

A Project of the City of Fort Bragg and Sonoma State University

NOYO CENTER

FOR SCIENCE AND EDUCATION

CITY COUNCIL PRESENTATION

08.23.2010

JONES ■ JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

B A U E R A N D W I L E Y
ARCHITECTS



AGENDA

/// PROCESS

/// SITE

/// PREMISES

/// DESIGN

/// VISION



VISION STATEMENT

Imagine a field station, at one with the land, nestled into the Mill Site on the Ft. Bragg coast --- at once quiet and serene - yet vibrant and energetic --- like the ocean nearby --- embodying the soul of the Mendocino coast – providing a “natural laboratory for scientific research, innovative education and natural resource stewardship.”

We envision a new physical, cultural, natural and historic center for Ft. Bragg and the Mendocino coast – a place for the community, for research, for the public, for the scientific community, for education and interpretation. A place that emerges from the natural and historic landscape --- with connections to the ocean, to the river estuary, to the forests, to the ecology and community of its surroundings.

We envision an active environment – with research, interpretive and educational programs --- creating “community understanding of ecosystems and global change.” A place that understands and showcases sustainability through its site, building and operations. A place that engages the community. A place that fosters connection and communication and encourages collaboration. A place that is inspiring and encourages creativity.

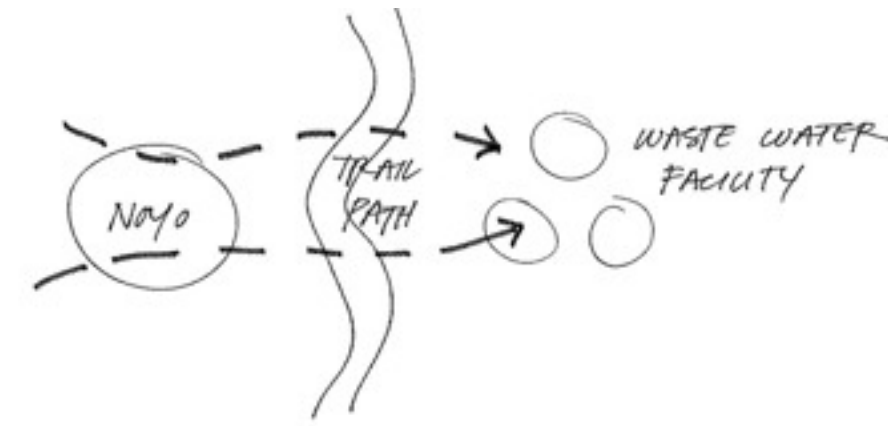
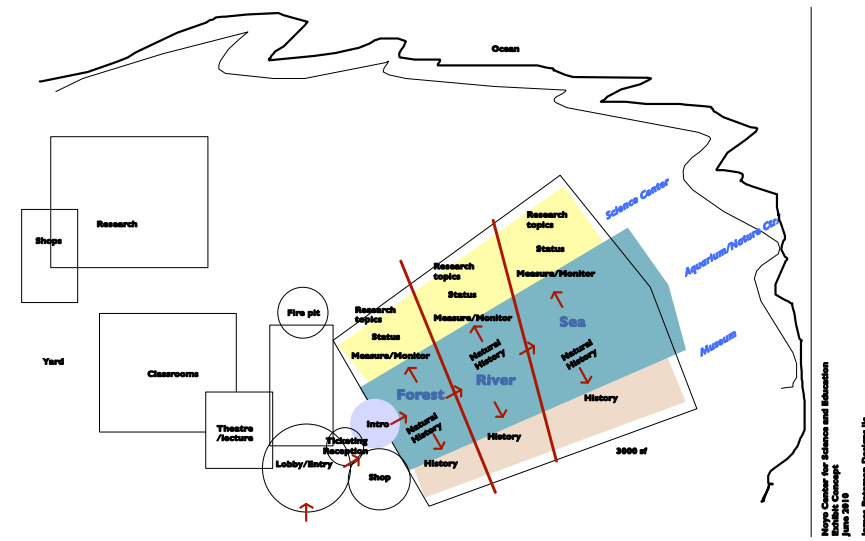
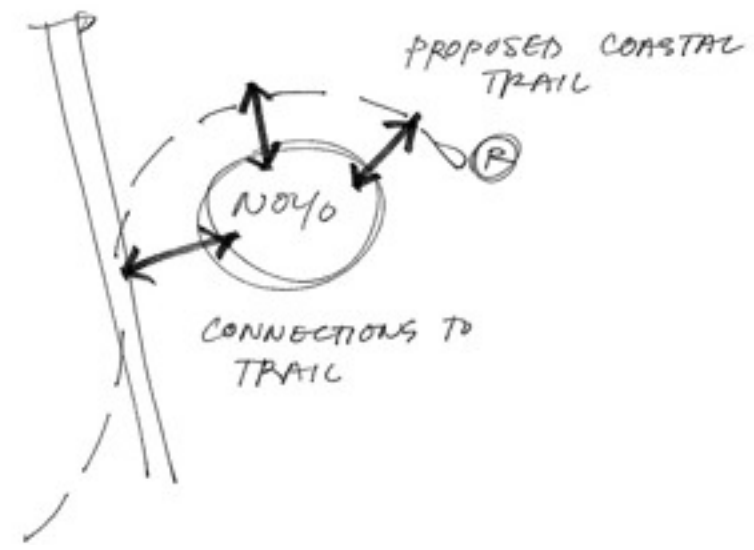
We envision a new center that will grow and change over time as it evolves with Ft. Bragg and the transformation of the Mill Site.

Seen from afar – from Highway One, from the nearby oceanfront – this new ensemble will harken visitors. On arriving visitors will at once feel the essence and diversity of the location --- from the stewardship and history of the Mill Site and the spectacular coast --- to the inviting sense of place for research, interpretation and learning.

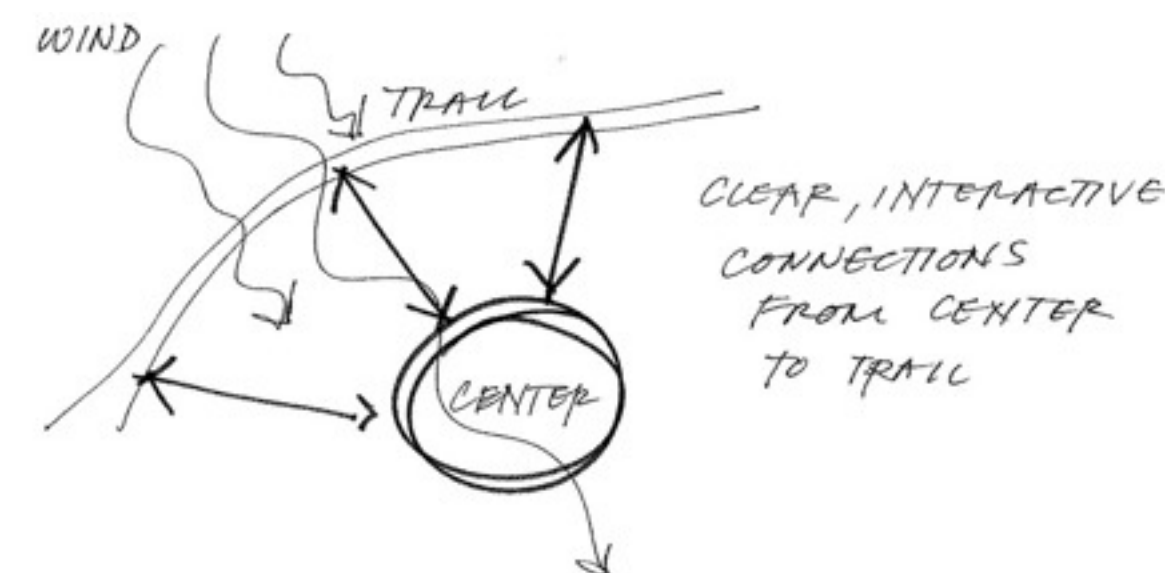
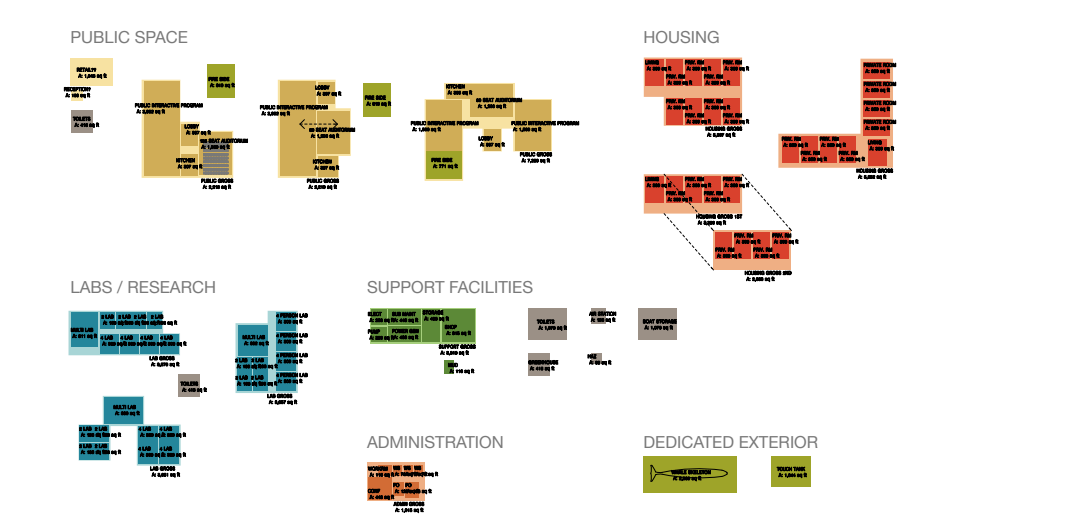
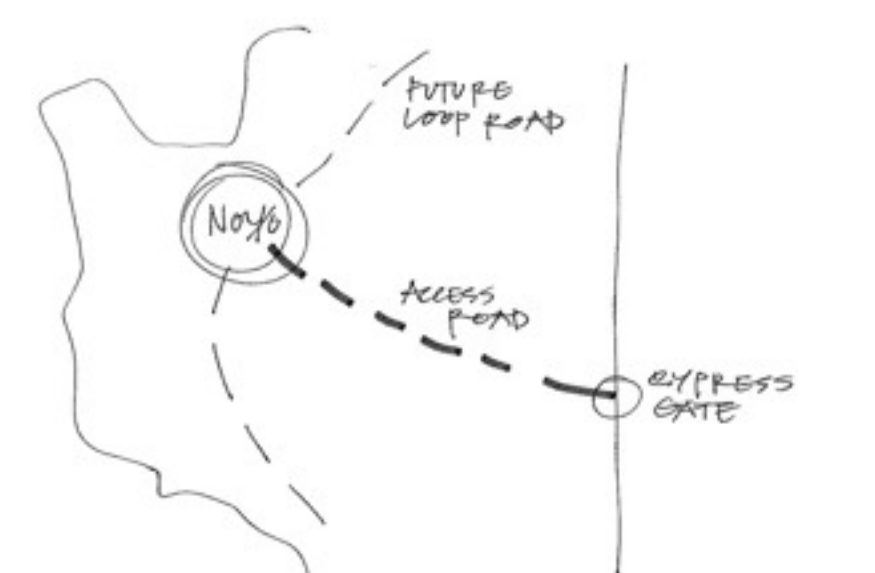
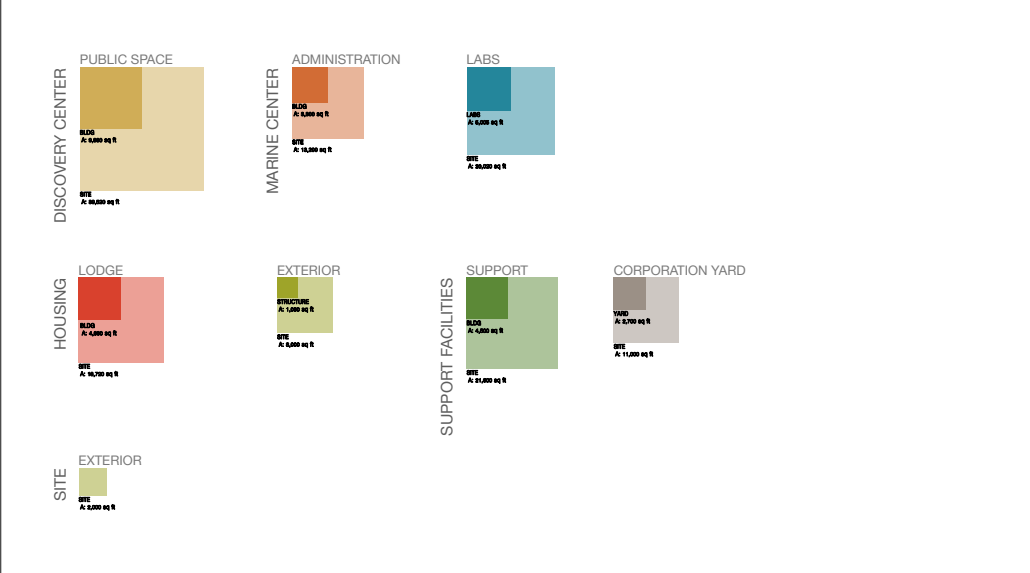
The architecture of the place will grow from coastal California field research stations, from the land, from the people and uses that form your vision. The buildings will unfold from the land --- with one element leading naturally to another – where buildings are one with the natural environment.



CHARRETTE

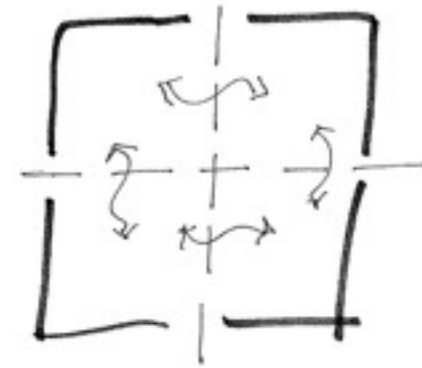
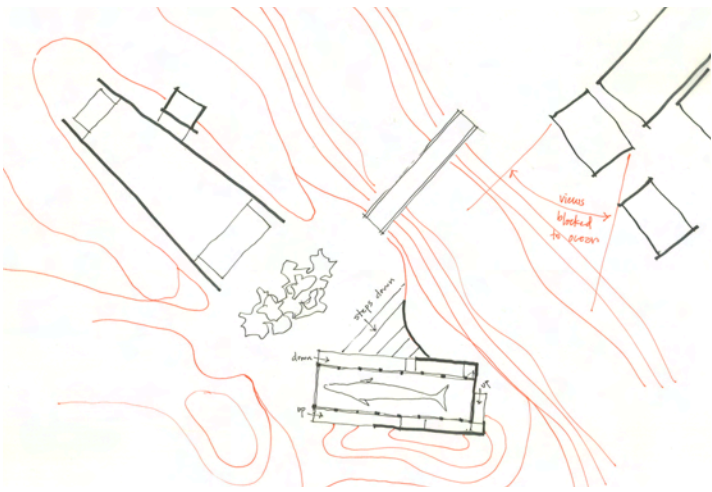


FLUID CONNECTION OR PASSAGE FROM NOYO CENTER TO TRAIL PATH TO WASTE WATER FACILITY

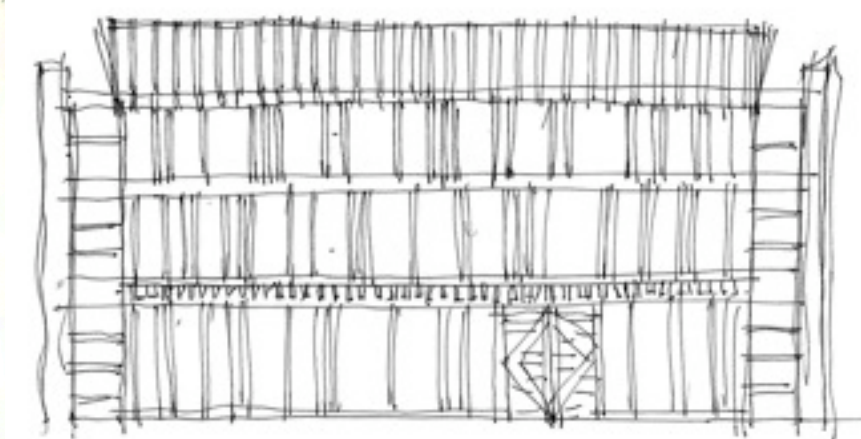
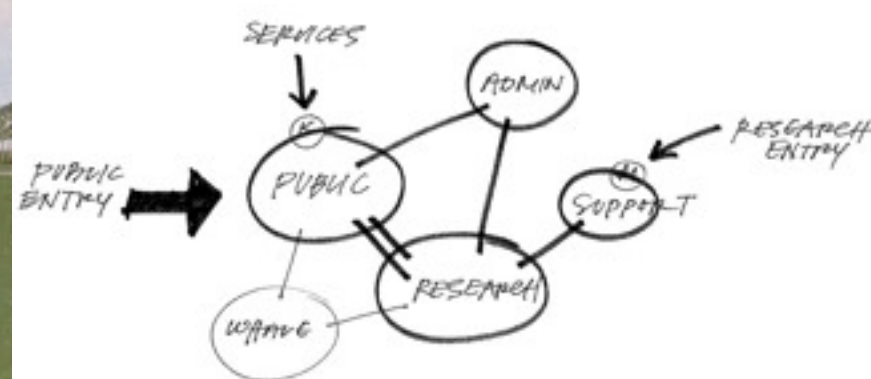
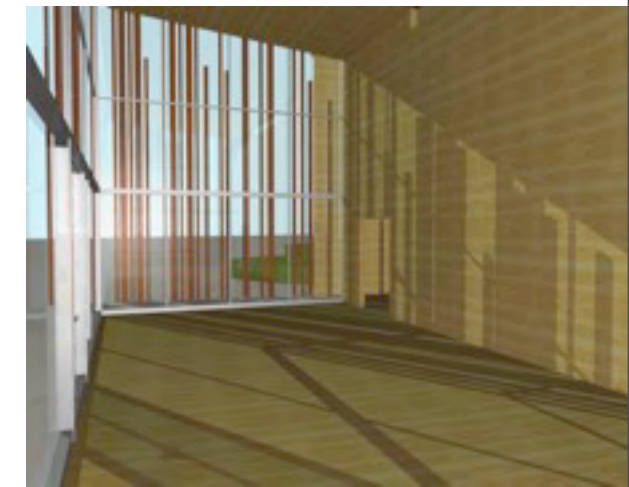
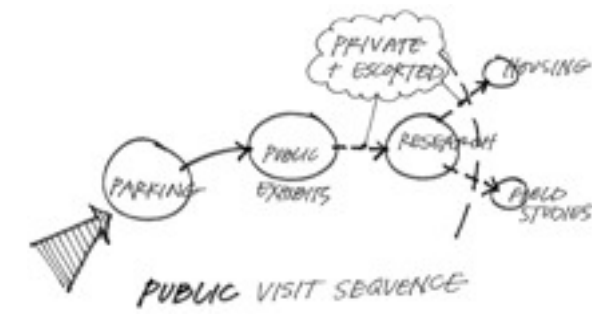


PROCESS

WORKSHOPS

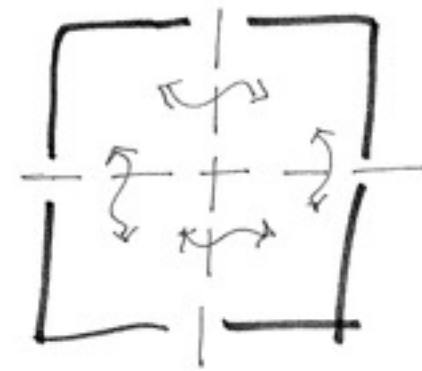
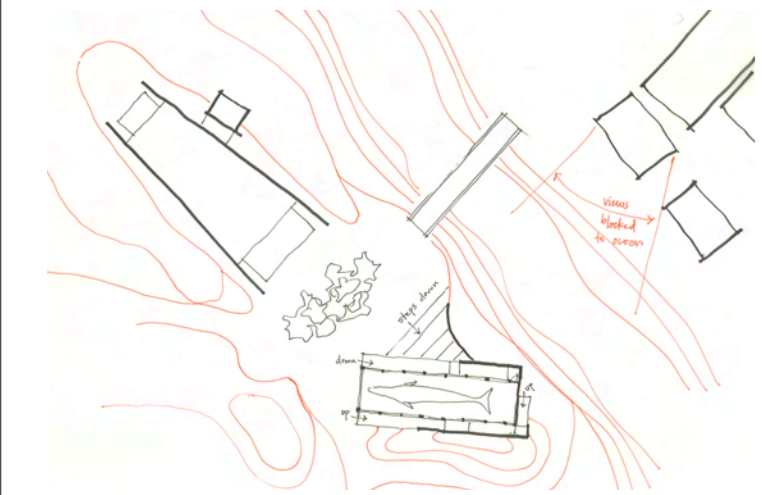


FLEXIBLE
CONFIGURATIONS
FOR DIFFERENT
CLASS SIZES,
TYPES, + FUNCTIONS

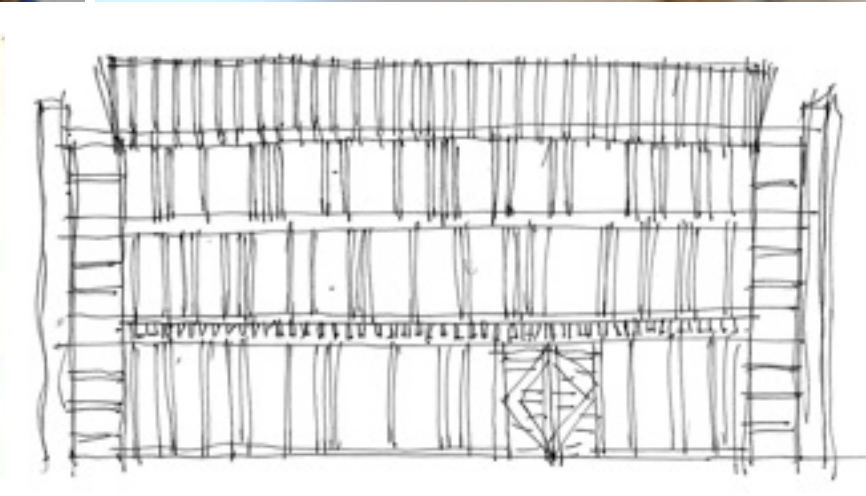
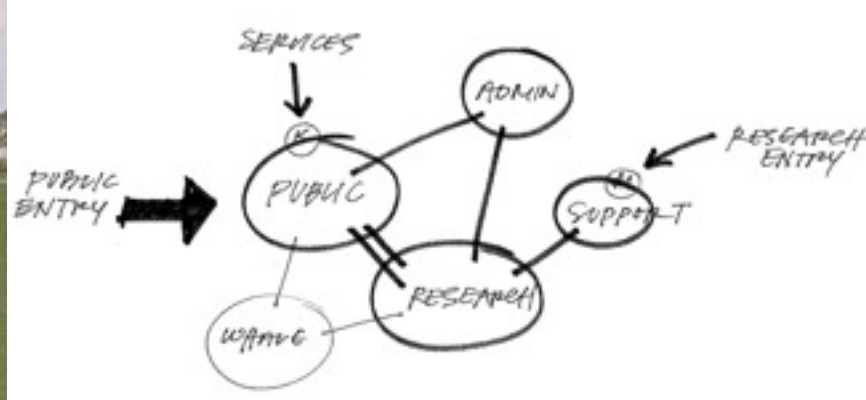
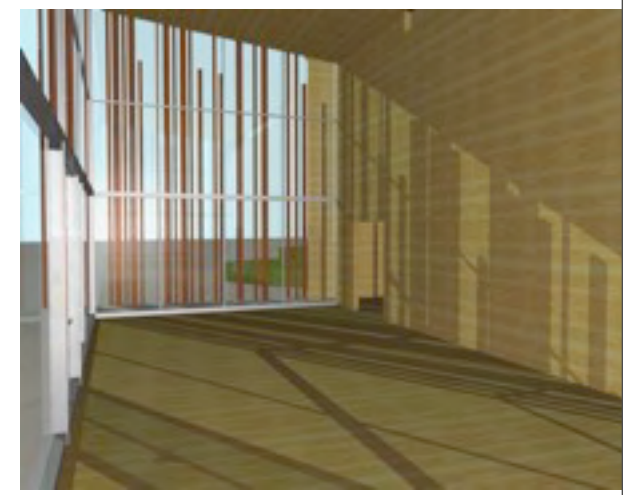
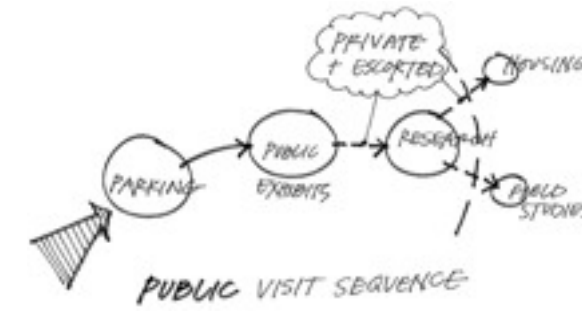


PROCESS

WORKSHOPS



FLEXIBLE
CONFIGURATIONS
FOR DIFFERENT
CLASS SIZES,
TYPES, + FUNCTIONS



PROCESS

GOALS

FUNCTION - People/Activities/Relationships

Create a **PLACE** for researchers, students, families and visitors - that promotes research and education supporting **OCEAN** and **COASTAL** ecosystem **RESTORATION** and **SUSTAINABLE MANAGEMENT**.

Make use of the opportunities presented by the **PROXIMITY** to the **OCEAN** by providing educational experiences, programs and exhibits that cannot be duplicated in a conventional setting or classroom.

To **INTERPRET** the history of the site and region and recognize fishing, lumber, and Pomo tribal legacies.

To create a facility that expresses the goal of moving from **EXTRACTION** to **SUSTAINABLE** economics and embodies the multi-faceted values of ocean and coastal ecosystems.

To provide a **CONFERENCE HALL** to serve workshops, lectures, conferences and public presentations.

Plan the facility to serve as a **COLD WATER MARINE** research center for the community college and state college system, and other researchers.

To provide for the husbandry, holding, and care of **LIVE ANIMALS** in support of the educational programs.

To provide for **CLEAN SEA-WATER** delivery and storage for the Aquatic exhibits and research.

Develop a facility and program with **MAXIMUM FLEXIBILITY** for current needs (multiple use spaces) and adaptation for future needs.

Facility to **SHOWCASE** sustainability and achieve **LEED** standard **GOLD** certification.

Provide for back-up and emergency **POWER**.

GATEWAY to areas of coastal stewardship (Johnson Point).

Provide a sense of approach and orientation of the **COASTAL BLUFF TRAIL**.

GOALS

FORM - Space/Environment/Quality

To provide a facility to **EDUCATE** the **PUBLIC** through exhibits, lectures, classes and guided tours about the impacts that humans have on our marine and terrestrial environment.

To create **INSPIRATIONAL** environments that encourage creativity and motivate the participation of individuals engaged in the activities.

Locate facilities to take full advantage of the **NATURAL RESOURCES** and attributes that would maximize efficient operations.

Plan the facilities with opportunities that encourage **COLLABORATION** and chance encounters to enable social **CONNECTION** among researchers.

Plan for opportunities for **COLLABORATION** and interaction of different user groups between researchers, educators and visitors.

To demonstrate **ENVIRONMENTALLY RESPONSIVE** design.

To express the **GENUINE FEELING** of a working scientific environment.

To select materials and systems that can withstand the corrosive effects of the harsh **NEAR OCEAN ENVIRONMENT**.

To respect and enhance the site's qualities of **LIGHT** and **SPACE**.

Provide a **SAFE** environment for learning and experiencing nature for all **AGES** and **ABILITIES**.

Buildings should be appropriate to the **DRAMATIC** and **RUGGED BEAUTY** of the Mendocino coast, where forest and coastal prairies meet the dynamic Pacific Ocean.

Reflect cultural **HERITAGE** of Fort Bragg.

GOALS

ECONOMY - Initial Budget

To explore potential **PARTNERSHIPS** with local utilities, agencies, college districts, Native American tribes and other interests for funding, operations and collaborations.



To plan the project for an **INITIAL EXPENDITURE** of **\$7 MILLION** for Phase I.

To **MINIMIZE** operating costs through generation of on-site power and reclaiming of water usage.



To **OPERATE** the **SITE** at **NET ZERO ENERGY** to the City of Fort Bragg.

To control **OPERATIONS** and **MAINTENANCE** costs through **LIFE-CYCLE COST** planning.

To provide for a **HIGH LEVEL** of **FUNCTIONAL QUALITY** - lasting, durable, genuine, and functional.

To provide for a **RESEARCH FIELD STATION LEVEL** of **AESTHETIC QUALITY** - working and scientific.

To use and demonstrate the **BEST** practices and **CUTTING** edge systems.

To provide a **CARBON NEUTRAL** facility.

TIME - Past/Present/Future



To **PHASE** the Development based on funding.

To **OCCUPY PHASE ONE** by **TBD**.

To develop a **LONG RANGE PLAN** through **2025**.




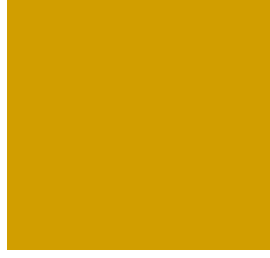



To develop a plan that **ANTICIPATES** and **ALLOWS** for change.

PROGRAM



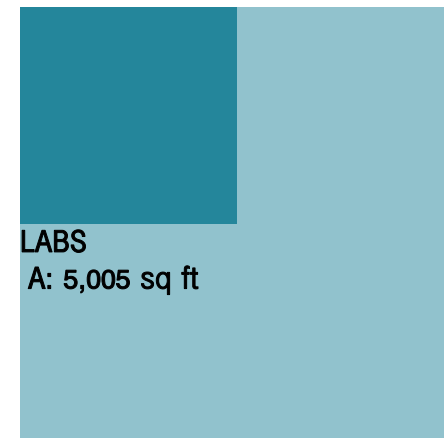
SPACE REQUIREMENTS

	PHASE I	PHASE II	
 LABS/RESEARCH	1,872 NSF	2,050 NSF	
 ADMINISTRATION	1,242 NSF	630 NSF	
 SUPPORT FACILITIES	859 NSF	600 NSF	
 HOUSING	0 NSF	3,600 NSF	
 INTERPRETIVE CENTER	4,458 NSF	3,300 NSF	
TOTAL NSF	8,431 NSF	10,200 NSF	18,631 NSF
TOTAL GROSS	10,970 SF	13,272 SF	24,242 SF

PROGRAM

PROGRAM ELEMENTS

LABS / RESEARCH



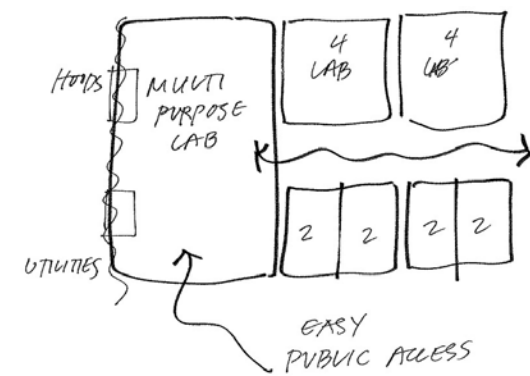
LABS
A: 5,005 sq ft

SITE
A: 20,020 sq ft

	SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	N/G MULT	GSF RFP	SITE MULT	SITE GSF for RFP
PHASE I	MARINE SCIENCE LABS						1,800	1.30	2,340	4	9,360
		MULTI-USE EQUIPMENT LAB	2		2	200	400				
		SHARED WORK SPACE LAB	4		2	300	600				
PHASE II	LABS						2,050	1.30	2,665	4	10,660
		MULTI-USE WET LAB	4		1	800	800				
		DRY TEACHING LAB	24		1	800	800				
		FOUR PERSON LAB	4		2	300	600				
		WET TEACHING LABS	8		1	650	650				

PURPOSE / INTENT

- small private spaces for researchers
- large teaching & research labs
- flexible configurations for different class sizes, types, & functions
- teaching audience for undergraduates with possibility for extending to K-12 as center develops & for general public
- flexible lab space that can be also used as classroom for 8 - 20 students
- access to labs available 24 / 7

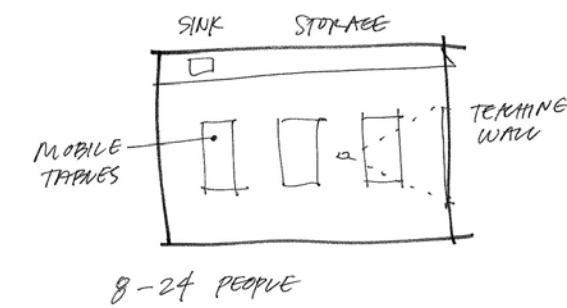


FUNCTIONAL REQUIREMENTS

- shared lab equipment for student research (scientists will provide their own specialized equipment)
- detailed biological and physical inventories of the site & region which will become a resource available for research & education programs
- maps & a trail system as part of access & interpretive information
- equipment storage for field stations
- private, lockable storage for seasonal researchers
- flexible outdoor research space on concrete with seawater, water, power
- small research lab to have ability to accommodate equipment for marine mammal research
- exterior yard for 2 marine mammals for 24 hour max including small pool, sand area, and concrete area
- multi-use equipment lab to have utility sink, hood, freezers, counter space for equipment
- shared work labs to have counters to allow processing of dirt & samples with sinks

SITE ISSUES

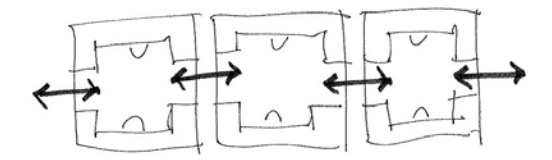
- access to appropriate natural environment & organisms of interest
- vehicle access to marine mammal yard & lab



DRY LAB

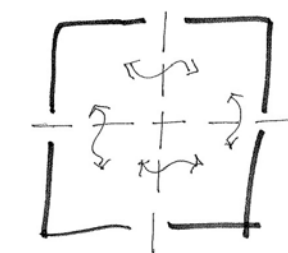
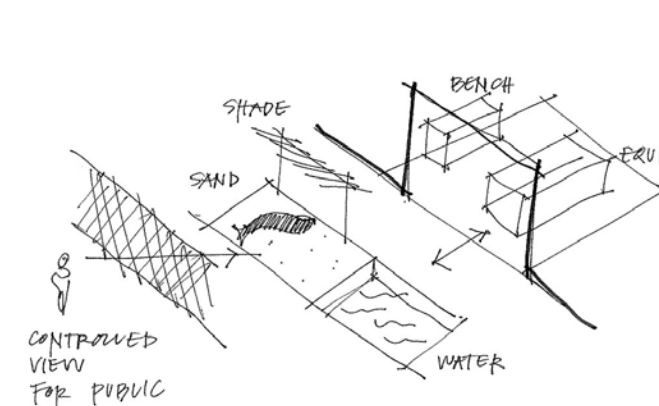
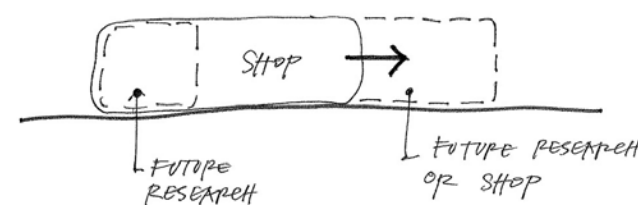
BUILDING ISSUES

- back up power
- satellite communications & high speed data
- equipment for long term monitoring program, including infrastructure to communicate with instruments & sensors in intertidal areas
- provide daylight but protect from sunlight
- seawater, water, power for outdoor research space
- 220 power for researchers
- floor drains at all labs
- lab utilities: fresh water, power, carbon dioxide, centralized distilled water
- hot & cold sea water at wet lab only

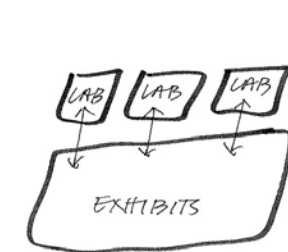
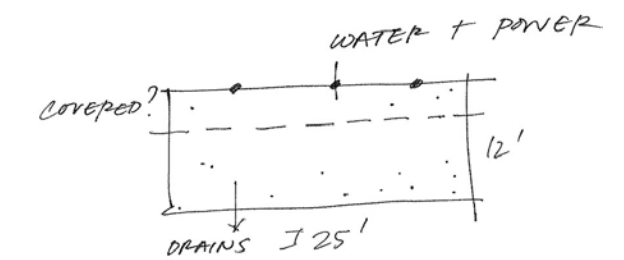


FLEXIBLE LABS FOR DIFFERENT SIZE RESEARCH REQUIREMENTS?

RESEARCH GROWTH



FLEXIBLE CONFIGURATIONS FOR DIFFERENT CLASS SIZES, TYPES, + FUNCTIONS

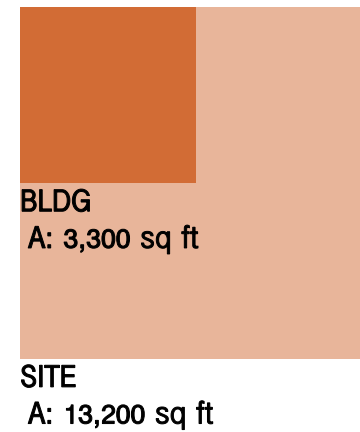


DIRECT PHYSICAL LINKS FROM LABS/RESEARCH TO EXHIBITS?

PROGRAM

PROGRAM ELEMENTS

ADMINISTRATION



	SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	N/G MULT	GSF RFP	SITE MULT	SITE GSF for RFP
PHASE I	ADMINISTRATION	ADMINISTRATIVE OFFICES	1	4	4	100	400	1.150	1,725	4	6,900
		CONFERENCE	12		1	250	250				
		COLLABORATION COVE	15		1	400	400				
		WORKROOM/IT			1	100	100				
PHASE II	ADMINISTRATION	LIBRARY	2			200	650	1.50	1,575	4	6,300
		MULTI-PURPOSE MEETING	20			450	450				

PURPOSE / INTENT

- public access during business hours
- office space for 5 staff member include site director, research director, facility manager, receptionist (at discovery center), & _____
- small kitchen for use by staff & researchers
- fireside meeting to have enclosed fireplace, adjacent to labs
- fireside meeting primarily for researchers for intimate meetings & classes & casual connections
- fireside meeting to have enclosed fireplace, adjacent to labs
- fireside public uses for receptions & meetings
- inviting meeting area, with fireplace or fire pit, that will encourage friendly interaction

FUNCTIONAL REQUIREMENTS

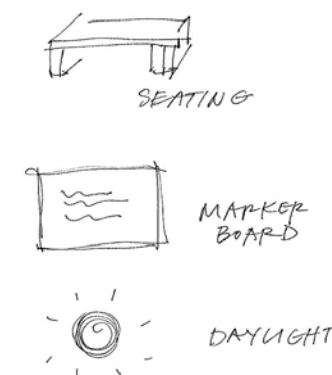
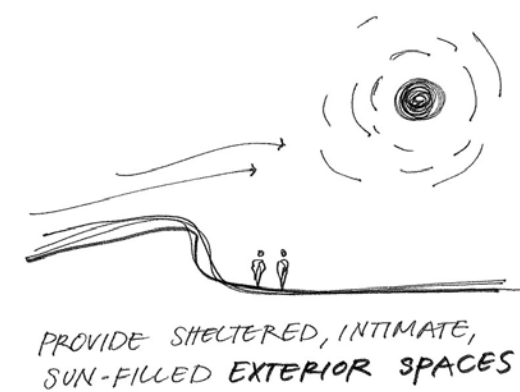
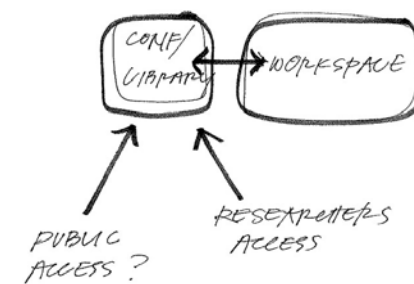
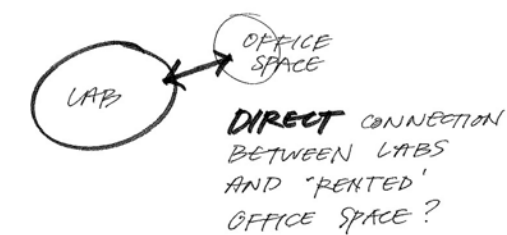
- private offices
- workroom with computer server
- conference room for 8 with integral library
- phase II library to have compressed stacks if required, & 2 laptop workstations
- phase II library open to public but controlled by staff
- conference room used by staff, researchers, docent training, agency visits
- fireside meeting room for max 15 people in comfortable seating

SITE ISSUES

- controlled entry from public
- views up the coast, ocean, bluff to connect facility to its sense of place

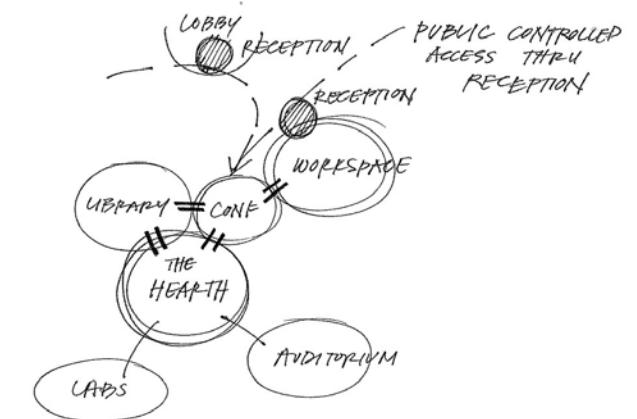
BUILDING ISSUES

- controlled entry
- secure facility with alarmed doors
- capacity for change for technology



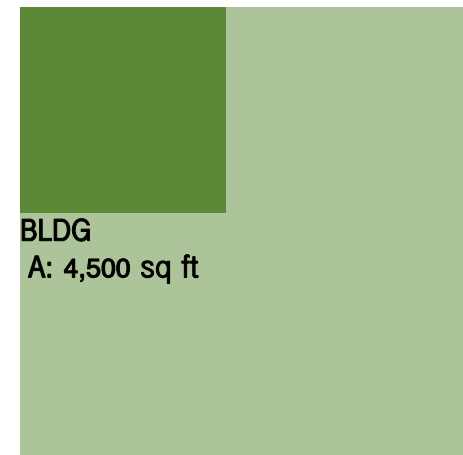
OPPORTUNITIES FOR CHANGE ENCOUNTERS WITH:

BETWEEN DIFFERENT USER GROUPS



PROGRAM ELEMENTS

SUPPORT FACILITIES



BLDG
A: 4,500 sq ft

SITE
A: 21,600 sq ft

	SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	N/G MULT	GSF RFP	SITE MULT	SITE GSF for RFP
PHASE I	SUPPORT	EXHIBIT AND LAB SUPPORT FACILITY HAZARDOUS MATERIAL STORAGE			1	800	800	1.00	900	4	3,600
PHASE II	SUPPORT	ELECTRONICS SHOP GREENHOUSE			1	200	200	1.00	3,600	4	18,000
					1	400	400				

PURPOSE / INTENT

- on-site storage and shop facility primarily for researchers (phase I)

FUNCTIONAL REQUIREMENTS

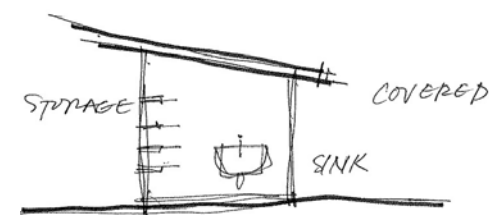
- exhibit maintenance & development (phase II)
- electronics shop (phase II - verify location)
- submersible vehicle maintenance (phase II)
- mud / wet area for researcher clean up returning from field
- weather protected, private, lockable, assigned storage for visiting researchers
- shop space for general building maintenance & researchers
- hazardous materials storage

SITE ISSUES

- unloading & loading of trucks

BUILDING ISSUES

- secured from public
- back-up power generation at both locations
- sea water pumping & treatment location to be determined; can be a visible exhibit
- sea water pumping requires adjacent vehicle access

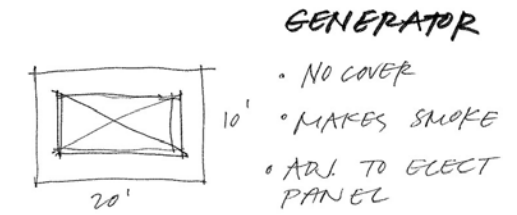
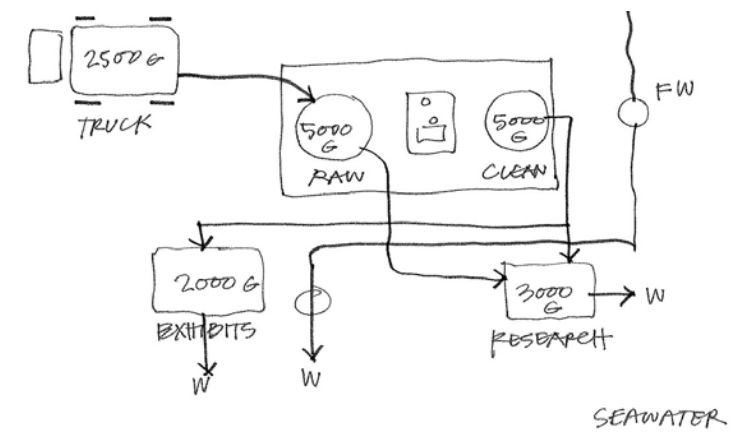


EXTERIOR MUD/WET

STORAGE
TYPES
FOR RESEARCHERS

① OPEN SHELVES FOR SHARED EQUIPMENT
±100 SF
10' x 10'

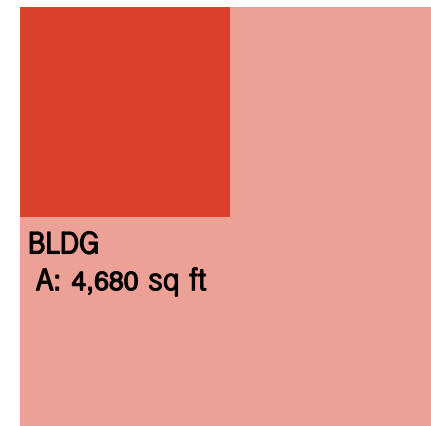
② PRIVATE, LOCKABLE, ASSIGNED STORAGE FOR VISITING RESEARCHERS
6' x 10'



GENERATOR
• NO COVER
• MAKES SMOKE
• ADJ. TO ELECT PANEL

PROGRAM ELEMENTS

HOUSING



BLDG
A: 4,680 sq ft

SITE
A: 18,720 sq ft

SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	N/G MULT	GSF RFP	SITE MULT	SITE GSF for RFP
PHASE II LODGE						3,600	1.30	4,680	4	18,720
	PRIVATE ROOMS WITH BATH	8		8	390	3,120				
	KITCHEN/LIVING	8		1	400	400				
	UTILITY/MECHANICAL			1	80	80				

PURPOSE / INTENT

- overnight accommodations
- flexible to provide privacy for couples, families, & students
- units of small size to accommodate 1-2 people
- kitchenettes shared or commons kitchen to be determined
- low profile from public
- safe & secure
- friendly village atmosphere with sense of community
- experience appealing to donors, students, researchers with character & beauty

FUNCTIONAL REQUIREMENTS

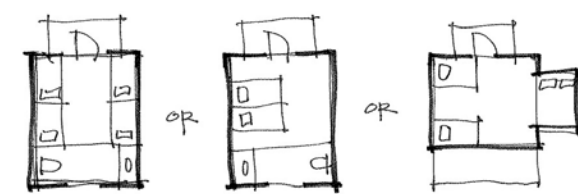
- accommodate up to 16 people
- shared common bathroom facilities with showers

SITE ISSUES

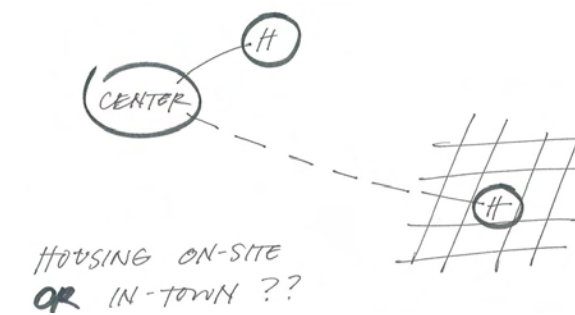
- locate within 1000 feet for five minute walk from research facility but not immediately adjacent to research
- views not required
- sheltered from winds
- gated parking & vehicle access

BUILDING ISSUES

- laundry facilities verify
- security of trash receptacles for animal control
- safety is important

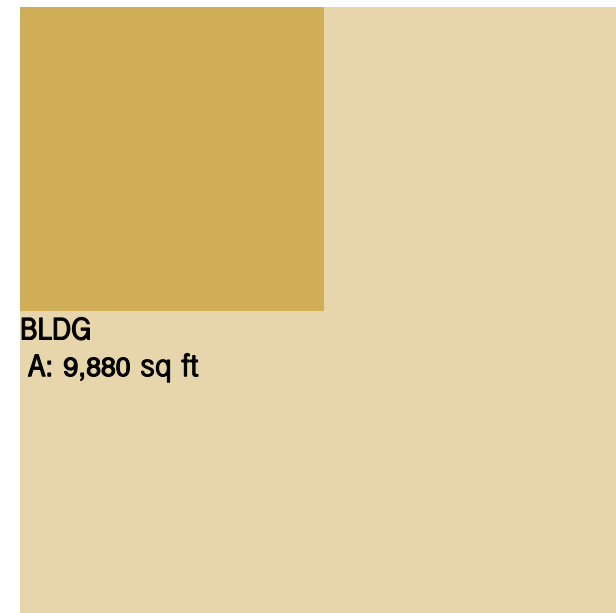


FLEXIBLE SLEEPING ACCOMMODATIONS
FOR 1-2 PEOPLE



PROGRAM ELEMENTS

PUBLIC SPACES



BLDG
A: 9,880 sq ft

SITE
A: 39,520 sq ft

	SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	N/G MULT	GSF RFP	SITE MULT	SITE GSF for RFP
PHASE I	PUBLIC SPACE	LOBBY	30	1	1	10	-	1.30	5,590	4	22,360
		RECEPTION/INFORMATION			1	100	-				
		PRIMARY INTERPRETIVE EXHIBITS			1	3,000	3,000				
		DISCOVERY HALL		75		1	1,000	1,000			
		PREP KITCHEN		5		1	300	300			
		RETAIL				1	250	-			
PHASE II	PUBLIC SPACE	ADDITION TO PREP KITCHEN			300	1	300	1.30	4,290	4	17,160
		WHALE SKELETON			1	3,000	3,000				

PURPOSE / INTENT

- public spaces should share common spaces to maximize building use and efficiency
- public access during scheduled hours, minimum 54 hours a week, year round
- public entry with paid admission
- used by up to 60,000 visitors yearly
- medium sized lecture hall seating 75 open for the community
- prep kitchen associated with lecture hall for catered events, food warming, refrigeration and clean up
- storage for general use & chairs, tables, interpretive resources
- public users include single visit, regional & local residents, resource extraction users, volunteers
- student users include K-12 through college
- other users are researchers & managers

FUNCTIONAL REQUIREMENTS

- lobby
- reception / information
- public interactive program
- prep kitchen
- retail part of lobby
- retail storage
- multi-purpose meeting room for 75 people seated, 200 standing
- whale skeleton exhibit (phase II) to be an accessible, public experience
- envelope for 72' long blue whale skeleton to be determined; interior vs. exterior, on-site vs. coastal trail
- moderate scale teaching aquarium to accommodate public visitation & education programs
- mobile specialized jewel box aquaria plus holding space to minimize stress on living organisms

SITE ISSUES

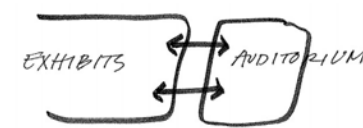
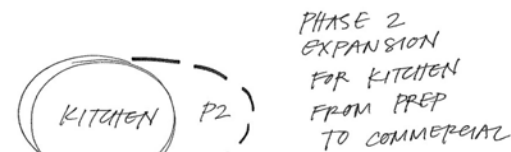
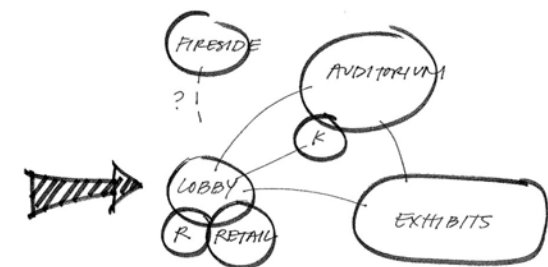
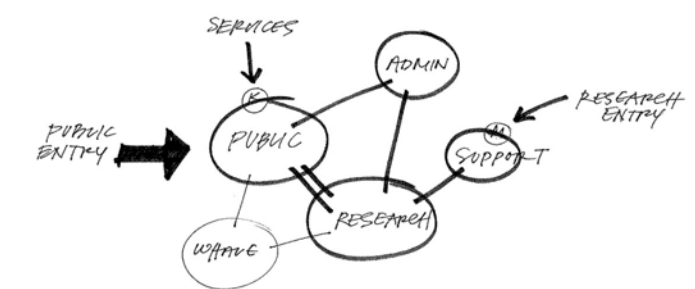
- entry not controlled
- access both for pedestrians & emergency vehicles
- loading / unloading zone for passengers & ADA parking nearby
- no sound issues
- views up the coast, ocean, bluff to connect facility to its sense of place

BUILDING ISSUES

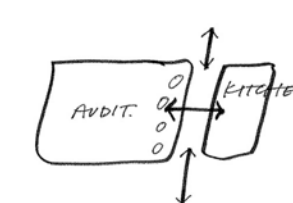
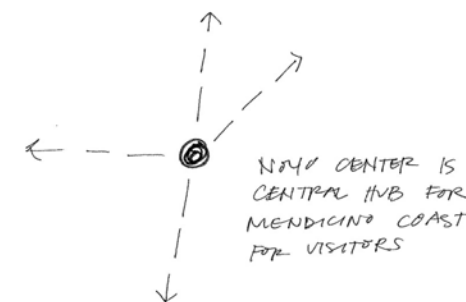
- locked entry when closed
- must not detract from the rest of the site
- views toward other areas of the site are important
- wind controlled entries & outdoor spaces
- meeting hall acoustically sensitive
- power for electronic exhibits & live data feed
- ability to use floor & ceiling for exhibits



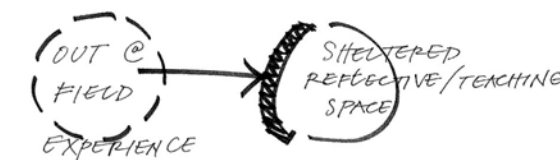
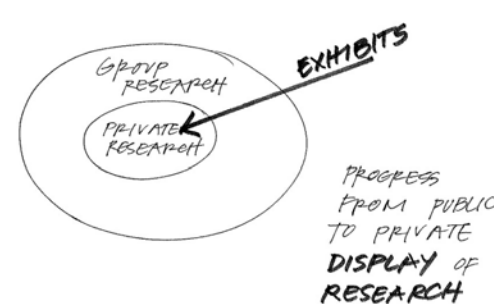
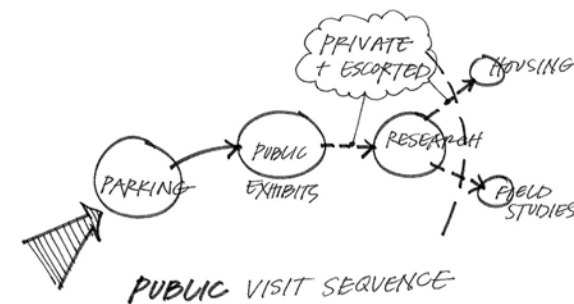
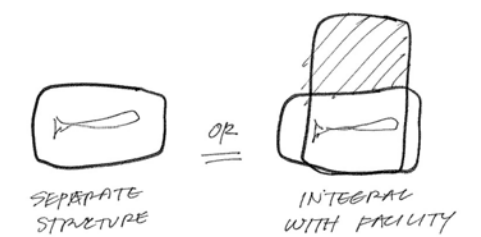
FACILITATE OVERNIGHT SLEEPING FOR 25 STUDENTS/PROF.



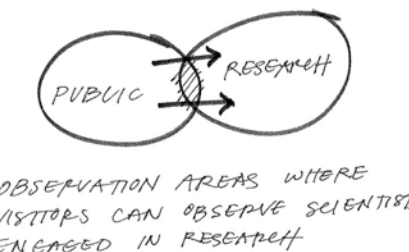
DIRECT CONNECTION FROM EXHIBITS TO AUDITORIUM?



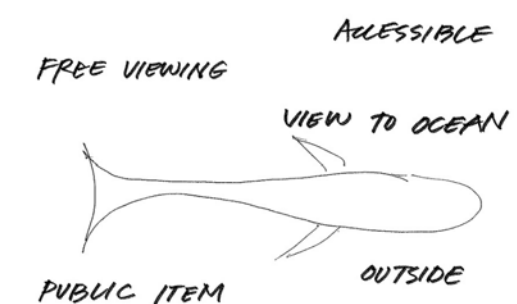
OPEN ACCESS FROM KITCHEN TO AUDITORIUM FOR INFORMAL SEATING BUT CONTROLLED ACOUSTICALLY FOR EVENTS



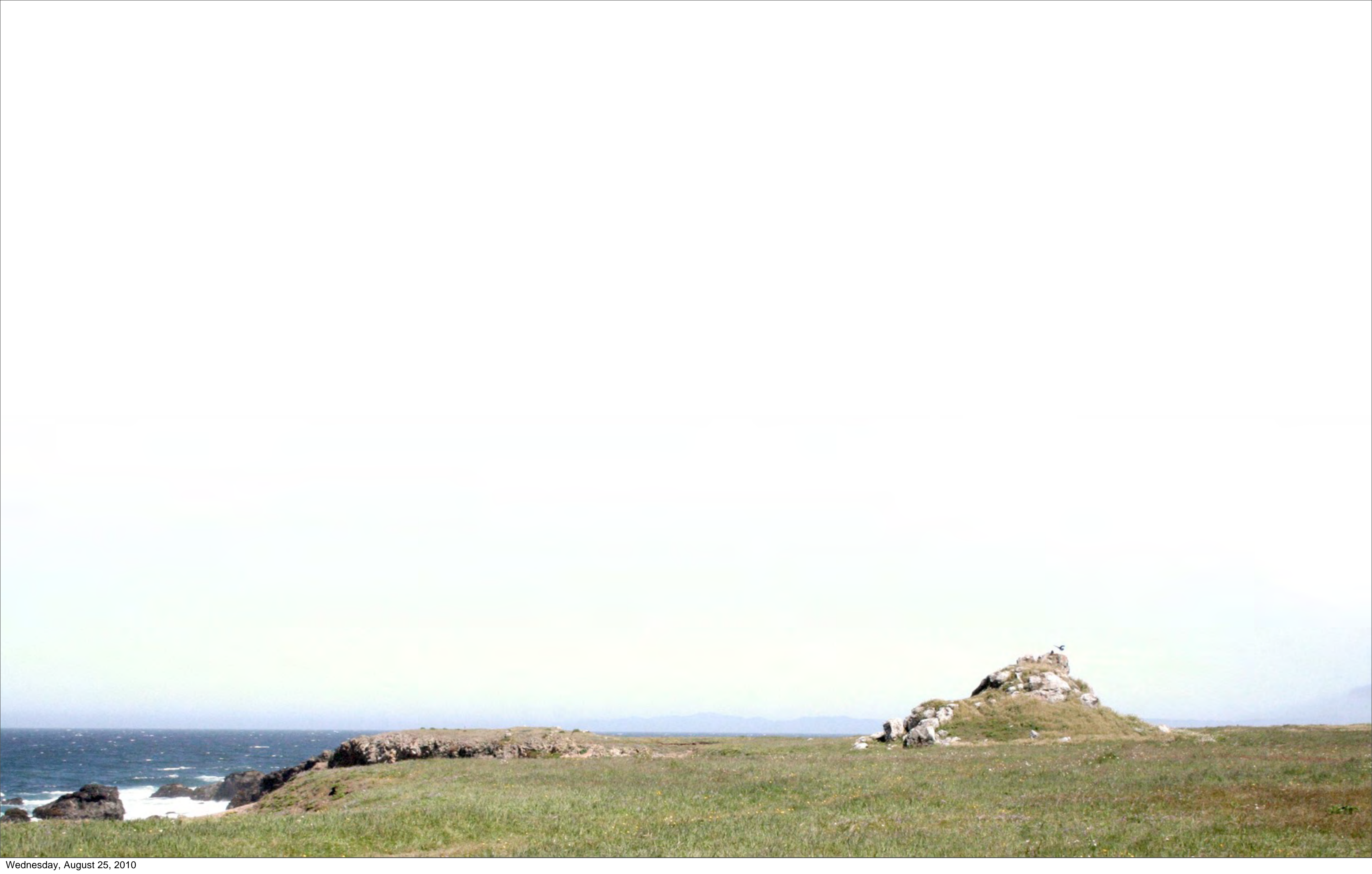
STUDENT SITE EXPERIENCE



OBSERVATION AREAS WHERE VISITORS CAN OBSERVE SCIENTISTS ENGAGED IN RESEARCH



PROGRAM



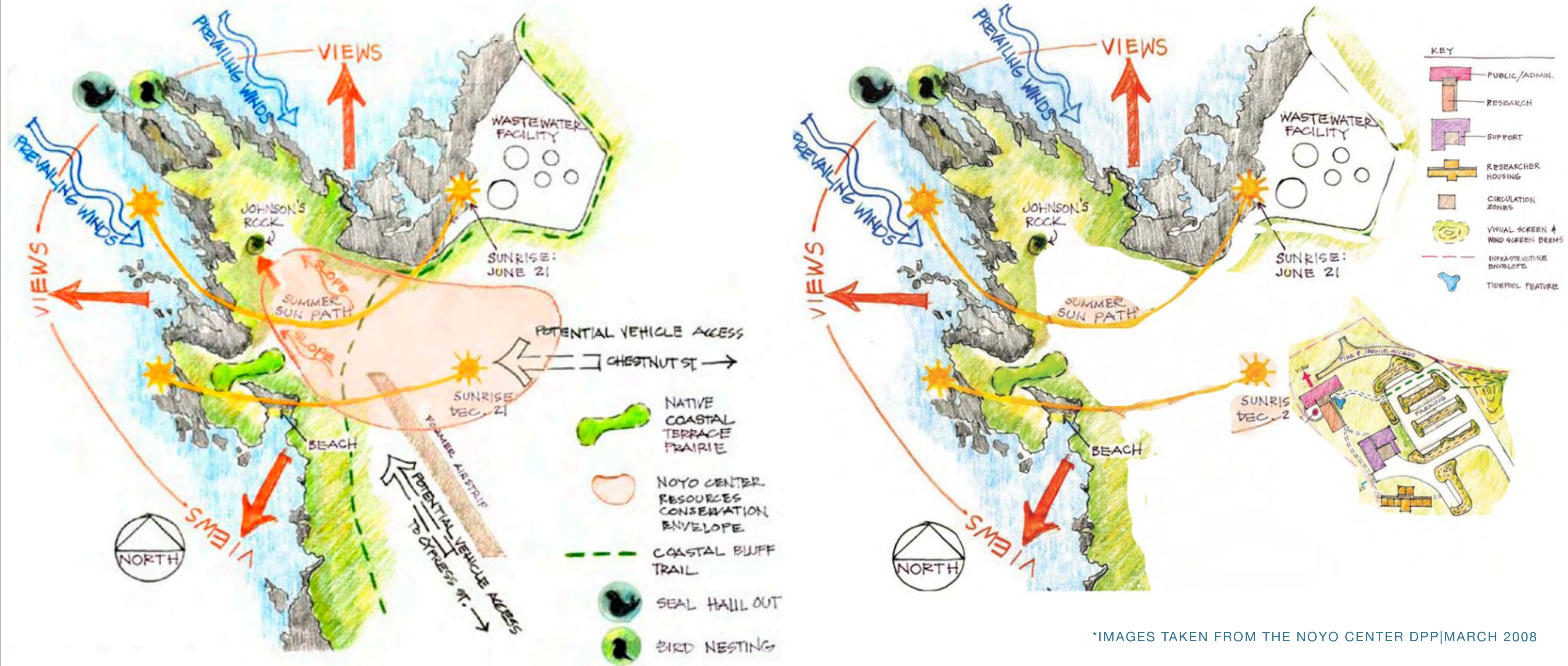
SITE



COASTAL TRAIL



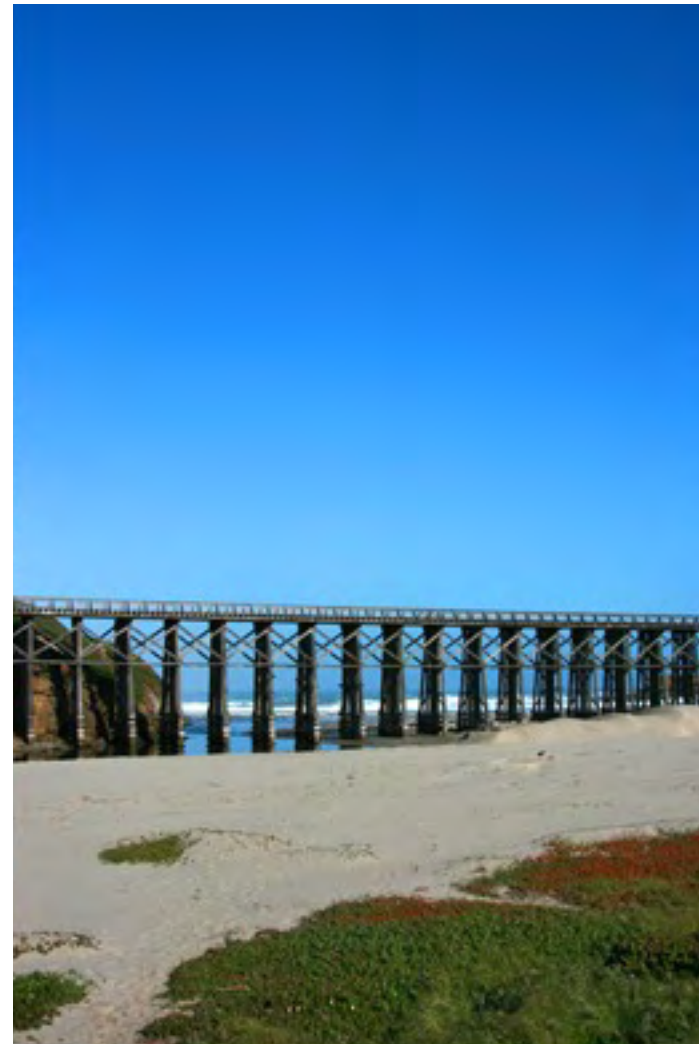
SITE OPPORTUNITIES + CONSTRAINTS



*IMAGES TAKEN FROM THE NOYO CENTER DPP|MARCH 2008

SITE INFORMATION

SITE + CONTEXTUAL IMAGES



SITE INFORMATION