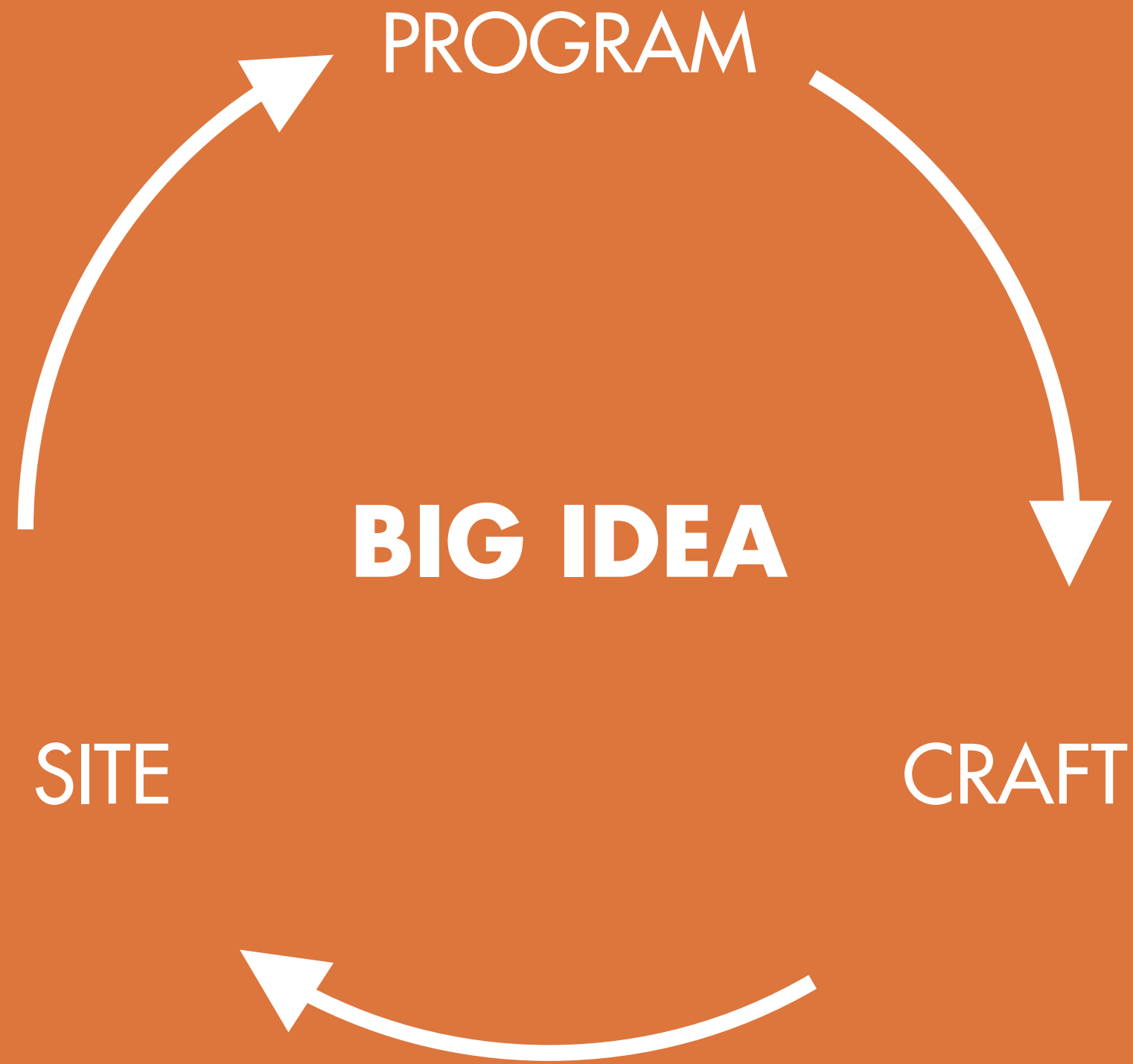
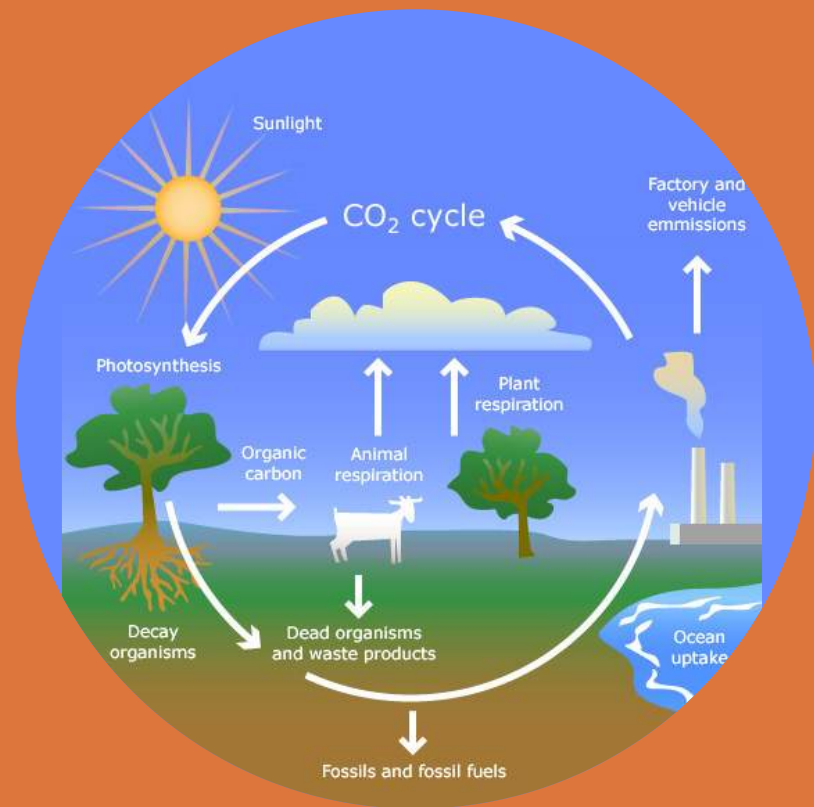


William S. Schmidt Outdoor Environmental Education Center

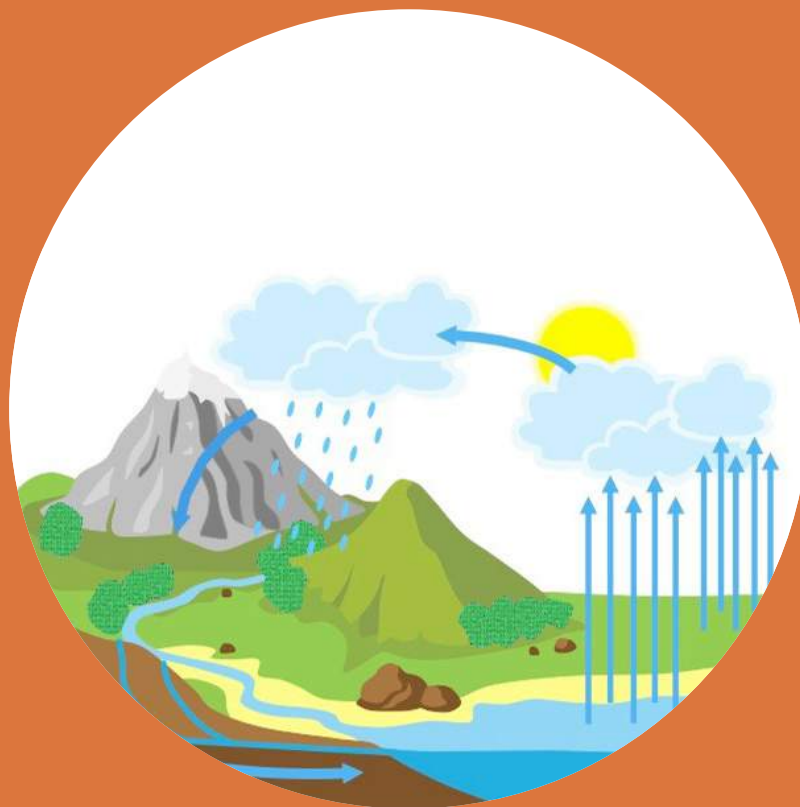
February 5, 2019



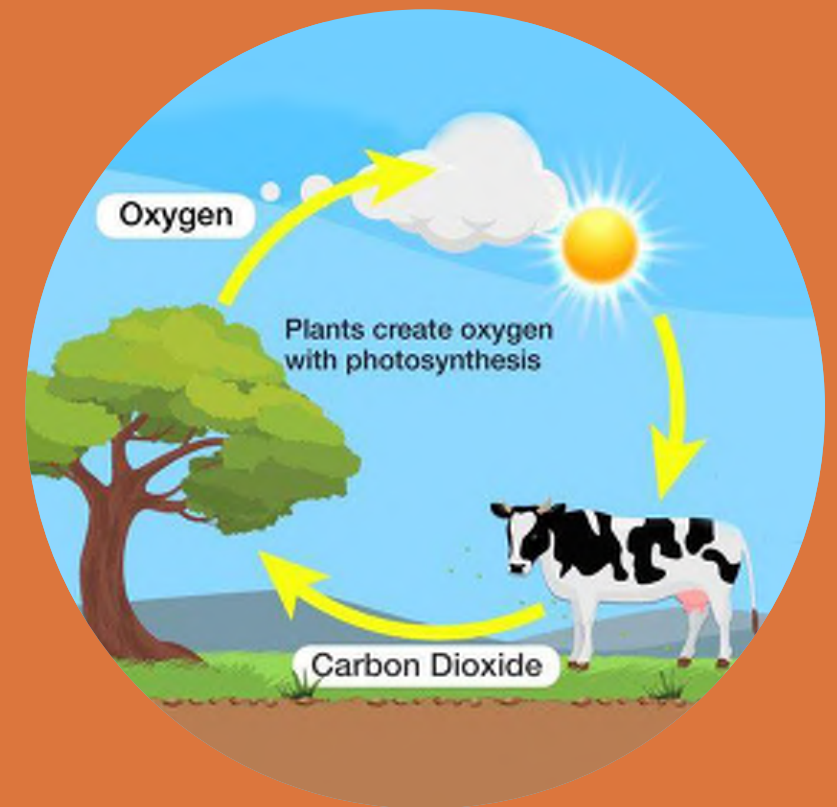
WHAT SHOULD BE THE TIMELESS TAKEAWAY FROM
OUTDOOR ENVIRONMENTAL EDUCATION?



CARBON



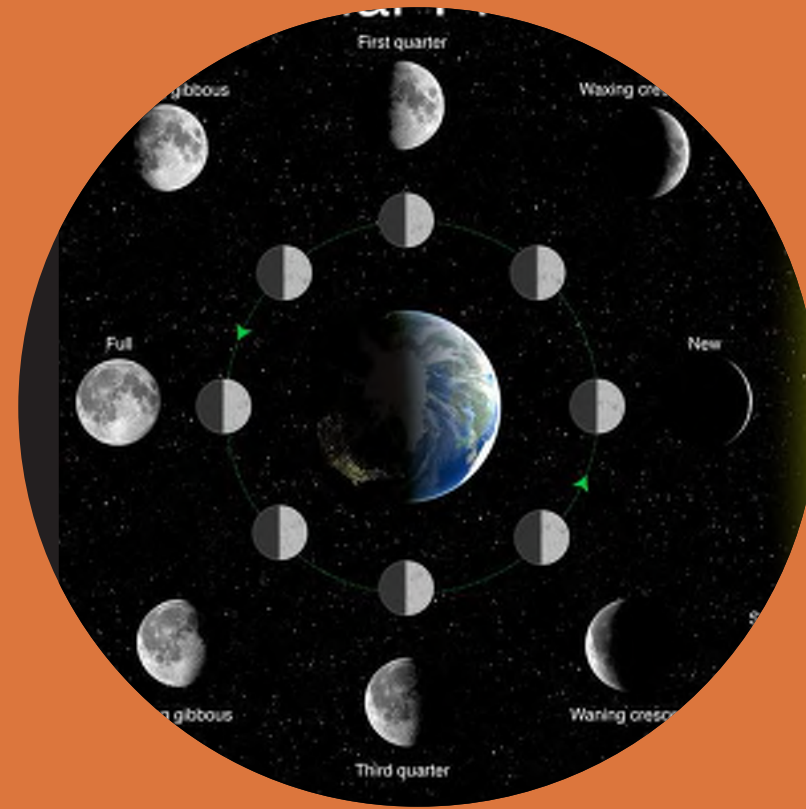
WATER



OXYGEN



SEASONAL



LUNAR



SOLAR SYSTEM

KEY

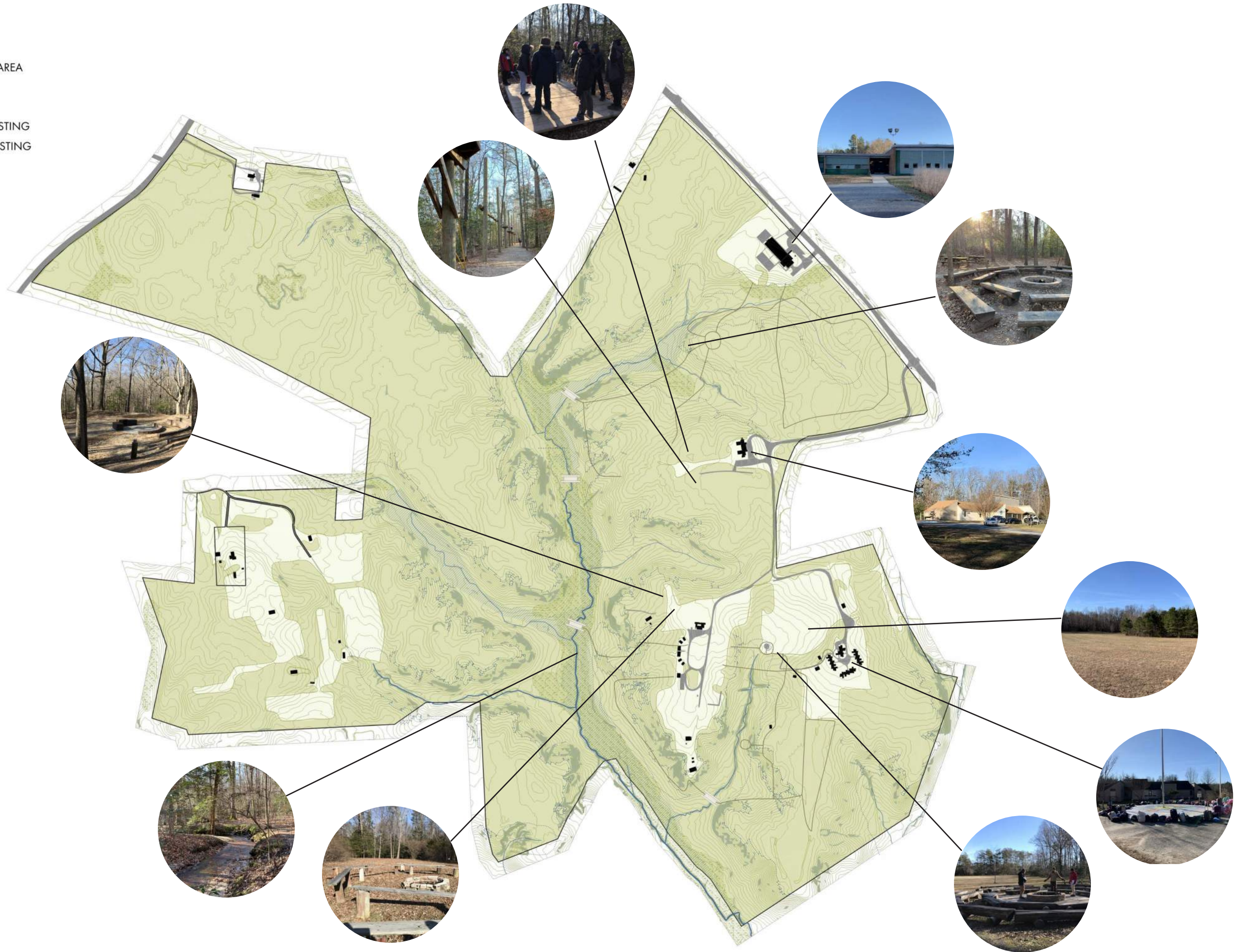
- CONTOURS - 2'
- PRIMARY MANAGEMENT AREA
- TRAILS: EXISTING
- BRIDGES: EXISTING
- BUILDING FOOTPRINT: EXISTING
- IMPERVIOUS SURFACE: EXISTING
- FLOODPLAIN
- WETLAND
- STEEP SLOPES >15%
- FOREST AREA



SITE - EXISTING

KEY

- CONTOURS - 2'
- PRIMARY MANAGEMENT AREA
- TRAILS: EXISTING
- BRIDGES: EXISTING
- BUILDING FOOTPRINT: EXISTING
- IMPERVIOUS SURFACE: EXISTING
- FLOODPLAIN
- WETLAND
- STEEP SLOPES >15%
- FOREST AREA





KEY

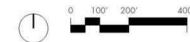
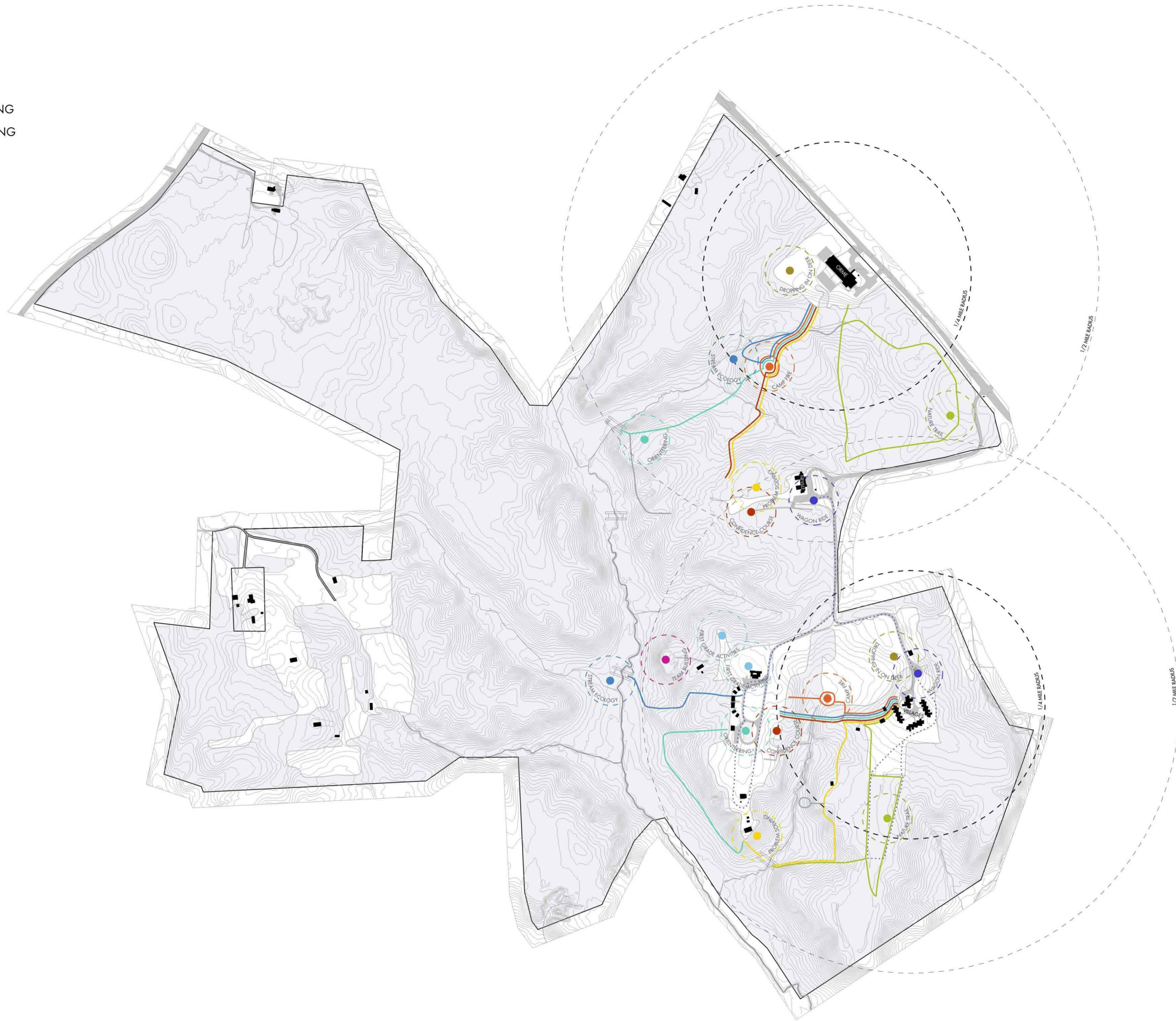
- - CONTOURS - 2'
- - TRAILS - EXISTING
-  - BRIDGES: EXISTING
-  - BUILDING FOOTPRINT: EXISTING
-  - IMPERVIOUS SURFACE: EXISTING
-  - FOREST AREA

FIFTH GRADE PROGRAM

-  - NATURE HIKE
-  - DROPPING IN ON DEER
-  - ORIENTEERING
-  - CAMPFIRE
-  - STREAM ECOLOGY
-  - PROBLEM SOLVING
-  - CONFIDENCE COURSE
-  - WAGON RIDE

OTHER PROGRAMS

-  - FIRST GRADE DAY TRIP
-  - TEAM BUILDING



KEY

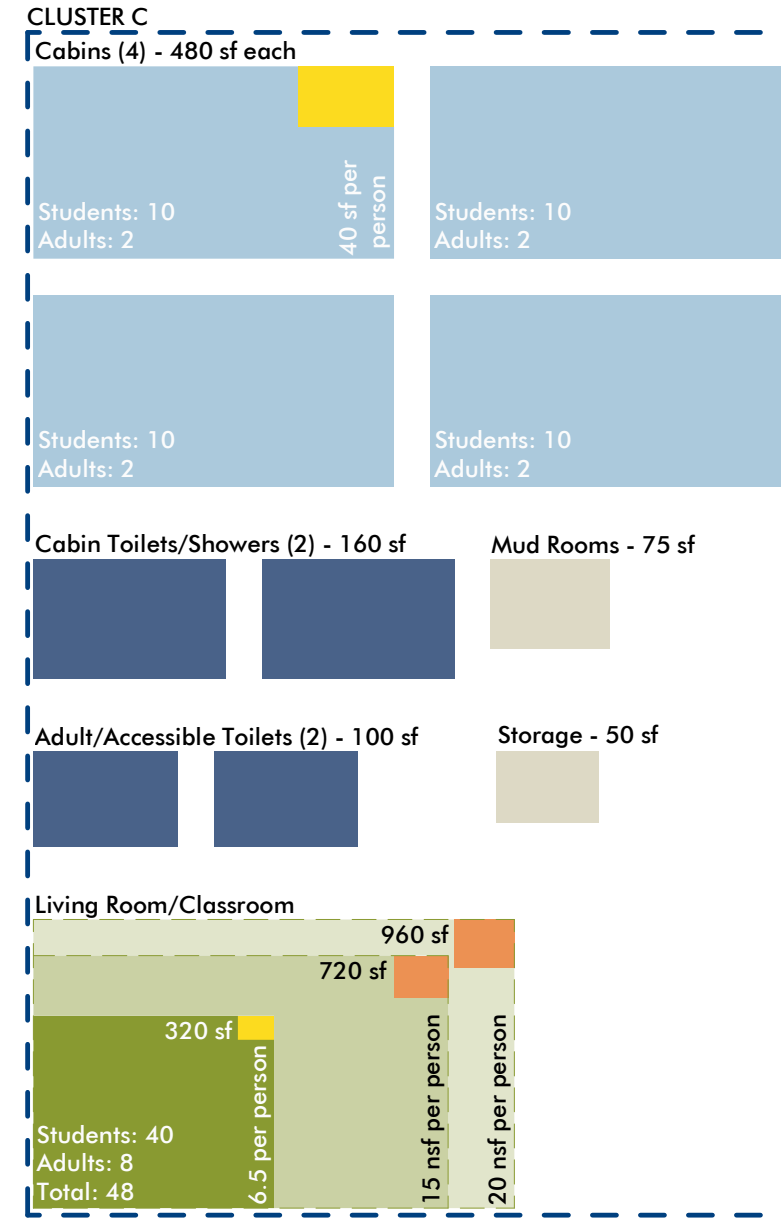
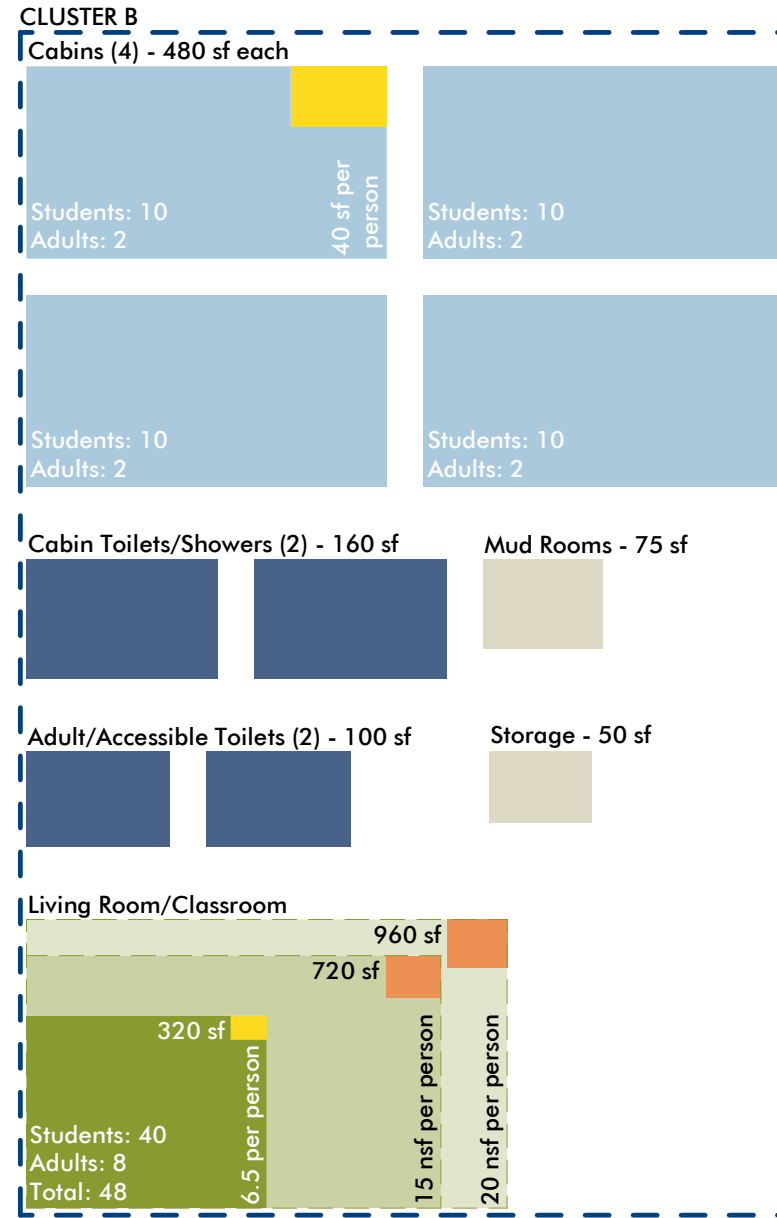
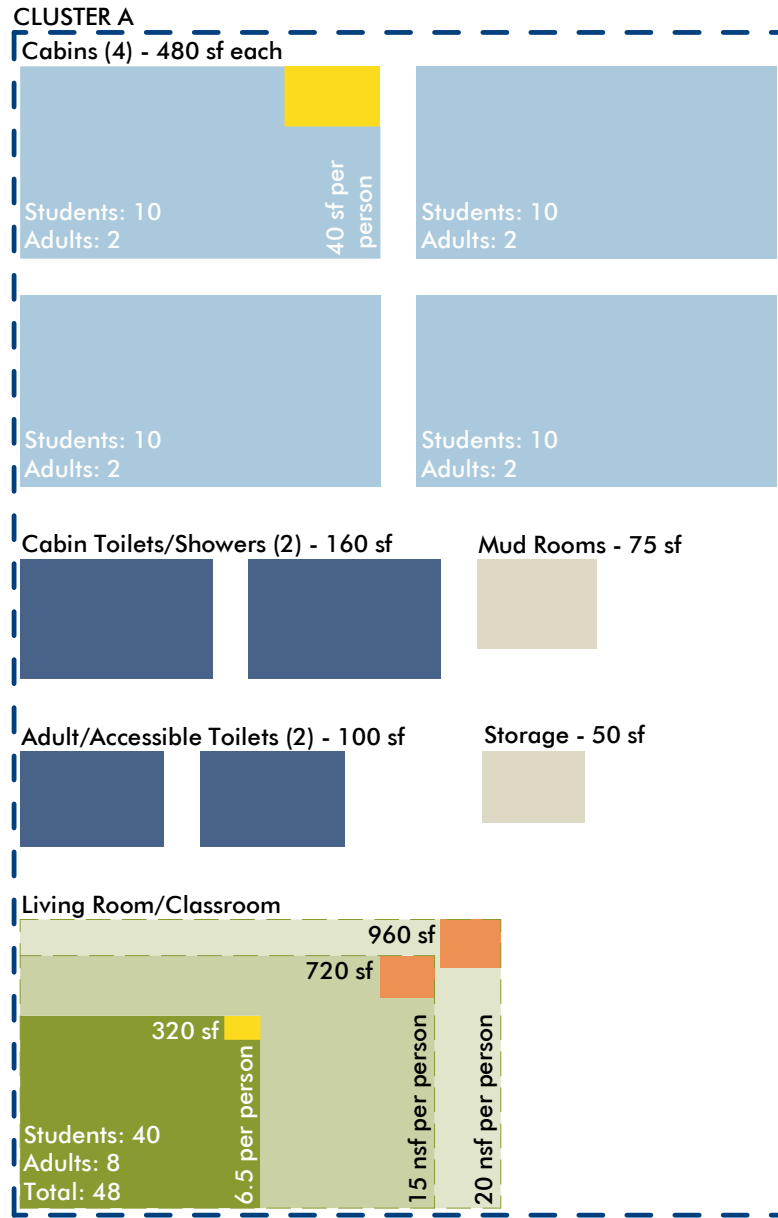
- CONTOURS - 2'
- PRIMARY MANAGEMENT AREA
- TRAILS: PROPOSED
- TRAILS - EXISTING
- BRIDGES: PROPOSED
- BRIDGES: EXISTING
- BUILDING FOOTPRINT: PROPOSED
- BUILDING FOOTPRINT: EXISTING
- IMPERVIOUS SURFACE: PROPOSED
- IMPERVIOUS SURFACE: EXISTING
- FLOODPLAIN
- WETLAND
- STEEP SLOPES (>15%)
- FOREST AREA



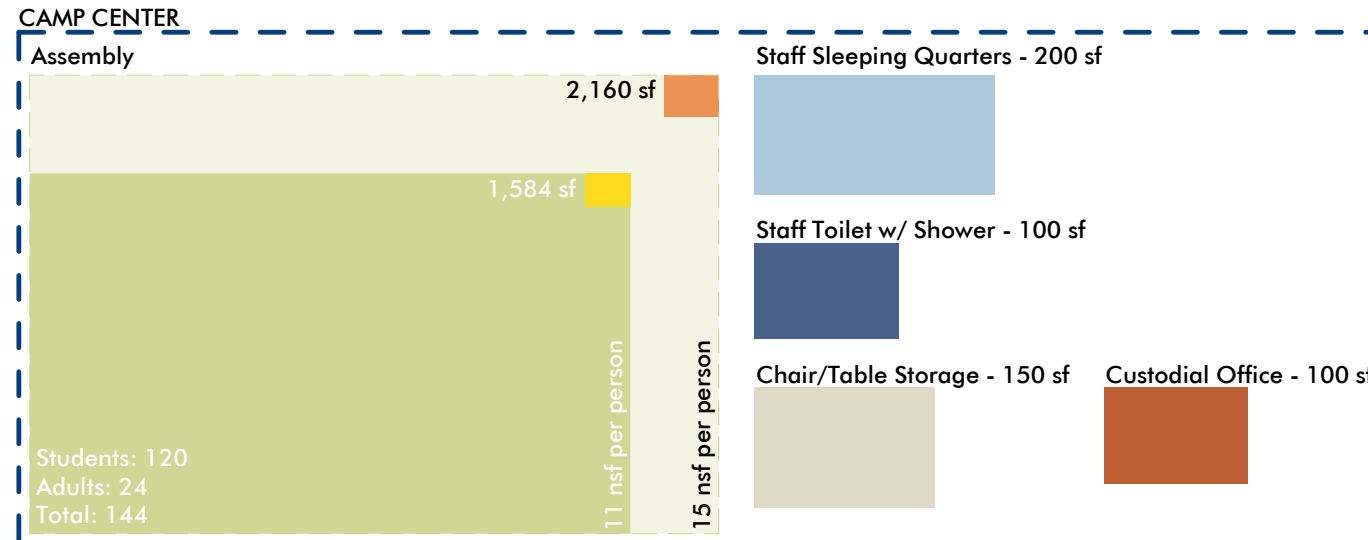
SITE - OPTION 1A

VILLAGES

VILLAGES 1 - MODIFICATIONS PER CODE REQUIREMENTS

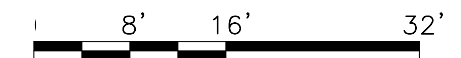


Students: 120, Adults: 24, Total: 144



KEY

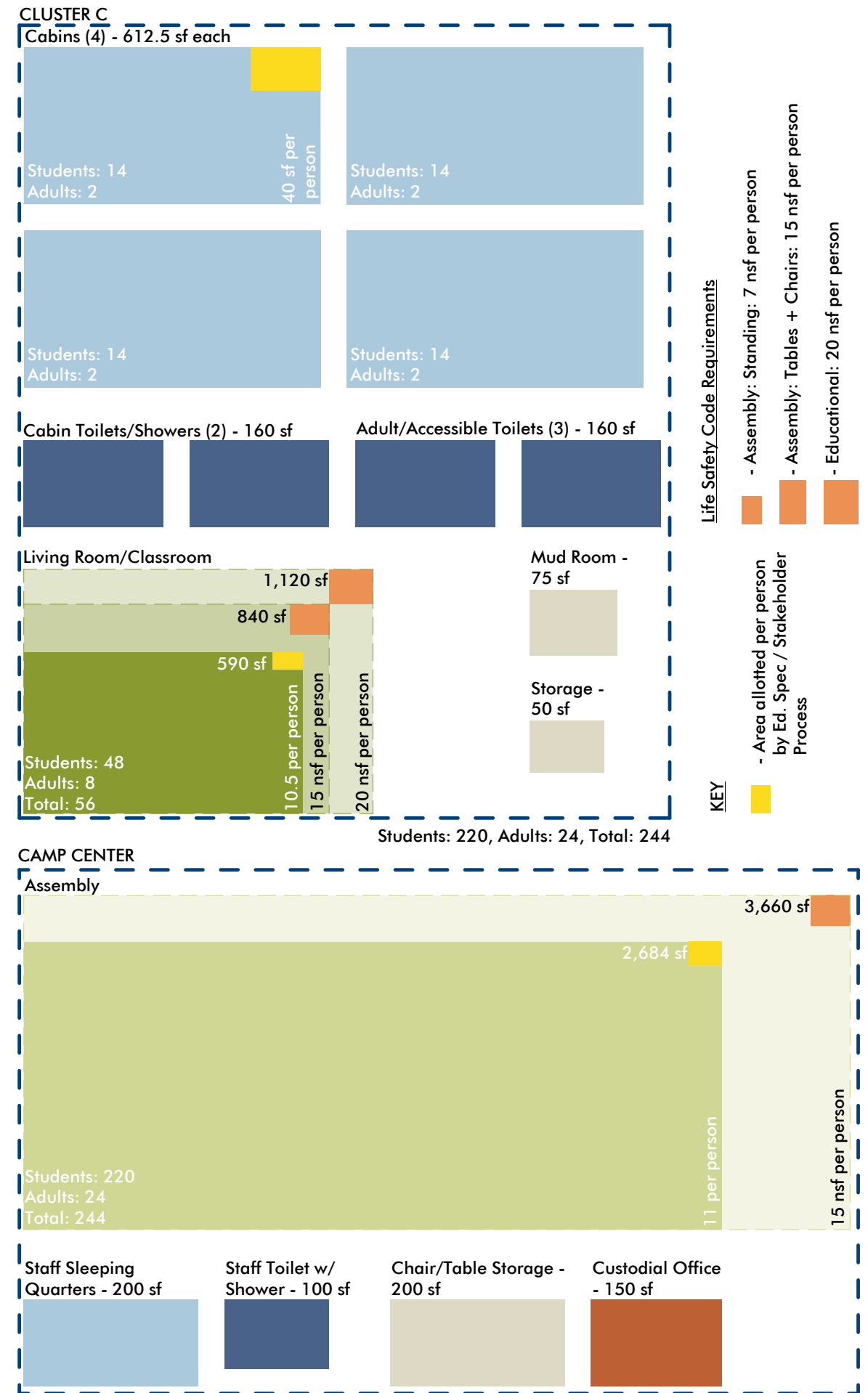
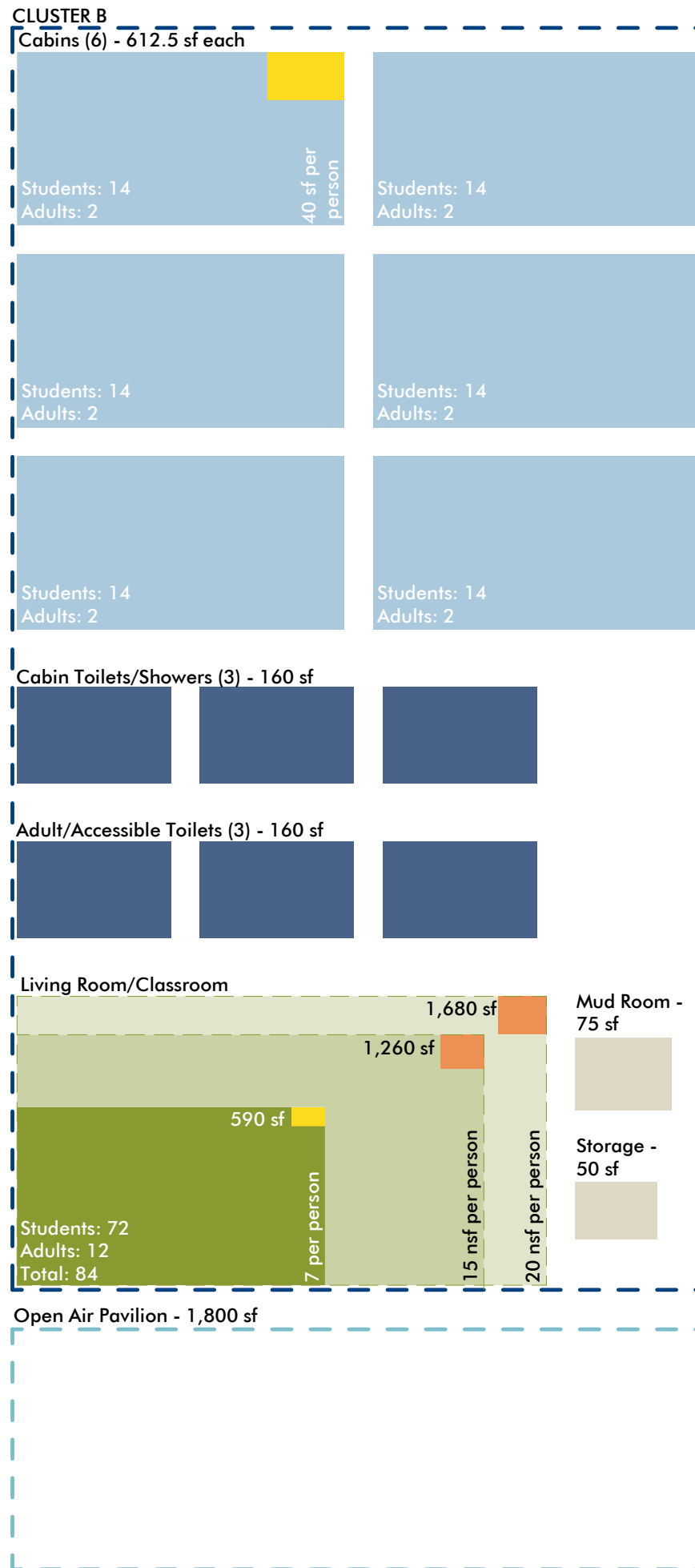
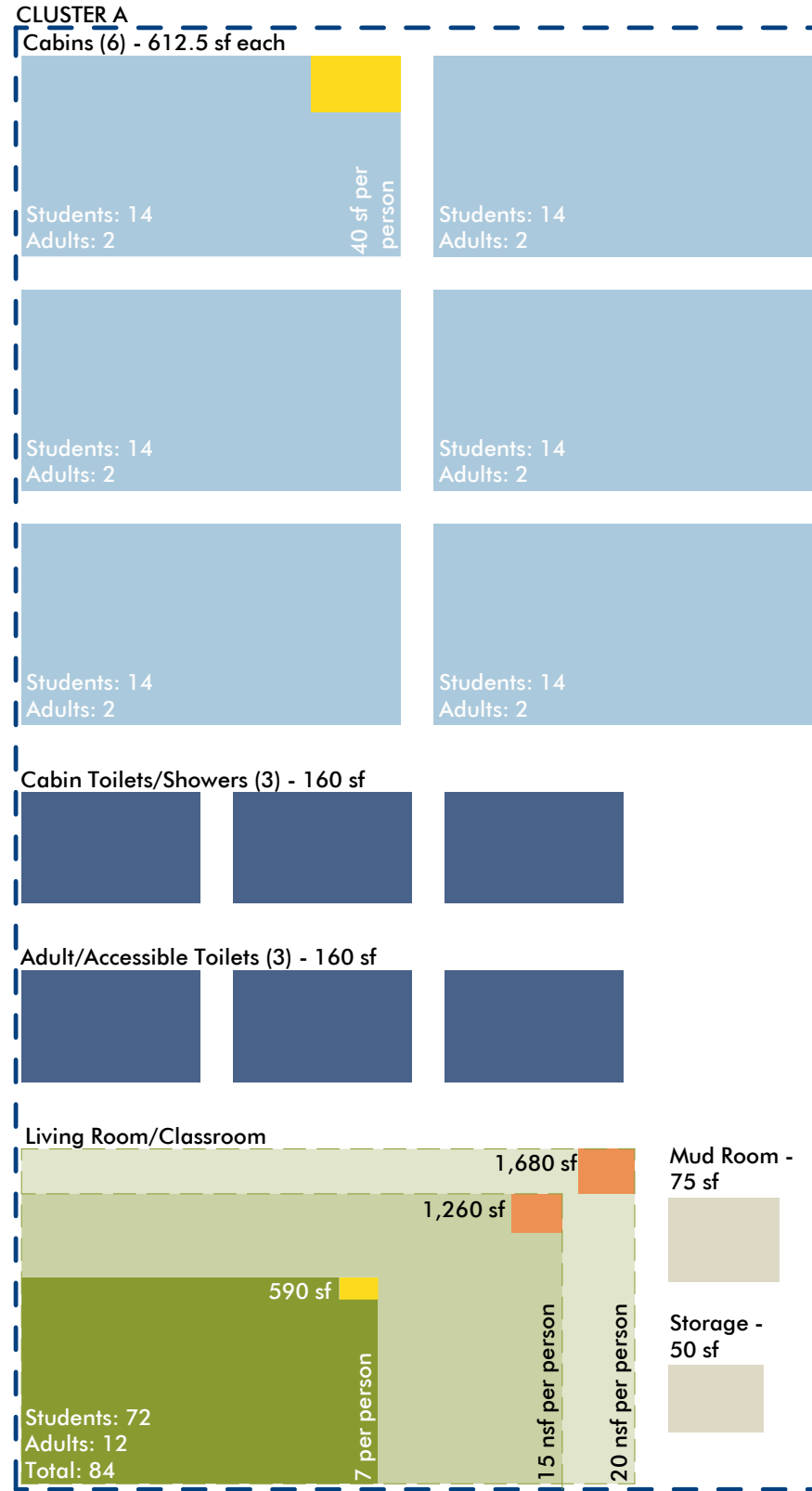
- Area allotted per person by Ed. Spec / Stakeholder Process
- Life Safety Code Requirements**
- Assembly: Standing: 7 nsf per person
- Assembly: Tables + Chairs: 15 nsf per person
- Educational: 20 nsf per person



SUBTOTAL -

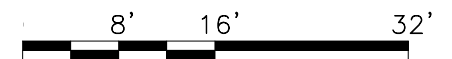
13,285 sf
+ Pavilion (2,912 sf) = 16,197 sf

VILLAGES 2 - MODIFICATIONS PER CODE REQUIREMENTS



- Life Safety Code Requirements**
- Assembly: Standing: 7 nsf per person
 - Assembly: Tables + Chairs: 15 nsf per person
 - Educational: 20 nsf per person
- KEY**
- Area allotted per person by Ed. Spec / Stakeholder Process

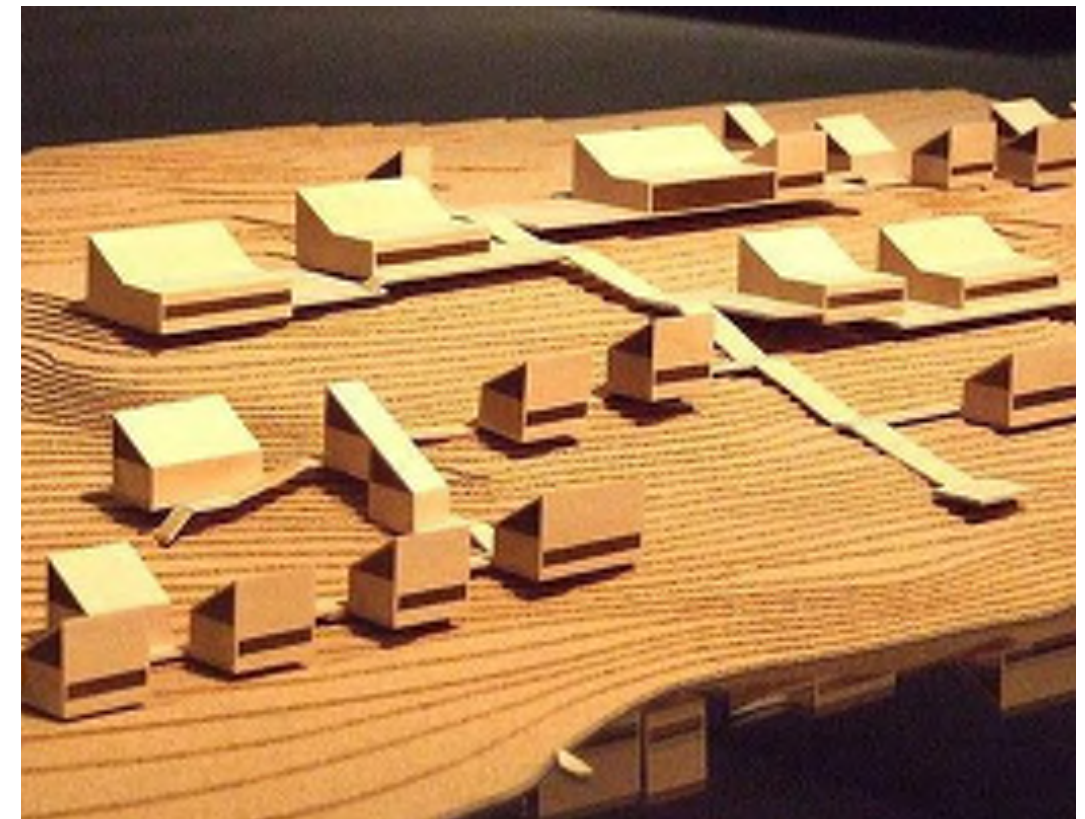
SUBTOTAL -
21,925 sf
+ Pavilion (1,800 sf) = 23,725 sf



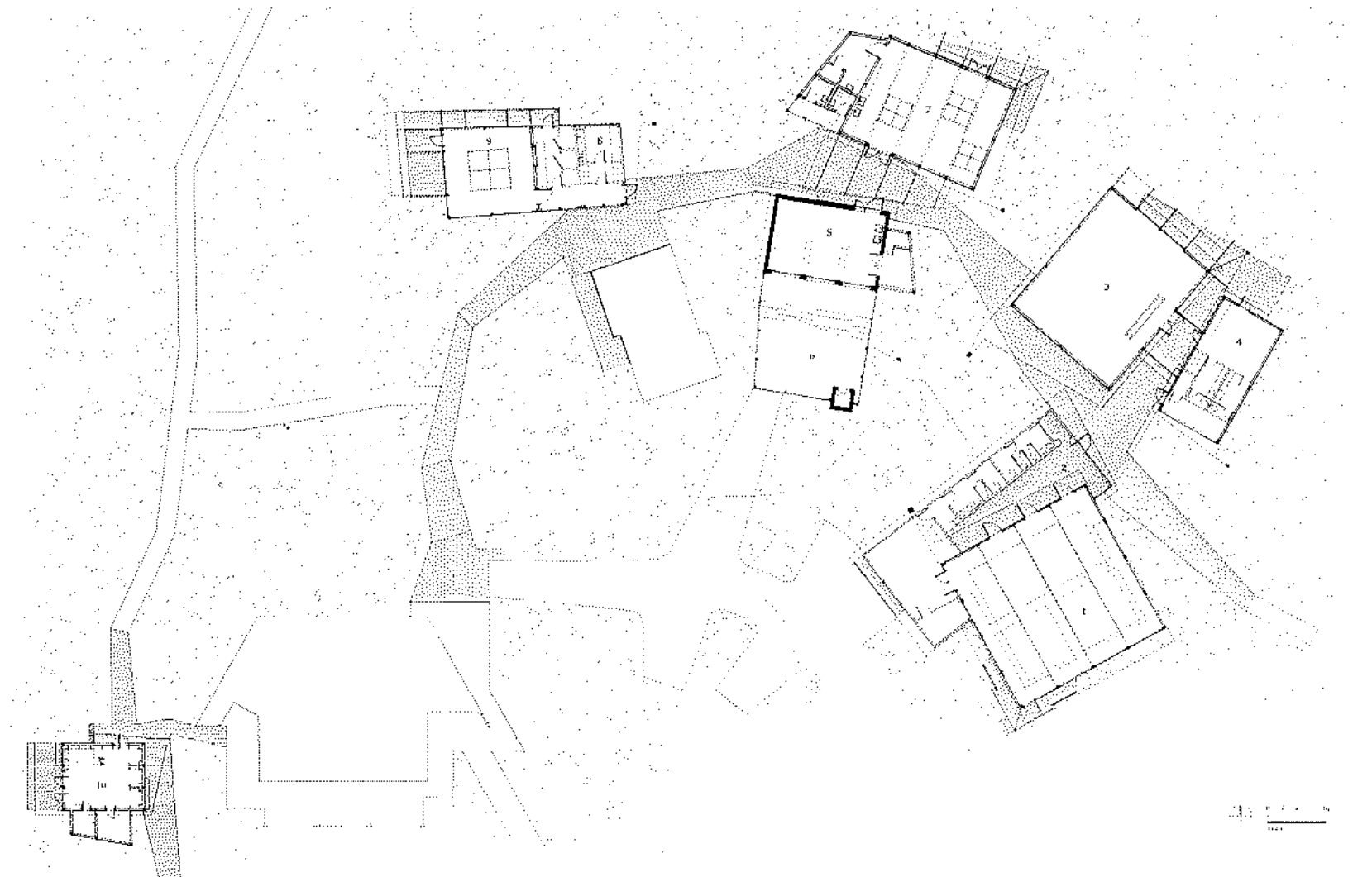


- TOUCHES GROUND LIGHTLY
- SIMPLE, RAW FINISHES
- CONNECTING WALKWAYS EXPAND TO CREATE OUTDOOR COMMUNAL SPACES
- CASCADES DOWN TO LAKE

Haystack Mountain School of Crafts
Architects: Edward Larrabee Barnes



PRECEDENT PROJECTS - SITE STRATEGIES

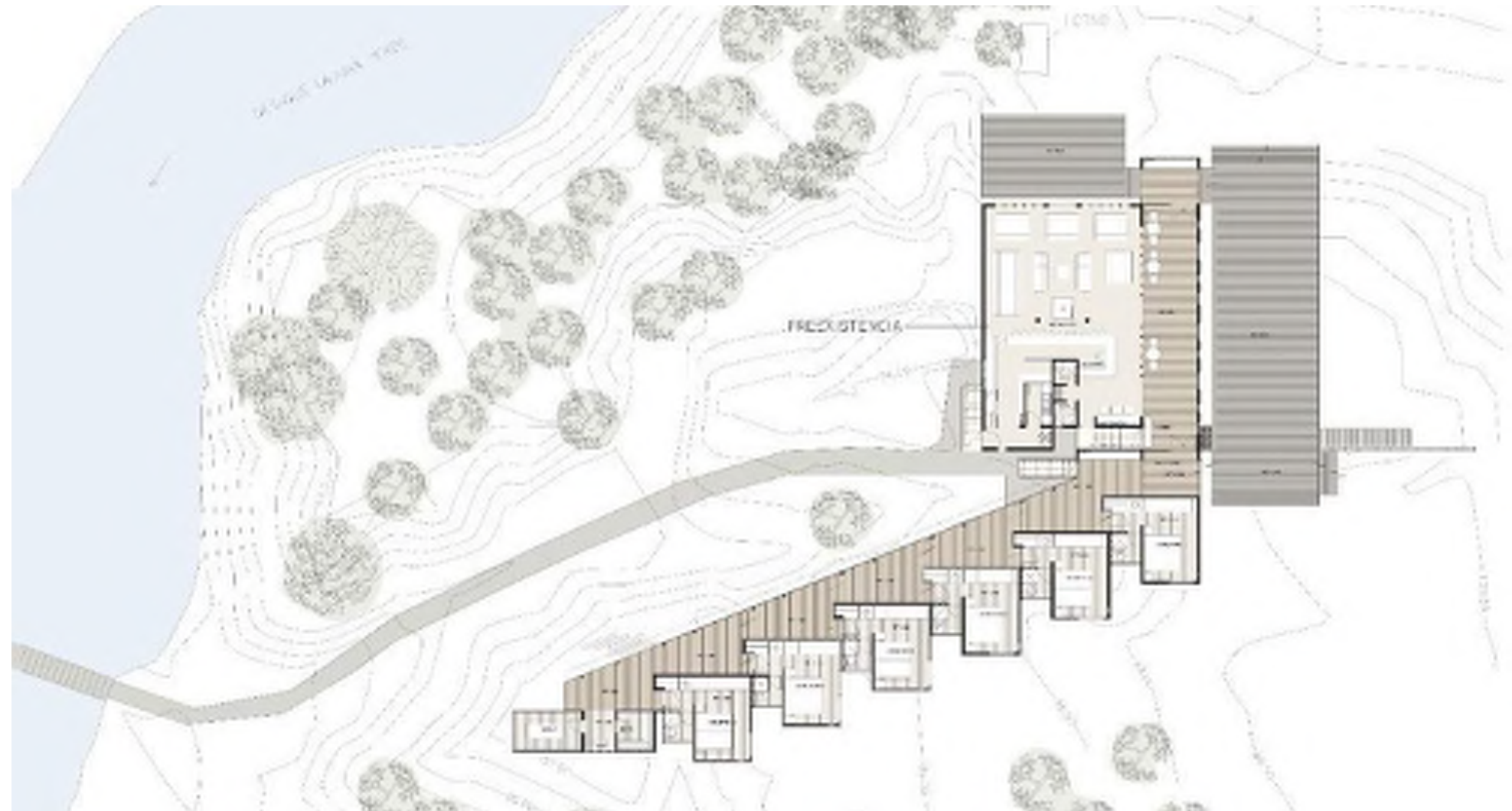


- TOUCHES GROUND LIGHTLY
- SIMPLE, RAW FINISHES
- CONNECTING WALKWAYS CREATE THE SENSE OF A VILLAGE
- VARIATION ON WALKWAY WIDTH CREATES NODES

Atlantic Center for the Arts
Architects: Charles Rose



PRECEDENT PROJECTS - SITE STRATEGIES



- TOUCHES GROUND LIGHTLY
- SIMPLE, RAW FINISHES
- SLEEPING SPACES ALIGN TO WALKWAY
- WALKWAY BRANCHES OFF FROM COMMUNAL SPACE

La Baita Lodge
Architects: Polidura+Toalhouk

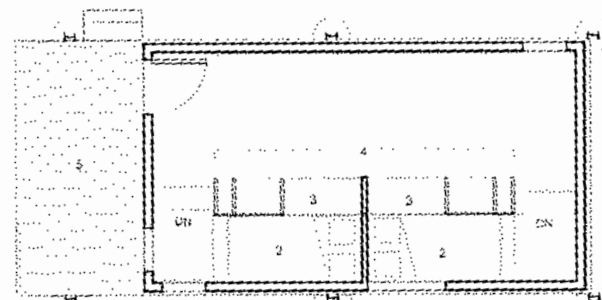


PRECEDENT PROJECTS - SITE STRATEGIES

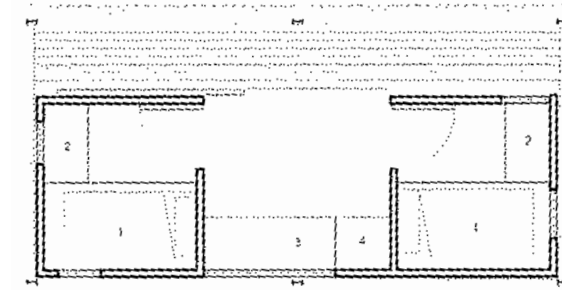


- TOUCHES GROUND LIGHTLY
- BLURS LINE BETWEEN INDOORS AND OUTDOORS WITH PORTAL + PORCH SPACES
- KIT OF PARTS
- SIMPLE, RAW FINISHES

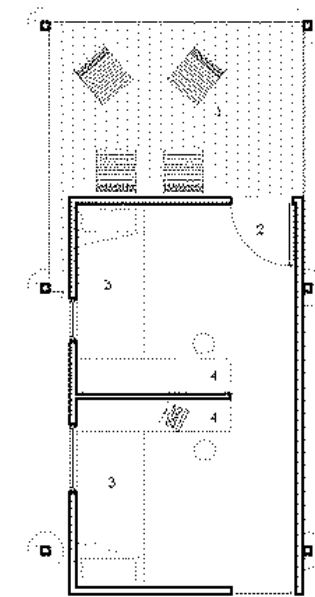
Outward Bound Cabins
Architects: University of Colorado Denver



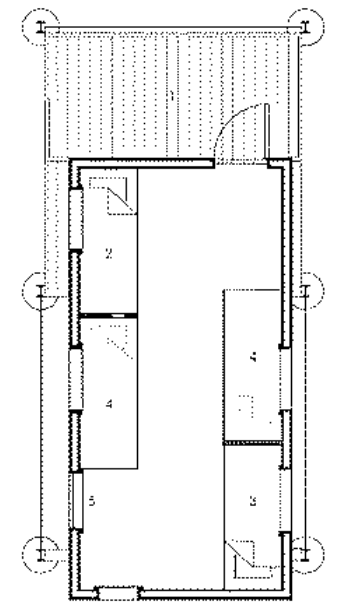
CABIN 11
FLOOR PLAN



CABIN 12
FLOOR PLAN



CABIN 3



PRECEDENT PROJECTS



CABINS

PRECEDENT PROJECTS



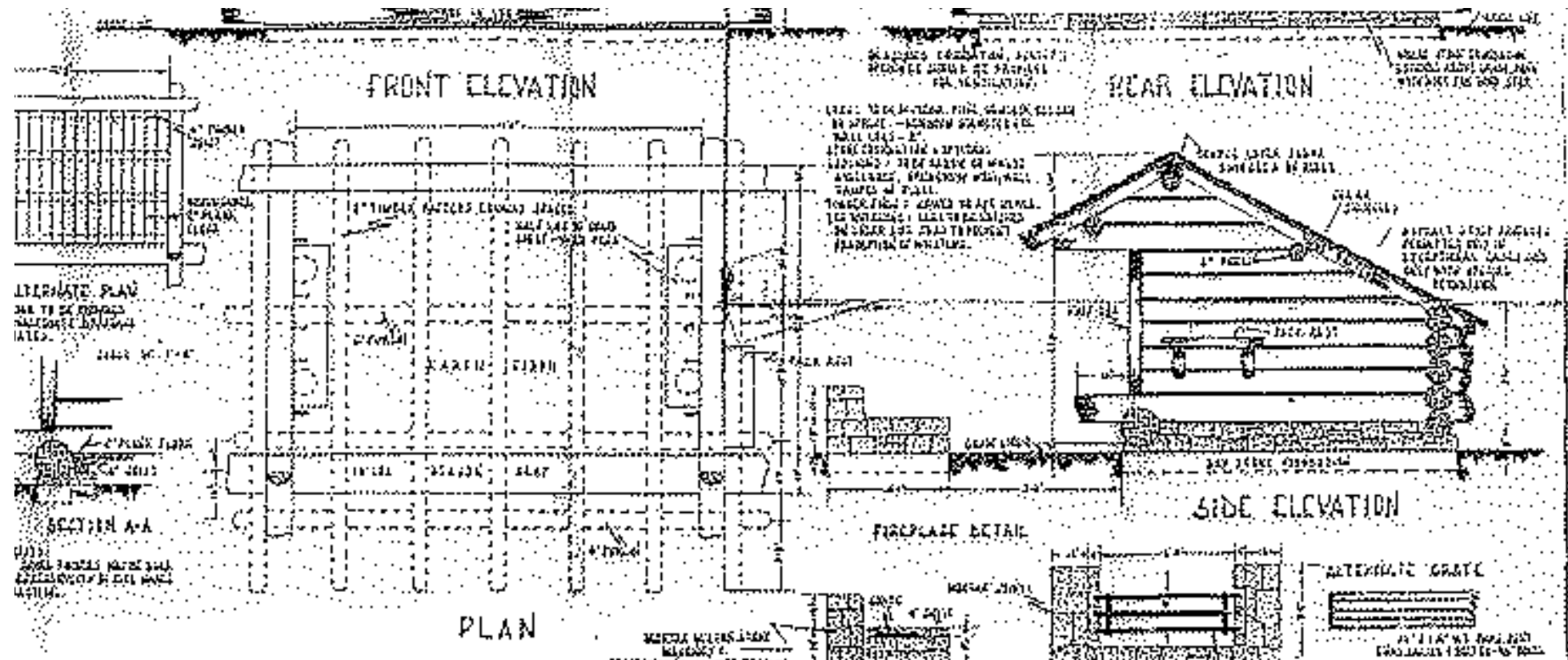
OUTDOOR GATHERING

PRECEDENT PROJECTS

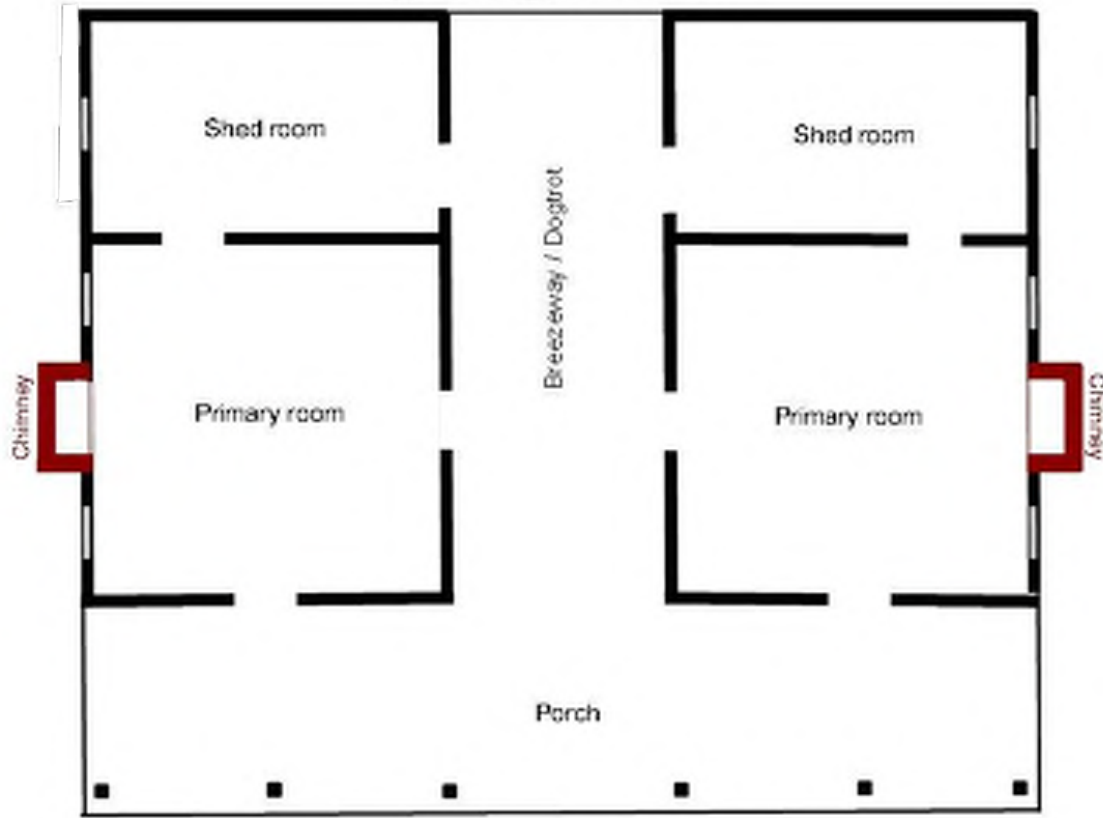


ADIRONDACK CABIN

A semi-enclosed timber cabin structure found along the Appalachian Trail. The open end often faces towards a fire for heating.

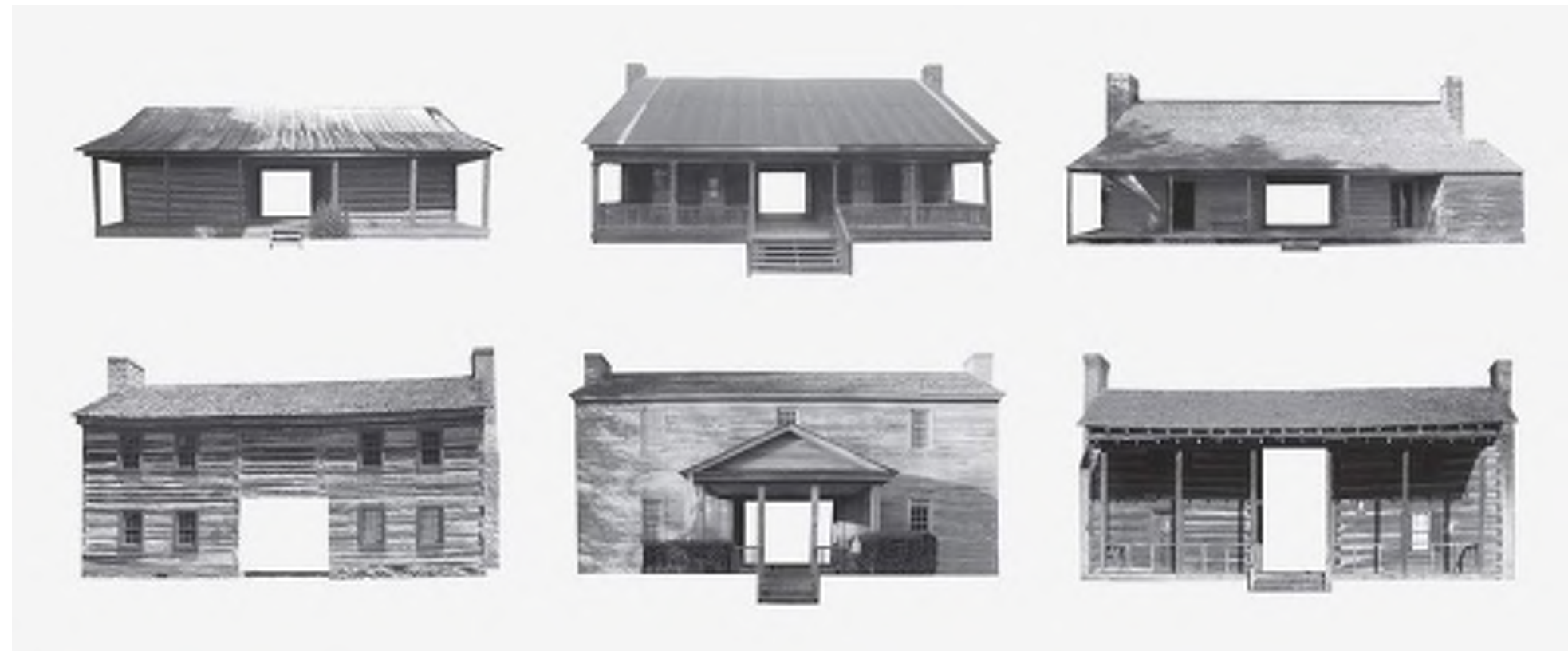


Typical Dogtrot Floorplan



DOGTROT

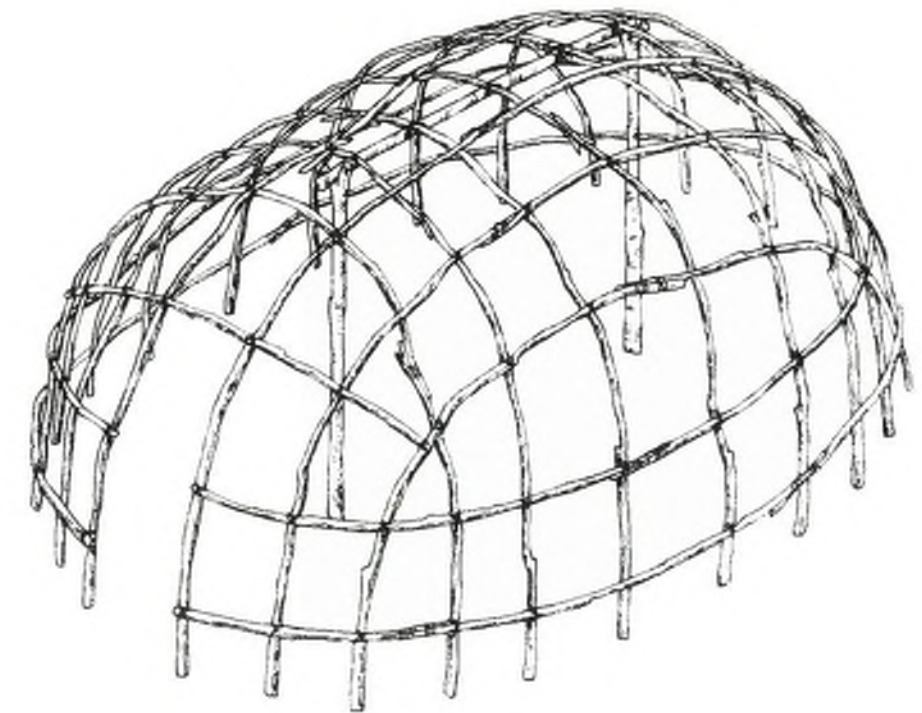
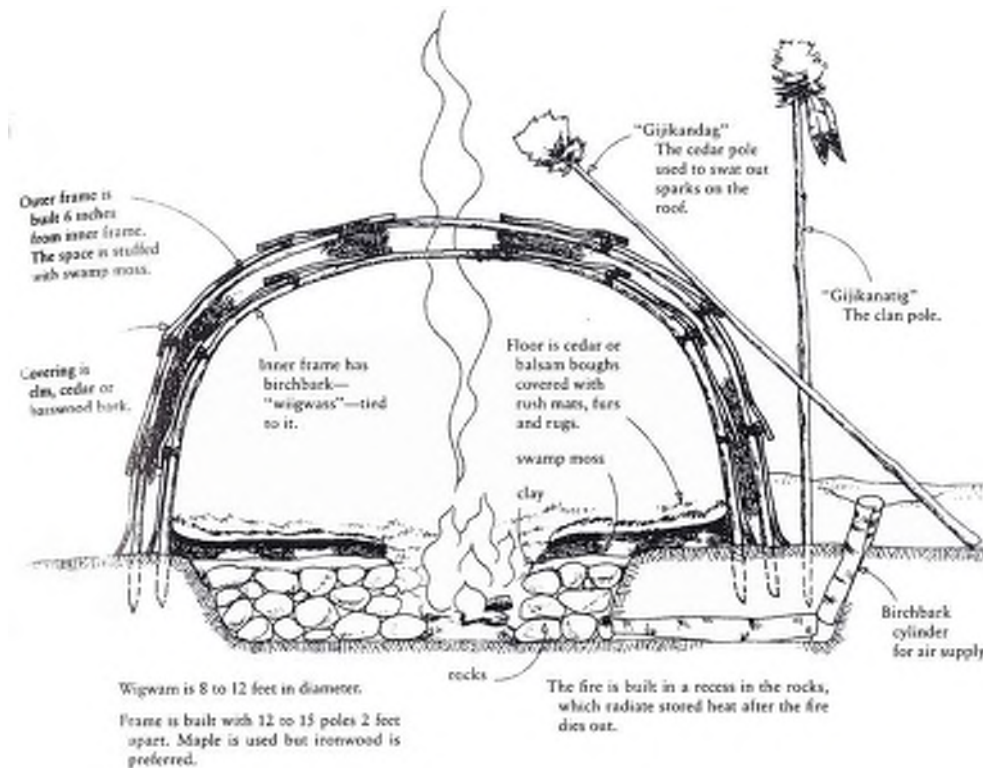
A 19th century North American building typology prevalent in the southeast. The central breezeway provides cooling ventilation through the structure.





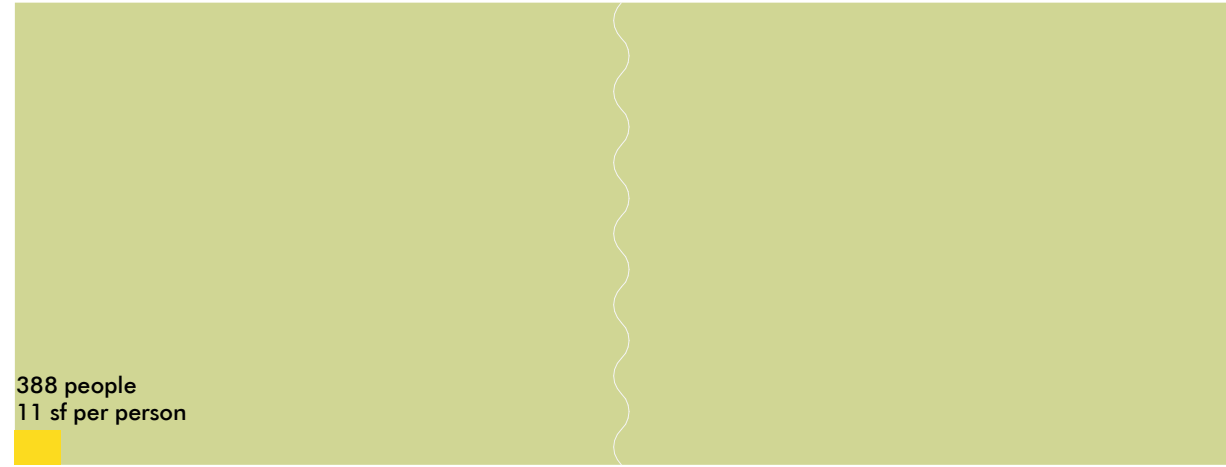
WIGWAM

Seasonal housing type used by Native American tribes in the northeast. Flexible sapling trees are bent to form a gridded domed structure. It's skin is assembled with locally available materials such as bark.



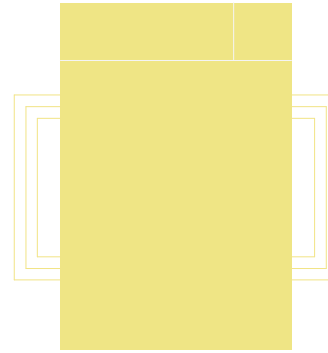
DINING - PROPOSED - REVISIONS PER STAKEHOLDER PROCESS

Dining / Assembly - 4,268 sf



388 people
11 sf per person

Platform / Stage - 600 sf



Chair/Table Storage - 200 sf



Toilets (2) - 160 sf



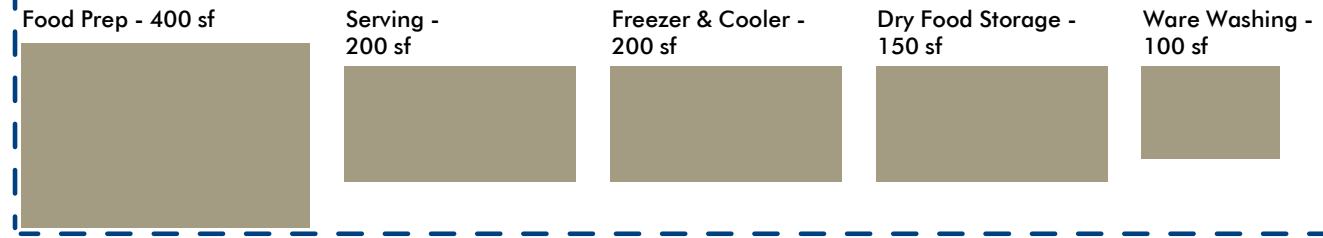
Porch - 500 sf



Porch - 450 sf



COMMERCIAL KITCHEN - 1,050 sf



Food Prep - 400 sf

Serving - 200 sf

Freezer & Cooler - 200 sf


Dry Food Storage - 150 sf

Ware Washing - 100 sf

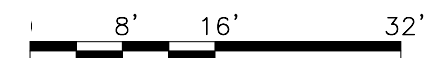
SUBTOTAL -

6,438 sf

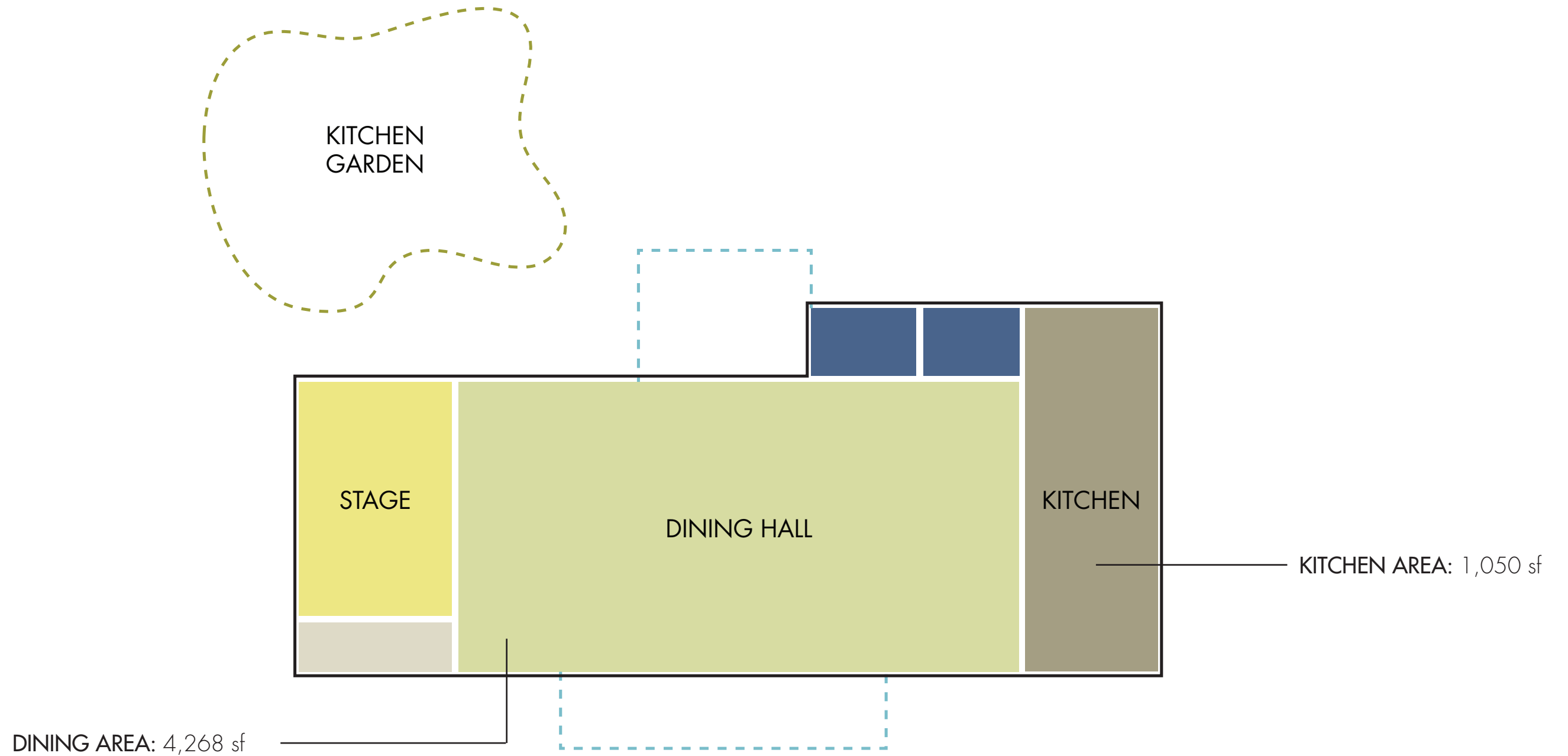
Life Safety Code for Assembly Occupancy

 - Standing: 7 nsf per person

 - Tables + Chairs: 15 nsf per person



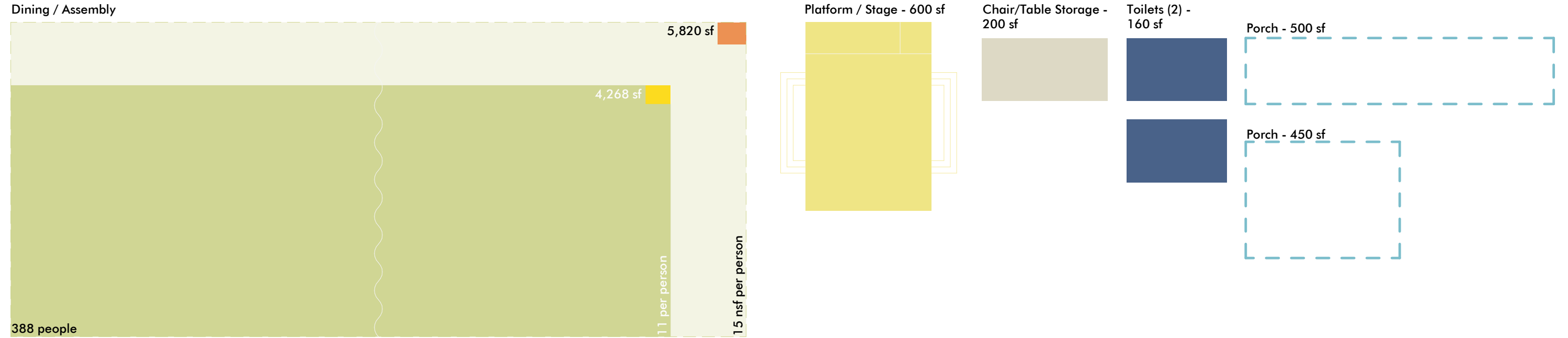
PROGRAM AREAS



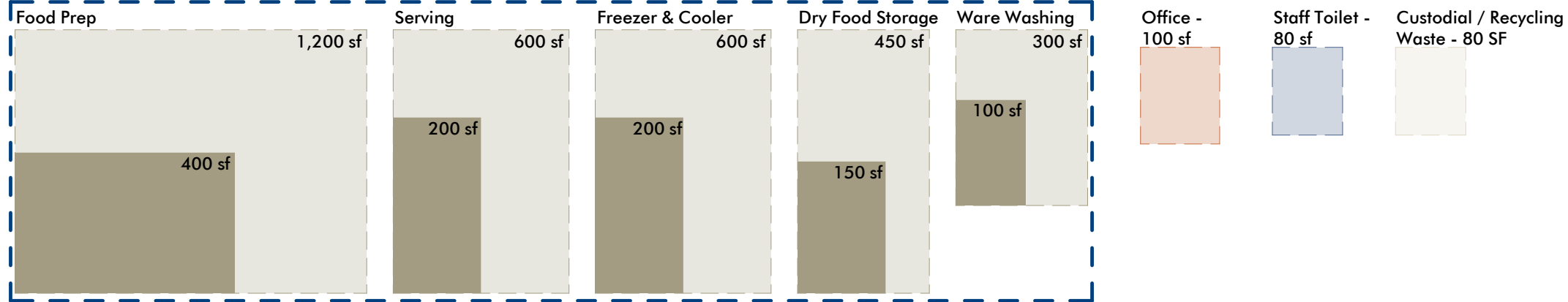
SEATS: 388
TOTAL AREA: 6,438 sf
DINING AREA TO KITCHEN RATIO: 80:20

ED SPEC - AREA DIAGRAM

DINING - PROPOSED - MODIFICATIONS PER CODE REQUIREMENTS



COMMERCIAL KITCHEN - 3,150 sf



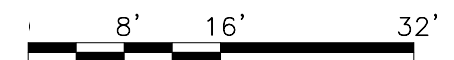
Commercial Kitchen Spaces increased by x3
 Based on 60:40 rule of thumb for dining spaces and kitchens.
 Area requirements will depend on type of food service provided.

SUBTOTAL -
 10,350 sf

PROGRAM AREAS - CODE REVIEW

KEY

- Area allotted per person by Ed. Spec / Stakeholder Process
- Life Safety Code Requirements**
- Assembly: Standing: 7 nsf per person
- Assembly: Tables + Chairs: 15 nsf per person
- Educational: 20 nsf per person





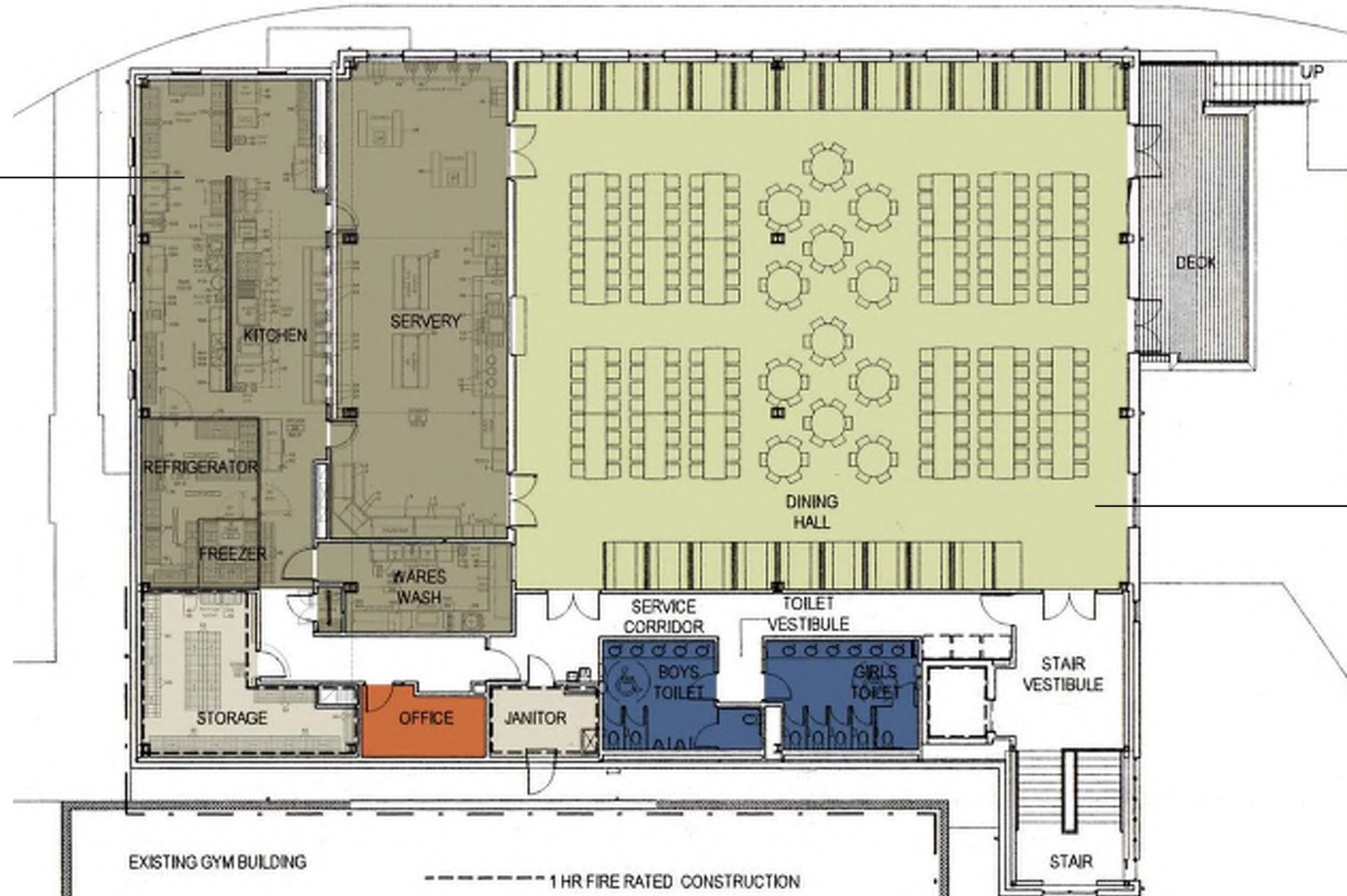
- 100% NATURAL DAYLIGHT SCHEME
- OPTIMAL MECHANICAL SYSTEM LAYOUT
- BANQUET SEATING CREATES EFFICIENT LAYOUT
- SEATING FOR 369

Friends School - Dining Hall
Architects: Ziger/Snead
Food Service: Foodservice Designers



PRECEDENT PROJECTS

KITCHEN AREA: 1,471 sf



DINING AREA: 5,522 sf

SEATS: 369
TOTAL AREA: 7,792 sf
DINING AREA TO KITCHEN RATIO: 80:20

PRECEDENT PROJECTS



- SPACE DESIGNED FOR ELEMENTARY SCHOOL STUDENTS
- ACOUSTIC WAVY CEILING TILES PROVIDE INTEREST TO THE EXISTING LOW CEILINGS
- SEATING FOR 162

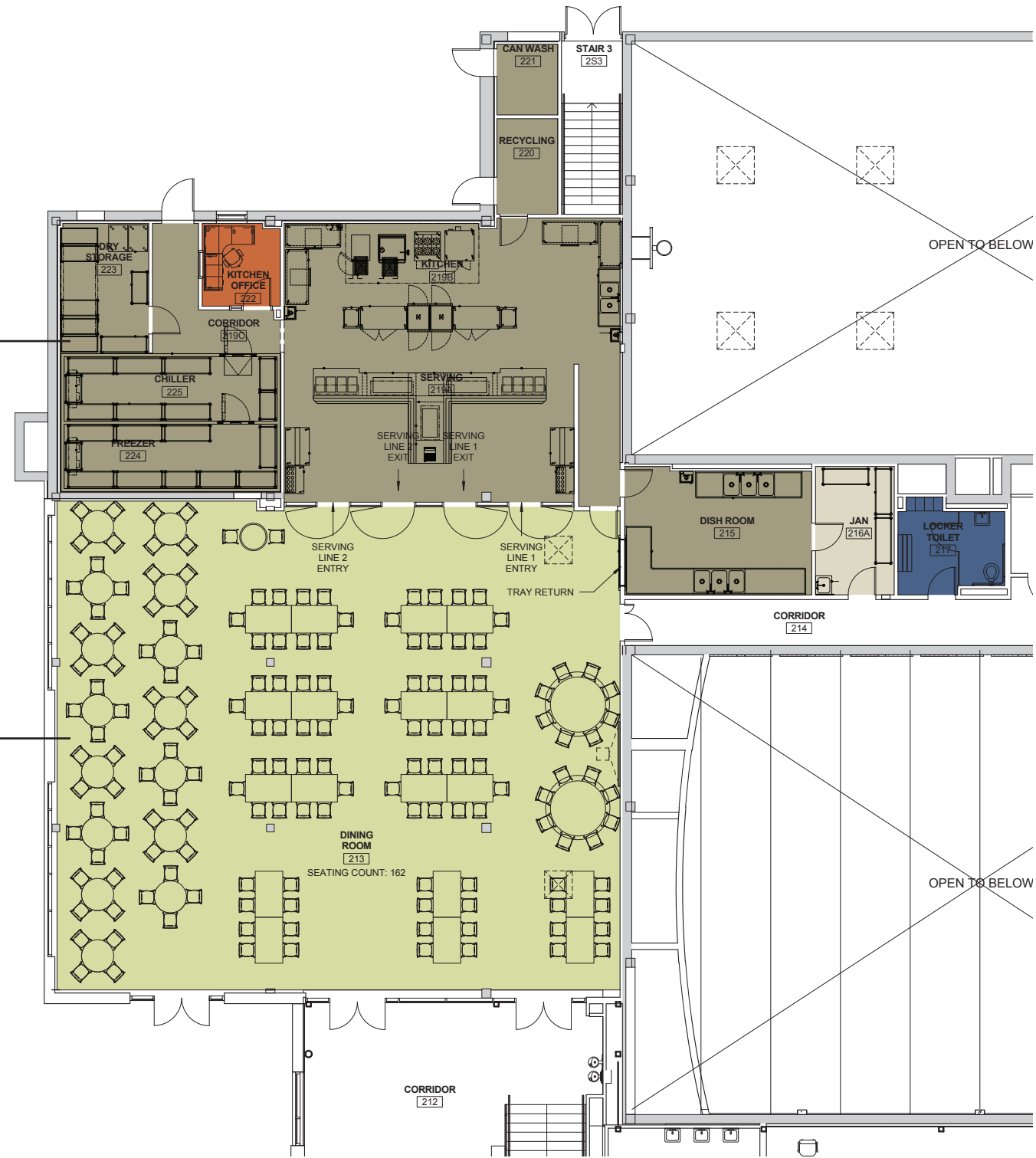
Dorothy I. Heights Elementary School
Architects: Quinn Evans
Food Service: Culinary Advisors



PRECEDENT PROJECTS

KITCHEN AREA: 2,047 sf

DINING AREA: 3,258 sf



SEATS: 162
TOTAL AREA: 5,486 sf
DINING AREA TO KITCHEN RATIO: 60:40

PRECEDENT PROJECTS



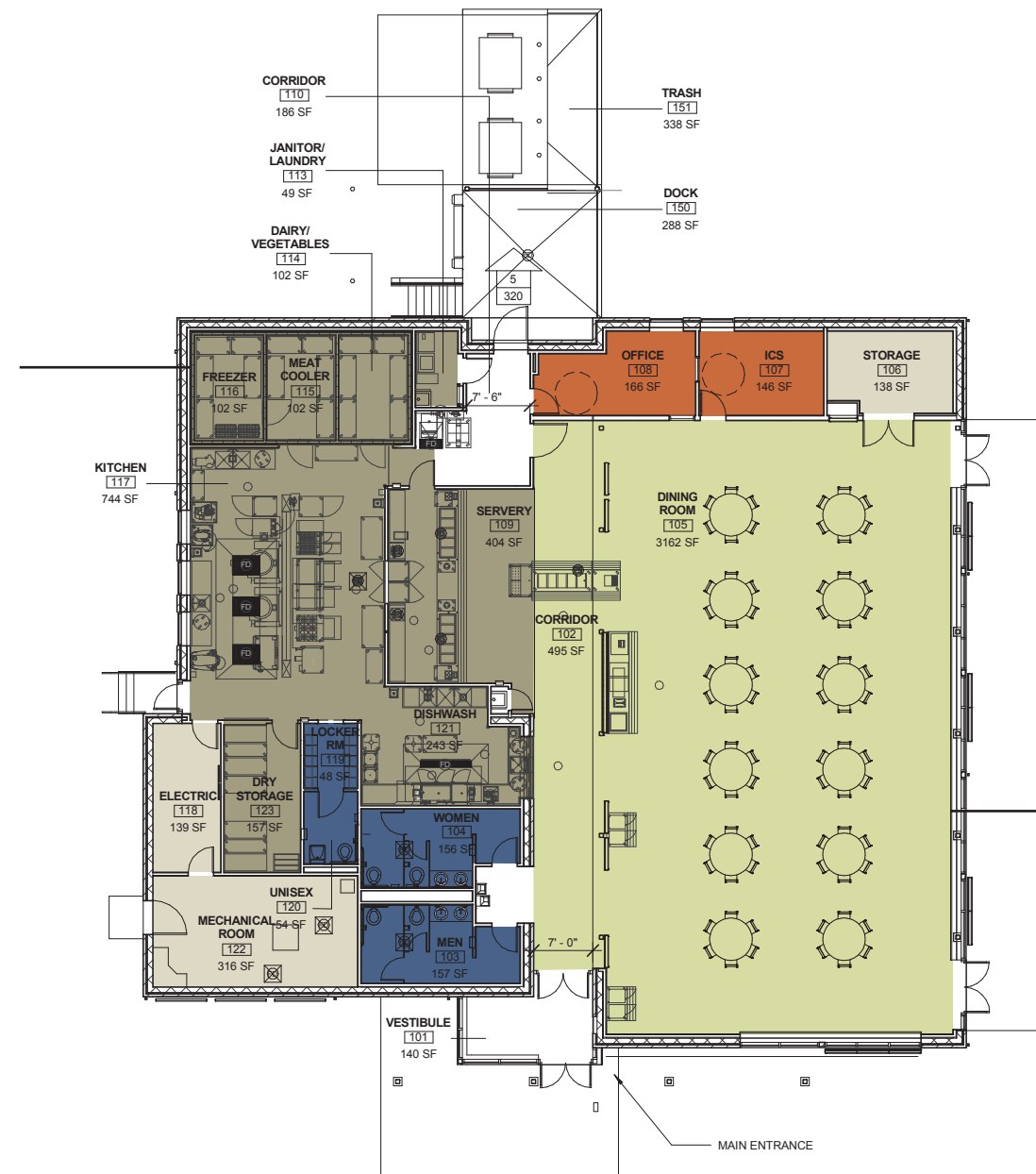
- VIEWS TO OUTDOORS
- SENSITIVE LAYOUT TO ACCOMMODATE UNIQUE PROGRAM
- SEATING FOR 221

Maryland School for the Deaf
Architects: Quinn Evans
Food Service: Cini-Little International



PRECEDENT PROJECTS

KITCHEN AREA: 1,854 sf



DINING AREA: 3,162 sf

SEATS: 221
TOTAL AREA: 6,299 sf
DINING AREA TO KITCHEN RATIO: 60:40

PRECEDENT PROJECTS



- CAMP SETTING WITH A MAJESTIC VIEW
- SIMPLE MATERIALS AND FINISHES
- DESIGN INTEGRAL TO STRUCTURE
- 3,600 SF. SEATING FOR 260

Moorelands Camp Dining Hall
Architects: Shim-Sutcliffe



PRECEDENT PROJECTS - CHARACTER



- NATURAL MATERIALS
- DESIGN INTEGRAL TO STRUCTURE
- NATIONAL PARK LANGUAGE

National Zoo - Visitor Center Pavilion
Architects: Quinn Evans
Landscape Architects: Rhodeside + Harwell



PRECEDENT PROJECTS - CHARACTER



KITCHEN GARDEN

PRECEDENT PROJECTS - PROGRAM

ENVIRONMENTAL RESEARCH CENTER (ERC)

ENVIRONMENTAL RESEARCH CENTER - PROPOSED - MODIFICATIONS PER CODE REQUIREMENTS

Discovery Lab - 1,800 sf

Max. Occupancy: 90 people
20 nsf per person



STEAM Lab - 1,200 sf

Max. Occupancy: 60 people
20 nsf per person



Seminar Room - 700 sf

Max. Occupancy: 35 people
20 nsf per person



Porch - 760 sf



Storage - 200 sf



Toilets (2) - 100 sf



Office - 100 sf




Custodial - 60 sf




SUBTOTAL -
4,260 sf


KEY

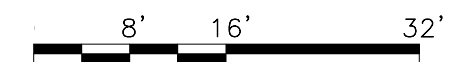
 - Area allotted per person by Ed. Spec / Stakeholder Process

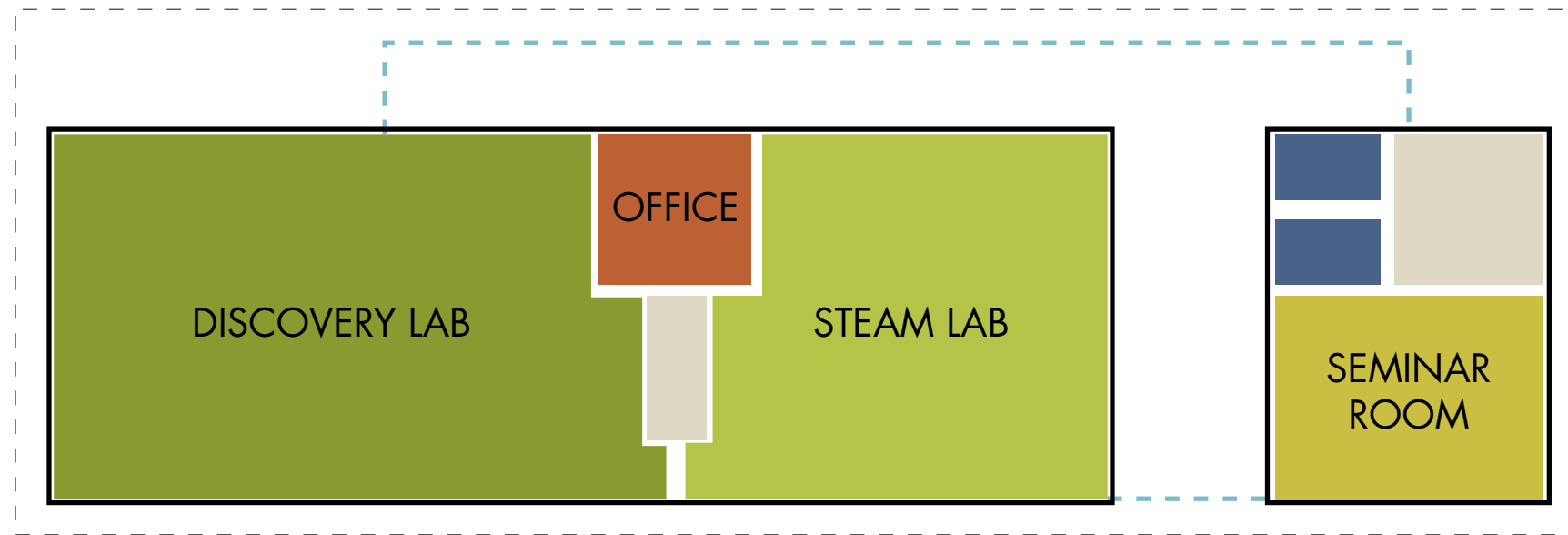
Life Safety Code Requirements

 - Assembly: Standing: 7 nsf per person

 - Assembly: Tables + Chairs: 15 nsf per person

 - Educational: 20 nsf per person







FOREST SCHOOLS

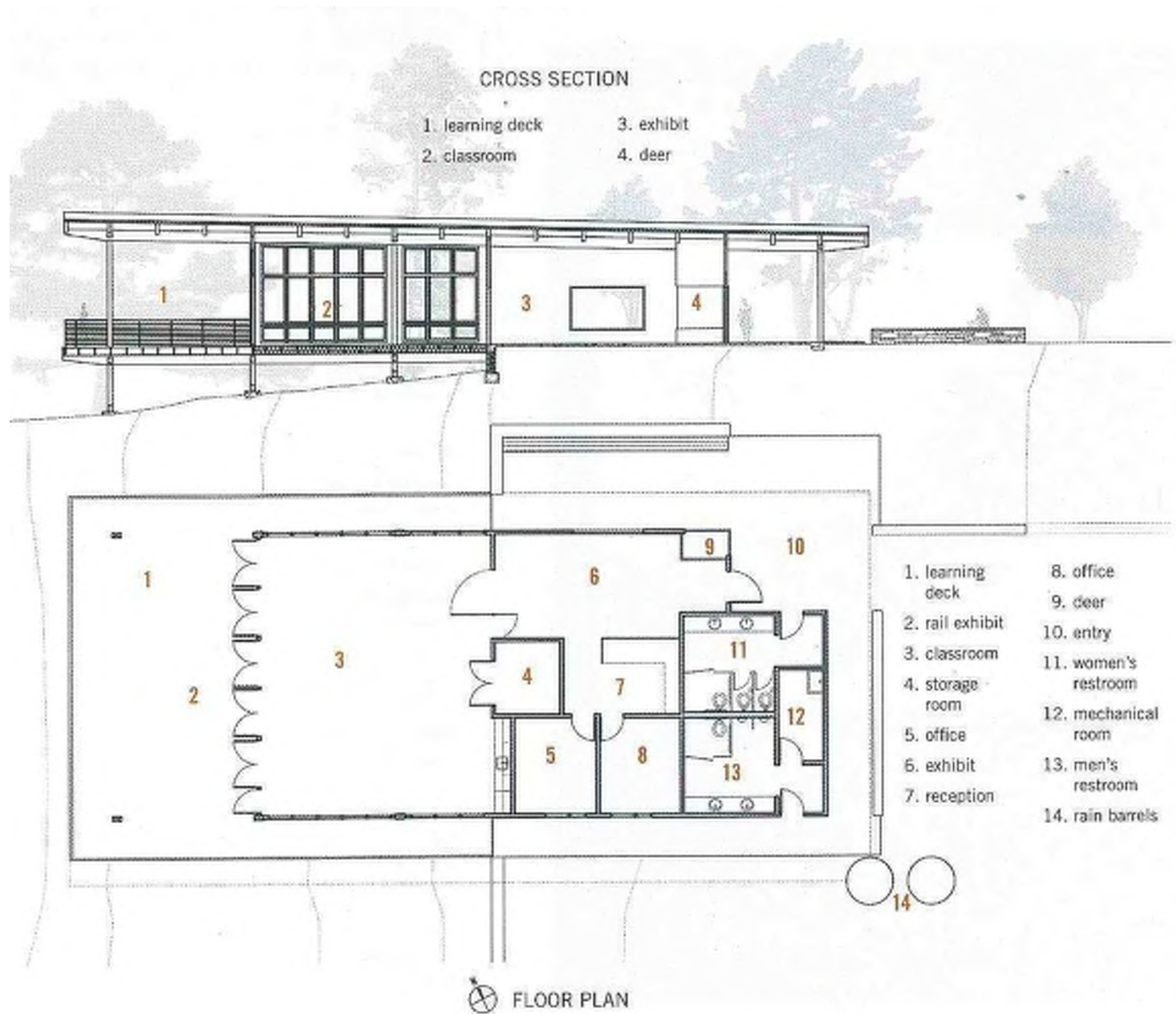
Year-round outdoor education for children of all ages that seeks to regularly bring children to local woodland areas for instruction. Children are exposed to a variety of weather and experiences to which they learn to adapt.





- PROJECTS OUT INTO WOODS
- AMBIGUITY BETWEEN INDOOR / OUTDOOR SPACES
- EXHIBIT SPACE EXTENDS OUT ONTO PORCH
- RAW, NATURAL FINISHES

White Deer Park Nature Center
Architects: Ratio Architects

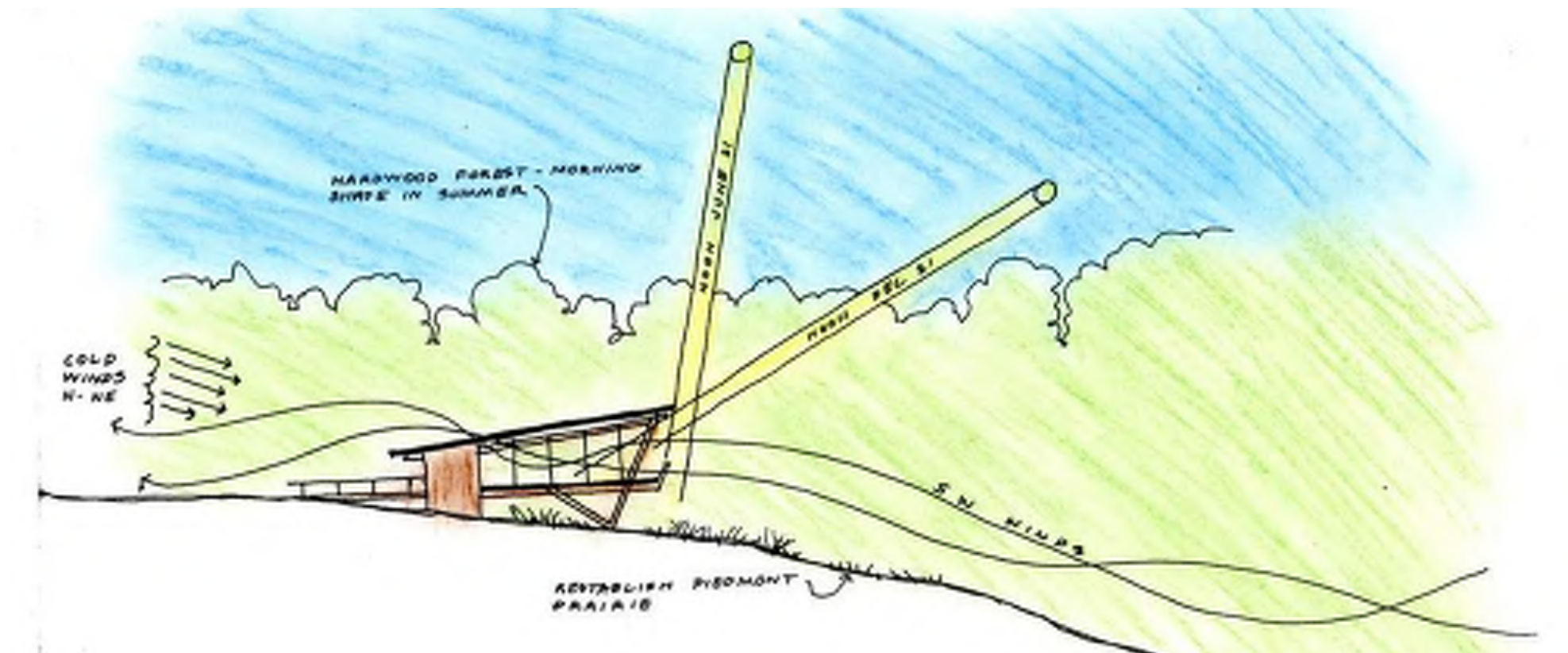


PRECEDENT PROJECTS

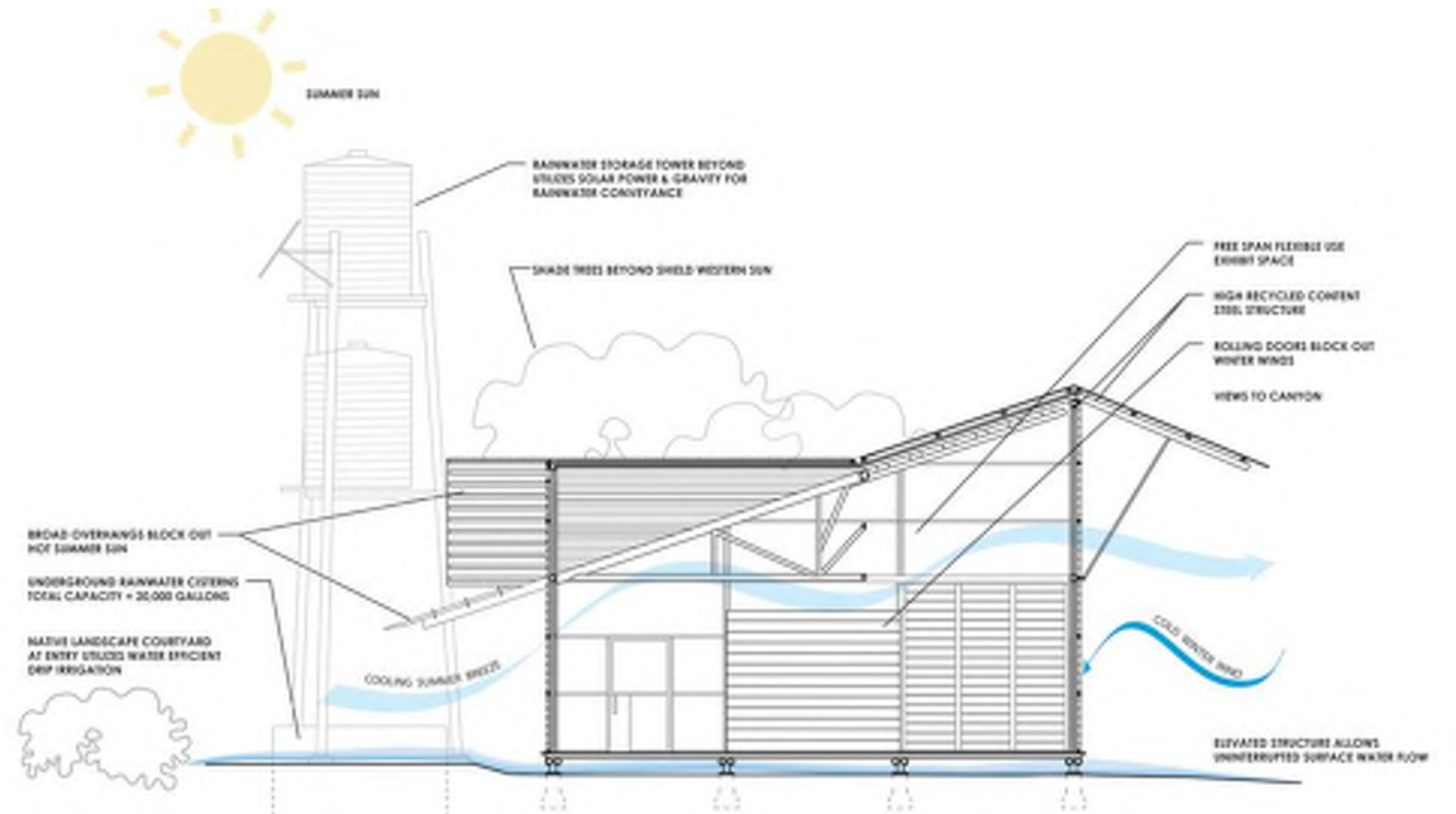


- TOUCHES GROUND LIGHTLY
- MODEST, MATERIALS WITH DESIGN INTEGRAL TO THE STRUCTURE
- PASSIVE DESIGN

Prairie Ridge Outdoor Classroom
Architects: Frank Harmon



PRECEDENT PROJECTS



- SYSTEMS ON DISPLAY
 - PASSIVE DESIGN
 - SENSITIVITY TO CLIMATIC CONTEXT
- Government Canyon Visitor Center
Architects: Lake Flato



PRECEDENT PROJECTS



SCIENCE ON DISPLAY

PRECEDENT PROJECTS



- SCIENCE ON DISPLAY
- WASTEWATER TREATMENT
- CONSTRUCTED WETLANDS

Omega Institute (Rhinebeck, NY)
Landscape Architects: Biohabitats



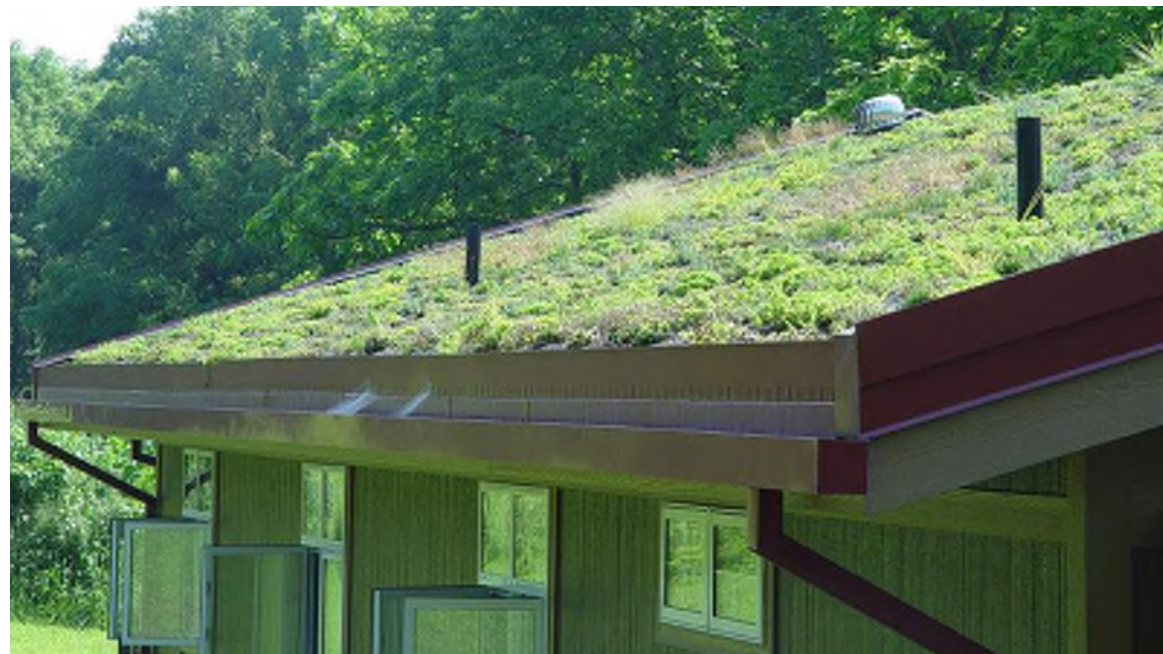
PRECEDENT PROJECTS



BIOSWALES - STORMWATER - RAIN GARDENS



PRECEDENT PROJECTS - SCIENCE ON DISPLAY

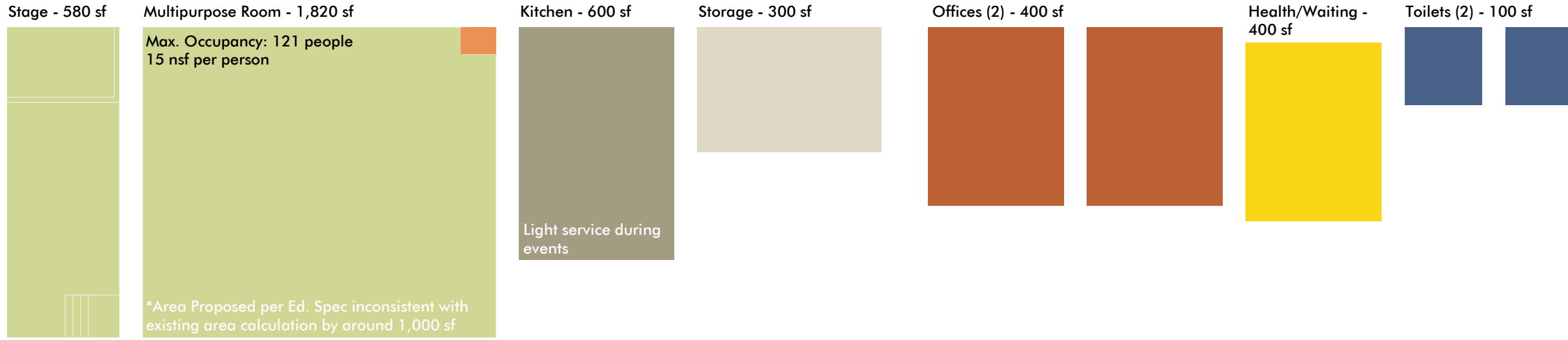


GREEN ROOFS

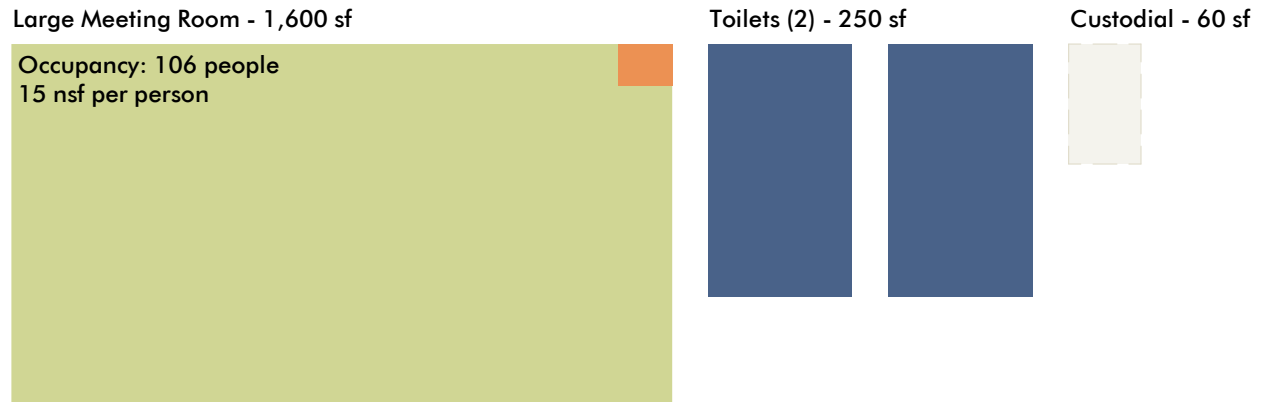
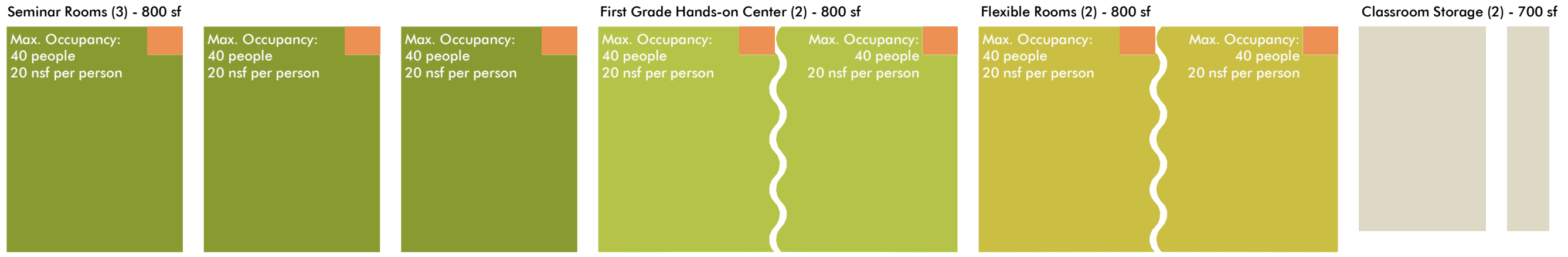
PRECEDENT PROJECTS - SCIENCE ON DISPLAY

ORME

ORME ORIENTATION & STAFF DEVELOPMENT - MODIFICATIONS PER CODE REQUIREMENTS



Multipurpose Room + Stage = 2,400 sf



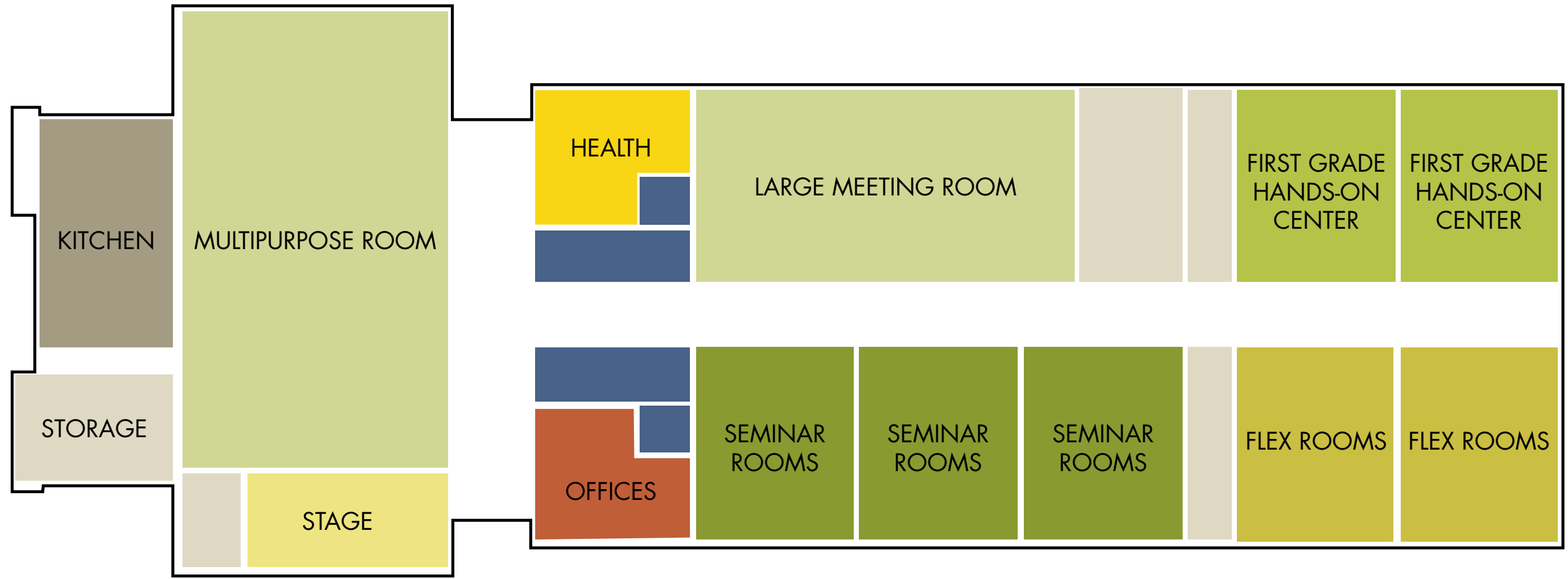
SUBTOTAL -
13,160 sf

KEY

- Area allotted per person by Ed. Spec / Stakeholder Process

Life Safety Code Requirements

- Assembly: Standing: 7 nsf per person
- Assembly: Tables + Chairs: 15 nsf per person
- Educational: 20 nsf per person



ED SPEC - AREA DIAGRAM



AFTER

- CREATIVE RENOVATION OF EXISTING SCHOOL BUILDING
- UNIQUE PROGRAM IDEOLOGY THREADS THROUGH DESIGN
- CELEBRATION OF NATURAL CONTEXT

Washington Waldorf School
Architects: Quinn Evans



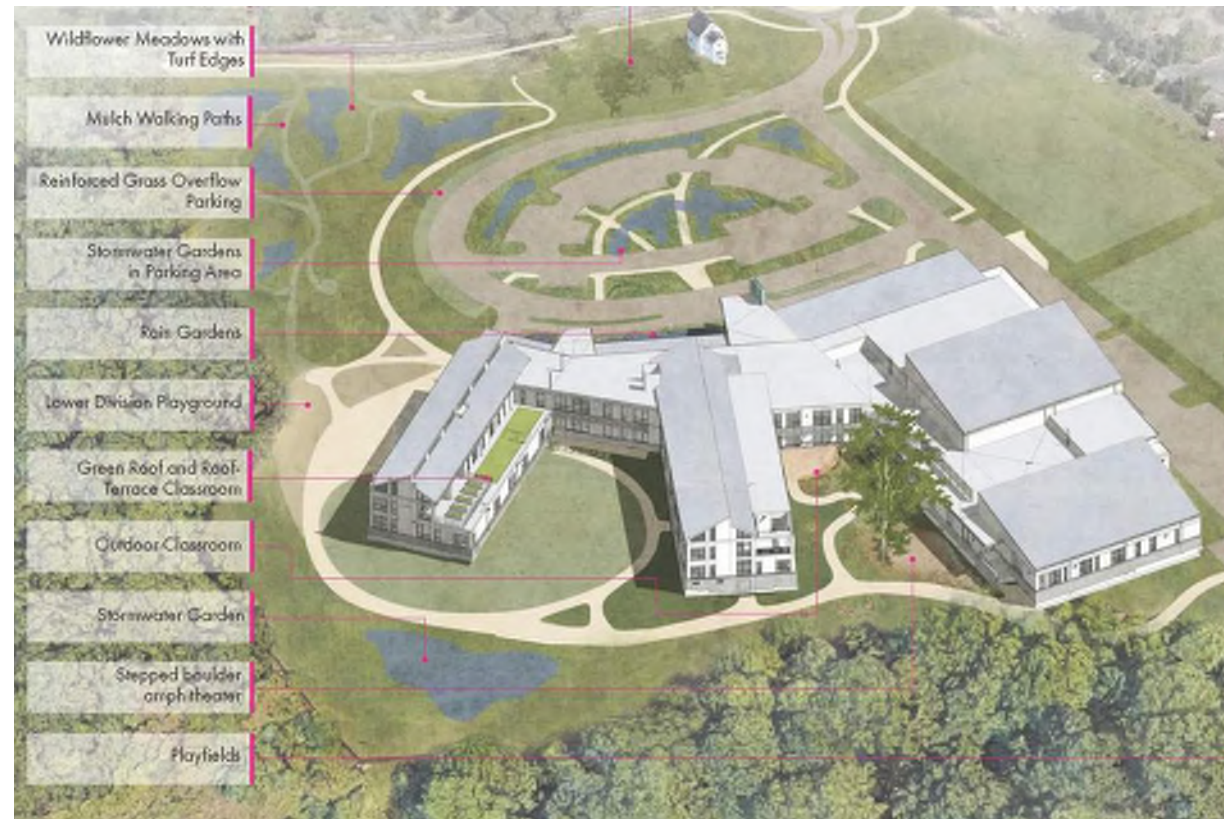
BEFORE

PRECEDENT PROJECTS



- FOCUS ON INTEGRATING NATURE WITH EDUCATION
- OUTDOOR LEARNING OPPORTUNITIES
- BUILDING FANS OUT INTO LANDSCAPE LOOKING OVER BRANDYWINE CREEK

Pilot School
Architects: Quinn Evans



PRECEDENT PROJECTS

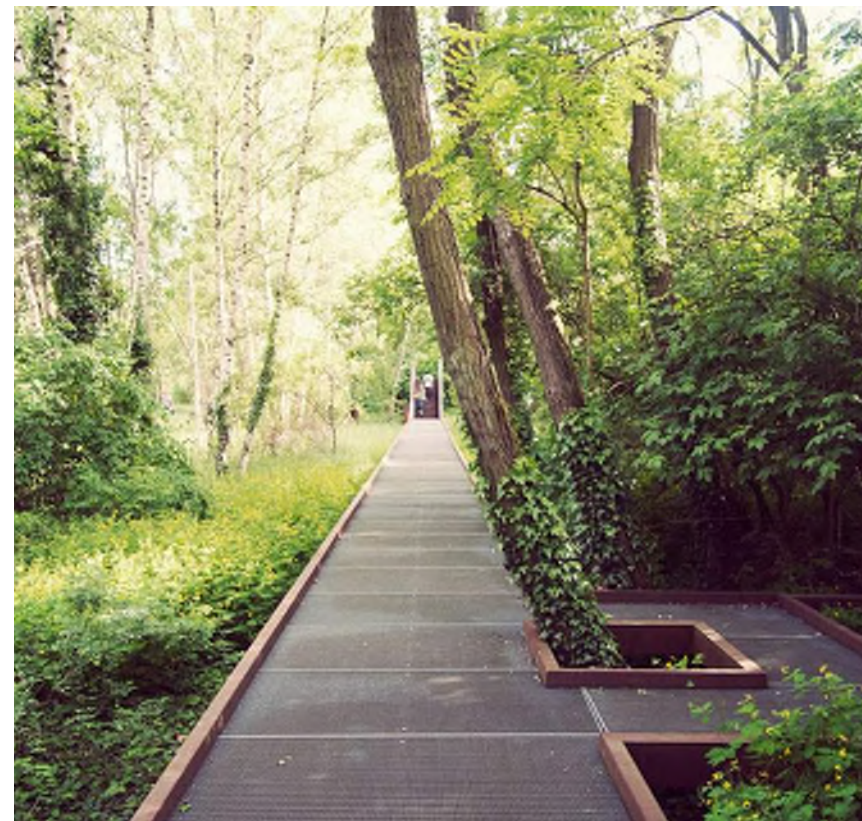
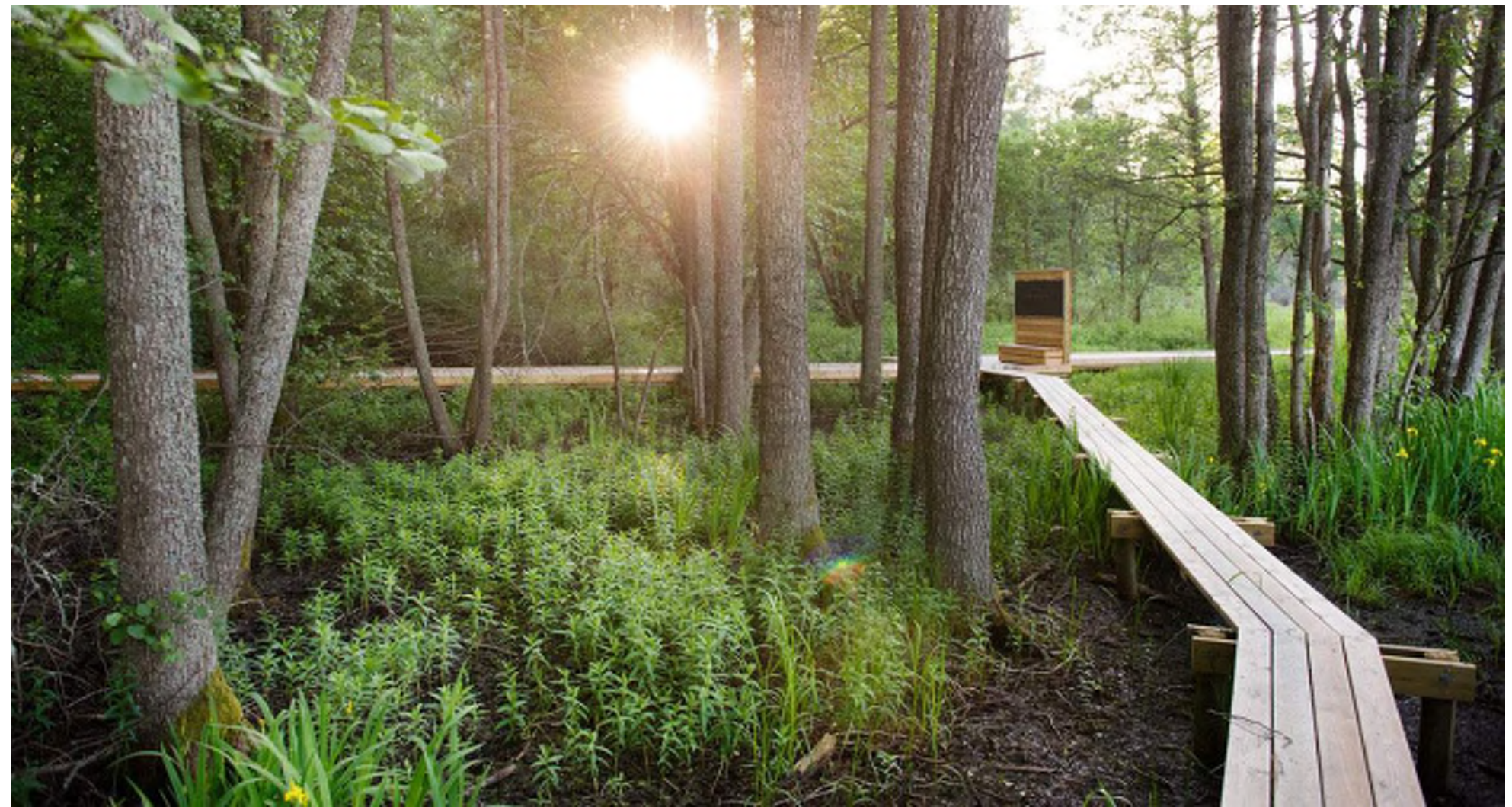
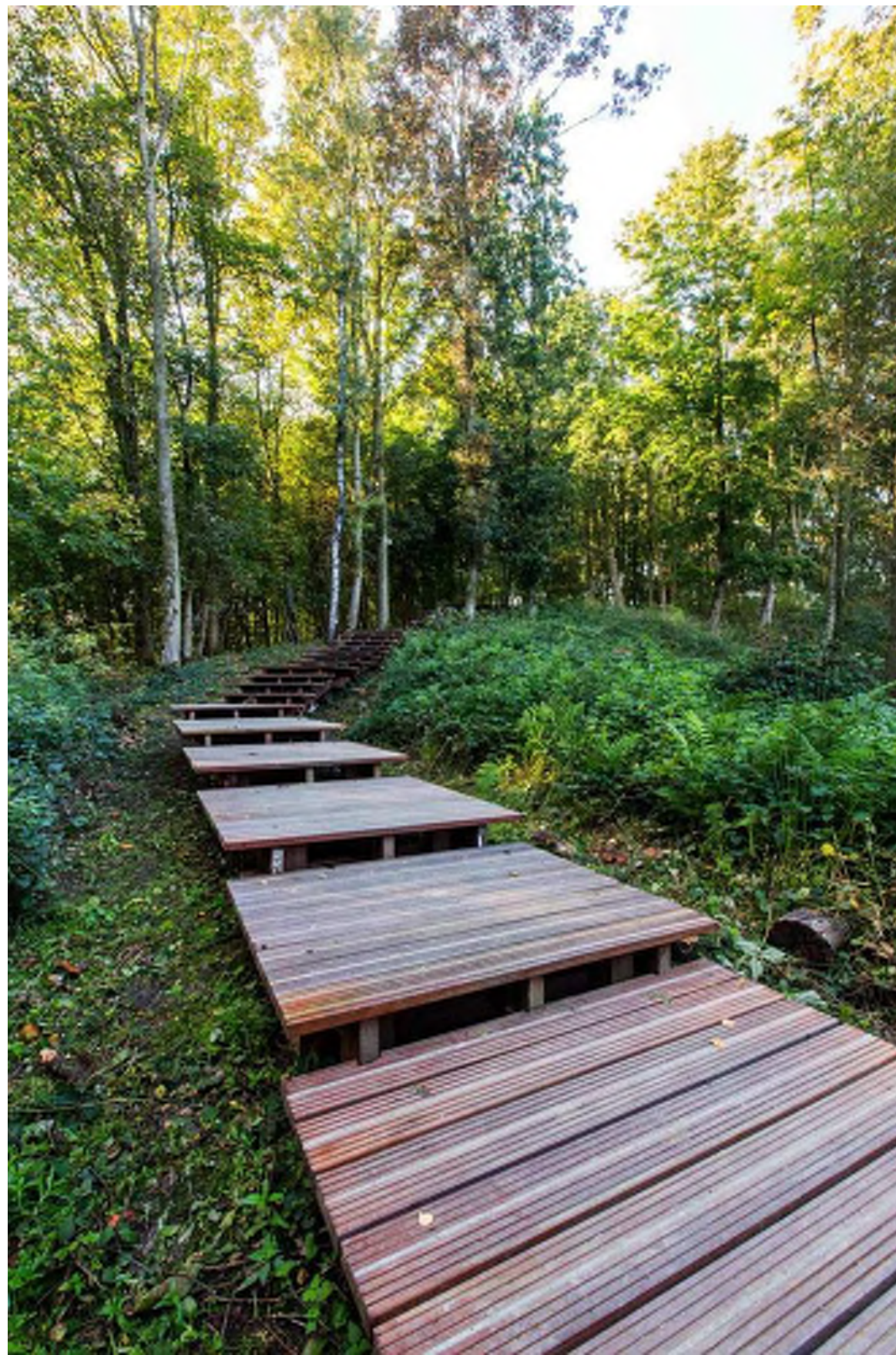


- TOUCHES GROUND LIGHTLY
- EXTERIOR CIRCULATION WEAVES WALKWAY THROUGH THE STRUCTURE
- SIMPLE MATERIALS AND FINISHES

LSU Arboretum
Architects: Lake Flato

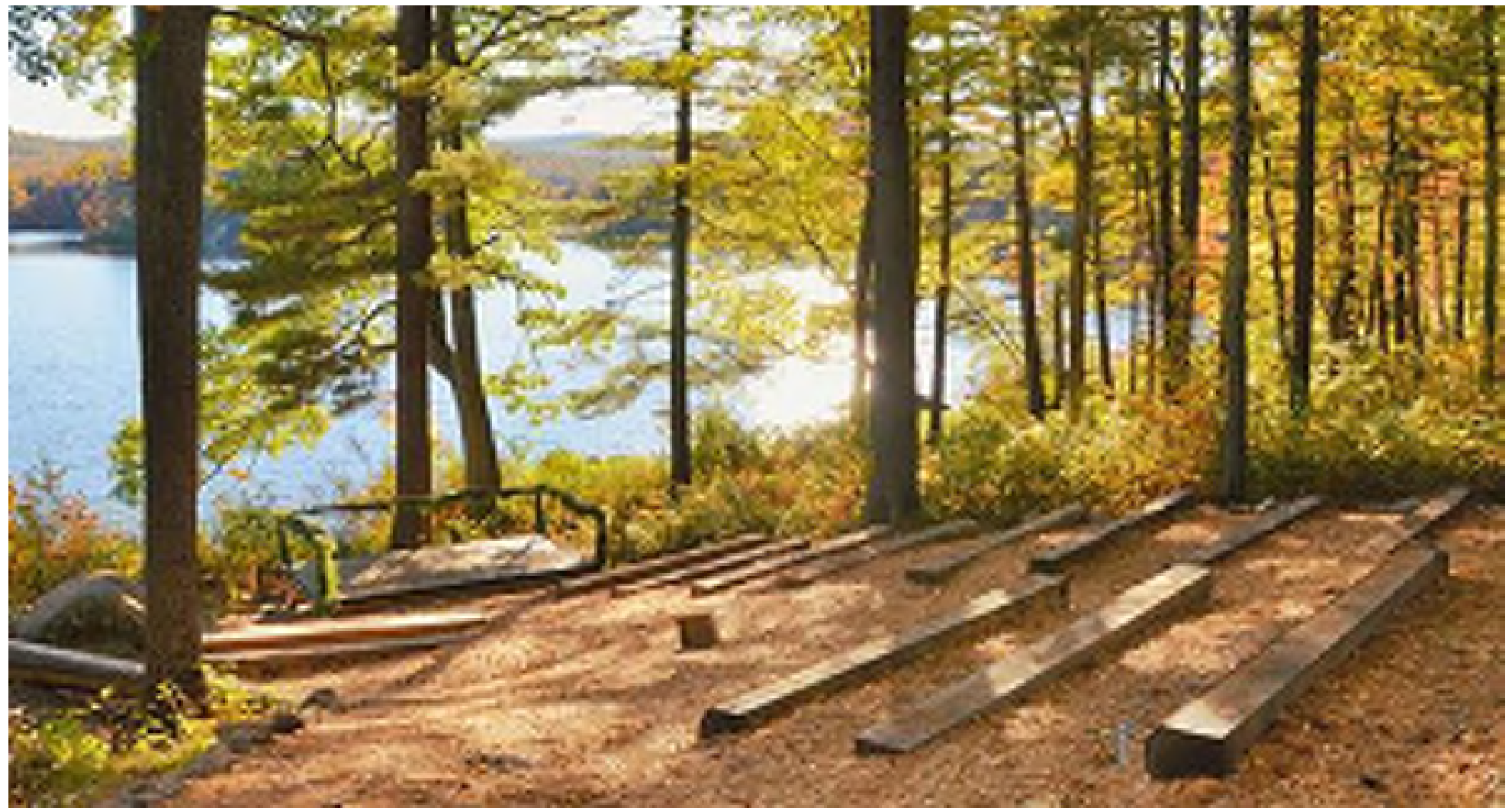
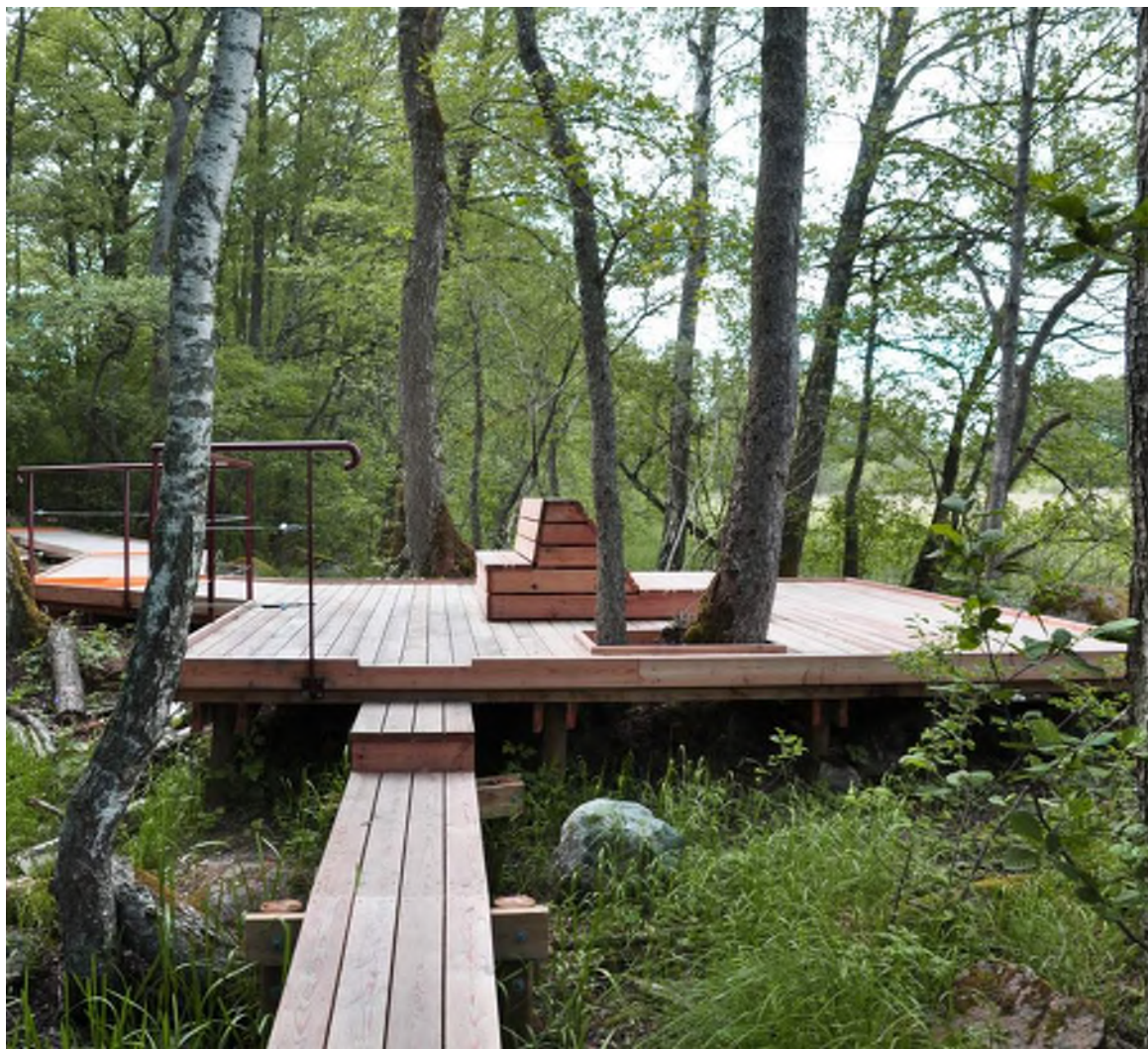


PRECEDENT PROJECTS - SITE STRATEGY



TRAILS / WALKWAYS

PRECEDENT PROJECTS



OUTDOOR LEARNING

PRECEDENT PROJECTS



- | | | |
|------------------|----------------------------------|-----------------------|
| J. BOYER HALL | E. GYM AND THEATER ARTS BUILDING | E. ENTRY GATE |
| T. ZEA | A. PLUS GREEN MEADOW | F. MILLION & STAIR |
| C. GORHOUSE | J. PHITHEATER | B. BIORETENTION AREAS |
| D. STORED VALLEY | I. ZEA | E. EVAPORATOR TOWER |
| K. ENTRY PLAZA | H. CLASSROOM | D. STORED WET MEADOW |
| | L. CONNECTION TO RAINBOW HALL | |



- ECOLOGICAL PLACE-MAKING
- INTEGRATES NATURAL ASSETS INTO CONSTRUCTED PORTIONS OF THE SITE
- INVASIVE SPECIES MANAGEMENT

Winston Preparatory School (Norwalk,, CT)
Landscape Architects: Biohabitats



PRECEDENT PROJECTS



- FOREST MANAGEMENT
- INVASIVE SPECIES MANAGEMENT
- ORGANIZES SUCCESSIONAL DYNAMICS OF REFORESTATION

Episcopal Laird Acres (Alexandria, Virginia)
Landscape Architect: Biohabitats



PRECEDENT PROJECTS



- STREAM AND WETLAND RESTORATION
- EDUCATIONAL AND FUNCTIONAL WATER QUALITY IMPROVEMENT FEATURES
- BRINGS VISITORS CLOSE TO AQUATIC SYSTEMS

Irvine Nature Center (Baltimore County, MD)
Landscape Architects: Biohabitats



PRECEDENT PROJECTS



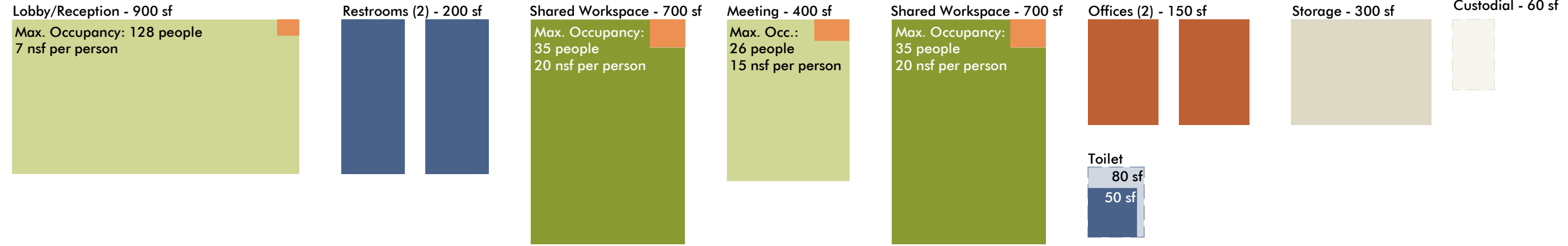
LANDSCAPE

PRECEDENT PROJECTS

NEVILLE

NEVILLE ADMINISTRATION BUILDING - MODIFICATIONS PER CODE REQUIREMENTS

(Scope to include interior finish upgrades and ADA compliant alterations to doors, hardware, and restrooms)



SUBTOTAL -
3,810 sf

KEY

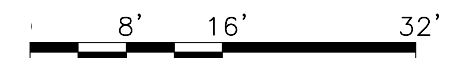
- Area allotted per person by Ed. Spec / Stakeholder Process

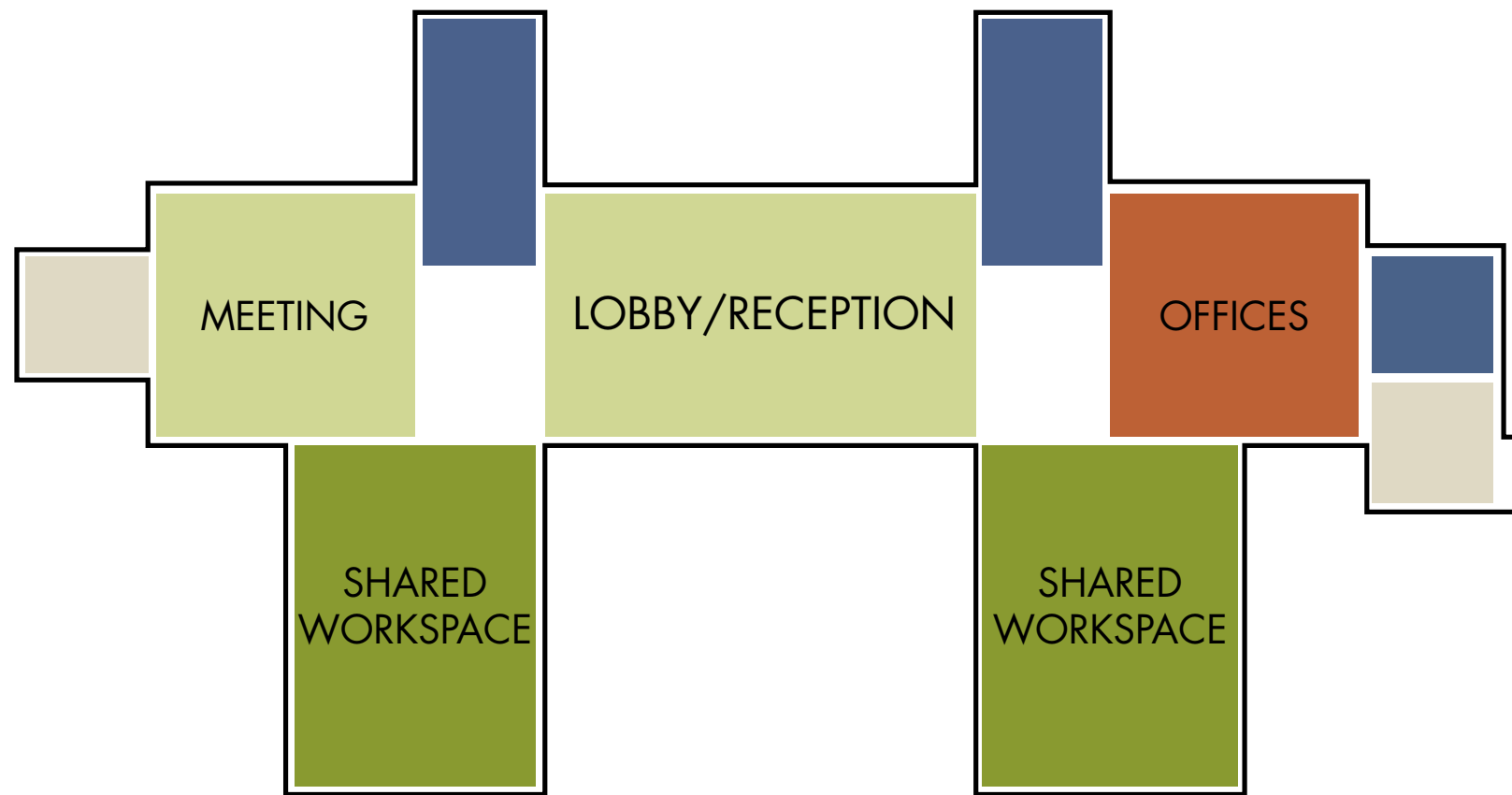
Life Safety Code Requirements

- Assembly: Standing: 7 nsf per person

- Assembly: Tables + Chairs: 15 nsf per person

- Educational: 20 nsf per person





William Schmidt Outdoor Education Center Preliminary Schedule

