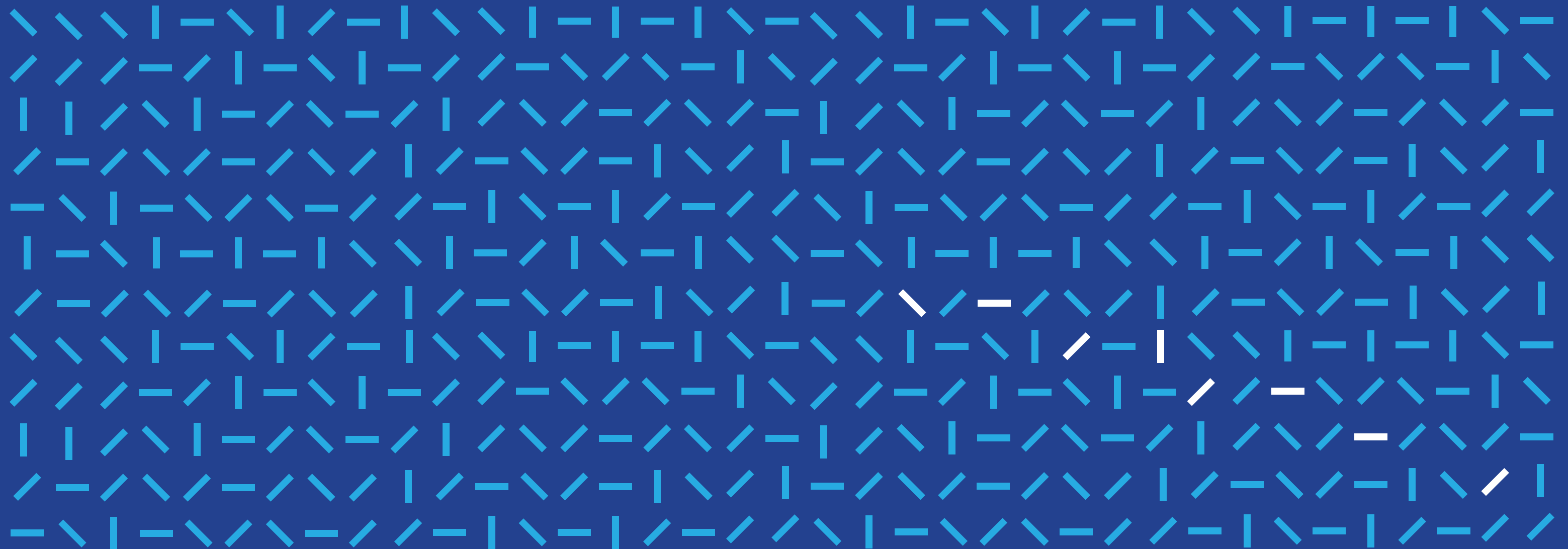


BUILDING VOICES

DESIGN COMPETITION



ABOUT

BUILDING VOICES is an ideas + action festival that collects diverse perspectives surrounding DESIGN as a framework for addressing the contemporary challenges and opportunities facing Hawai'i.

THE FESTIVAL AIMS TO:

- Promote the value of design to create positive impact in the built and natural environments.
- Debate complex issues surrounding the Hawaiian archipelago.
- Learn from a broad spectrum of local and global perspectives.
- Engage designers with the community and the state and local government.
- Collect diverse ideas and collaborate on shaping an agenda for change.

The festival will include a symposium, an international design competition, a traveling exhibition, and other design-focused initiatives that will be captured in a forthcoming publication.

A focal celebration will be held on Earth Day, Saturday April 22, 2017 at the Hawai'i State Capitol in Honolulu. This event will be free and open to all: community members, citizen-experts, students, artists, inventors, designers, architects, landscape architects, planners, engineers, builders, developers, and city and state officials.

Please visit www.buildingvoices.org for event calendar and locations.



COMPETITION

As part of the **BUILDING VOICES** festival, we are launching a single-stage international design competition seeking innovative design solutions that address Hawai'i's unique geographic location, cultural richness, global visibility, and ecological diversity.

The competition aims to:

- Highlight prototypical solutions for the built environment that generate a positive impact for the natural world.
- Celebrate designs that foster a deeper understanding of the unique context(s) of the Hawaiian archipelago.
- Spotlight hybrid projects that impact and benefit multiple populations.
- Foster communication between designers, political institutions and the larger community through catalytic projects.
- Recognize design that says “What is good for Hawai'i, is good for the world.”

Submissions should draw knowledge from multiple disciplines, including architecture, product design, engineering, service design, landscape architecture, urban design and others. Please visit www.buildingvoices.org/competition for more information.

Designs must be Socially, Economically, Ecologically & Culturally sustainable.

We seek new ideas for buildings, environments, landscapes, community programs, infrastructures, product designs, network concepts, service design offerings, transportation solutions, among others.

MĀLAMA

Mālama is a Hawaiian word meaning “to take care of, tend, attend, care for, preserve, protect.”

– Hawaiian Dictionary, Mary Kawena Pukui & Samuel H. Elbert

On July 25, 1973 Senator Kenneth F. Brown laid out a broad vision for Hawai'i's future based upon the legacy of achievements of the founding members of Hawaiian society. Mālama is the core message of this speech.

His remarks touched on the remarkable fact that the island nation of Hawai'i prospered and grew their communities, without the aid of any imported food or goods to sustain themselves. Careful land management and agricultural practices allowed for the intensive and self-sustaining production of grains, vegetables, fish, and meat in a closed loop system.

Alongside their design of astonishingly productive agricultural landscapes, Hawaiians practiced holistic health care, developed construction techniques specifically suited to their island resources, and created a culture rich with storytelling, dance and art that is unique to this archipelago.

Download Brown's landmark address here <https://goo.gl/5VxENz> to learn more about the breadth and depth of the issues that still affect life in Hawai'i today and discover how these foundational issues are topical in communities around the globe.

The BUILDING VOICES DESIGN COMPETITION reflects the very same issues of Social, Economic, Ecological, and Cultural sustainability.

“By the year 1750, the Hawaiians, as we now call them, had a stable society, living in complete dependence on a limited natural environment, with every possibility of continuing forever, this balanced, yet dynamic, man-nature relationship.”

– Senator Kenneth F. Brown, FAIA

BACKGROUND

HAWAII IS IDEALLY POSITIONED TO DEPLOY REVOLUTIONARY PROJECTS THAT WILL SHAPE OUR GLOBAL FUTURE



Image Credit: Neil Scheibelhut for AP
NASA & MARS IN HAWAII
TIME: <https://goo.gl/leLNHg>
HI-SEAS: <https://goo.gl/znyzaQ>
NPR: <https://goo.gl/MeVprd>



Image Credit: Bronx Pro Group
MICRO-HOUSING IN HONOLULU
HI STATE: <https://goo.gl/Yn4YjM>
STAR ADVERTISER: <https://goo.gl/moXdTr>
HAWAII NEWS NOW: <https://goo.gl/VY4vUj>



Image Credit: Andrea Vaccaro for Ansaldo Honolulu
DRIVERLESS MASS TRANSIT
HART: <https://www.honolulutransit.org/>
CITY HNL: <https://goo.gl/TfpBok>
HNL RAIL: <https://goo.gl/Gn5jDu>



Image Credit: Google Earth
LARGEST NATURE PRESERVE
CNN: <https://goo.gl/CO68tZ>
US GOV: <https://goo.gl/2QPRxu>
NOAA: <https://goo.gl/UlgNri>



Image Credit: Katie Fehrenbacher for Fortune
TESLA'S SOLAR BATTERY FARM
FORTUNE: <https://goo.gl/uiTZV9>
PBN: <https://goo.gl/OfV3cu>
SOLARCITY: <https://goo.gl/AbC3KH>



Image Credit: Bruce Macgregor for Mercy Corps
3,000 ACRE AG-TECH PROJECT
WHITMORE PROJECT: <https://goo.gl/EYuBO7>
PBN: <https://goo.gl/8lOH8P>
STATE HI: <https://goo.gl/wHNLK3>

Hawai'i has a legacy of exploration, a heritage of environmental stewardship, a progressive civic consciousness, and is a world renowned hub of research for land, sea, and space.

BUILDING VOICES is asking Hawai'i and the global community to develop design solutions for a deeply sustainable future of the built and natural environments. Prototypical solutions should be uniquely suited for Hawai'i and shareable globally.

CHALLENGE

TOPIC AREAS

DESIGN SOLUTIONS MUST ADDRESS TWO OR MORE TOPIC AREAS



How will we house middle and lower income citizens when the cost of construction requires a salary of 2 times the median household income?

- Honolulu needs over 25,000 new housing units by 2025
- Construction costs in Honolulu are the second highest in the world, only Oslo, Norway is more expensive.
- The average home in Honolulu costs \$747,500, the national average is \$221,500.
- The "housing wage" in Honolulu is the highest in the nation, requiring an income of over \$71,000 a year to rent a two bedroom apartment.



How might food production and technology be a driver for a 21st century economy in Hawai'i?

How can we increase our food security, while lowering cost of production?

- O'ahu used to produce 100% of its food on island. Today it imports over 90%.
- On average there are only 3 days of food reserves available on grocery store shelves.
- Hawai'i aims to double its food production by 2020 to meet 10% of need.
- It is cheaper to ship food over water to Hawai'i than it is to transport food over land to New York.



What advances in resource autonomy can we forward with an economy driven with 100% renewable energy production?

- Hawai'i generated over 65% of its energy from imported petroleum and over 15% from coal in 2016.
- Hawai'i has passed legislation to be powered by 100% renewable sources by 2045 and is on track to meet the deadline 5 years ahead of schedule.
- Kaua'i which already receives up to 90% of its energy from renewables at peak times, is installing one of the world's largest solar battery farms.



How can we innovate walkable communities for existing, dense urban fabric?

How might we reimagine TOD's for a future Hawai'i less dependent on the car?

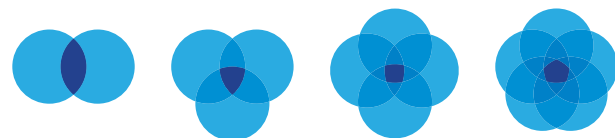
- O'ahu has the second worst traffic in the nation, despite having an award winning bus transit system.
- Honolulu ranks in the top 20 most walkable cities in the nation.
- The nation's first driverless, high-capacity, rail system will soon connect the west side of O'ahu to downtown Honolulu.
- There are currently more cars on the island than there are citizens.



How might we further reduce spending on health care, while increasing access and wellness rates for indigenous and aging populations?

- Hawai'i has the third lowest obesity rates in the nation, only DC and Colorado were lower.
- In 2016, Hawai'i was named the "Healthiest State" for the 5th year in a row.
- Hawai'i's health insurance costs are among the lowest in the nation, currently among the Top 10 most affordable states.
- 25% of Hawai'i's state budget is committed to health care expenditures.
- By 2030 more than 25% of O'ahu's population will be over the age of 65.

We call on all designers to tackle multiple topic areas with singular designs, while visually and verbally describing how their designs address these issues.



QUADRUPLE BOTTOM LINE

EACH ENTRY TO BE EVALUATED WITH 4 SUSTAINABILITY LENSES

The term "TRIPLE BOTTOM LINE", coined by John Elkington in 1998, argues that sustainable business strategies should address three different, yet complementary measures: the traditional profit and loss account, social awareness and how responsible the operations of an organization are to the environment. This concept, first applied to business, is often used to describe measures of sustainability in the built environment.

A "QUADRUPLE BOTTOM LINE" is defined by the addition of measures taken to support, benefit and multiply the voice of Hawai'i's indigenous culture, identity and heritage.

SOCIAL ECOLOGICAL ECONOMIC INDIGENOUS CULTURE

THE USGBC DEFINES THE TRIPLE BOTTOM LINE AS A CONCEPT THAT "incorporates a long-term view for assessing potential effects and best practices for three kinds of resources:

PEOPLE (SOCIAL CAPITAL) All the costs and benefits to the people who design, construct, live in, work in, and constitute the local community and are influenced, directly or indirectly, by a project.

PLANET (NATURAL CAPITAL) All the costs and benefits of a project on the natural environment, locally and globally.

PROFIT (ECONOMIC CAPITAL) All the economic costs and benefits of a project for all the stakeholders (not just the project owner).

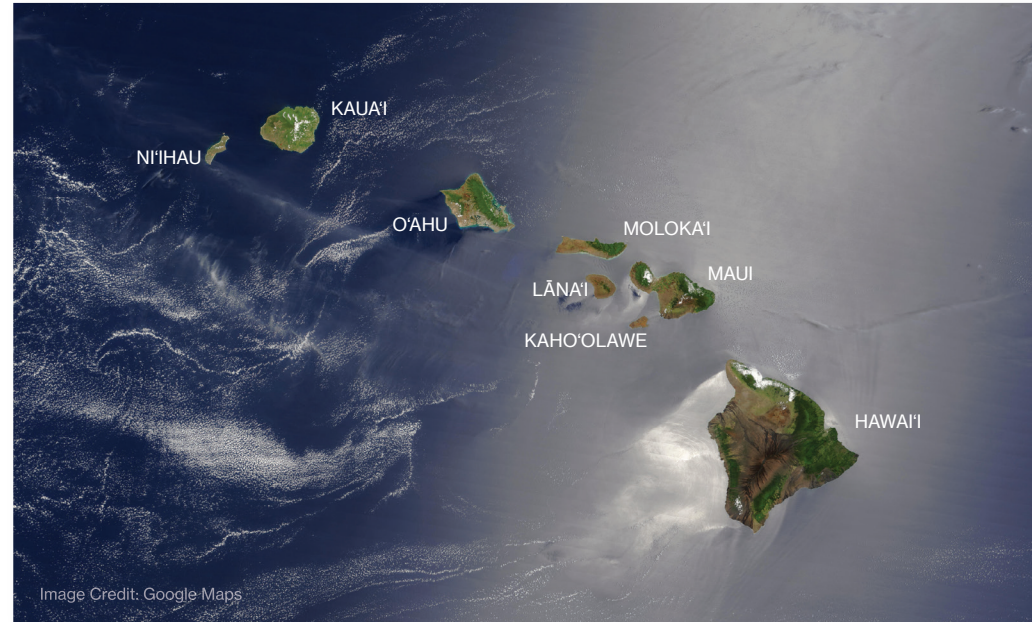
The goal of the triple bottom line, in terms of the built environment, is to ensure that buildings and communities create value for all stakeholders, not just a restricted few. A commitment to the triple bottom line means a commitment to look beyond the status quo. It requires consideration of whole communities and whole systems, both at home and around the world. Research is needed to determine the impacts of a given project and find new solutions that are truly sustainable. New tools and processes are required to help projects arrive at integrative, synergistic, sustainable solutions."

CONTEXT

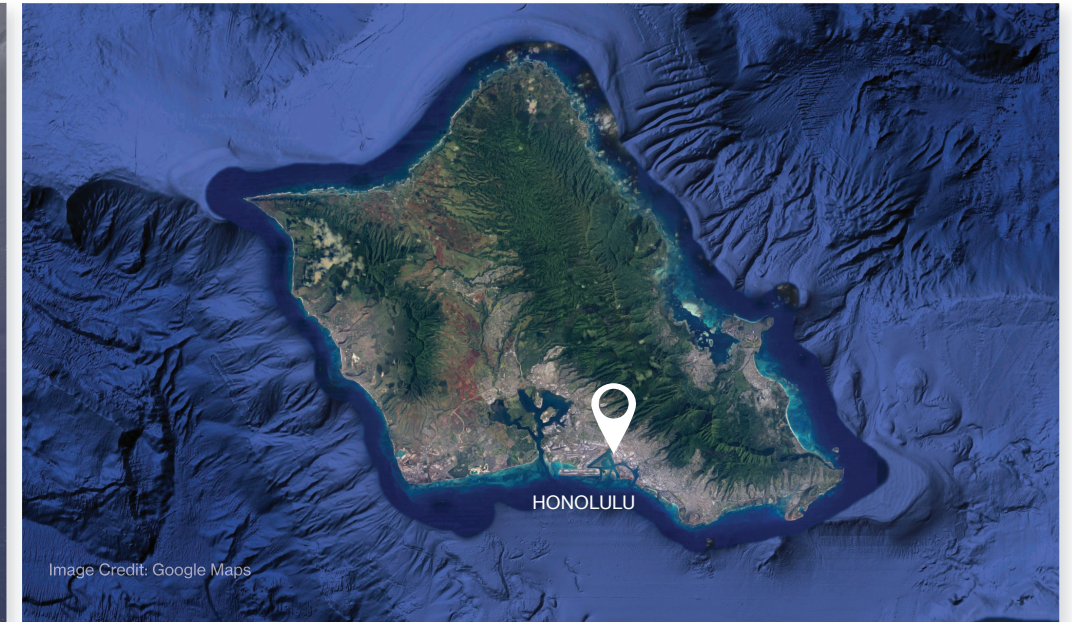
The Hawaiian archipelago stretches over 1,600 miles from east to west and has 8 main islands.

Each island is organized through a land division system that dates back over 500 years. Extensive knowledge of the topography, microclimates, water sheds, advanced irrigation technologies, and food production allowed Hawaiians to organize the land into self-sustaining zones.

Today, Honolulu is the 4th densest city in the United States and is the most isolated urban center on earth. "Hawai'i is 2,390 miles from California; 3,850 miles from Japan; 4,900 miles from China; and 5,280 miles from the Philippines."⁰³ Honolulu was recently named one of the world's "25 Most Livable Cities" by Monocle magazine.

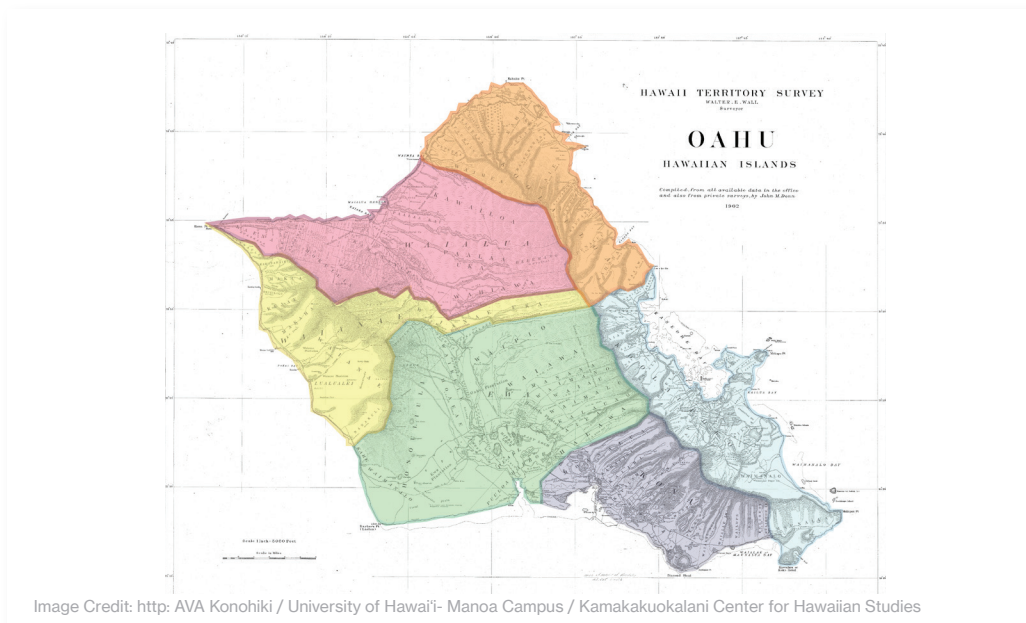
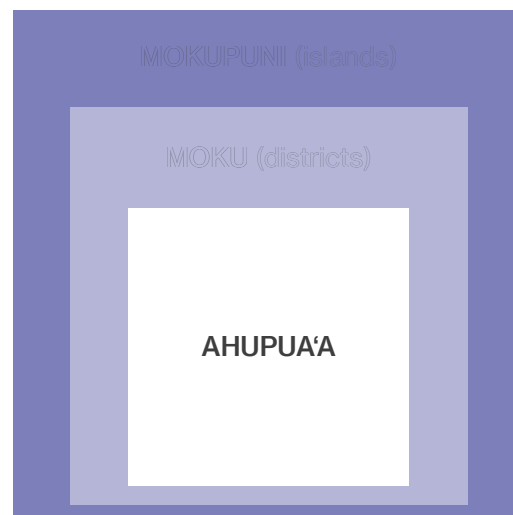


Hawai'i is composed of 8 main **MOKUPUNI** (islands)

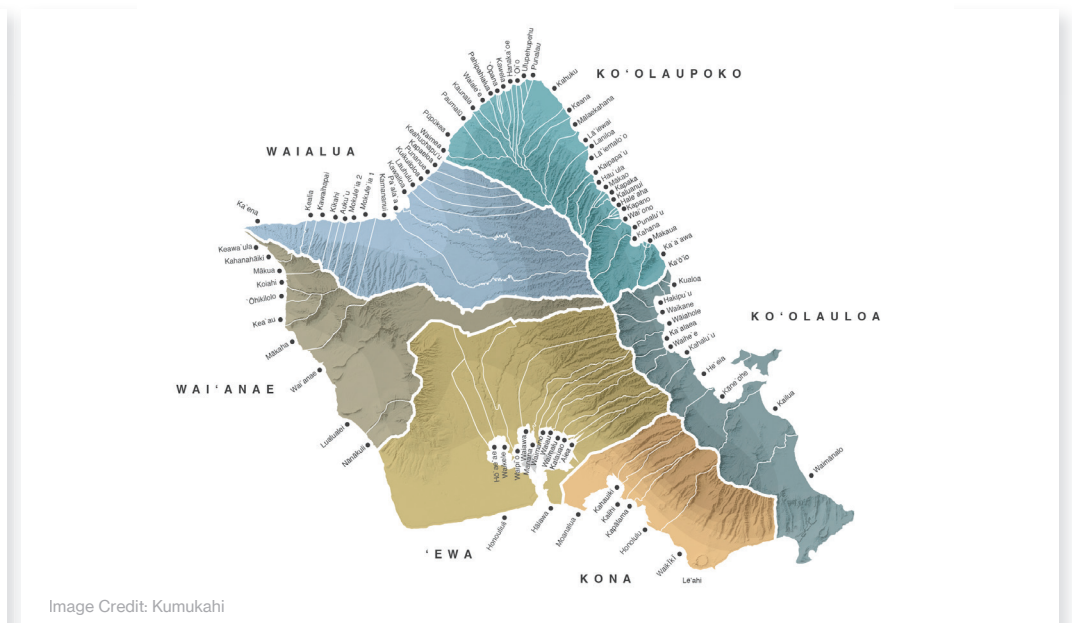


The mokupuni of O'ahu is home to City and County of Honolulu

LAND DIVISIONS



In O'ahu, Mokupuni are divided into 6 **MOKU** (districts)



These moku are made up of **AHUPUA'A** that extend from the uplands to the ocean

SITES

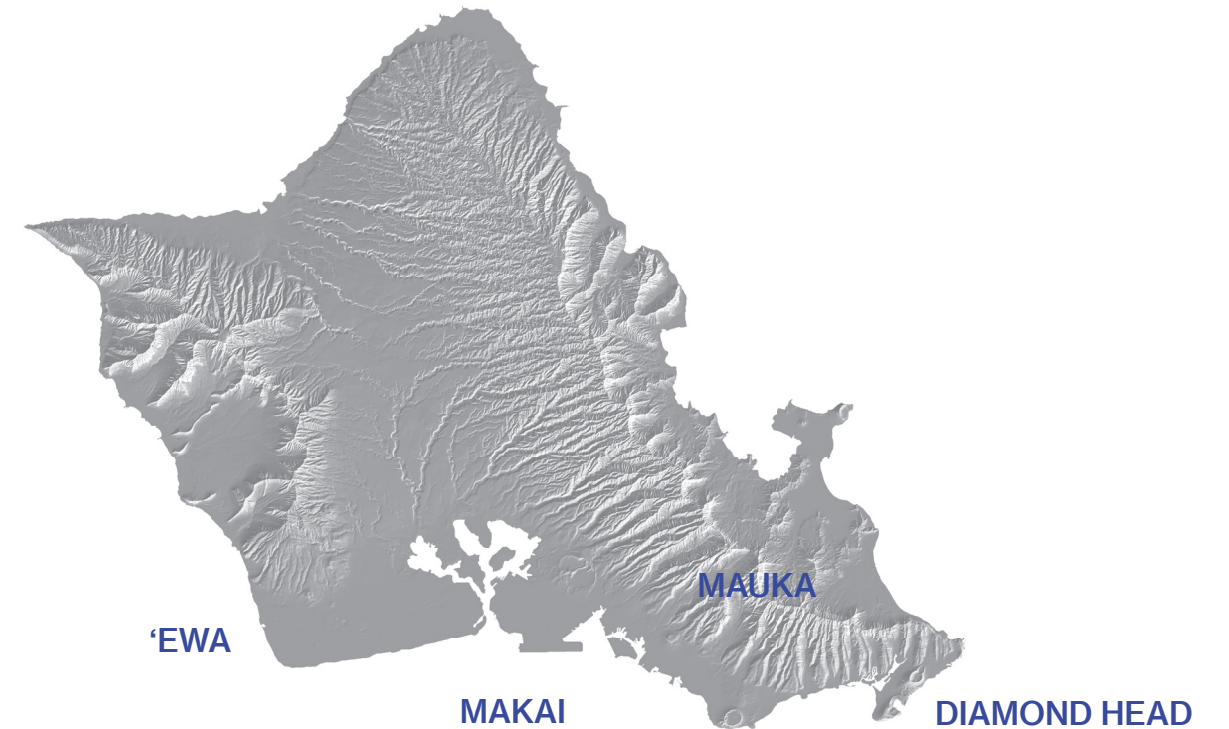
3 PHYSICAL LOCATIONS & 1 VIRTUAL

Entrants to the **BUILDING VOICES DESIGN COMPETITION** are tasked with selecting one of four sites to deploy their design concepts. Three are physical sites, located in the city of Honolulu, that span from Mauka to Makai. The fourth site is reserved for concepts that are not bound to one location and can span across O'ahu or the entire archipelago.

As an "ideas competition", none of the specific sites will be developed for proposals, rather they are representative of conditions, constraints and opportunities that occur across Honolulu County and Hawai'i.

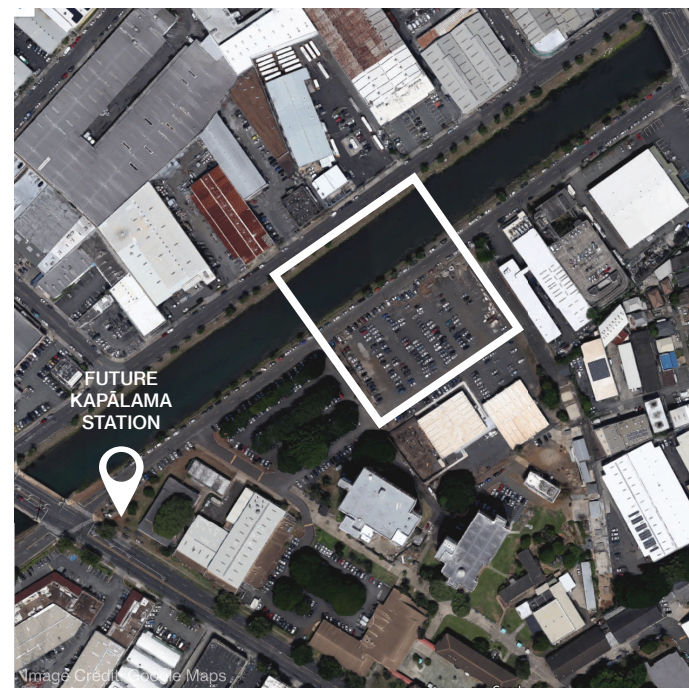
MAUKA - MAKAI COORDINATE SYSTEM

The Hawaiian islands are the peaks of the tallest mountain range in the world. O'ahu is itself defined by a large mountain range running across its width. This dramatic landscape is utilized when orienting oneself on the island, landmarks are utilized instead of north-south coordinates. The extant volcano, known as Diamond Head, anchors the east end of O'ahu, while the Ewa district flanks the west. Makai (toward the ocean) and Mauka (toward the mountain) are dynamic landmarks that shift depending on your location on the island. This unique orientation system simultaneously communicates a relationship with the land and the sea, and one's horizontal and vertical coordinates.



**SITE 1: KAHOLALOA
MAKAI (OCEAN)**

10-1100 Sand Island Parkway, Honolulu, HI 96819
<https://goo.gl/maps/to89YsmYfDm>



**SITE 2: NIU HELE WAI
URBAN FABRIC**

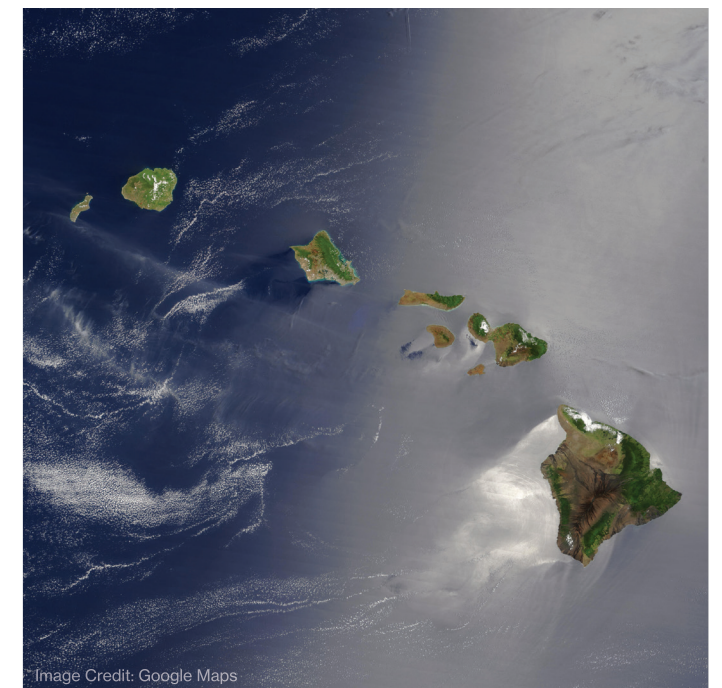
757 Kokea St, Honolulu, HI 96817
<https://goo.gl/maps/eTDokF1g2Pw>

All designs for this site must include an educational component.



**SITE 3: OUAUA
MAUKA (MOUNTAIN)**

3632 Kalihi St, Honolulu, HI 96819
<https://goo.gl/maps/XyGpJErHGgF2>



**SITE 4: HAWAI'I-WIDE
NETWORK**

Anywhere, on any, or all islands
For products, services, initiatives, networks and programs

RULES & REGULATIONS

Schedule

- 02.06.17 Competition launched / Online registration opens / Question & Answer period opens*
- 03.10.17 Question & Answer period closes
- 04.05.17 Online submissions are due
- 04.07.17 Design Jury
- 04.22.17 Winners Announced on Earth Day

*Answers to all questions will be posted to the competition website.

Fees

Registration Fee: \$50
Free for students (with valid ID)

To register, please visit the competition website www.buildingvoices.org/competition, follow the payment instructions, and send an email to voices17@hawaii.edu with the contact information for the entrant or team leader. Students should include a scan of a valid ID with their registration email.

A confirmation of the registration along with a random 5-digit registration number will be emailed to the registrant (individual or the team leader) for identification of the final submission. One registration is required per project submitted. Participants may submit multiple entries or be part of multiple teams, but each submission must have an individual registration number. Registration will remain open until the submission due date. Registrations fees are non-refundable. Fees will not be returned under any circumstances.

By registering for the competition, competitors agree to all competition terms and conditions.

Submissions

Competition submissions are due at 12 noon Hawai'i Standard Time (HST) on April 05, 2017. Submissions are electronic and submitted via email only. The following materials should be submitted:

1. A maximum of four 11 inch x 17 inch boards (tabloid) oriented in landscape format. Each board must include the 5-digit assigned registration number in the lower right hand corner. Boards must be combined into a single four-page document and submitted in PDF format. File should be named with the 5-digit registration number - "54321.pdf"
2. A written statement of no more than 500 words explaining your ideas. File should be named "Statement_54321.pdf"
3. A single page document including: project title, names of team members, phone number and email address. The source of any third party materials incorporated in the entry must also be included; this source information may exceed one page if necessary. File should be named "ID_54321.pdf".

Please compile all three files into a single ZIP file named with the 5-digit registration number "54321.zip".

The single ZIP file should not exceed 5MB and should be sent via email to: voices17@hawaii.edu
The email subject line should read "Registration Number_54321".

Upon announcement of awards, higher resolution images may be requested from selected entries.

Awards & Jury

First Prize winner will be invited to present their vision in Honolulu on Earth Day.

First prize: \$5,000 (travel stipend or cash award)
Second prize: \$2,500
Third prize: \$1,000

Honorable mentions may be awarded at the discretion of the jury but will receive no cash prize. A jury of notable community members, professionals, academics, and public officials will decide the competition winners. The jury will be announced via the Competition Website. The decisions of the jury will be final and unalterable, and the jury thereby reserves the right to leave any prize vacant, or partially award prizes.

Award winning and other selected projects will be featured in the **BUILDING VOICES TRAVELING EXHIBIT**, to be launched at the Hawai'i State Capitol in Honolulu on April 22, Earth Day 2017 and will be included alongside other selected entries on the **BUILDING VOICES** website.

Terms and Conditions

Eligibility

The **BUILDING VOICES DESIGN COMPETITION** is open to all designers, students and professionals, including architects, landscape architects, urban planners, engineers, service designers, graphic designers, industrial designers, artists, inventors and others. Design teams with a varied composition of experts in fields related to the built environment are encouraged.

BUILDING VOICES organizers, members of the jury or their families, or those involved with the preparation or funding of this competition may not participate.

Anonymity

The **BUILDING VOICES DESIGN COMPETITION** is an anonymous competition. No names of team members shall appear on graphic material or in file names. A unique 5-digit registration number is the only means of identification.

Ownership & Copyright

The intellectual property rights for each submission remain with the author(s) of the submission.

BUILDING VOICES reserves the right to publish, exhibit, or present the work submitted to this competition in any format.

By submitting an entry, competitors grant **BUILDING VOICES**, its organizers, partners and related events a non-exclusive, perpetual, irrevocable license to copy, publish, exhibit, display, distribute, create derivative works, or use any part of the entry submitted to this competition in any format for any purpose, and to license third parties to copy, display, distribute or publish the materials in the context of promoting or reporting the competition and its results or any other **BUILDING VOICES** events.

Warranties

All competition entries must be the competitors' original work created solely by the entrant, not previously constructed. The source of any clip or stock art, or other materials, incorporated in the design rendering or otherwise used in the entry should be identified. By submitting an entry, competitors warrant that their entry is original and that they possess sufficient rights in the entry to grant the rights to **BUILDING VOICES**. Competitors agree to indemnify **BUILDING VOICES** and all partners and competition jurors against any claims of intellectual property infringement relating to or arising from entrants' submissions.

Questions

Questions regarding the competition will be accepted until March 10, 2017

Questions should be emailed to: voices17@hawaii.edu
Answers will be posted on the competition website: www.buildingvoices.org/competition.

Additional Materials

The **BUILDING VOICES DESIGN COMPETITION** is to be conducted solely via www.buildingvoices.org/competition the competition website. This document will be the only resource for this competition. No additional printed materials are available. The official language of the competition is English. All drawings and architectural scales should be expressed in feet and inches.

RESOURCES & REFERENCES

OVERVIEW

01. SENATOR KENNETH F. BROWN: http://pvs.kcc.hawaii.edu/index/founder_and_teachers/kenny_brown.html
02. KAMAKAKŪOKALANI CENTER FOR HAWAIIAN STUDIES: <http://manoa.hawaii.edu/hshk/>
03. GENERAL FACTS: <http://www.50states.com/facts/hawaii.htm>
04. HAWAII STATE SUSTAINABILITY DASHBOARD: <https://hawaiiingrowth.org/aloha-challenge>
05. HAWAII GREEN GROWTH: <https://hawaiiingrowth.org/aloha-challenge>
06. RESILIENT CITIES: <http://www.100resilientcities.org/cities/entry/honolulu-resilience-challenge#/-/>
07. UNIVERSITY OF HAWAII SUSTAINABILITY / MAŪO: <http://www.hawaii.edu/sustainability/commitment/>
08. TRIPLE BOTTOM LINE: <http://www.usgbc.org/articles/what-green-building-0>
09. ROCKEFELLER FOUNDATION: <http://www.100resilientcities.org/resilience#/-/>
10. HAWAII ALLIANCE FOR COMMUNITY BASED ECONOMIC DEVELOPMENT: <https://www.hacbed.org/>
11. HONOLULU GEOSPATIAL DATA MAPS: <http://cchnl.maps.arcgis.com/home/index.html>

HAWAII LAND DIVISION & MANAGEMENT

12. HAWAII MAPS: <http://www.avakonohiki.org/o699ahu.html>
13. HAWAII LAND DIVISIONS: <http://www.ahamokuhawaii.org/kona4.html>
14. HAWAIIAN LAND DIVISION: http://manoa.hawaii.edu/coe/kulia/resources/ahupuaa_maps/OahuAhupuaa.pdf
15. HAWAIIAN LAND DIVISION: <http://www.hawaiihistory.org/index.cfm?fuseaction=ig.page&CategoryID=299>
16. O'AHU WATERSHED: <https://nextcity.org/features/view/honolulu-sustainable-development-auwai-howard-hughes>

CASE STUDIES

17. NASA & MARS IN HAWAII: <http://time.com/4463158/mars-hawaii-astronauts/>
18. NASA & MARS IN HAWAII: http://hi-seas.org/wp-content/uploads/2016/01/HI-SEAS-MediaKit_01Jan2017b.pdf
19. NASA & MARS IN HAWAII: <http://www.npr.org/sections/thetwo-way/2017/01/19/510566033/5th-mars-mission-simulation-ready-for-launch-in-hawaii>

20. MICRO-HOUSING IN HONOLULU: <http://dbedt.hawaii.gov/hcda/files/2015/05/Bronx-Pro-Group-BAFO.pdf>
21. MICRO-HOUSING IN HONOLULU: <http://www.staradvertiser.com/2015/06/03/business/state-board-picks-plan-for-micro-unit-housing-in-kakaako/>
22. MICRO-HOUSING IN HONOLULU: <http://www.hawaiinewsnow.com/story/29213312/micro-units-slated-to-go-up-in-kakaako-boast-cheap-rent>

23. DRIVERLESS MASS TRANSIT: <https://www.honolulutrainsit.org/>
24. DRIVERLESS MASS TRANSIT: <https://www.honolulu.gov/tod/neighborhood-tod-plans.html>
25. DRIVERLESS MASS TRANSIT: <http://www.ansaldohonolulurail.com/>

26. LARGEST NATURE PRESERVE: <http://www.cnn.com/2016/08/26/politics/obama-marine-protected-area-reef/>
27. LARGEST NATURE PRESERVE: http://www.papahānaumokuākea.gov/news/expansion_announcement.html
28. LARGEST NATURE PRESERVE: <http://sanctuaries.noaa.gov/news/aug16/president-announced-expansion-of-papahānaumokuākea-marine-national-monument.html>

29. TESLA'S SOLAR BATTERY FARM: <http://fortune.com/tesla-solarcity-battery-solar-farm/>
30. TESLA'S SOLAR BATTERY FARM: <http://www.bizjournals.com/pacific/news/2016/02/16/solarcity-to-use-tesla-batteries-for-kauai-utility.html>
31. TESLA'S SOLAR BATTERY FARM: <http://www.solarcity.com/commercial/government-solar-projects/kauai-Island>

32. 3,000 ACRE AG-TECH PROJECT: <http://whitmoreproject.weebly.com/ag-tech-park.html>
33. 3,000 ACRE AG-TECH PROJECT: <http://www.bizjournals.com/pacific/news/2016/10/06/state-agency-gets-31-5m-to-buy-900-acres-of.html>
34. 3,000 ACRE AG-TECH PROJECT: http://capitol.hawaii.gov/memberfiles/Senate/delacruz/Documents/The%20Whitmore%20Project_REV_09-16-2015.pdf

TOPIC SPECIFIC

1 HOUSING FOR ALL

35. HAWAII AFFORDABLE HOUSING: <http://www.hawaiibusiness.com/the-high-cost-of-affordable-housing/>
36. HOUSING OAHU: AFFORDABLE HOUSING STRATEGY: http://honolulu.gov/Portals/0/pdfs/projectinfo/HousingStrategyDraft_090815.pdf
37. HOUSING NEEDS: <http://files.hawaii.gov/dbedt/economic/reports/2015-05-housing-demand.pdf>
38. HAWAII COMMUNITY DEVELOPMENT AUTHORITY: <http://dbedt.hawaii.gov/hcda/>
39. CONSTRUCTION COSTS: <http://www.bizjournals.com/pacific/news/2016/10/21/honolulu-has-worlds-second-highest-construction.html>
40. HONOLULU HOUSING & CLASS ISSUES: <http://features.fluxhawaii.com/middle-class/shelter/>
41. HAWAII HOUSING CRISIS: <http://www.hawaiibusiness.com/yes-we-can-solve-hawaiis-housing-crisis/>
42. HONOLULU COST OF LIVING: <http://www.hawaiinewsnow.com/story/30389959/priced-out-of-paradise-what-drives-hawaiis-high-cost-of-living>

2 FOOD AUTONOMY

43. HAWAII FOOD GOALS: <http://governor.hawaii.gov/governor-david-iges-priorities-for-hawaii%CA%BB/>
44. HAWAII FOOD SECURITY: <http://www.centerforfoodsafety.org/issues/3859/hawaii-center-for-food-safety/fact-sheets/4545/which-food-future-would-you-choose-for-hawaii>
45. CENTER FOR FOOD SAFETY: <http://www.centerforfoodsafety.org/hawaii#>
46. FOOD SECURITY: <http://www.hawaiibusiness.com/can-hawaii-feed-itself/>
47. FOOD INDEPENDENCE: <http://www.takepart.com/article/2015/06/29/hawaii-local-food>
48. HAWAII FOOD PRODUCTION: <http://www.hawaiibusiness.com/can-hawaii-feed-itself/>
49. HAWAII FOOD PRODUCTION GOALS: <http://www.maui.news.com/news/local-news/2016/10/economist-questions-iges-goal-of-doubling-states-food-production/>

3 RESOURCE INDEPENDENCE

50. IMPORTS & EXPORTS: <http://www.usgic.org/hawaii/facts-figures/>
51. UNIVERSITY OF HAWAII ENERGY REPORTS: <http://www.hawaii.edu/sustainability/uh-energy-reports-studies/>
52. SOLAR BATTERY: <http://fortune.com/tesla-solarcity-battery-solar-farm/>
53. HAWAII ENERGY FACTS: <http://instituteenergyresearch.org/media/state-regs/pdf/Hawaii.pdf>
54. HAWAII ENERGY FACTS & FIGURES: https://energy.hawaii.gov/wp-content/uploads/2011/08/FF_Nov2016.pdf
55. HAWAIIAN ELECTRIC RENEWABLE GOAL: <http://www.bizjournals.com/pacific/news/2016/12/27/heco-aims-to-hit-renewable-energy-goal-early.html>
56. HAWAII RENEWABLE ENERGY GOALS: <http://www.bizjournals.com/pacific/news/2016/12/27/heco-aims-to-hit-renewable-energy-goal-early.html>
57. HAWAII ENERGY FACTS: <http://instituteenergyresearch.org/media/state-regs/pdf/Hawaii.pdf>
58. HAWAII RENEWABLE ENERGY GOALS: <https://thinkprogress.org/hawaii-will-soon-get-all-of-its-electricity-from-renewable-sources-ba2a31ccbbf#idfyfodq>
59. HAWAII ENERGY SOURCES: <https://www.eia.gov/state/analysis.cfm?sid=HI>
60. HAWAII ENERGY STATISTICS: <http://energy.hawaii.gov/resources/dashboard-statistics>
61. HAWAII ENERGY FACTS: https://energy.hawaii.gov/wp-content/uploads/2011/08/FF_Nov2016.pdf

4 COMMUNITY CENTERED MOBILITY

62. INTERACTIVE TOD & ZONING MAPS: <http://cchnl.maps.arcgis.com/home/index.html>
63. TOD PLANS: <http://www.honolulu.gov/tod/neighborhood-tod-plans.html>
64. WALKABLE CITIES: <https://www.redfin.com/blog/2016/04/the-most-walkable-us-cities-of-2016.html>
65. DENSEST CITIES: <http://www.worldatlas.com/articles/the-most-crowded-city-in-the-united-states.html>
66. HONOLULU AS TEST SITE: <https://www.theatlantic.com/technology/archive/2016/06/honolulu-self-driving-cars/486773/>
67. HONOLULU RAIL TRANSIT PROJECT: <http://www.ansaldohonolulurail.com/>
68. TRANSIT ORIENTED DEVELOPMENT: <http://www.honolulu.gov/tod.html>
69. HONOLULU TRANSIT ORIENTED DESIGN: <https://www.honolulu.gov/tod/dpp-tod-implementation/zoning-and-related-policies.html>

5 HEALTHY CITIZENS

70. OBESITY RATES: <http://stateofobesity.org/states/hi/>
71. HEALTH RANKINGS: <http://www.americashealthrankings.org/>
72. HEALTH RANKINGS: <http://thehill.com/homenews/news/310628-healthiest-least-healthy-states-in-america>
73. HEALTH RANKINGS: <http://www.usatoday.com/story/news/nation-now/2016/12/15/these-healthiest-and-unhealthiest-states-country/95418136/>
74. HEALTH RANKINGS: <http://assets.americashealthrankings.org/app/uploads/ahr16-complete-v2.pdf>
75. HAWAII'S AGING POPULATION: <http://www.hawaiinewsnow.com/story/24502724/kupuna-care-highlighted-as-a-top-legislative-priority>
76. HAWAII'S 2020 VISION: [https://www.oregon.gov/DHS/SENIORS-DISABILITIES/ADVISORY/GCSS/CommissionMeetingsFull/11-2013/Bloom%20Hawaii%20ActiveAging2013%20\(1\).pdf](https://www.oregon.gov/DHS/SENIORS-DISABILITIES/ADVISORY/GCSS/CommissionMeetingsFull/11-2013/Bloom%20Hawaii%20ActiveAging2013%20(1).pdf)
77. HAWAII'S STATE PLAN ON AGING: <http://www.aarp.org/content/dam/aarp/livable-communities/plan/planning/hawaii-state-plan-on-aging-2011-2015-aarp.pdf>
78. CARING FOR THE AGING: <http://www.hawaiicommunityfoundation.org/file/pdfs/Caring-for-Our-Kupuna-Study.pdf>
79. HONOLULU AGE-FRIENDLY CITY ACTION PLAN: http://www.hawaii.edu/aging/wp-content/uploads/2016/01/Honolulu_Age-Friendly_City_Action_Plan_2015.pdf

PARTNERSHIPS & ACKNOWLEDGMENTS

BUILDING VOICES DESIGN COMPETITION is presented by:



BUILDING VOICES Team:

Competition Co-Chairs: Karla Sierralta and Brian Strawn
Symposium Co-Chairs: Cathi Ho Schar and Simon Bussiere
Digital Team: Austin Chun
Graphic Design: Chae Ho Lee
Cultural Specialist: Zach Ikaika Bantolina

In partnership with:



HAWAII CHAPTER
U.S. GREEN BUILDING COUNCIL



AIA
Honolulu

