



# Pollinating Minds

2022-23

**Fundraising Prospectus**

TIFFANY D PHOTOGRAPHY

**Welcome to rural Northern California, where there is beauty and order in nature. Breathtaking countryside. Blooming orchards. Generational farms steeped in American history.**

**And a quiet hero that makes it all possible.**

The honeybee and other pollinators give us many of the freshly grown foods we rely on to survive. In fact, we can thank this little overachiever for one-third of all the food we eat.

Honeybees have a far-reaching impact on our food security, but the tiny world of honeybees is a mystery to many people who take for granted what these small insects do for our planet. We can make a positive impact by advancing the public's awareness and understanding of honeybees, pollination, and their importance to the environment and our food supply.

MITCHELL YERXA PHOTOGRAPHY

# Table of Contents

- Need for Change .....2
- The Key to Change..... 3
- Background ..... 4
- Future Plans .....7
- Fundraising..... 15
- Naming Opportunities.....17
- Financials .....19
- Leadership..... 20

Wooden beehives with active honeybees were transported to a lavender ranch to pollinate crops.



# The Need for Change



**California farmers feed the world.**

It's no surprise that agriculture is the number one industry driving the Golden State's robust economy. According to data from the California Department of Food and Agriculture, California farmers:

- Produce more than one-third of the country's vegetables.
- Produce two-thirds of the state's fruits and nuts.
- Manage more dairy cows than any other U.S. state.
- Produce 80 percent of the world's almonds.
- Produce one-third of the world's processed tomatoes.

With its freshly grown food delivered to farmer's markets and grocery stores across the U.S. and an annual worldwide export market of more than \$11.3 billion in food and commodities, you'll likely eat something from California today.

Yet, this delicate cycle is increasingly threatened.

For generations, farmers—with the help of honeybees—have turned water into food. A 2020 study showed a 46 percent decline in some North American bee populations. This decline is the result of many factors:

- Climate change significantly contributes to stressors affecting honeybees and other pollinators.



- Increases in CO2 emissions can decrease the protein content of plants, some of which are used by honeybees as a food source.
- Years of drought in the western U.S. has impacted the water supply, affecting farmer's ability to plant and grow the abundance of food needed for a healthy bee population.
- The increase of urbanization has reduced the greater variety of flowers and trees that provide food for the bees.
- As more concrete heats up our earth's surface, honeybees continue to lose their natural habitat. The need for education, awareness, and understanding about saving the bees is critical to their survival—and ours.

# The Key to Change



**Introducing the Honeybee Discovery Center, currently located in the Queen Bee Capital of Orland, California, where we are passionate about spreading the word about the vital role of pollinators in our food supply and the world.**

Nestled in this quaint farming community about 90 miles north of Sacramento, beekeepers have been nurturing colonies of bees and grafting queen bees for more than 100 years. The Honeybee Discovery Center was conceived as a place to bring the secret life of bees to thousands of visitors—preserving beekeeping history and protecting pollinators for generations to come.

The Honeybee Discovery Center has big plans and envisions an exciting and informative place in California's heartland to engage people about this fascinating and urgent topic.



**Our Mission**

**The Honeybee Discovery Center’s mission is to advance the public’s understanding of honeybees and to create and promote a culture of bee awareness.**

**Who We Are**

Housed in a historic building in downtown Orland, California, the current temporary location was established as a non-profit educational institution in 2018. It opened at 501 Walker Street in 2019 to teach the public about honeybees and the rich history of beekeeping in Northern California and includes the center’s administrative offices.

Development and fundraising are underway for constructing an innovative discovery center that includes:

- Pollinator gardens
- Dedicated, changing exhibition gallery
- Hands-on interactive learning space
- An enclosed atrium
- Outdoor learning space
- Class and meeting rooms
- Community activities and events

**Core Values**

The core values of the Honeybee Discovery Center motivate us and drive our activities.

**Education is the first;** we seek to educate the public about the importance of honeybees to humankind.

**Integrity is interwoven in all we do;** we are determined to educate others with only accurate and factual information.

**Sustainability is critical;** the survival of honeybees is directly linked to understanding that we must be committed to stewardship of the environment.

**Collaboration with friends and partner organizations** is necessary for the synergy required to meet the goal of building the new center.

Currently, the center is open at this small, temporary site. It offers an interactive exhibition gallery and learning space to educate the public, private groups such as horticulture and gardening clubs, and school field trips.

Our organization would not exist if it weren’t for the dedicated beekeepers and their families who have recognized how important the center is to their industry. The future center will build on our efforts with a much larger scale facility that will be a reliable resource to both growers and beekeepers, providing them with the latest research and innovative bee-safe farming practices.

The Northern California agricultural area is excellent for queen bee rearing, with tens of thousands of queen bees produced annually. Orland branded itself as the Queen Bee Capital of North America to emphasize its connection to beekeeping and the production of queen bees. Nearly 80 percent of the queen bees produced in the United States are raised in Butte, Glenn, Shasta, Yuba, and Tehama counties. Orland is also the 40th “Bee City, USA,” with a commitment to creating greater awareness about the need for an environment that protects honeybees and other pollinators.

# History



**In 1962, Yvonne Millar married a beekeeper, Bob Koehnen, who lived eight miles up the road in Glenn, California, and so began her life and love of honeybees.**

She, too, worked in the family business, and together they raised their sons Kalin and Kamron, who currently oversee the orchards and apiaries operations for C.F. Koehnen & Sons.

In 2022, the Koehnen family celebrates 117 years since their first beehive.

Bob Koehnen was the second born son to C.F. Koehnen. He was known as an innovator and agriculturalist. In an article for *Bee Culture*, Marla Spivak of the University of Minnesota called him “inspired—unique in that he was an inventor who strove to make bee management more efficient.”

For more than 55 years, Yvonne Koehnen was involved in springtime sales and packaging bees and queens. A graduate of California State University, Chico, she was a teacher by trade, but also an innovator. She built prototypes of various sizes of shipping boxes, inspired by the Rossman container to fit the new cages. She found that 160 small cells fit into a box that previously held 104 larger cages. She and Bob Koehnen also invented the California Mini Queen Cage, a small vessel that safely holds an individual queen bee for shipping from breeders to beekeepers.

Yvonne is very passionate about bees and sharing the importance of bees with the public. She has been an active member of the California Beekeepers Association for many years.

Left: Young honeybee innovators Yvonne and Bob Koehnen; Below: Bob Koehnen working honeybees in an almond orchard.



One of Yvonne’s projects was creating a beekeeping display for the Chico Museum in 2009. Her exhibit about bees had the highest attendance the Chico Museum has ever seen. After the opening, she visited many offices and local elementary schools in Butte and Glenn Counties, inviting the public to see and learn about bees.

This educational work inspired Yvonne to create a bee museum and pay homage to her family and the legacy of her husband, Bob.

After years of fundraising and continued education, a dedicated group of volunteers formed who are leading the vision for the center today.

Below: Bob and his brother Bill shaking bees for a packaged bee shipment; At Right: Yvonne Koehnen holds a California mini queen cage used to transport a queen bee for shipment. Developed by her husband Bob, the cages remain a standard in the industry.



Knowledgeable docents and beekeepers give presentations in the center and off-site locations like classrooms, community events, and for local educational programs. The goal is to preserve beekeeping artifacts that are part of a 100-year history in Northern California.

As founders Yvonne and Bob are deeply committed to raising awareness and increasing knowledge about the critical role and importance of honeybees and other pollinators and their ties to agricultural practices, the maintenance of global food production, and the environment.



**Bob Koehnen was a master inventor. He hired Galen Jantzen to work in the Koehnen's shop in 1974.**

Jantzen helped Bob build out his visions. In the early 1990s, Jantzen built a production machine for the mini cages. C.F. Koehnen & Sons have been producing queen cages for 45 years and now ship 1.25 million mini cages annually throughout the U.S.

Together, Bob and Jantzen:

- Perfected an assembly-line system for making queen-mating nuclei, synchronizing each step of an impressively large operation.
- Devised an early machine to fill syrup into package feeding cans automatically.
- Invented the California mini queen cage, which remains a standard.
- Developed the larger Wen-Koe queen cages. They were built with a machine, commissioned by an engineer, that adapted technology from door construction to apply the screens.
- Created an ingenious mechanism for cutting queen cells apart when they come out of the cell builder.
- Produced a towable bee-moving forklift with four forks to move four pallets of colonies simultaneously, then spread the pallets apart, allowing them to move 1,000 colonies per day.
- Developed the bank-out unloading cart system for harvesting almonds and walnuts. It has a conveyer that unloads onto another vehicle without stopping, reducing time in the field.

# Future Plans



The Honeybee Discovery Center has engaged HMC Architects to design a world-class facility that will be a regional landmark and create quite a "buzz" as the building will be part of the experience.

The new high-performance and cost-effective facility will treat visitors to an immersive experience in its theater.



By achieving net-zero energy, LEED Platinum certification, and Living Building Challenge certification, the new center will be one of the world's smartest buildings.



**Vision for Growth**

The new center will be a modern facility dedicated to showcasing honeybees, the pollination cycle, the history of beekeeping, and the interconnectedness between ecology and pollinators.

Audiences will include travelers visiting Northern California, regional clubs and organizations, schools and university scholars, local communities, beekeepers, and farmers. The center will serve as a gathering place for local community events and a destination for people from all over the world to learn about bees.

**Pollinating Minds with Cutting-Edge Education**

Education is the key to transformation, and the Honeybee Discovery Center will provide its visitors with copious learning opportunities to inspire change. After all, bees lie at the heart of our survival.

Visitors will get a unique look into the science of honeybees and other pollinators, as well as the history of beekeeping, to help them understand how critical bees are to our food system. The center will have rotating exhibits that explain colony collapse disorder, the basics of a beehive design, bee biology, and how honeybees communicate through smell, sound, and dance. As visitors learn about bees' essential role in our ecosystem, they will become more connected and invested in protecting their environment.

The center capitalizes on providing fully immersive sensory experiences for visitors, allowing them to:

- Discover how honey is produced.
- See the anatomy of a bee up close.
- Taste honey from different nectar sources.
- Watch honeybees work.

The center has a library with materials and will expand this in its new facility. This library will be a resource for hobbyists and professional beekeepers. It will also house literature-based books for children and youth. Additionally, the library will preserve and archive historical books and documents on beekeeping and apiculture.

**Our Bee Curriculum Includes:**

- Field trips that provide hands-on experiences and guided tours that deepen students' understanding and knowledge about the role of honeybees and pollinators.
- Seasonal exhibits with rotating topics in the main gallery supplemented with handouts.
- Interactive activities facilitated by credentialed teachers with beekeeping experience to augment student learning.
- Learning materials and teacher guides to encourage and engage grade school students learning about bees and pollinators both before and after visiting the center.
- Exhibit-specific artifacts, videos, and displays to expose visitors of all ages to the world of honeybees.

**Here is What's Currently in Development:**

- We are maintaining collaborative relationships with educational institutions to encourage lifelong learning experiences.
- We are working with CSU Chico's College of Agriculture to develop an Introduction to Beekeeping certification class for hobby beekeepers and those seeking employment with beekeepers at Chico's certified Bee Campus.
- We are conducting a robust outreach program to local and Northern California schools and community groups with sequenced, educational standards-based field trips.
- We are creating suitcase exhibitions and learning units for classes unable to visit the center.

- We are facilitating a Bee Club for hobbyist beekeepers to meet and take part in trainings and courses hosted by the center.
- We are embracing distance learning through online presentations, lectures, and classes in a supportive digital learning environment, increasing our audience beyond Northern California. A digital archive of previous exhibitions, resources on bees and beekeeping, and a wide variety of self-guided curricula will also be hosted online.
- We are curating a gift shop with bee-themed items, including books on beekeeping and honey, to help fund the center.
- A volunteer outreach program to recruit and train more volunteers.



*Bees have five eyes, two of which are compound with thousands of facets.*

The rooftop garden combined with a large solar array creates a doubly photosynthetic roof, harnessing the sun's power while shading the interior for comfort.

**GOLD  
NUGGET  
AWARD**

GRAND AWARD  
BEST SPECIAL  
USE PROJECT

**USGBC  
AWARD**

SDGBC  
UNBUILT ZNWATER  
MERIT AWARD

**USGBC  
AWARD**

SDGBC  
LEED BD+C  
REGISTERED UNBUILT  
MERIT AWARD

**SARA  
AWARD**

MERIT AWARD  
UNBUILT AND  
THEORETICAL  
PROJECTS

**THE ARCHITECT'S  
NEWSPAPER  
AWARD**

BEST OF  
DESIGN  
UNBUILT GREEN  
CATEGORY



### The New Building

Once constructed, new Honeybee Discovery Center will include a theater providing an immersive experience and a contemplative study of historical prints and drawings.

The entire center—exhibits, building, and site—will be dedicated to education and enjoyment. Exhibits will range from traditional displays, artifacts, and interactive, kid-friendly learning areas to multimedia and high-tech augmented reality interfaces.

Children and adults will enjoy diverse experiences that stimulate mind, body, and spirit, including bee-inspired artwork and opportunities to learn about honey, beeswax, and other byproducts of bees.

The rich history of beekeeping in Northern California will be displayed with artifacts drawn from the regional community. A cylindrical theater will be able to hold an entire class of school children, enveloping them in a larger-than-life cinematic introduction to the world of honeybees. An observation hive will allow patrons to watch bees in action. An interactive exhibit gallery guides visitors through the pollination cycle.

A multifunctional classroom will house lectures, hands-on labs, instructional workshops, culinary classes, honey-tasting events, and more. The main hall will be used to stage informal gatherings, community events, display large beekeeping artifacts and be available for temporary exhibits and private functions.

In addition to bee and honey-related items, a new gift shop will also provide materials for teachers that include a bee education curriculum for classrooms, online learning, and research for beekeeping hobbyist clubs.

The Center will be surrounded by a pollinator garden, with plaza areas for activities. On the north side, visitors will be able to observe butterflies pollinating flowers and learn about plants for their own gardens. The butterfly garden is visible both inside and outside the gallery. A rooftop garden with colorful plants selected to attract bee pollinators will allow visitors to safely observe bees visiting flowers to collect pollen and nectar.

Visitors can also observe the bees as they work through a large, real-time video feed that gives a close-up view. The south arrival plaza doubles as an event space and spills into a shaded park for smaller gatherings and quiet contemplation.

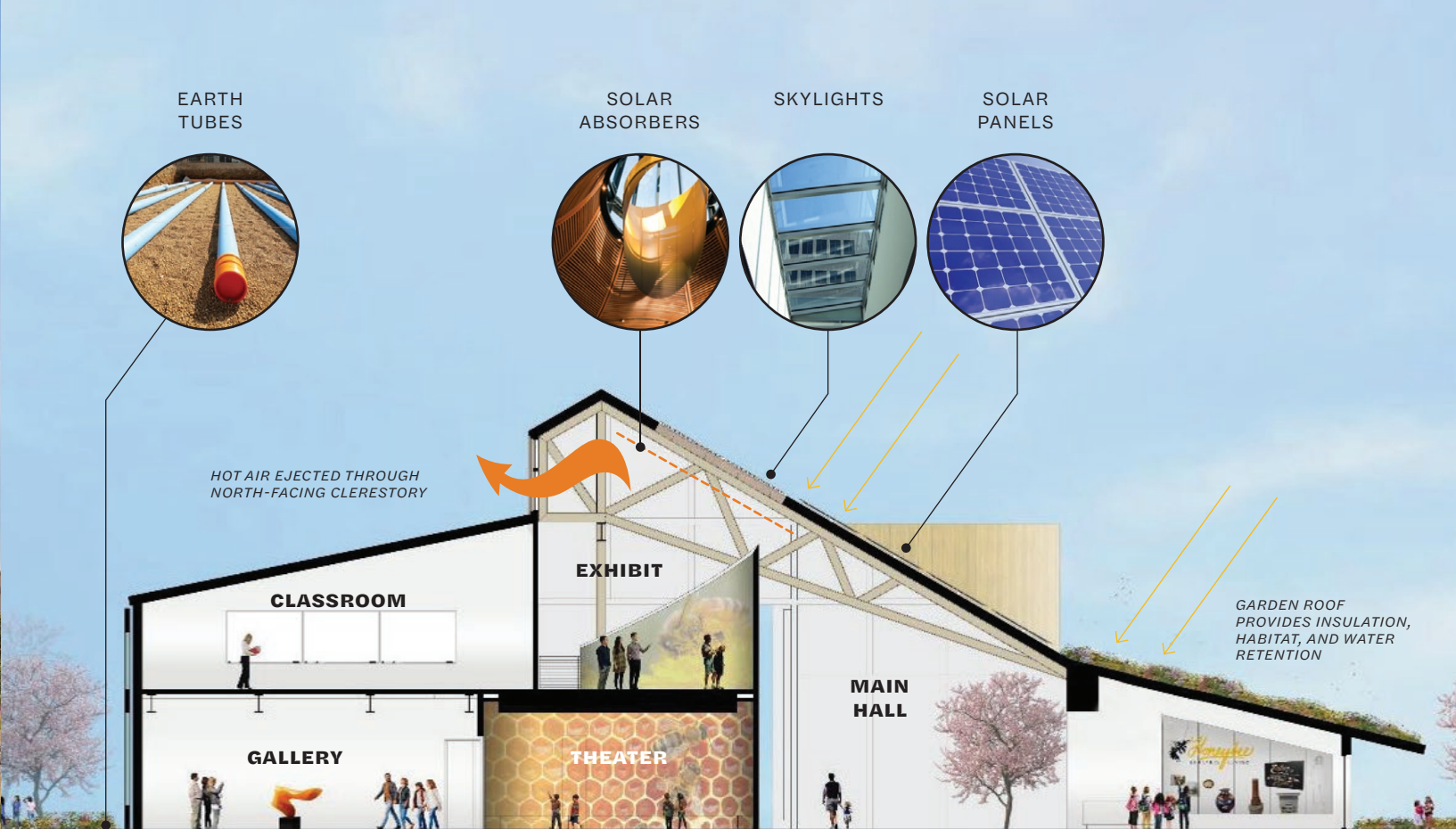
The building itself is an exhibit demonstrating how thoughtful planning and design can create healthier, habitable space for humans and bees. Bees can inspire intelligence in how we shape the human environment.



Inspired by the ingenuity of both bees and regional farm buildings, the structure is designed to house the center and embody its principles.

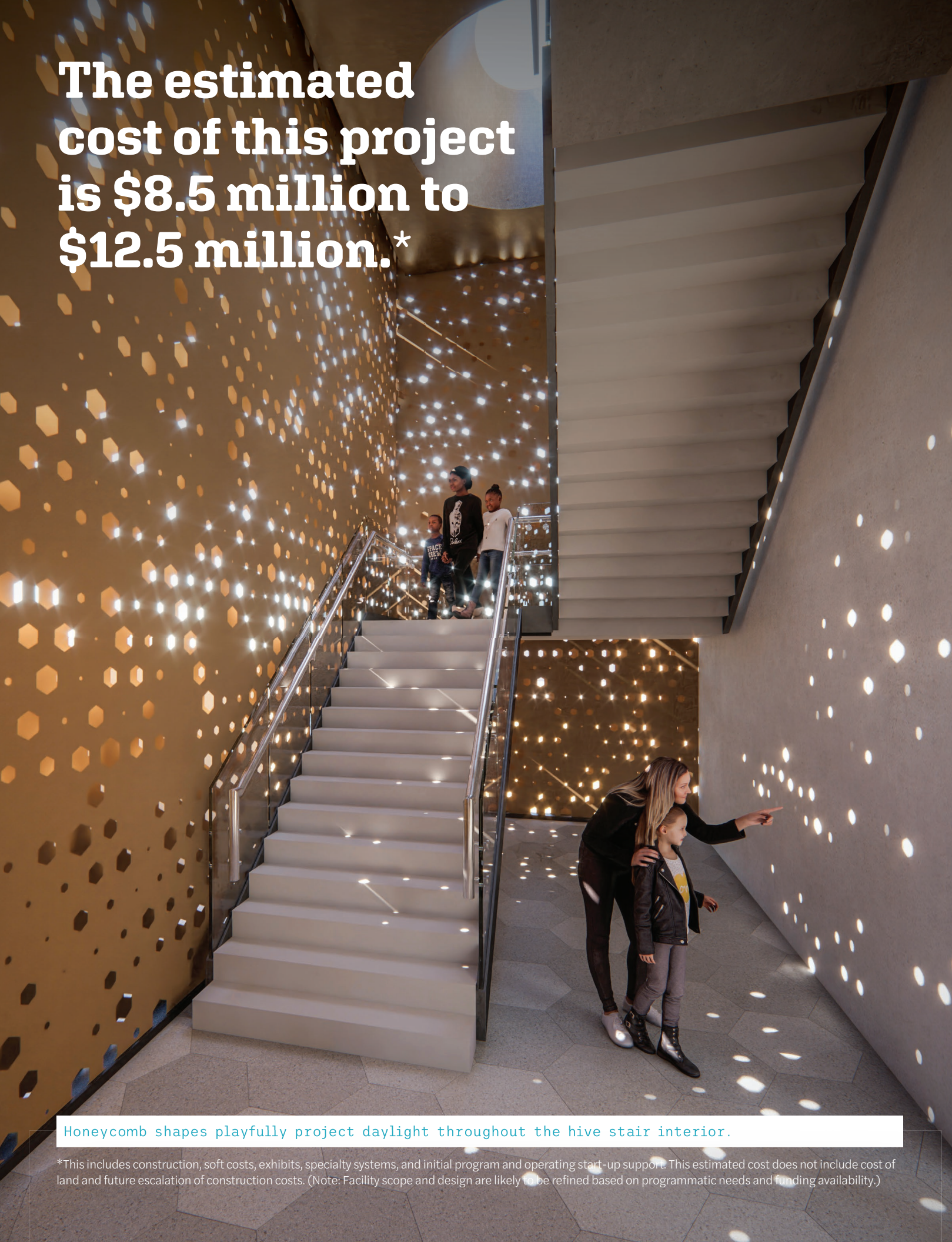


The main hall is heated and cooled without any traditional mechanical systems. Emulating the ventilation of honeybee hives, it passively uses physics to move air through the space and keep people comfortable all year round.





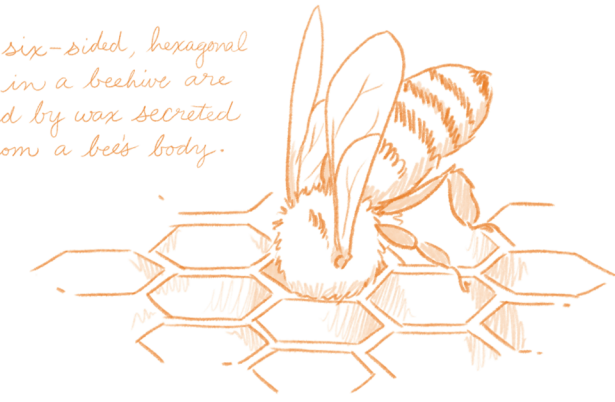
The estimated cost of this project is \$8.5 million to \$12.5 million.\*



Honeycomb shapes playfully project daylight throughout the hive stair interior.

\*This includes construction, soft costs, exhibits, specialty systems, and initial program and operating start-up support. This estimated cost does not include cost of land and future escalation of construction costs. (Note: Facility scope and design are likely to be refined based on programmatic needs and funding availability.)

The six-sided, hexagonal cells in a beehive are created by wax secreted from a bee's body.



# Fundraising



### Honeybees are in jeopardy, and they need your help.

With your contribution we will be able to continue educating the public about these essential pollinator, preserve the art of beekeeping, and ensure honeybees survive.

Honeybees are:

- Essential to agriculture
- Vital for the preservation of ecological balance and diversity in nature.
- The only insect that produces food consumed by humans.
- Vanishing at nearly 40 percent each year.

The Honeybee Discovery Center's talented board of retired educators understood the need, stepped up, and took action to save the honeybees and preserve the history of beekeeping in North America. They are doing this the only way they know how, by teaching as many people as possible about the role of honeybees and other pollinators.

Why? Because their family members are beekeepers. Because they love honeybees and have a deep desire to preserve the legacy of their families for generations to come, and because they know what's at stake if they don't.

For today. For tomorrow.

For the future of our tiniest residents—honeybees.

"Vanishing bees is a global and regional threat."

**Buzz Landon**  
President,  
California  
Beekeeper's  
Association

Below: Board Treasurer and Volunteer Donica O'Laughlin reads to a group of children during story hour; At Right: Youth volunteers during Pollinator Week help children plant sunflower seed starters.



# Naming Opportunities



The Honeybee Discovery Center will be a place to teach our community about honeybees and the role they play in feeding the world. It's a place to pollinate minds to discover the art and science of beekeeping. The only place of its kind, it will be built here in the Queen Bee Capital of North America.

We invite you to join us, become a part of the Honeybee Discovery Center and spread the word about honeybees. We can't do it without your support.

**Join us and act:**

1. Follow us on social media @HoneyBeeDiscoveryCenter
2. Tell your social media friends about us using the hashtag #HoneybeeDiscoveryCenter
3. Come visit us in Orland, California, and share what you've learned about honeybees and pollinators.

**We also accept donations by check to our mailing address:**

**Honeybee Discovery Center  
501 Walker Street  
Orland, CA 95963**

*Contribute TODAY and help us get one step closer to our dream by donating online at [honeybeediscoverycenter.org](http://honeybeediscoverycenter.org).*

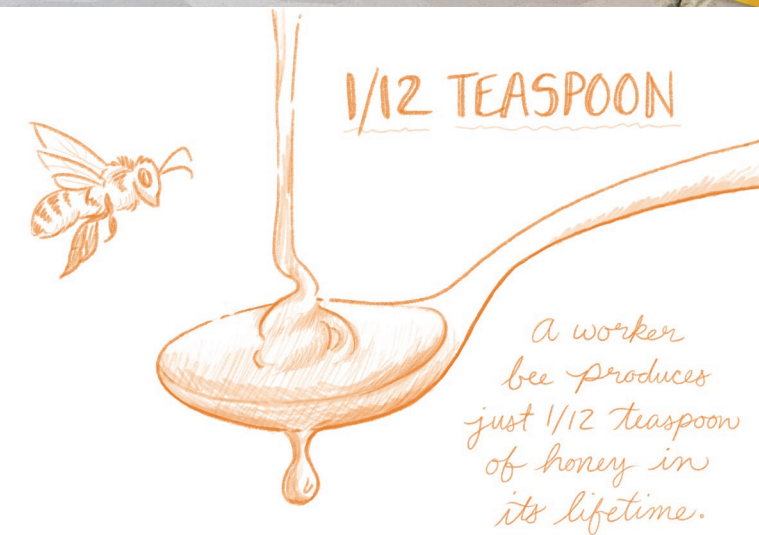
**Invest in your values.**

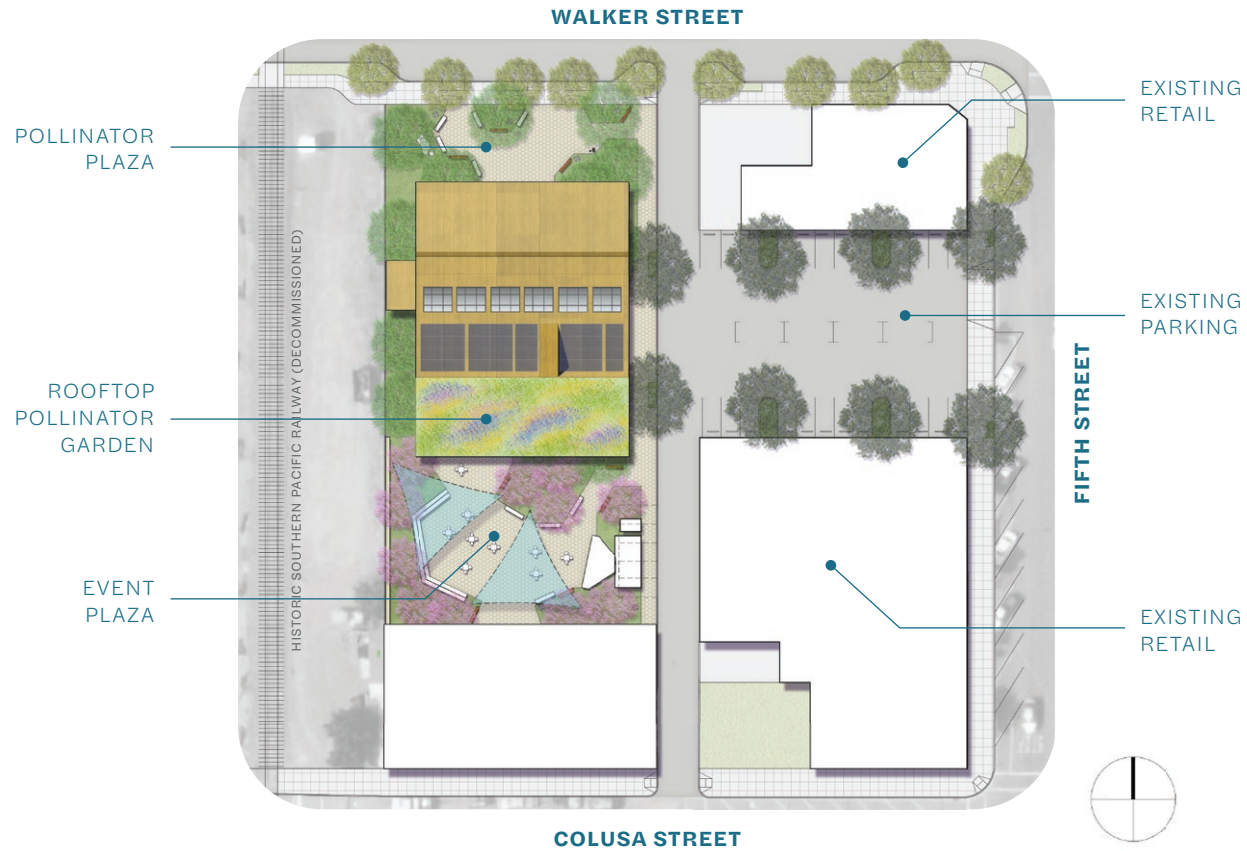
**Invest in your community.**

**Invest in agriculture.**

**Invest in the future.**

**Naming opportunities will be available. Your family can be remembered in perpetuity with a legacy gift to the Honeybee Discovery Center.**





## Naming Opportunities and Sponsorable Areas

Benefit	Sponsorship Fee	Benefit	Sponsorship Fee
● Theater	\$600,000	● Beehive Stair	\$175,000
● Solar Absorber (Passive Heating and Cooling)	\$550,000	● South Entry Displays	\$150,000
● Event Plaza	\$475,000	● Second Floor Video Exhibit	\$150,000
● Pollinator Plaza	\$450,000	● Rooftop Pollinator Garden	\$135,000
● Classroom	\$450,000	● Breakout Exhibit (Second Floor)	\$120,000
● Hydronic Radiant Heating and Night Sky Cooling System	\$340,000	● Overlook Exhibits (Second Floor)	\$100,000
● Gallery Exhibits	\$320,000	● Shade Sails (2 at \$40,000 EA)	\$80,000
● Gift Shop	\$250,000	● Benches (5 at \$10,000 EA)	\$50,000
● Solar Panels	\$225,000	● Storage Shed	\$50,000
● Archives	\$200,000	● Composting Toilet	\$25,000
● Stand Alone Restroom	\$200,000	● Observation Hive	\$5,000
● Earth Tubes System (Passive Cooling)	\$190,000	● Pavers (EA)	\$100-\$500
			<b>\$5,290,000</b>

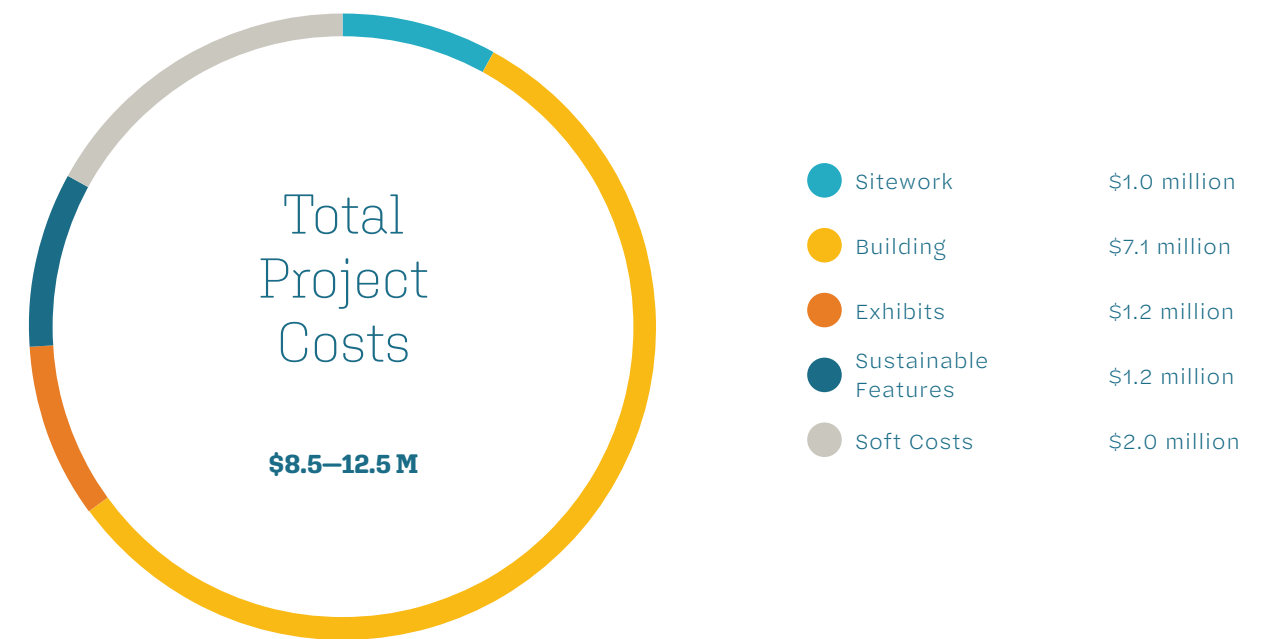
- Sitework
- Sustainable Features
- Building
- Exhibits

# Financials

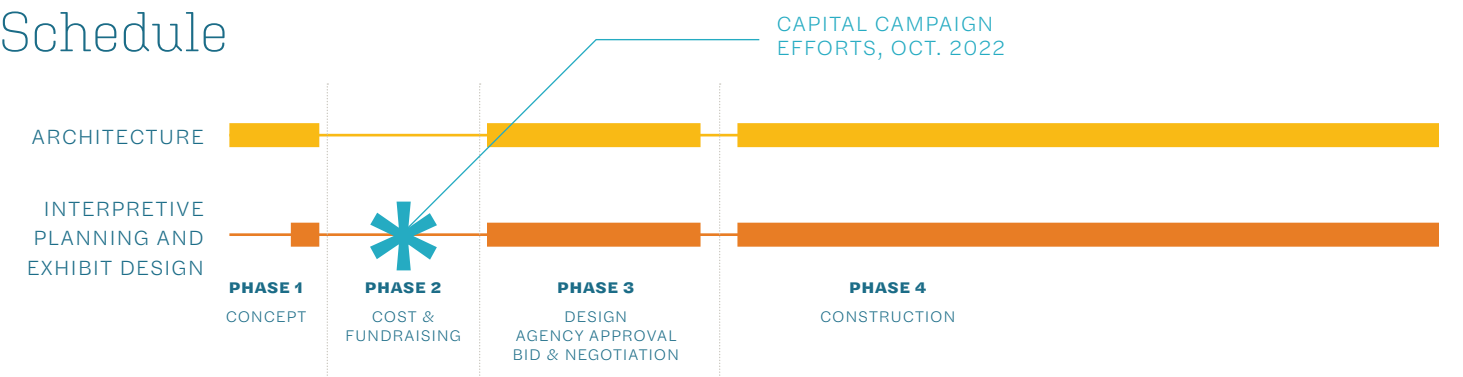
**We are funding the project through a community-wide capital campaign that will also seek donations from outside of our community.**

Once fully operational, the center will generate revenue through earned income (admission tickets, fee-based programs, facility rental, gift shop, and more) as well as public and private donations (annual memberships, planned giving, and program-specific gifts).

The center seeks one-time gifts, five-year pledges, and deferred/estate gift support from individuals, businesses, and corporations. Your donation can include any combination of cash, marketable securities, real estate, or other marketable assets.



## Schedule



# Leadership



**Yvonne Koehnen**  
BOARD PRESIDENT

“The beekeeping livelihood is so unique and interesting, and I think that it will be fun to share it with visitors. Bees are so extremely vital for our food production. Everyone wants to learn more about bees and how to protect them; this educational center will do that. The Honeybee Discovery Center will become a destination; there are no other such facilities in the United States.”



**Carolina Burreson**  
BOARD VICE PRESIDENT

“At the Honeybee Discovery Center, we offer a showcase of honeybees and other pollinators in an engaging and interactive learning environment. Our enriching educational program and continued curriculum provide a memorable experience and ensure visitors return to discover even more about these fascinating little creatures. As a farmer and apiary owner, it is also important to me to find opportunities to collaborate with farmers to help sustain hive health and support the health of our agricultural industry.”



**Laurel Hill-Ward**  
BOARD SECRETARY

“I believe that educating others with a Bee Curriculum through the Honeybee Discovery Center and securing funding to continue that mission not only protects beekeeping, but more importantly, protects bees and other pollinators, which are vital to our world. I’m committed to giving back to the profession that has fed our family for five generations.”



**Donica O’Laughlin**  
BOARD TREASURER

“I believe we need to educate people of all ages about the vital role of honeybees and other pollinators in the production of food. I want people to know and understand what each of us can do at any age to help save the honeybees.”



**Pete Carr**  
ORLAND CITY MANAGER

“Bringing in the science and education surrounding our rich history of beekeeping is a natural fit for Orland, the Queen Bee Capital, and I’m proud to be a part of the vision for the Honeybee Discovery Center.”



**Dr. Elina Niño**  
ASSOCIATE PROFESSOR OF COOPERATIVE EXTENSION, APICULTURE

“I’m honored to contribute to the development of the Honeybee Discovery Center. When I first heard Yvonne Koehnen speak about it at a bee breeder’s meeting I attended, I admired her passion for beekeeping and all things honeybees. As an extension specialist and an educator, I believe educating the public about the importance of honeybees and pollinators in food production and healthy ecosystems is one of the most successful ways to garner support for their preservation.”



TIFFANY D. PHOTOGRAPHY  
MITCHELL YERXA PHOTOGRAPHY

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