



School's out for the Summer!

A LIST OF HUBBELL & HUBBELL CREATIONS FOR
YOU AND YOUR FAMILY TO VISIT THIS SUMMER

1: Ilan-Lael

Visit **James and Anne Hubbell's acclaimed home** and art studios near Julian, CA. Ilan-Lael translates from Hebrew to "a tree that unites the physical and the spiritual." The name was given by James and Anne to the structures they designed, built, and called home over the past 65 years. Today Ilan-Lael also serves as an art education and nature center, a retreat space, and a place for all those seeking inspiration in beauty, art and natural surroundings. Private and group tours are offered year round. Public tours will resume in the fall. For more info, visit ilanlaelfoundation.org.



4: Elfin Forest

Visit the Elfin Forest Recreational Reserve in Escondido and stop in the **Interpretive Center** designed by Hubbell and Hubbell. The Center gives a voice to the Escondido Creek watershed, inspiring visitors to connect to nature and value open space. The building features a living green roof and other sustainable design strategies. For more info, visit elfinforest.olivenhain.com/interpretive-center.



6: Safari Park Restaurant

Enjoy the incredible view of the African Plains at the San Diego Zoo Safari Park's **Watering Hole Restaurant** and bar co-designed by Hubbell and Hubbell. Watch rhinos and giraffes as you dine beneath a safari-inspired thatched roof. For more info, visit sdzsafaripark.org/dining/watering-hole.



2: Pacific Rim Park

In 1994, James Hubbell launched a global conversation between San Diego and Pacific Rim nations to celebrate common humanity, and the transformative power of art and the artistic process. You can visit San Diego's **"Pearl of the Pacific Park"** on Shelter Island and Tijuana's **"Entre Corazón y Mar."** To learn more, visit ilanlaelfoundation.org/pacific-rim-park.

3: Deer Park Monastery

Nestled on a hill above the Escondido Valley, nuns reside in a series of five structures designed by Hubbell and Hubbell. Guests are welcome to visit Deer Park on designated Days of **Mindfulness** or to register for an overnight retreat. All Days of Mindfulness are free of charge and donations are accepted. For more info, visit deerparkmonastery.org.

5: Shelter Island Gazebo

Have a picnic near the **"Pacific Portal"** gazebo and trellis on Shelter Island. James Hubbell designed this sculptural piece that echoes the forms of ocean waves and billowing sails. Hubbell and Hubbell coordinated the permitting and construction.

7: Safari Park Exhibit

Hubbell and Hubbell was part of the team that designed the **Australia exhibit** building at the San Diego Zoo Safari Park. It is magical to walk among the kangaroos and wallabies. This is a great activity for kids and adults!



Green Building Design

A QUICK OVERVIEW OF **SOME** OF THE SUSTAINABLE BUILDING **MATERIALS** AND BUILDING **STRATEGIES** THAT WE USE IN **OUR** DESIGNS



Strawbale



ICF



Natural plaster



Passive ventilation



Passive daylighting



Green roof

WHAT IS IT?

Strawbales are what you might picture when you think of bale of hay. They are a yellowish tan color and are made from the bi-product of grain crops, like wheat. The pieces of grain are typically tied together with twine.

Insulated Concrete Form (ICF) is a building block made from: post-consumer Styrofoam and cement. When stacked, the blocks are filled with steel rebar and concrete creating an extremely strong wall system.

There are two main types of natural plasters. Clay plaster is made from clay, sand, and mineral pigment. Lime plaster is made from marble dust, water, and non-hydraulic hydrated lime.

Passive ventilation, sometimes called natural ventilation, takes advantage of natural forces, like wind and thermal buoyancy to circulate air to and from an indoor space.

Passive daylighting takes advantage of the sun to reduce the need for artificial lighting. Passive daylighting takes into account maintaining a comfortable interior temperature, and the varying sun angles through different seasons.

A green roof (sometimes referred to as a living roof) is a roof that contains soil and plants. A green roof can beautify a building or help a building blend into the natural environment.

WHAT ARE THE BENEFITS?

- Renewable, natural and non-toxic
- Less pressure on forest & wood industry
- Low embodied energy
- High thermal performance
- Fire-resistant
- Less layers and less steps in construction
- Owner-builder friendly
- Affordable

- Sustainable & recycled
- Fire-resistant
- Insect-resistant
- Earthquake-resistant
- High strength
- High thermal performance
- High acoustical performance
- Less layers and less steps in construction
- Affordable

- Non-toxic
- Low pollution
- Low embodied energy
- Fire resistant
- Creates a healthier space
- Moderates humidity
- Prevents mold & mildew
- Repels dust
- Emits negative ions
- Beautiful and customizable

- Energy savings
- Reduce emissions
- Cost savings
- Low maintenance
- Healthier interior air

- Energy savings
- Cost savings
- Connection to the outdoors
- Reduce heat gain during the high summer sun
- Take advantage of natural daylighting during the low winter sun

- Energy savings
- Cost savings
- Reduced storm water runoff
- Increase lifespan of roof
- Increase efficiency of solar panels
- Save land and habitat space
- Reduce heat island effect
- Improve air quality and reduce green house gas

OTHER INFORMATION

- Cost comes out to the same as wood
- Strawbale projects have discounted permit fees in San Diego County
- H & H has designed and permitted 40 + strawbale buildings in San Diego County

- \$20 per SF
- ICF projects have discounted permit fees in San Diego County
- H & H designed and permitted the first ICF ADU in San Diego city

- Interior natural plaster costs around \$6 per SF
- Plaster has been known to last longer than traditional drywall
- Plasters require little to no maintenance

- Passive ventilation is typically achieved by including operable windows and vents in a design
- Increasing passive ventilation often also increases the amount of natural daylighting

- Passive daylighting is often achieved with strategically placed windows and doors.
- Passive design also includes overhangs, trellises, etc. to prevent heat gain during summer.

- The national average cost is \$15 to \$50 per SF
- Green roofs can last 40+ years with proper maintenance
- The weight of green roofs must be taken into account structurally



What's New

at

HUBBELL & HUBBELL

Coming soon...

We recently received the building permit for a new single-family home. Located on a boulder-filled site, this unique, green residence is aimed to blend into its surrounding environment by literally bringing nature indoors. One large boulder will be completely enclosed by the home and another boulder will serve as part of the exterior wall of the home.



Recently completed!

This Accessory Dwelling Unit (ADU) is the first ADU in the city of San Diego to be permitted and built with Insulating Composite Concrete Form (ICCF). ICCF is a sustainable and resilient alternative to traditional wood stick framing. The blocks are made from cement and post-consumer Styrofoam and the finish is plaster which is a healthier alternative to traditional finish materials like paint.



On the drawing board...

This single-family desert residence is intended to be immersed in the nature that fills the 40-acre site. The residence is divided into two wings – the living wing and the bedroom wing. They are connected by an exterior corridor that immerses the users in the surrounding natural beauty. The design also features ICCF walls, rammed earth walls, a cooling roof, passive ventilation, natural daylighting, shade systems, and rain water harvesting.

In Construction!

A NEW SUSTAINABLE HOME MADE FROM STRAWBALE

This single-family residence is constructed of strawbales, a building material that is natural, renewable, and serves as great insulation. We believe that strawbale creates unique and beautiful homes that tell a story and we love designing homes with this material. This home showcases the versatility of strawbale construction when it comes to size and design style. The square footage, grand ceilings, beautiful finishes, and the custom features demonstrate that strawbale doesn't restrict the design of a home. If anything, strawbale construction adds to the custom-home feel as the thick walls create unique details around windows and doors, and the plaster interior finish is a feature that cannot be replicated by traditional paints.





County of San Diego Green Building Incentive Program

The County of San Diego has established **incentive** programs, policies, ordinances, and guidelines to **promote green** building design and construction. **Hubbell and Hubbell Architects** has designed **over 50 buildings** that benefitted from the incentive program – most projects being built from **strawbale or ICF**. See a portion of the county's green building brochure below for additional information.

Program Overview

The County of San Diego Green Building Incentive Program is designed to promote energy efficiency, use of resource efficient construction materials, and water conservation in new and remodeled residential and commercial buildings. Eligible participants can benefit from various program incentives that, along with the potential long-term savings, make building green a viable alternative to traditional construction.

Key Elements

- ☛ Natural resource conservation
- ☛ Water conservation
- ☛ Energy efficiency



Design Considerations

- ☛ Maximizing use of natural sources of heat, cooling, ventilation & light
- ☛ Selecting appropriate site
- ☛ Utilizing landscaping such as xeriscaping that minimizes run-off and conserves water
- ☛ Designing for durability



Purpose

By anticipating future resource needs and conserving now, we can create safe, livable communities and protect the environment for our children and generations to come.

Eligibility

To qualify for the program, the project must comply with one of the conservation measures listed below:

1. Natural Resource Conservation

- **Recycled content materials.** Do one of the following:
 - a) Show that 20% or more of the primary materials being used in the building system contain 20% or more post-consumer recycled content. Any reused materials will be found to satisfy the 20% post-consumer recycled content requirement; or,
 - b) Show that at least one primary building material (such as roofing) is 50% or more post-consumer recycled content.

- **Straw Bale Construction.** New buildings using baled straw from harvested grain for the construction of the exterior walls will qualify for the incentives.

2. Water Conservation

- **Graywater Systems.** The installation of a graywater system will qualify for the incentives. Graywater is the wastewater produced from bathtubs, showers, and clothes washers. In order to conserve water, it can be used for irrigation through subsurface distribution systems. A permit is required from the Department of Environmental Health for the graywater system. (CPC Title 24, Part 5, California Administrative Code, Appendix G)

3. Energy Efficiency

- **Energy Use Below CEC Standards.** Residential projects that exceed the minimum Title 24 standards by 15% and commercial projects that exceed the standards by 25% qualify for the Green Building Incentive Program. The applicant must demonstrate to the Building Division that the project exceeds the Title 24 minimum standards by submitting compliance documentation done on a computer program approved by the California Energy Commission.

Incentives

- ☑ Reduced plan check turnaround time (saves approximately 7-10 days on project timeline)



- ☑ 7.5% Reduction in plan check and building permit fees
- ☑ No fees for the building permit and plan check of residential photovoltaic systems

Other (Non-County) Incentive Programs

San Diego Gas & Electric
sdge.com/rebates-your-home
sdge.com/rebates-finder/business

California Center for Sustainable Energy
energycenter.org/index.php/incentive-programs

