



*Growing Minds, Thriving Communities:
Embracing the Benefits of Outdoor
Learning Environments for All*

2024 A4LE West Region Conference
April 12, 2024





Learning Objectives

1. Explore how these unique environments encourages learning through active play, physical activity and nature exploration.
2. Discuss how a learning environment design can integrate natural outdoor settings and healthy indoor spaces successfully.
3. Understanding the importance of the physical environment of the outdoor learning and play space for meeting the needs of children and education code requirements for students physical and emotional development and for indoor air quality and student comfort.
4. Outline strategies on how the design takes advantage of climate and physical space to support the health and safety of students within each unique educational setting.





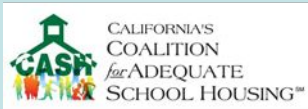
Agenda

- 5 mins | *Welcome and Introductions*
The importance of the physical environment on children's development
- 15 mins | *The Environmental Nature Center Preschool*
The impact of outdoor learning on early childhood development
How nature is incorporated into the everyday experience
- 15 mins | *Alaka ʻi O Kaula ʻI Charter School*
Developing leaders
Project based learning in natural settings
- 15 mins | *Eagle Rock Elementary*
Nature-based learning within an urban context
Community involvement
The impact of green schoolyards on student outcomes
- 10 mins | *Discussion / Q+A*





Welcome & Introductions



**Los Angeles County
Office of Education**



Today's Speakers



Danielle Cleveland
Associate, Landscape Architect
LPA Design Studios



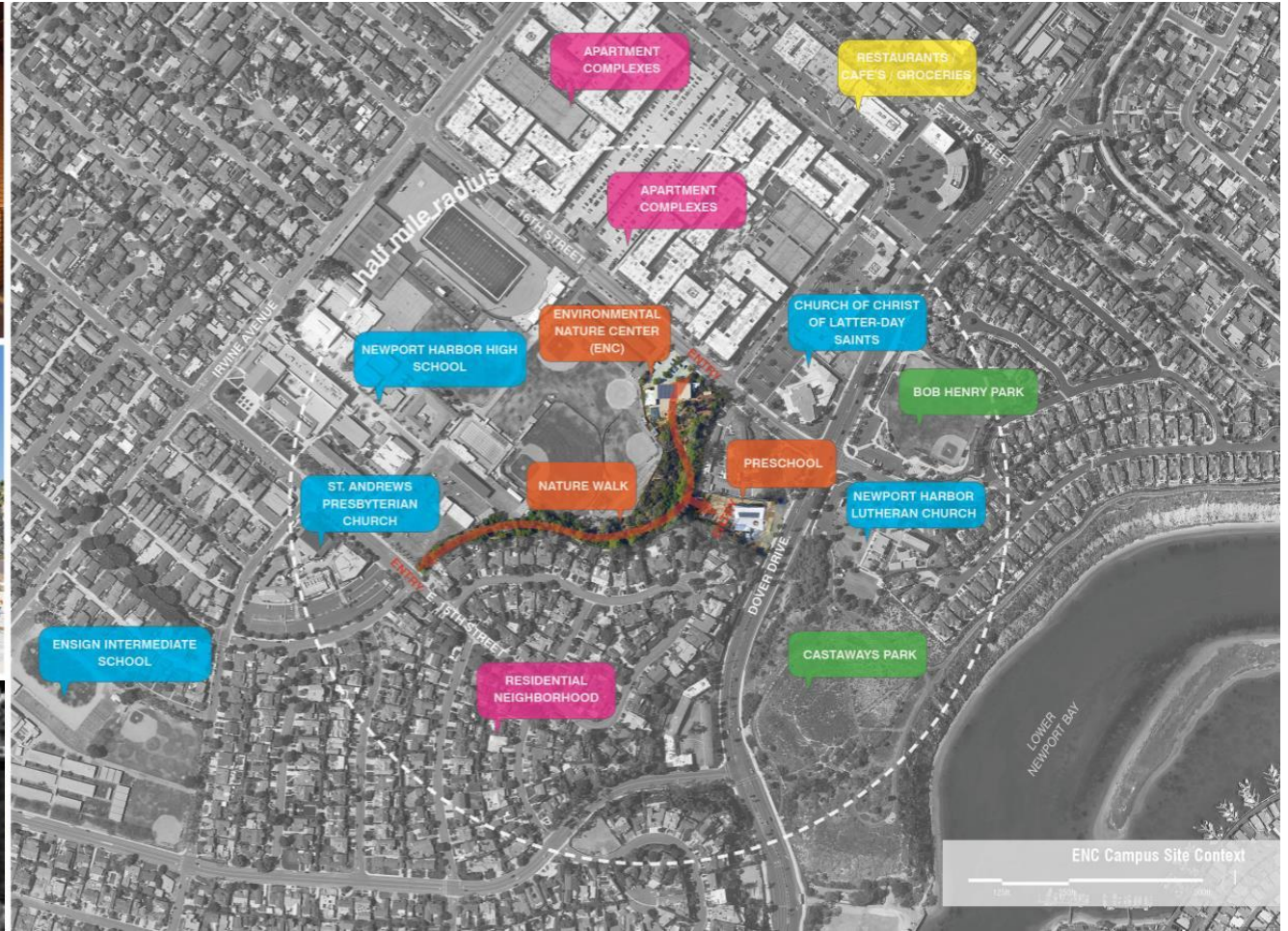
Daniel Duffy
Treasurer
Alaka'i O Kauai Charter



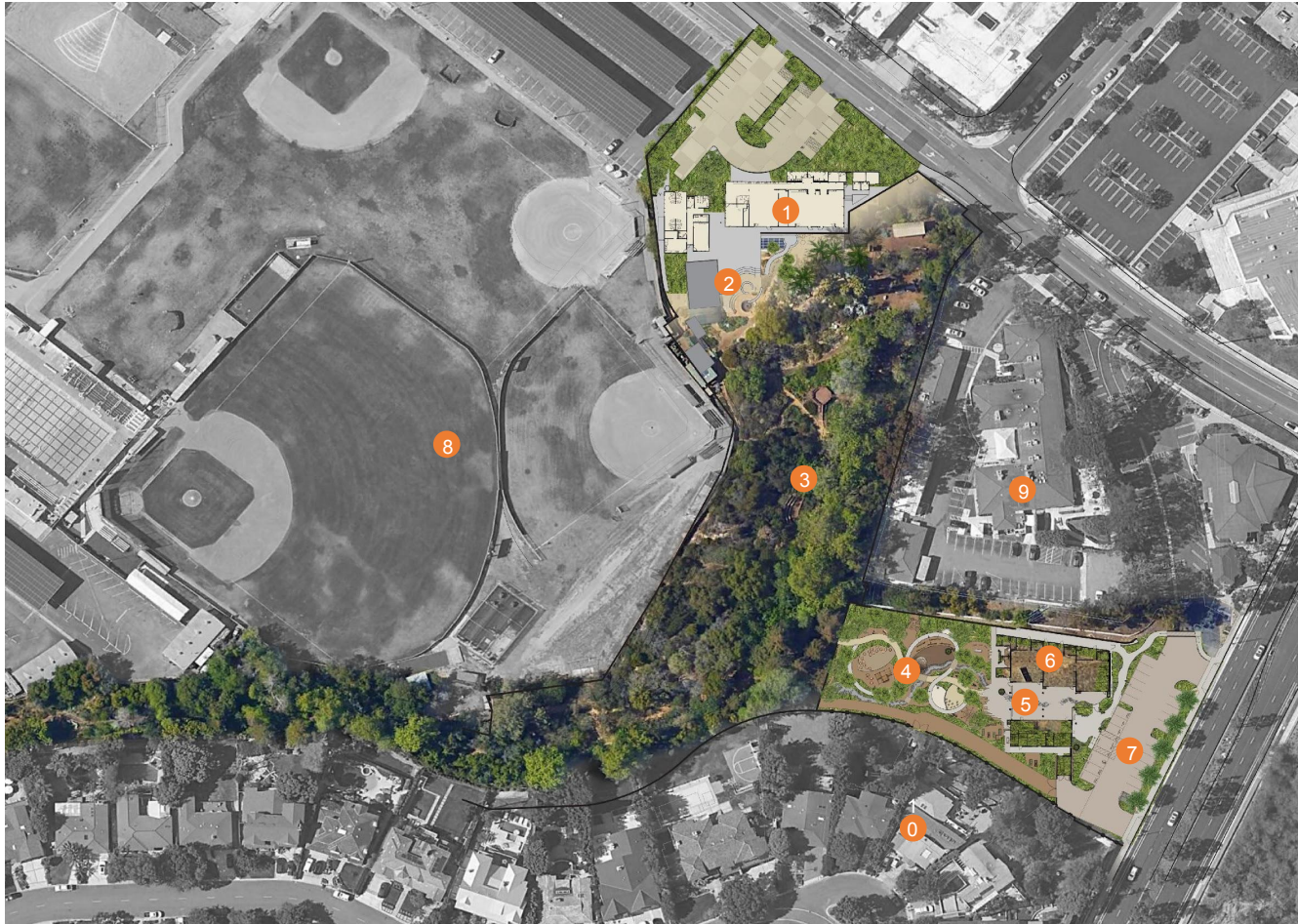
Jema Estrella
Director, Facilities and Construction
Los Angeles COE



The Environmental Nature Center Preschool



The Environmental Nature Center Preschool



- 1 Nature Center
- 2 Butterfly Garden and Fire Pit
- 3 Nature Trails
- 4 Preschool Play Area
- 5 Breezeway
- 6 Preschool Classrooms
- 7 Parking
- 8 Adjacent Commercial Property
- 9 Adjacent High School Property
- 10 Adjacent Residential Properties

The Environmental Nature Center Preschool

Benefits of nature-based outdoor play

Mental Health

- Improves self-confidence and self-esteem
- Reduces in stress, depression, and anxiety
- Improves ability to concentrate and focus
- Improves literacy
- Increases problem-solving and critical thinking skills
- Boosts brain development

Physical Health

- Helps develop good physical fitness
- Improves balance and co-ordination
- Helps build strong muscles, bones, and endurance
- Reduces risk of Type 2 diabetes
- Improves blood pressure

Social /Emotional Health

- Helps develop self-discipline
- Learn how to express themselves
- Helps children cope with emotional aspects of life
- Teaches socialization skills
- Develops empathy and inclusion
- Promotes a sense of community spirit



The Environmental Nature Center Preschool

GARDENING



CLIMBING



ART



RIDING



DIGGING



SLIDING





PERFORMING



MUSIC



 GROSS MOTOR SKILL DEVELOPMENT

  FINE MOTOR SKILL DEVELOPMENT



FUNCTIONAL
PLAY

- slides
- climbing areas
- tricycle track
- balancing elements
- obstacle course

CONSTRUCTIVE
PLAY

- water play
- interactive creek
- art easels / tables
- sand play
- building areas
- digging/gardening areas
- chalk zones

SYMBOLIC
/
FANTASY
PLAY

- playhouse / structure
- group play areas
- musical instruments

The Environmental Nature Center Preschool



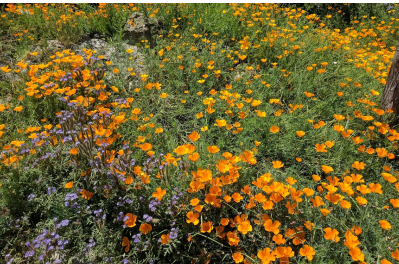
The Environmental Nature Center Preschool



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Alaka'i O Kaua'i Charter School



The Campus



Campus Life



3 Topics to Discuss Today



Project Based Learning



Social Emotional
Learning



Impact on learning in
nature and the
community

Project Based Learning

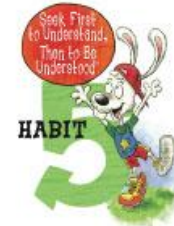
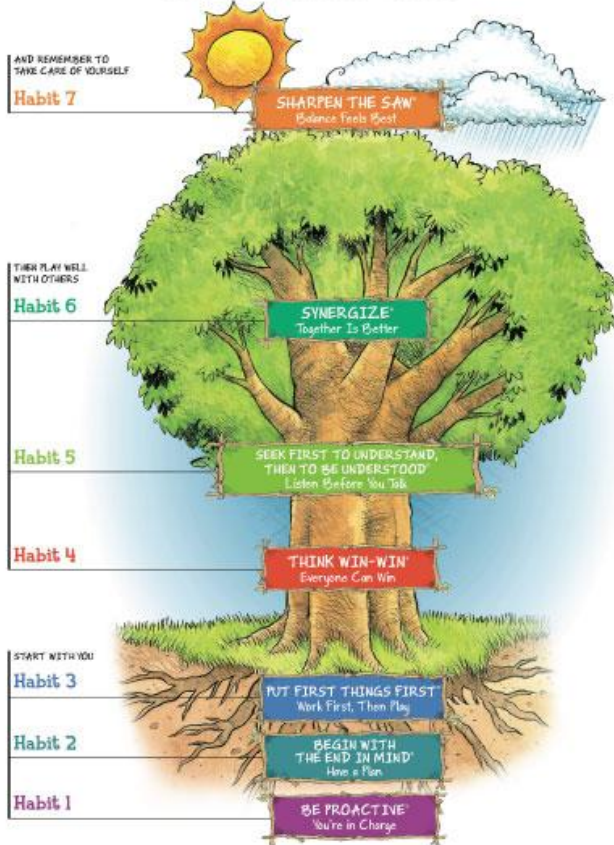


Project Based Learning



Social Emotional Learning

The 7 Habits Tree





Outdoor Learning and Play



Outdoor Learning and Play

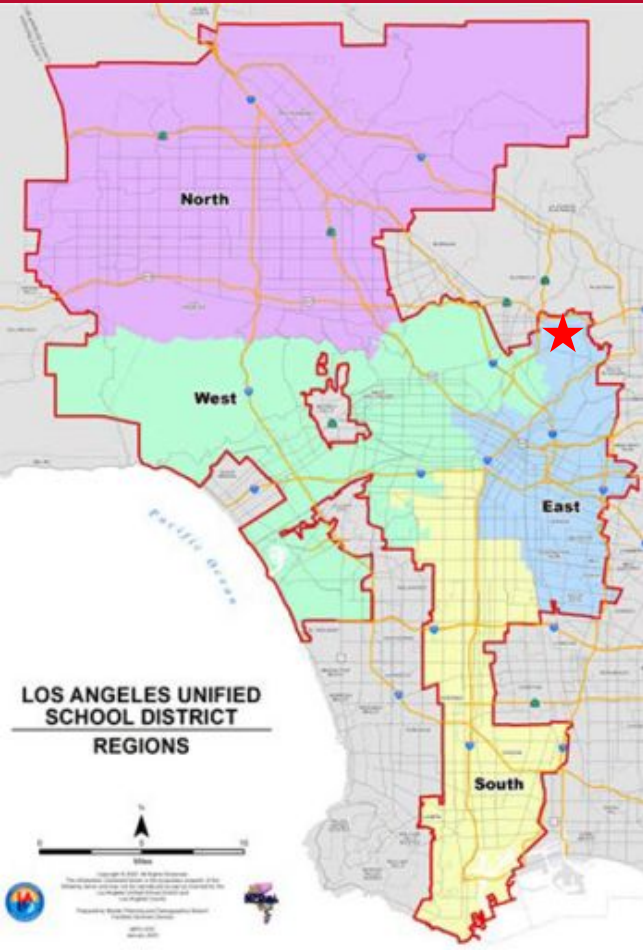




Impact

- Fastest improving public school in the State of Hawaii
- Approved to expand charter to add 7th and 8th grade
- 100+ Keiki waiting list
- Supporting students on 75% island
- Student led Kindness Awards
- No bullying at school

Eagle Rock Elementary School



Los Angeles County



LA Demographics

47.7% HISPANIC/LATINO

26.1% WHITE

15.4% ASIAN

9% AFRICAN-AMERICAN/BLACK

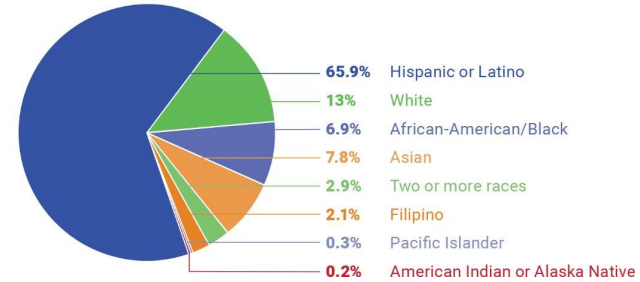
1.4% OTHER

1.4% AMERICAN INDIAN/ALASKA NATIVE

0.4% NATIVE HAWAIIAN/PACIFIC ISLANDER

Total K-12 Enrollment:

1.3 Million Students



80 K-12 School Districts

Largest:	LAUSD ◦ 565,479 ¹	Smallest:	GORMAN SD ◦ 59
	Students		Students
48 Unified	26 Elementary	5 High School	
2,185 Schools	373 Charters²	73,737¹ Teachers	

BEFORE



The Schoolyard Project

Project Scope & Features:

- 11,000 SF Grass Field
- 4,500 SF Learning Garden
- Play Area (mulch with log & stump seating)
- Outdoor Classroom
- 26 New Trees
- Solar Reflective Coating
- Native Habitat & Butterfly Gardens
- Edible Garden

\$350k Urban Greening Grant

Designed & Implemented in Partnership with Los Angeles Beautification Team (LABT), Studio MLA, and EnrichLA.



The Benefits

Nature Exposure

- Improved immune function
- Brain development
- ↓ stress & anxiety levels
- ↑ focus, attention, motivation
- ↓ ADHD symptoms
- ↓ asthma prevalence
- ↓ heart rate and blood pressure
- ↓ body temperature
- ↑ voluntary physical activity
- Environmental stewardship

Physical Activity

- Improved immune function
- Brain development
- ↓ stress and anxiety levels
- ↑ focus, attention, motivation
- Motor skill development
- Improved heart function
- Healthy bone development
- Improved physical fitness
- Healthy weight maintenance
- ↓ risk for Type 2 diabetes



MULTI-USE OUTDOOR LEARNING



BALANCE AND CLIMBING AREA



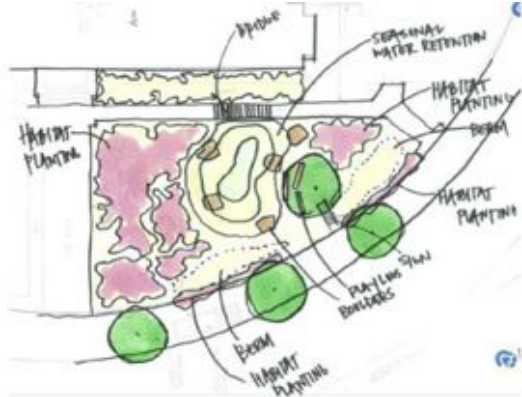
EDIBLE GARDEN



CONSTRUCTION AREA



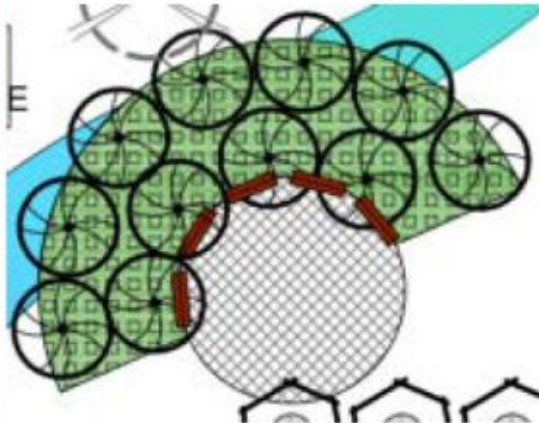
WILDLANDS



BIOSWALE



NATIVE HABITAT



FOREST



Edmund Barr



ZONES



OUTDOOR LEARNING



ZONES



GREATER SQUARE FOOTAGE DESIGNED FOR SPORT



LESS SQUARE FOOTAGE, VARIED SURFACES, PARK-LIKE



LESS SQUARE FOOTAGE, SMALLER LOGS, MINIMAL SPACING



GREATER SQUARE FOOTAGE



STORM WATER RETENTION



PERMEABLE SURFACES



VARIATION IN LOG SPACING

AFTER





Eagle Rock ES
(Photo Credit: Edmund Barr)



drops
Drought Response Outreach
Program for Schools


seeds

**NATURE
EXPLORE**



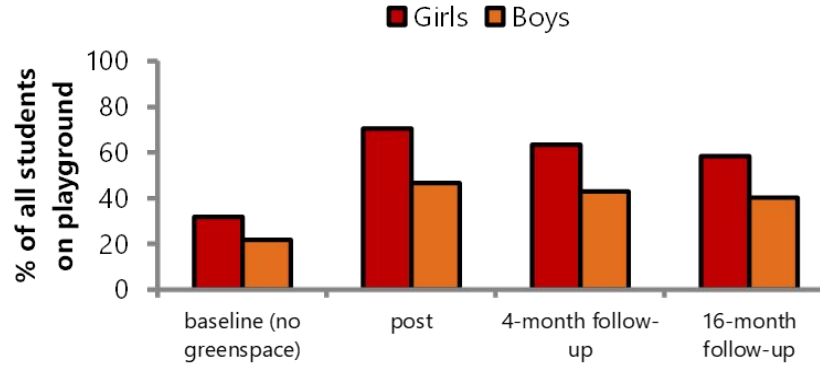
Partners



Research

Design Living Schoolyards to Optimize Healthy Recess Behaviors for All Students

Zone Preference



Raney, Hendry, Yee, *Am J Prev Med*, 2019;
Raney, Bowers, Rissberger, *J Phys Act Health*, 2021;
Raney, Daniel, Jack, *Landsc Urban Plan*, 2023.

Research

Design Living Schoolyards to Optimize Healthy Recess Behaviors for All Students

Play Behavior Assessment

Eliminated assigned play zones

Student's physical activity levels increased on the new green spaces compared to a control school

Play Zone Diversity & Separation

- Increase in # unique play zones
 - Increase in utilization of schoolyard
 - Decreased # sedentary students
 - Increased collaborative play/prosocial interactions
- Physical separation of play zones
- Decreased environmental noise
 - Decreased study anxiety
 - Increased sense of belonging/inclusion

Activity Preference

- Most popular activities were tag/chasing, gymnastics (handstands and cartwheels), climbing, jumping, and making up games
- Boys are more active than girls on sport-specific green space
- Physical and verbal conflicts decreased by half, and there was a significant increase in students spending time in small groups rather than alone.

Individual Activity Levels

- Girls spend just as much recess time active as boys when they play on green space
- No difference in time spent active by younger or older students if play spaces are divided and challenge motor skills

Discussion / Q+A



Thank you!



**Los Angeles County
Office of Education**

Thanks

Do you have any questions?

youremail@freepik.com

+91 620 421 838

[yourwebsite.com](#)



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