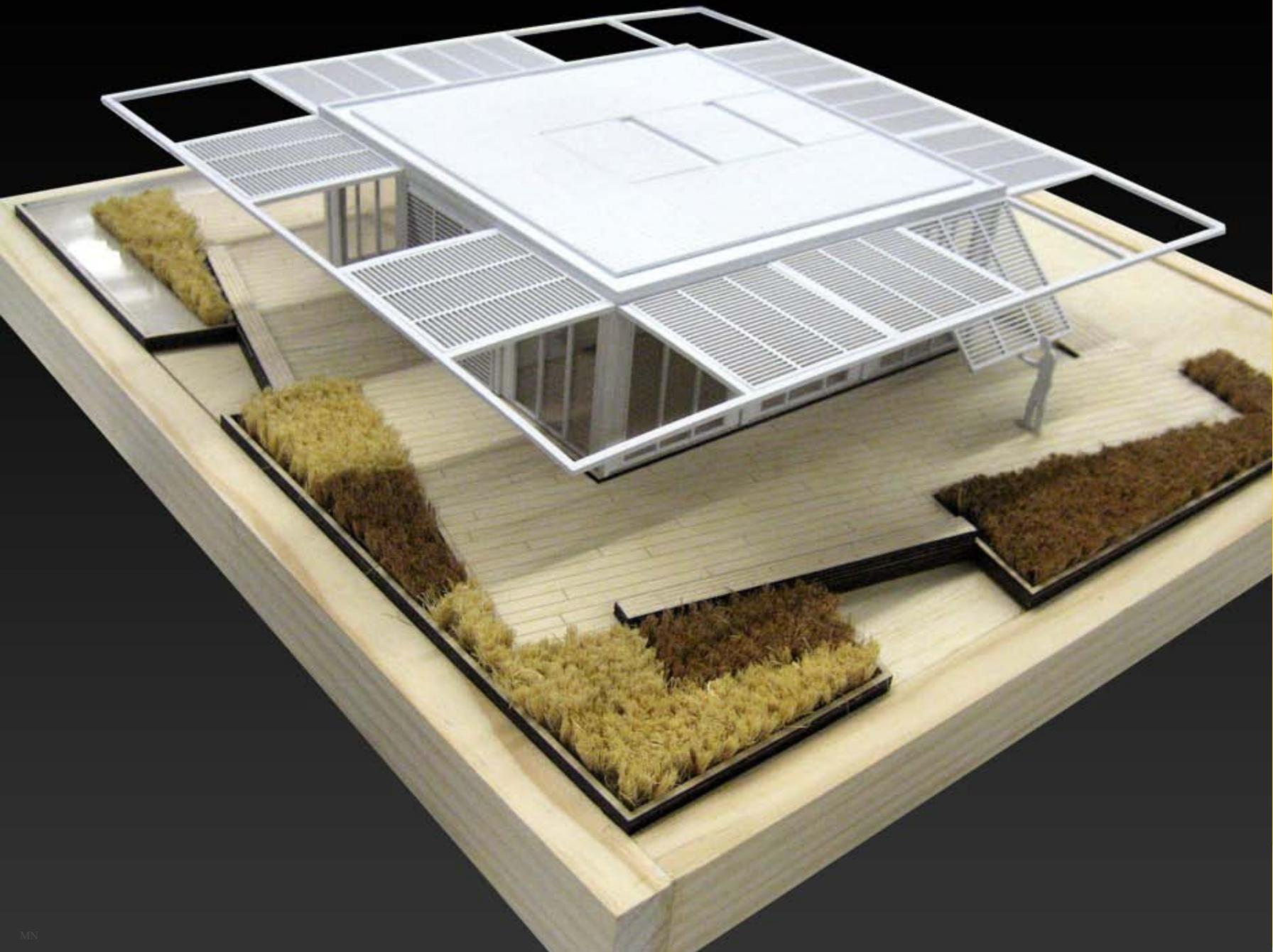


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AFFORDABILITY

HOW DO WE DEFINE AFFORDABILITY? WHY?

▪ECONOMY

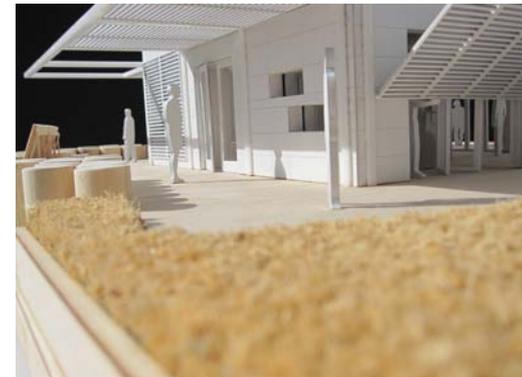
ENERGY REDUCTION THROUGH PASSIVE STRATEGIES / ACTIVE RESPONSES
MULTI-FUNCTIONAL AND BUILT-IN DESIGN ELEMENTS TO CUT DOWN ON COSTS

▪ECOLOGY

MATERIALS CHOSEN FOR THEIR REGENERATIVE AND RECYCLABLE CAPABILITIES
EMPHASIZING RENEWABLE ENERGY THROUGH LANDSCAPE DESIGN ELEMENTS

▪SOCIETY

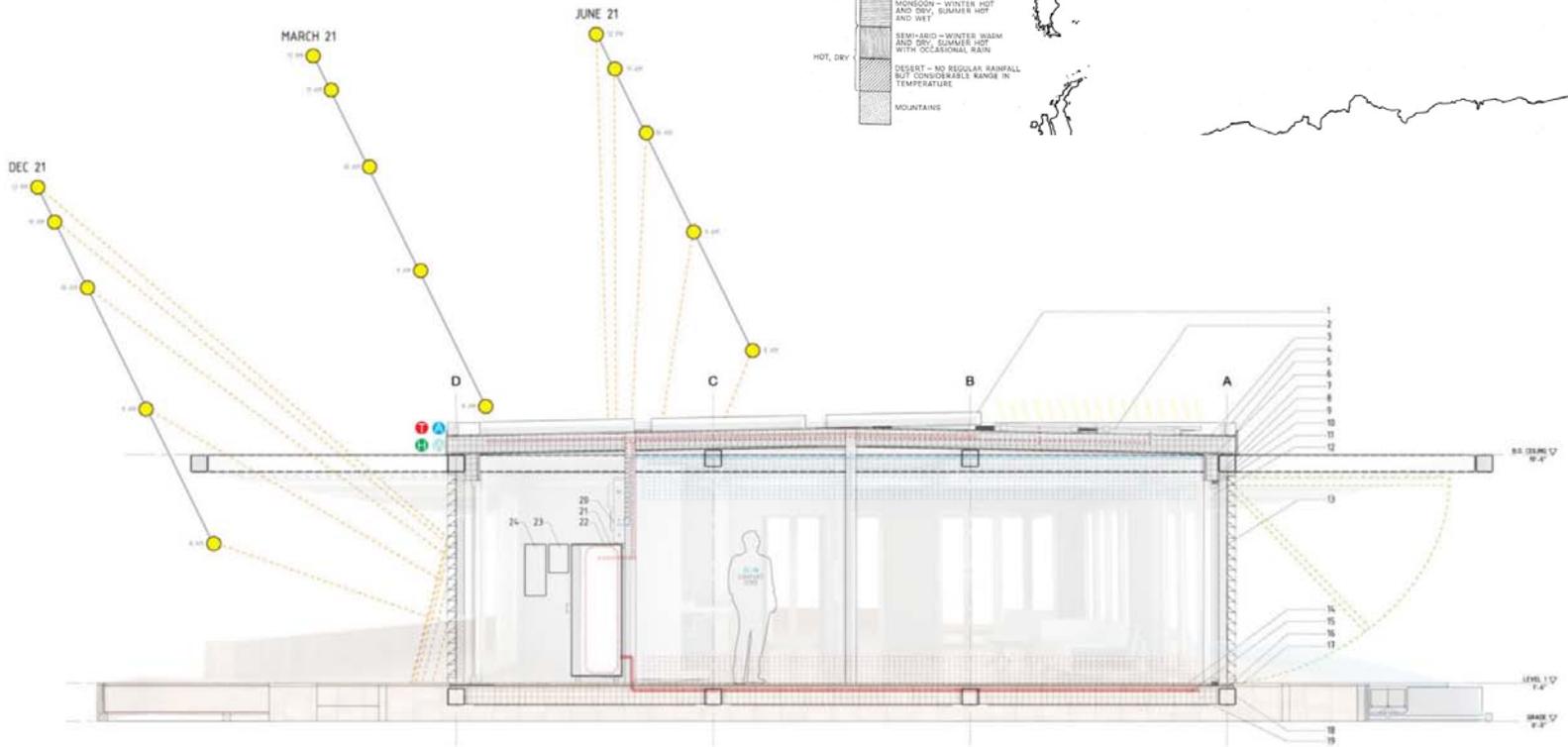
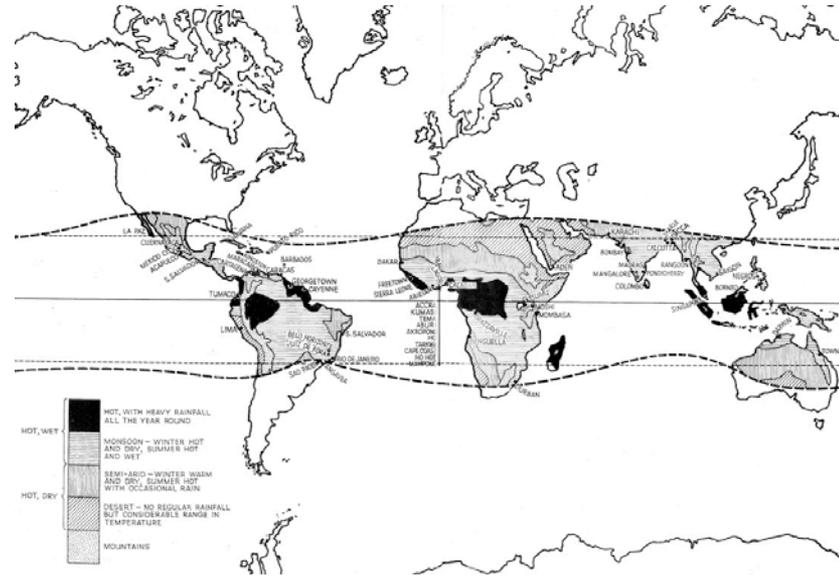
IMPLEMENTING UNIVERSAL DESIGN STANDARDS TO MEET THE NEEDS OF AUDIENCES OF ALL ABILITIES
ENSURING BROAD ACCESSIBILITY TO KNOWLEDGE ABOUT SUSTAINABLE DESIGN



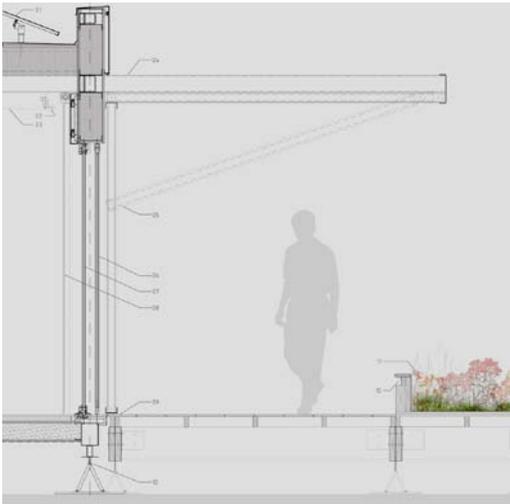
PASSIVE STRATEGIES

TROPICAL / SUBTROPICAL CLIMATE

- HOT TEMPERATURES
- HIGH HUMIDITY
- HURRICANE RISKS



ANALYTICAL BUILDING SECTION



MULTI-LAYERED FAÇADE ALLOWS FOR FLEXIBILITY AND TEMPERATURE CONTROL

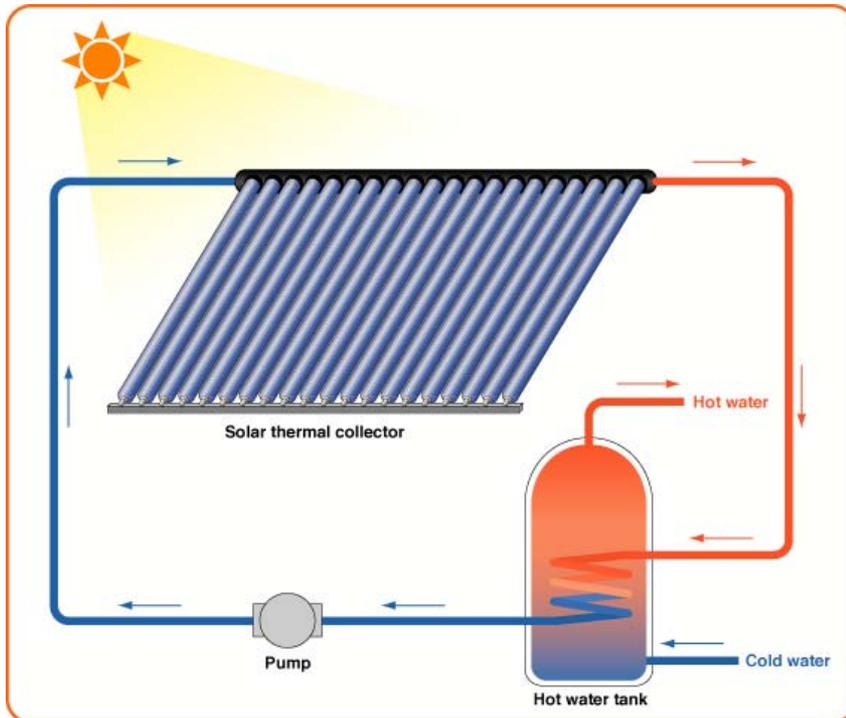
- VENTILATION
- SHADING
- HURRICANE PROTECTION
- DAYLIGHTING
- PRIVACY

ACTIVE RESPONSES

- ENERGY EFFICIENT APPLIANCES
- SOLAR HOT WATER SYSTEM
- DUCTLESS A/C – MICROCLIMATE ZONING
- INCREASED TASK LIGHTING
- SYSTEM AUTOMATION WITH MONITORED USAGE



HOME AUTOMATION DIAGRAM

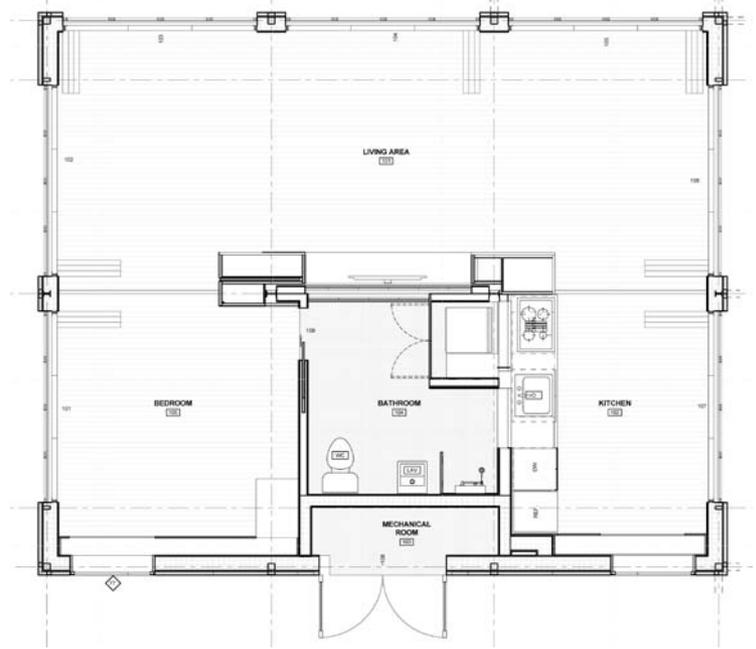
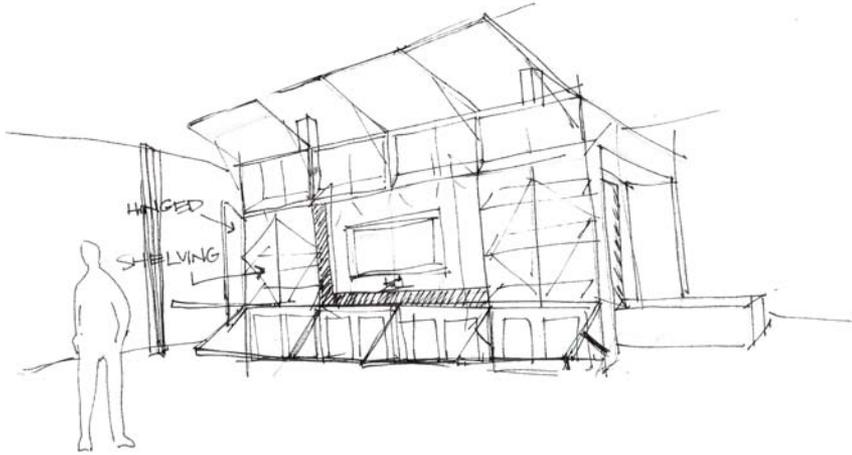


http://www.leonics.com/system/solar_thermal/solar_water_heating_system/image/solar_water_heating_system.jpg



http://www.e-comfortusa.com/images/Fujitsu_Multi_Compact_Cassette_R_CLX_System_Small.jpg

CENTRALIZED CORE

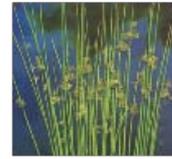


ECOLOGY - ENVIRONMENTAL RESPONSIBILITY

- RAINWATER COLLECTION
- BIOFILTRATION PONDS
- NATIVE PLANTINGS
- EDIBLE GARDEN
- PERMEABLE DECK
- TRANSPARENCY OF HOUSE OFFERS A CONNECTION WITH THE EXTERIOR LANDSCAPE
- THE IDEA OF REWABLE ENERGY IS EVERYWHERE, OFFERING A HOLISTIC APPROACH TO DESIGN



REFLECTING POOLS



Soft Rush- 3'
Juncus effusus



Bull Rush- 2-3'
Scirpus varius



*Equisetum 4-5'
Equisetum hyemale



Floating Lotus 3'
Nymphaea odorata

BIOFILTRATION SWALE / BIOFILTER



Tussock- 4-6'
Appalachian-dry



Shenandoah
Switchgrass -3'
Panicum virgatum



Butterbush 3'
Cephaelis occidentalis



Tickseed Flower
Cosmos bipinnatus



Sweetspire- 3'
Itea virginica 'Little Henry'



Swamp Milkweed-3'
Asclepias incarnata



*Cranberry- 2-6"
Vaccinium macrocarpon



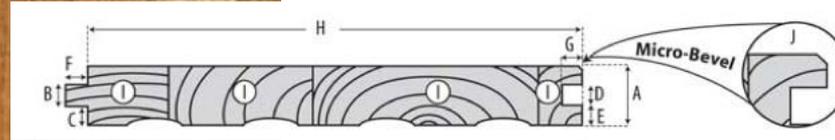
*Mint-2'
Mentha spicata



<http://staybullflooring.com/eco-friendly/>



Lumber mills across the world waste tons of perfectly good wood every year.



<http://www.flickr.com/photos/nelannah/381421012/>

MATERIALS:

- NO VOC'S – NO HARMFUL CHEMICALS
- REGENERATIVE
- RECYCLABLE

EXAMPLES:

- INTERIOR FLOORING IS MADE FROM SOLID WOOD STRIPS SALVAGED FROM LANDFILLS
- EXTERIOR DECKING IS MADE FROM REGENERATIVE BAMBOO

SOCIAL RESPONSIBILTIIY

- UNIVERSALLY ADA COMPLIANT TO MEET THE NEEDS OF AUDIENCES OF ALL ABILITIES



SOCIAL RESPONSIBILITY

- LECTURES / PRESENTATIONS / TALKS: TO EDUCATE THE PUBLIC ABOUT SUSTAINABLE / AFFORDABLE PRACTICES
- PUBLIC EXHIBITIONS
- OUTREACH PROGRAMS ON CAMPUS AND AT LOCAL AREA SCHOOLS
- WEBSITE PRESENCE: solardecathlon.fiu.edu
- MEDIA PRESENCE: NEWSPAPERS, MAGAZINES, RADIO
- RECOGNITION THROUGH PROFESSIONAL AND COMMUNITY AWARDS PROGRAMS
- AWARENESS WILL FOSTER COMPETITION AND BRING DOWN COSTS



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