

An architectural rendering of a modern, open-air wooden structure nestled in a dense forest. The structure features a flat roof supported by numerous vertical wooden posts. The words "YOSEMITE" and "INSTITUTE" are inscribed on the horizontal beams of the roof. A group of diverse people, including a person in a wheelchair, are gathered under the structure, some sitting on benches and others standing. In the foreground, a paved path leads towards the building, with a person walking away from the viewer. The background is filled with tall, slender trees and a bright sky with soft clouds.

NATIONAL ENVIRONMENTAL SCIENCE CENTER

YOSEMITE NATIONAL PARK

SIEGEL & STRAIN Architects |

AL. FORSTER

WHY

The National Environmental Science Center will inspire our next generation of environmental stewards

Here, these young stewards will learn about:

- › **A sense of place:** Students learn about the natural and cultural features of the parks to develop an awareness of this special place, and an understanding of human interactions with the environment.
- › **Interconnections:** Students learn that all physical and cultural aspects of places are interrelated—change in any one part of a region or system also impacts other components.
- › **Stewardship:** Students learn to identify the need for humans to take responsibility for their actions and are inspired to care for their environment and their communities.



WHERE

The National Environmental Science Center is located in Yosemite National Park, a World Heritage Site

Yosemite inspires wonder and awe; it is an exceptional place to connect students to the natural world, to better understand how humans affect nature, and to learn how to be stewards of this and other places.

Siegel & Strain Architects designed the camp to reflect the natural conditions and to inspire students by connecting to this special setting, to the cultural tradition of rustic park design, and to the educational mission of environmental stewardship.



Many voices, one vision

Dozens of people contributed their time, expertise and dedication to the National Environmental Science Center design process. Siegel & Strain skillfully facilitated these stakeholder groups through the design and decision making process. Every decision was made on time, and the project was delivered on schedule.

This process started with comprehensive information gathering and careful listening and ended with a forum for stakeholders to hear one another, discuss the pros and cons of design choices, and make decisions. Siegel & Strain developed design solutions that balanced the needs and concerns of all constituents and resulted in beautiful, consensus-driven design.

STAKEHOLDERS

NatureBridge

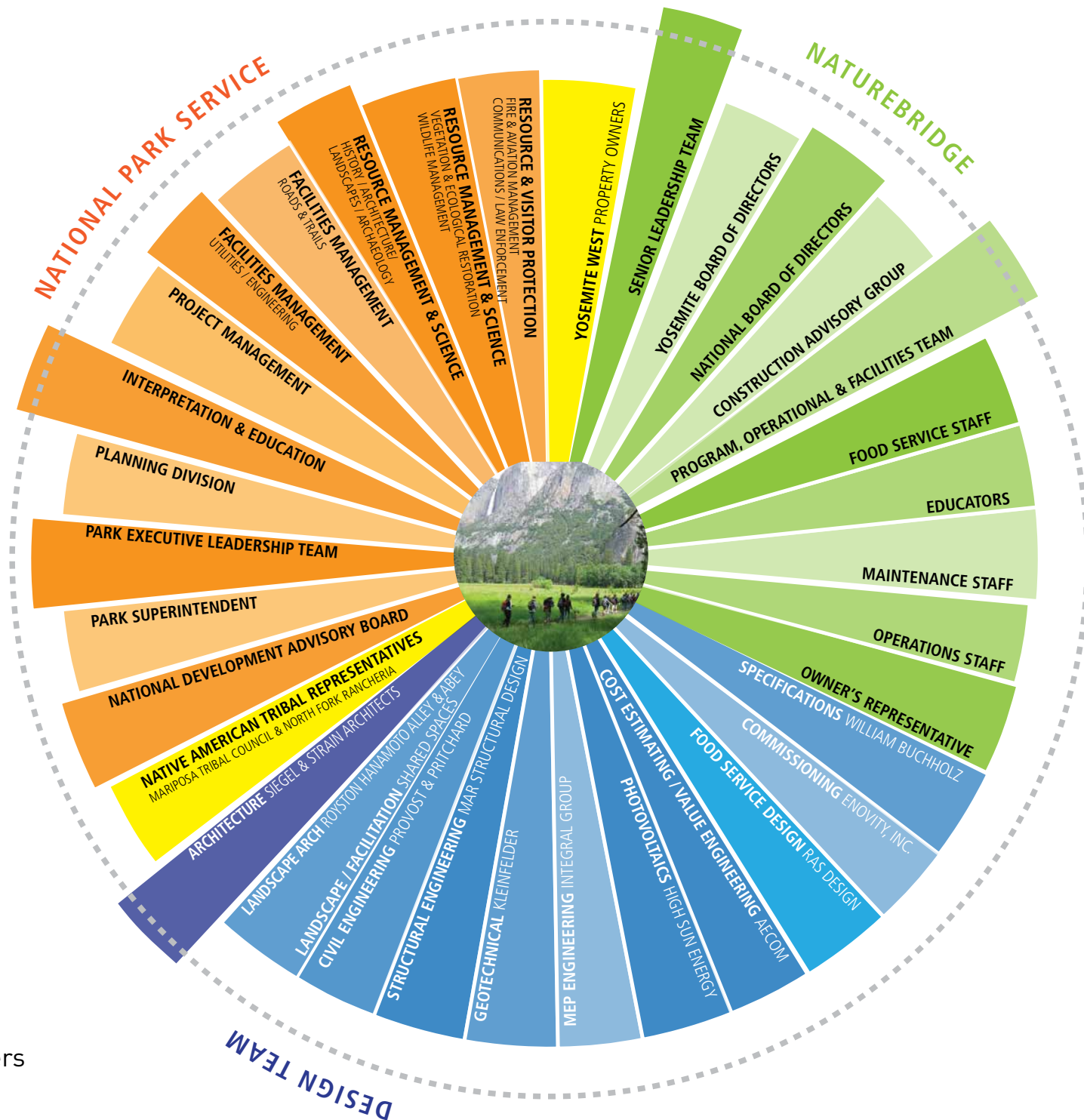
- › Senior Leadership Team
- › Yosemite Board of Directors
- › National Board of Directors
- › Construction Advisory Group
- › Program, Operational & Facilities Team
- › Food Service Staff
- › Educators
- › Maintenance Staff
- › Operations Staff
- › Owner's Representative

National Park Service

- › National Development Advisory Board
- › Park Superintendent
- › Park Executive Leadership Team
- › Planning Division
- › Interpretation & Education
- › Project Management
- › Facilities Management
- › Resource Management & Science
- › Resource & Visitor Protection

Native American Tribal Representatives

Yosemite West Property Owners



HOW

What is time in an iconic park?

It took millennia to make the glacial landscape of Yosemite; it takes decades to realize projects in the Park. Facilitating a partnership project takes vision, collaboration, persistence and **time**. It takes balancing design goals and vision with regulations and practical concerns. It takes strategic planning and constant facilitation every step of the way.

Siegel & Strain has facilitated this process and led the design team over ten years of planning and implementation. We have upheld the vision established in 2008 through design, detailing, value engineering, phasing, and construction to deliver a project that is truly sustainable, educational and visionary.

2008

ESTABLISHING THE VISION

- Vision & Programming
- Sustainability Goals
- Site Survey & Investigation
- Site Analysis
- Site Selection (CBA Workshop)
- Site Master Plan: Henness Ridge
- Conceptual Building Design



2009

RESPONDING TO THE NEED

- Program Refinement
- SCHEMATIC DESIGN
- Value Analysis Workshop
- Identify sustainable strategies
- Identify structural and building systems
- DESIGN DEVELOPMENT
- Development Advisory Board Approval
- Record of Decision for Environmental Impact Statement



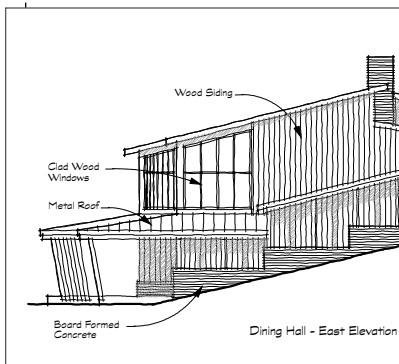
2010-12

FINALIZING THE DETAILS

- Value engineering
- Finalize systems
- Finalize materials
- Finalize details
- CONSTRUCTION DOCUMENTS

RAISING THE FUNDS

- Fundraising efforts and events



2013-14

BREAKING GROUND

- Water system installed by NPS
- Grading and site utilities constructed



2015-18

MAKING IT REAL

- Phase I Construction
- Temporary Dining Hall and Maintenance Building Constructed
- Bath House Constructed
- Two Cabins Constructed
- Ribbon Cutting & Dedication



WHAT

Shaped by the land

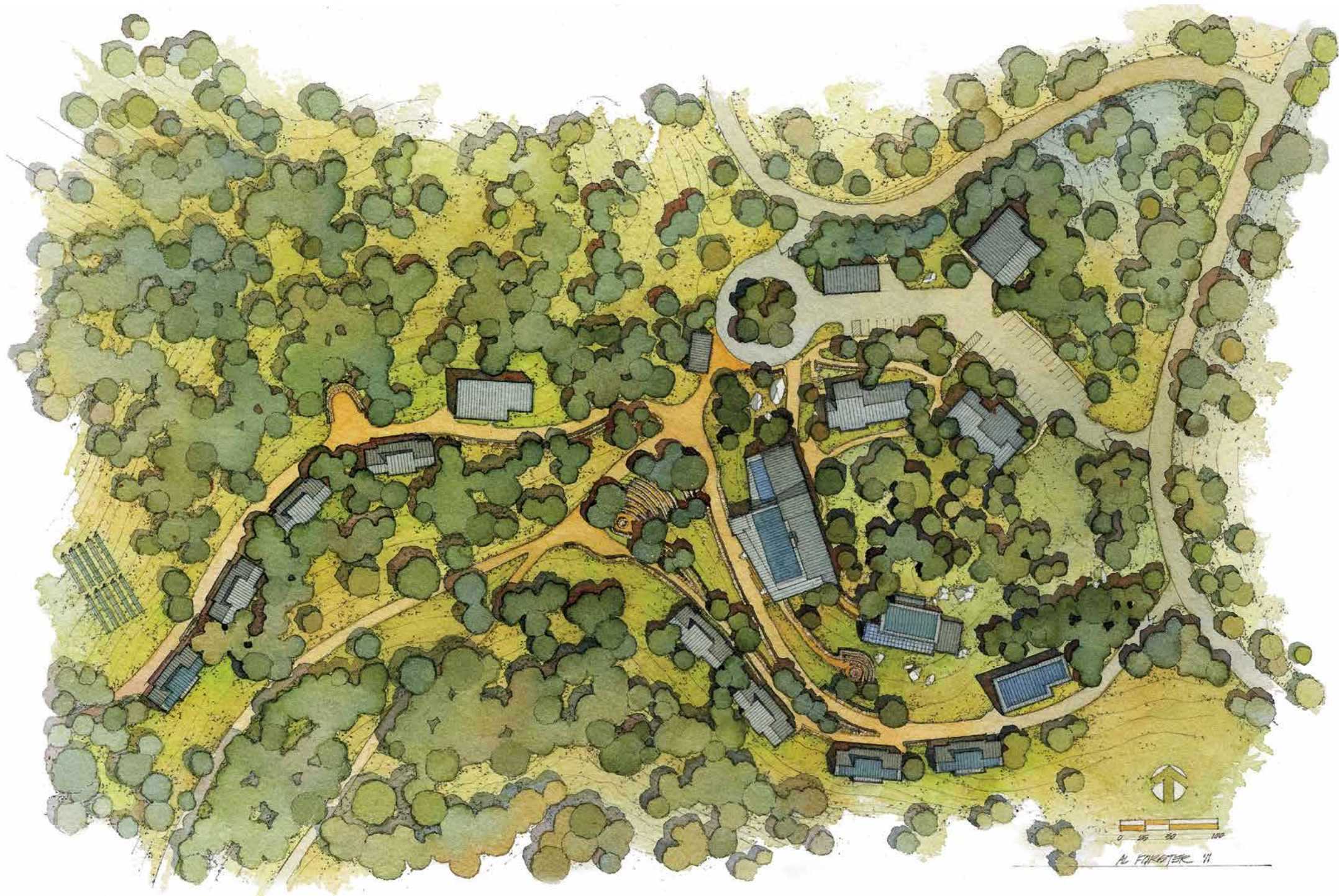
Unique landscape makes for unique design. Siegel & Strain designed the science center to connect to the landscape by working with and around the steep topography, mature trees and massive boulders; by capturing views of the distant landscape and the nearby site features; and by designing rustic structures that resonate with the natural setting. Even the largest structure, the dining hall, settles deftly into the site.



WHAT

Camp, not campus

This is not school. Siegel & Strain designed the National Environmental Science Center to be a place where a kid is never surrounded by buildings, never sitting in a quad. Rather, the buildings are set along natural contours, curving along grade to allow each building to face outward toward the natural environment and away from the built environment. Each building is carefully sited along the hillside to look out to a view, to sit lightly and naturally on the land, and to minimize grading.



16 FEBRUARY '11

WHAT

Built for immersive learning

Kids learn every moment. Siegel & Strain developed formal and informal learning opportunities throughout the camp that foster environmental literacy using visible and interactive sustainable design strategies. Students will learn from the different types of photovoltaic panels, the materials that are local and renewable, and from interactive monitoring systems for grey water harvesting and renewable energy. Stories are embedded in focal points, like the stone fireplace that incorporates a classification of rocks that represents Yosemite's geologic history.



WHAT

Access for all

Stewardship includes equity. Siegel & Strain designed the National Environmental Science Center to be universally enjoyed by people of all abilities. Period. The entire steeply sloping site is accessible on grade, so that all students and chaperones can travel from one place to another unaided. Every bunk room is accessible so there is never a need to provide special accommodation. The site connects to numerous accessible trails and outdoor opportunities.



WHAT

Taking stewardship home

Kids are natural ambassadors. The National Environmental Science Center features replicable green building technologies that students use while at camp and are ideas that they can take back to their schools and homes. Siegel & Strain incorporated accessible design strategies and technologies that save water and energy, track resource use, use materials wisely, and are easy to maintain. All of the strategies and systems are designed to be visible and teachable so that students can take these lessons home.





PHOTOGRAPHS COURTESY OF NATUREBRIDGE

DESIGN TEAM

Architecture	Siegel & Strain Architects
Civil Engineering	Provost & Pritchard Engineering Group
Landscape Architecture	Royston, Hanamoto, Alley & Abey
Landscape Architecture / Facilitation	Steve Rasmussen Cancian
Geotechnical / Hazardous Materials	Kleinfelder
Structural Engineering	Mar Structural Design
MEP Engineering	Integral Group
Photovoltaics	High Sun Energy
Food Service	RAS Design
Commissioning	Enovity, Inc.
Cost Estimating / Value Engineering	AECOM
Specifications	William Buchholz
Acoustics	Wilson Ihrig & Associates
Renderings	Al Forster

SIEGEL & STRAIN ARCHITECTS

Our practice is guided by five principles: that great places are made when buildings are tied to their sites and tuned to their climate; that good stewardship is both a human and architectural imperative; that beauty and sustainability are inseparable; that simple, well-crafted design has staying power; and that close collaborations result in better buildings and communities.

CONTACT INFORMATION

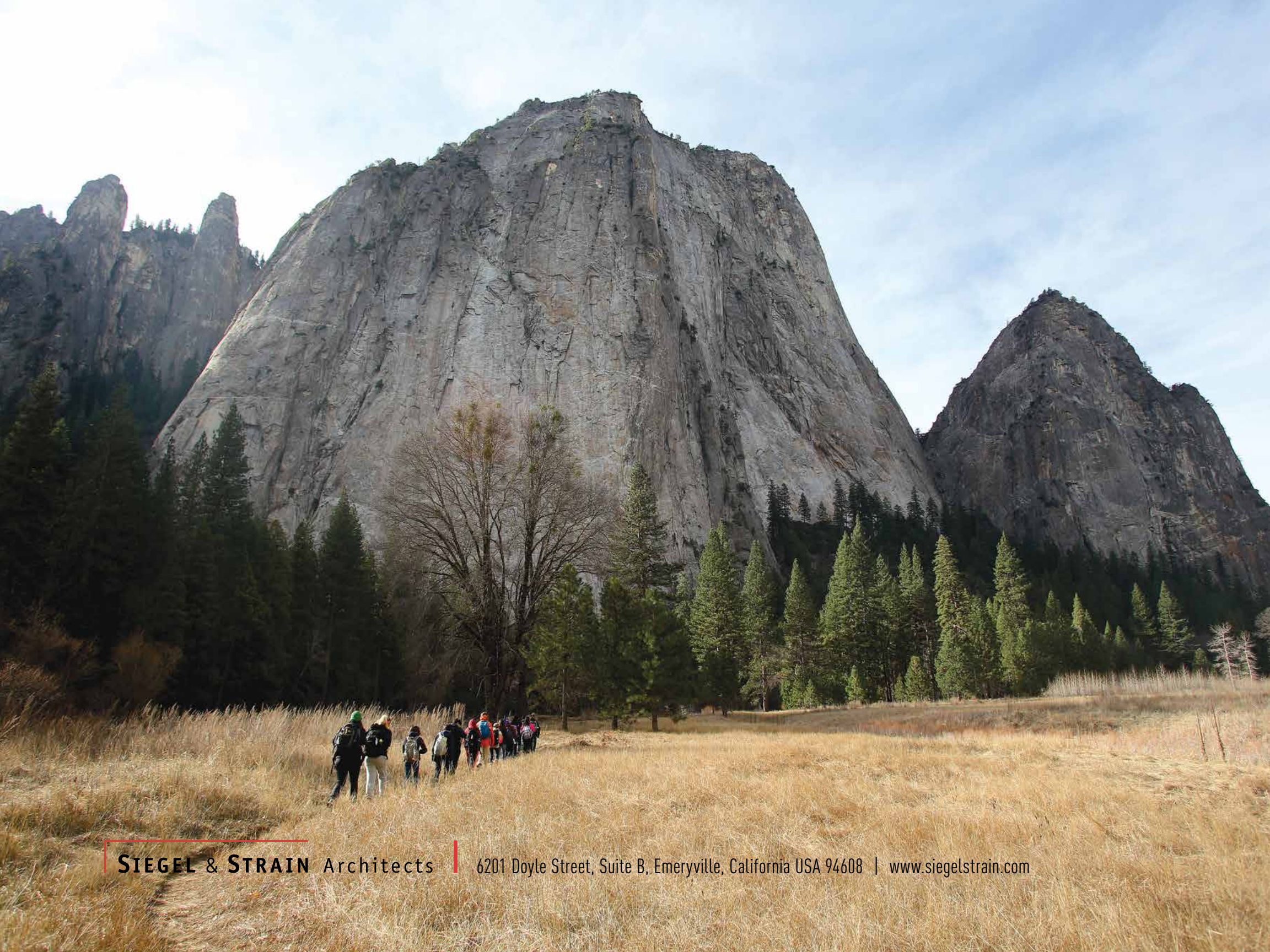
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The National Environmental Education Center is NatureBridge's flagship "campus." NatureBridge fosters environmental literacy to sustain our planet. Through hands-on environmental science programs in nature's classroom, NatureBridge brings science to life for more than 30,000 children and teens each year. With their vision for a more sustainable planet, they advocate for effective environmental education in our schools to create pathways to environmental literacy for all young people.



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