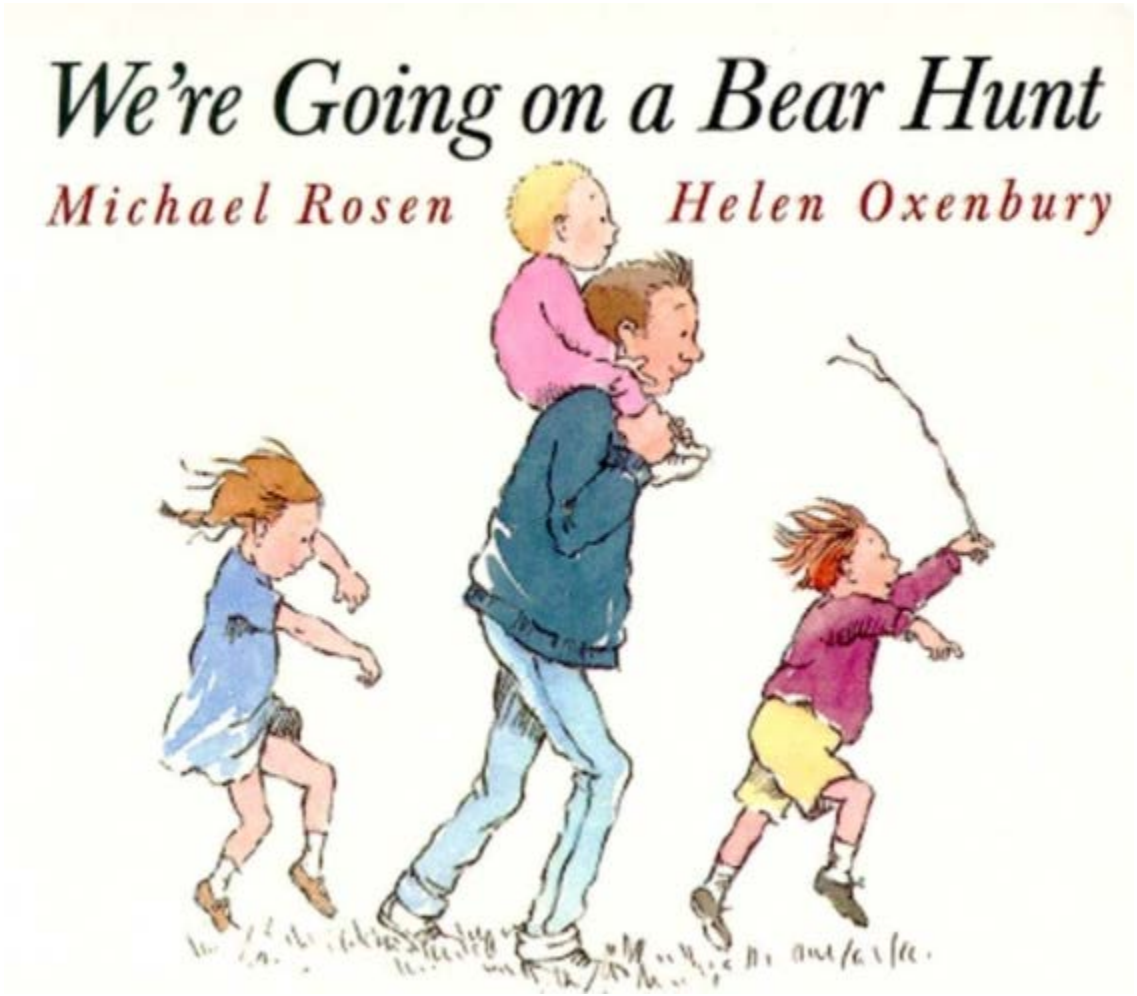


HABITAT STRUCTURE

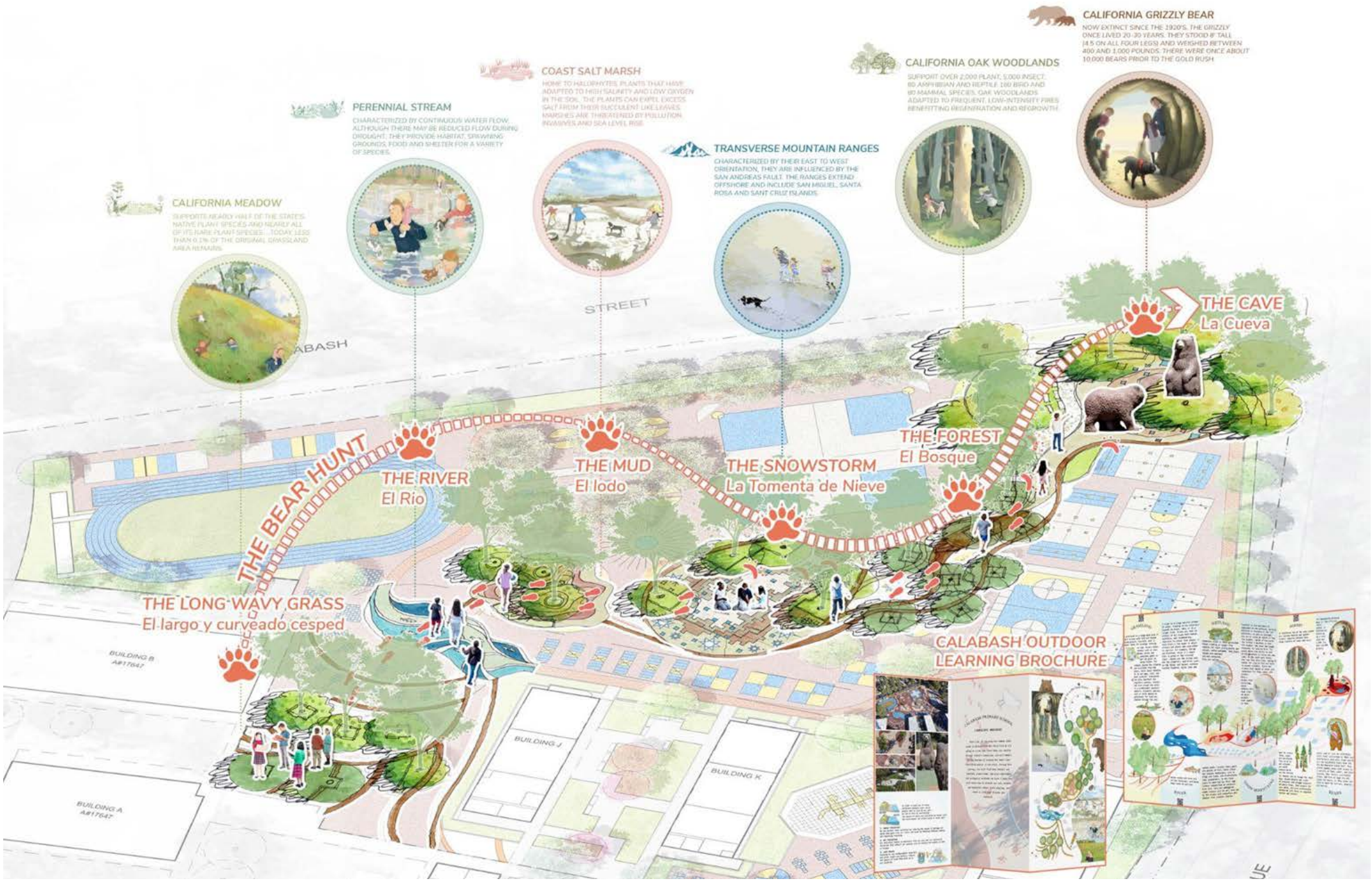


RESOLUTION


Connections
Naturalized Greenway/ Stormwater Basin
Special Resource
Mature Oak Tree
Native Plant Vegetation
Larval Host Plant for Endangered Butterflies


We're Going on a Bear Hunt
Michael Rosen
Helen Oxenbury


BEFORE


CALIFORNIA GRIZZLY BEAR
NOW EXTINCT SINCE THE 1920'S, THE GRIZZLY ONCE LIVED 20-30 YEARS. THEY STOOD 8' TALL (4.5 ON ALL FOUR LEGS) AND WEIGHED BETWEEN 400 AND 1,000 POUNDS. THERE WERE ONCE ABOUT 10,000 BEARS PRIOR TO THE GOLD RUSH
CALIFORNIA OAK WOODLANDS
SUPPORT OVER 2,000 PLANT, 5,000 INSECT, 80 AMPHIBIAN AND REPTILE, 160 BIRD AND 80 MAMMAL SPECIES. OAK WOODLANDS ADAPTED TO FREQUENT, LOW-INTENSITY FIRES BENEFITTING REGENERATION AND REGROWTH.
COAST SALT MARSH
HOME TO HALOPHYTES, PLANTS THAT HAVE ADAPTED TO HIGH SALINITY AND LOW OXYGEN IN THE SOIL. THE PLANTS CAN EXPEL EXCESS SALT FROM THEIR SUCCULENT LIKE LEAVES. MARSHES ARE THREATENED BY POLLUTION, INVASIVES AND SEA LEVEL RISE.
PERENNIAL STREAM
CHARACTERIZED BY CONTINUOUS WATER FLOW. ALTHOUGH THERE MAY BE REDUCED FLOW DURING DROUGHT, THEY PROVIDE HABITAT, SPAWNING GROUNDS, FOOD AND SHELTER FOR A VARIETY OF SPECIES.
TRANSVERSE MOUNTAIN RANGES
CHARACTERIZED BY THEIR EAST TO WEST ORIENTATION, THEY ARE INFLUENCED BY THE SAN ANDREAS FAULT. THE RANGES EXTEND OFFSHORE AND INCLUDE SAN MIGUEL, SANTA ROSA AND SANT CRUZ ISLANDS.
CALIFORNIA MEADOW
SUPPORTS NEARLY HALF OF THE STATES NATIVE PLANT SPECIES AND NEARLY ALL OF ITS RARE PLANT SPECIES. ...TODAY, LESS THAN 0.1% OF THE ORIGINAL GRASSLAND AREA REMAINS.
STREET
ABASH
THE CAVE
La Cueva
THE FOREST
El Bosque
THE SNOWSTORM
La Tomenta de Nieve
THE MUD
El lodo
THE RIVER
El Rio
THE BEAR HUNT
THE LONG WAVY GRASS
El largo y curveado cesped
CALABASH OUTDOOR LEARNING BROCHURE
BUILDING B
A#17647
BUILDING J
BUILDING K
BUILDING A
A#17647


A B
C D
A B
C D

Kester Ave. Elementary

Cougars

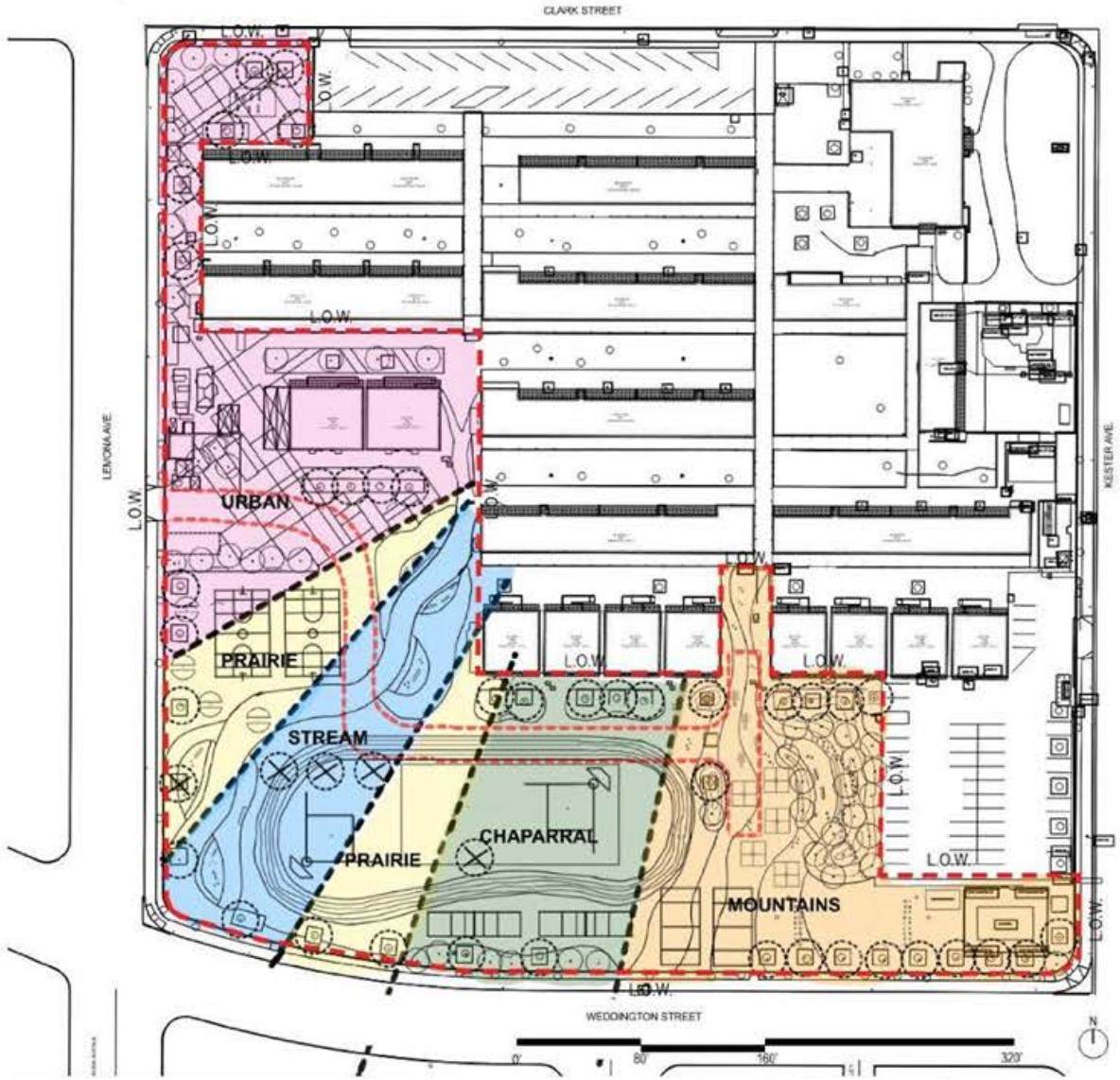
"COUGAR PATH"

Our elementary school landscape design is inspired by the mountain lion, a symbol of resilience and ecological balance in Southern California. At the heart of the story is P-22, the iconic cougar who crossed two major freeways to reach Griffith Park. His journey highlights the challenges wildlife face in navigating fragmented habitats and inspires our design's central theme: reconnection.

The site features a stream-inspired learning corridor, designed as a dry arroyo that mimics natural water flow and riparian ecosystems. This space serves as both stormwater infrastructure and an outdoor classroom, guiding students through the story of water and its role in sustaining life. Native plants like mulefat, sycamores, and rushes support biodiversity and create daily sensory experiences.

Surrounding the stream, the planting zones reflect local foothill ecologies—coastal sage scrub, chaparral, and oak woodland—bringing ecological restoration into the learning environment. Shaded paths curve through the site like wildlife corridors, encouraging movement, exploration, and reflection.

This landscape tells a living story—of mountain lions, like P-22, navigating an urban world, and of students growing in a space where nature is both teacher and companion. It's a tribute to ecological resilience, wildlife connectivity, and the importance of designing with nature in mind.



The landscape design is organized into a series of ecozones that mirror the natural habitats a mountain lion moves through in Southern California. Starting in the mountains, students journey through chaparral, prairie grasslands, and a riparian stream zone, each representing a key ecological system the cougar relies on for survival. The path culminates in an urban zone, symbolizing the interface where wildlife and city life meet—just as P-22 did. This sequence helps students understand ecological transitions and the importance of habitat connectivity.

MOUNTAINS

CHAPARRAL

PRAIRIE

STREAM

URBAN

LAUSD REQUIREMENTS CHECKLIST:

- GREENING REQUIREMENT

REQUIRED WITHIN L.O.W.: 38,754 SF
PROVIDED WITHIN L.O.W.: 50,504 SF

- GENERAL PLANTING AREA
- TURF/ GRASS
- D.G.
- LID, PROVIDED: 7,460 SF
  REQUIRED: 7,400 - 10,520 SF

- TREES WITHIN L.O.W.

REQUIRED: 37 TREES

- EXISTING TREES, PROTECT-IN-PLACE: 43
- EXISTING TREES, TO BE REMOVED: 5
- PROPOSED TREES: 47

- PE STATION REQUIREMENT

FITNESS TESTING STATION
- PACER FITNESS TRACK (1) = 1 PE
- 1/8 MILE RUNNING TRACK (1) = 1PE
- HORIZONTAL BARS (1)

INSTRUCTIONAL PE STATIONS
- BASKETBALL COURT (2) = 1 PE
- VOLLEYBALL COURT (2) = 1 PE
- PRIMARY DIAMOND/ KICKBALL (2) = 1 PE
- FOOTBALL/ SOCCER FIELD (1) = 1 PE
- HANDBALL COURT (2) = 1 PE

RECREATIONAL PE STATION
- SQUARE HOPSCOTCH (4) = 1 PE
- FOUR SQUARE (5) = 1 PE
- TETHERBALL (4) = 1 PE

TOTAL PE STATION PROVIDED: 10 PE STATIONS

- OUTDOOR LEARNING ENVIRONMENT (OLE) (8,475 SF)
  - (B) TYPE B: OUTDOOR CLASSROOM - PERFORMANCE AREA
  - (D) TYPE D: LEARNING LAB - RAISED PLANTER AREA (EXISTING)
  - (E) TYPE E: LEARNING LAB - MICROFOREST
  - (S) SERVICE CONNECTOR

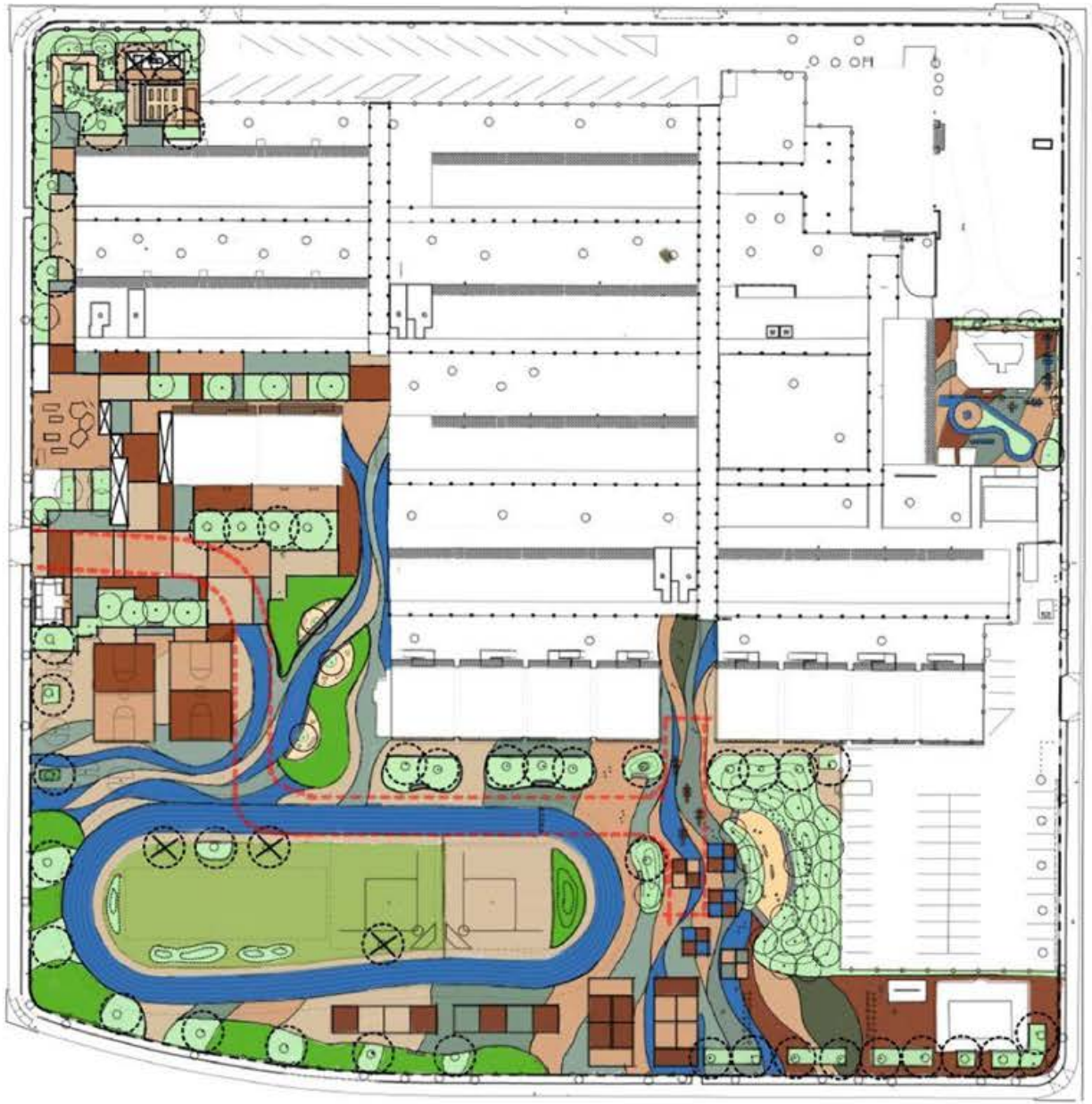
KEYNOTES

- LIMIT OF WORK (L.O.W.)
- FIRE LANE
- 60' X 60' PAVED OPEN SPACE/OLE DISPERSAL AREA
- PRE-K/KINDER DISPERSAL AREA
- 1-5 DISPERSAL AREA
- NON-CERTIFIED BUILDING 20' OFFSET ZONE
- (1) FIRELANE
- (2) TRASH ENCLOSURE
- (3) DECORATIVE WALL
- (4) 1/8 MILE TRACK + 50M DASH
- (5) FOOTBALL/SOCCER FIELD
- (6) HANDBALL COURT
- (7) LID PLANTER
- (8) BASKETBALL
- (9) KICKBALL
- (10) PACER TEST
- (11) HORIZONTAL BAR
- (12) ACTIVITY STATION
- (13) FOUR SQUARE
- (14) AIRPLANE HOPSCOTCH
- (15) VOLLEYBALL COURT

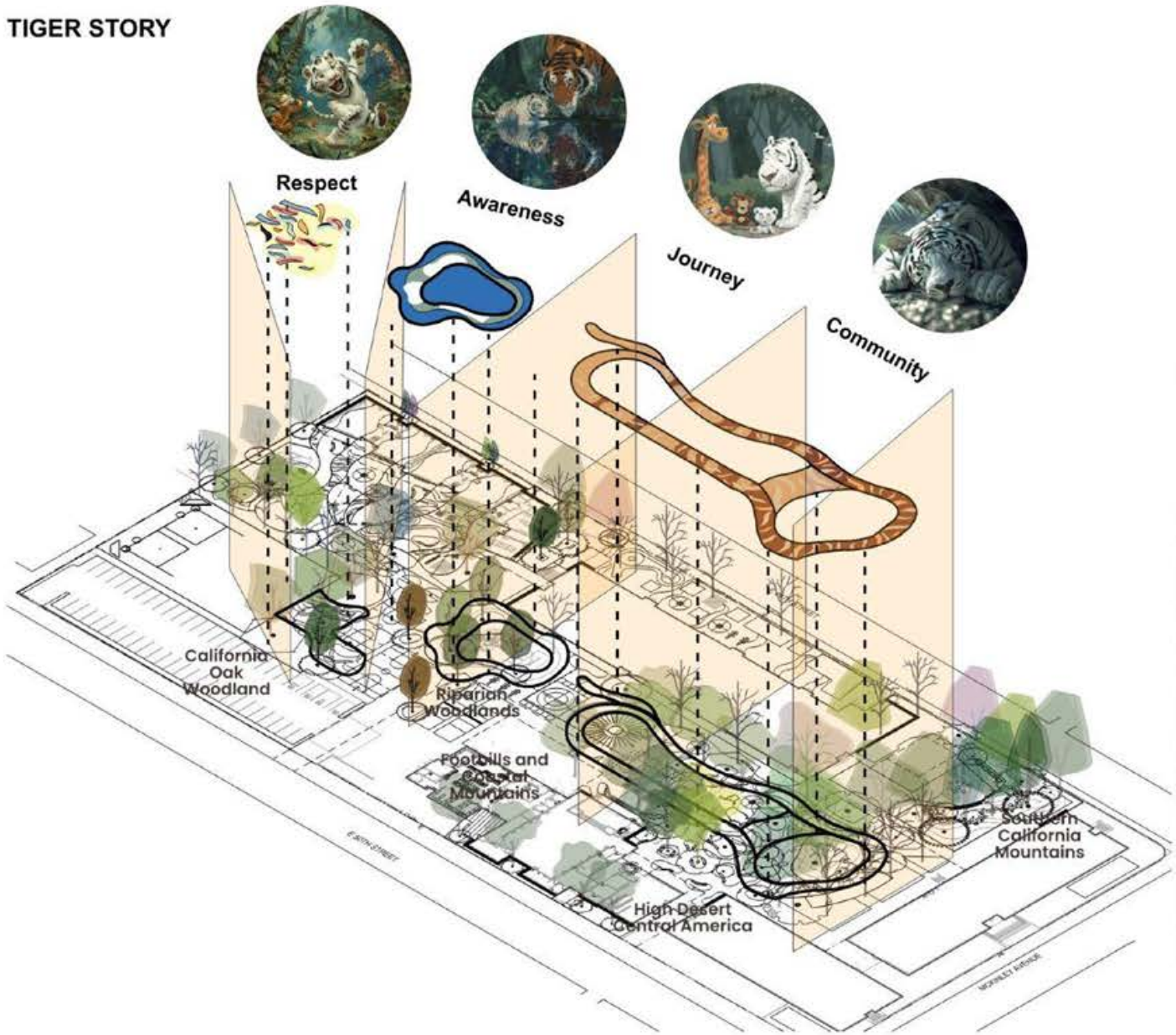
MATERIALS

- AC PAVING WITH COLOR COATING, SR SUNBAKED CLAY
- AC PAVING WITH COLOR COATING, SR SANDSTONE
- AC PAVING WITH COLOR COATING, SR TERRA COTTA
- AC PAVING WITH COLOR COATING, SR SAFETY BLUE
- AC PAVING SEAFOAM
- AC PAVING WITH COLOR COATING, SR PAPRIKA
- AC PAVING WITH COLOR COATING, SR KHAKI
- AC PAVING WITH COLOR COATING, SR IRISH CREAM
- CONCRETE PAVING (BETWEEN AC PAVING AND DG)
- D.G.
- (16) ADA ACCESSIBLE RAMP
- (17) BERM
- (18) TETHERBALL
- (19) COUGAR PRINT
- (20) ENLARGED EXISTING TREE WELL
- (21) PICK UP/DROP OFF AREA
- (22) MULBERRY TREE
- (23) RESTROOM
- (24) DRINKING FOUNTAIN
- (25) AMPHITHEATER
- (26) EXISTING CONTAINER
- (27) EXISTING SINK

BEFORE (CURRENT), GSY CALCS (PROVIDED IN GSY VIEWER)	AFTER (DESIGNED), GSY CALCS
CURRENT SCHOOLYARD SF: 233,033 SF	CURRENT SCHOOLYARD SF: 233,033 SF
CURRENT GREEN/NATURAL, SF: 38,611 SF	CURRENT GREEN/NATURAL, SF: 80,660 SF
CURRENT GREEN/NATURAL, %: 17%	CURRENT GREEN/NATURAL, %: 34.6%
CURRENT # OF TREES: 119	CURRENT # OF TREES: 160
CURRENT TREE SHADE, SF: 45,741 SF	CURRENT TREE SHADE, SF: 70,260 SF
CURRENT TREE SHADE, %: 19.6%	CURRENT TREE SHADE, %: 30.2%



TIGER STORY

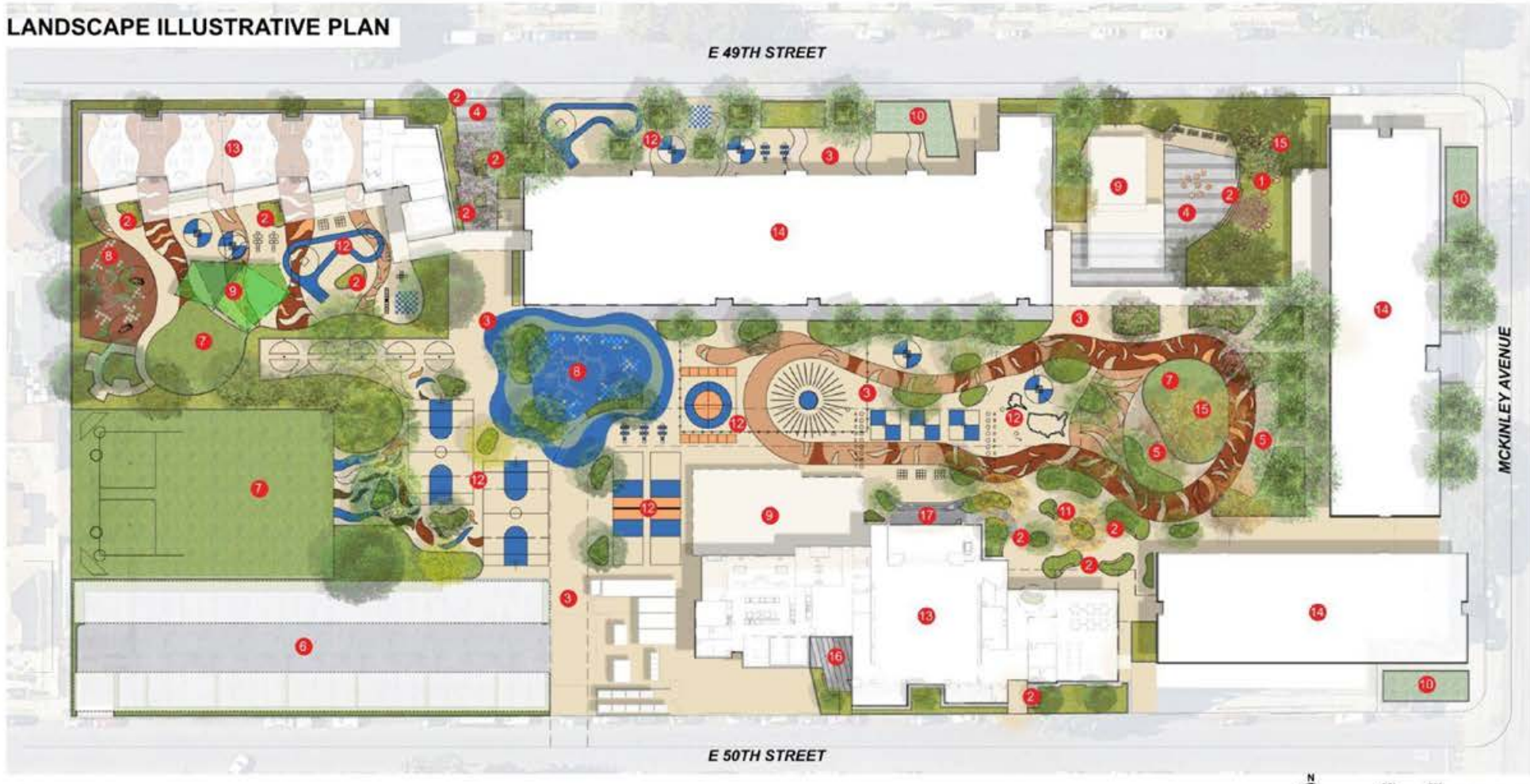


EL TIGRE QUE PERDÍO SUS RAYAS

Cuento infantil para desarrollar la personalidad

One day a tiger woke up without his stripes, going all around he felt lost saying he wasn't a tiger because a tiger has stripes. He tried to be a monkey, but he couldn't climb trees like they did. Then he tried to be a giraffe, but his neck wasn't that long. He thought maybe it could be a lion, but he didn't have a nice mane. A wolf couldn't be either because it didn't know how to howl, nor an elephant because it didn't have a trunk. An old tiger had been watching his spiral all day when he told him come here let's go to the river, the older tiger took the younger one to see his reflection, telling him he had looked everywhere for his stripes except looking within himself. The old tiger told him it doesn't matter if you have stripes or not that is not what makes you a tiger but what's within and how you feel that does.

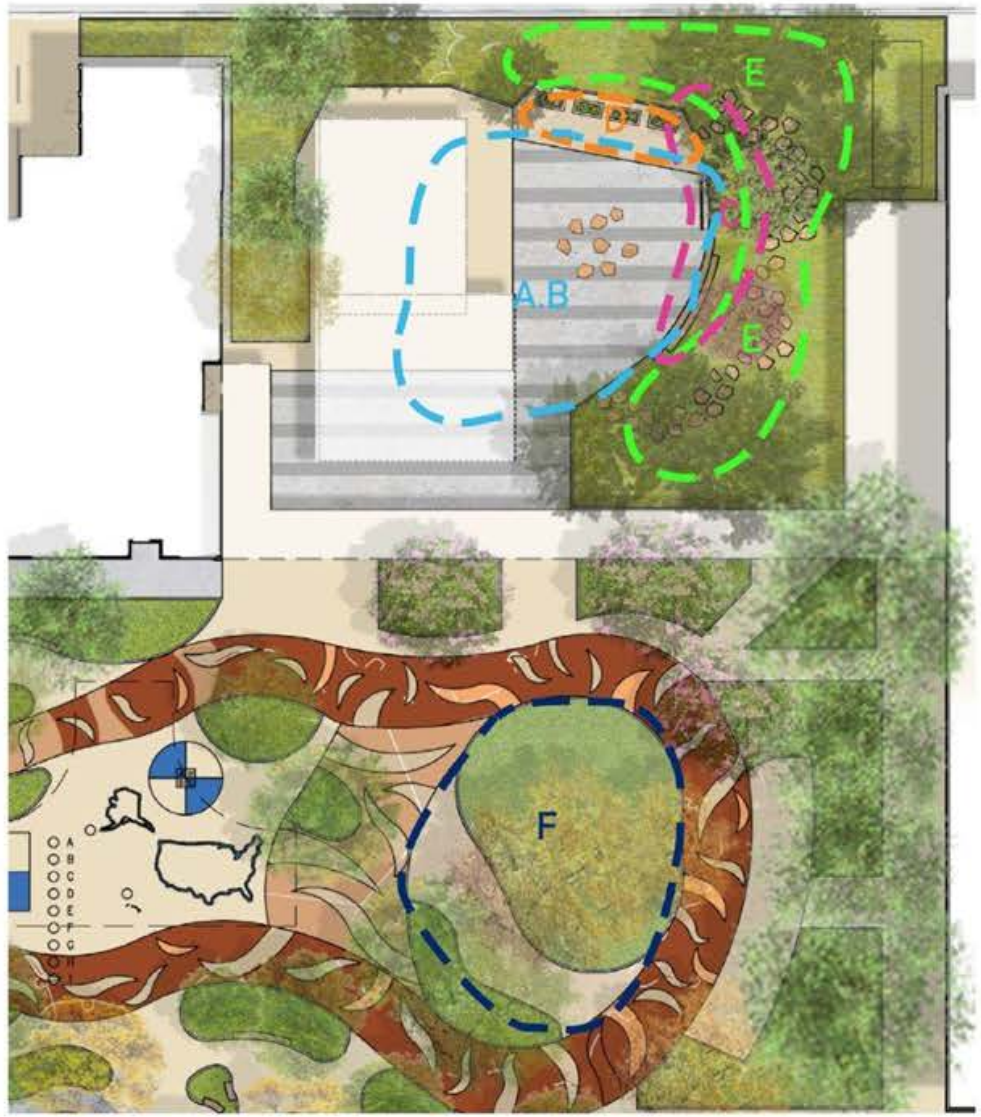
LANDSCAPE ILLUSTRATIVE PLAN



LEGEND

1. OUTDOOR LEARNING AREA
2. C.I.P. CONCRETE SEATING
3. AC PAVING WITH COLOR COATING
4. PERMEABLE PAVER
5. DG PAVING
6. PARKING LOT
7. GRASS FIELD
8. PLAY STRUCTURE
9. SHADE STRUCTURE
10. BIOSWALE PLANTER
11. OUTDOOR READING GARDEN
12. OUTDOOR PE AREA
13. PROPOSED NEW BUILDING
14. EXISTING BUILDING
15. BERM
16. FACULTY OUTDOOR DINING AREA
17. STAGE
18. RELOCATED STORAGE CONTAINER

NORTHEAST OUTDOOR LEARNING - "FOREST" AREA



N 10' 20' SCALE: 1"=20'

A Type "A" Outdoor Classroom - Group Learning Area

B Type "B" Outdoor Classroom - Performance Area

C Type "C" Learning Lab - Habitat Planting Area

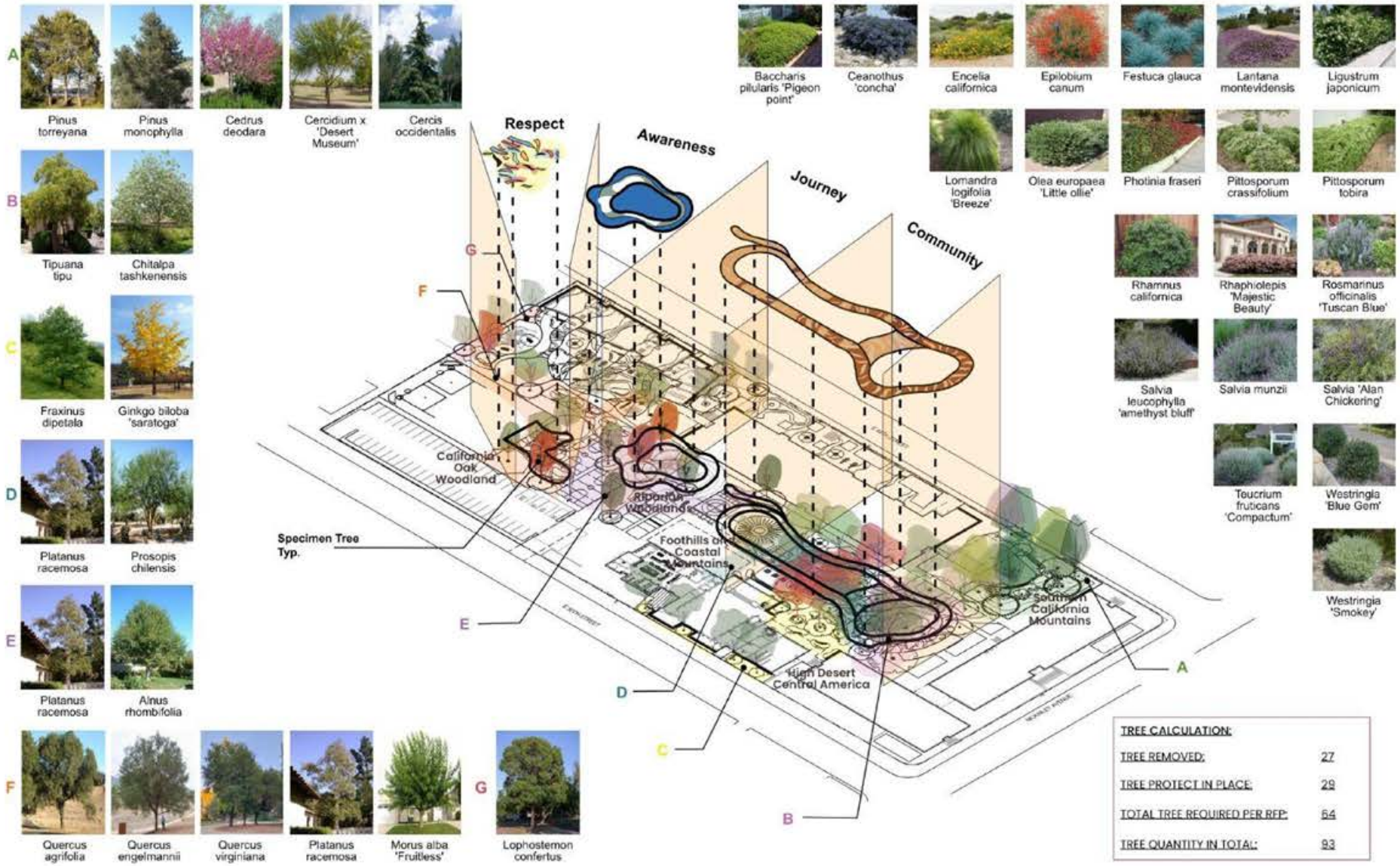
D Type "D" Learning Lab - Raised Planter Area

E Type "E" Learning Lab - Micro Forest

F Type "F" Learning Lab - Active Play Area

KEY PLAN

PLANTING MATERIAL + TREE CALCULATION



TREE CALCULATION:	
TREE REMOVED:	27
TREE PROTECT IN PLACE:	29
TOTAL TREE REQUIRED PER REP:	64
TREE QUANTITY IN TOTAL:	93

Activity 2

Scenario (memory, climate change)

- **What design for a schoolyard to tell this story?**
- **What story can you tell or will you tell?**
- **Can you use a poem or creative storytelling to create an outdoor learning environment?**

Call to Action

Call to Action

1. Engage with Landscape Architects on your projects as your partner in creating engaging and inspiring learning environments
2. Observe students playing and learning outside in a natural setting; incorporate what you observe into your project design.
3. Engage with instruction regarding nature-based and outdoor learning.