

BILL004(23)

Testimony

MISC. COMM. 264

HOUSING, SUSTAINABILITY AND HEALTH (HSH)

HOUSING, SUSTAINABILITY AND HEALTH (HSH)
Meeting

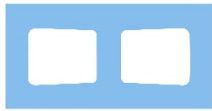
Meeting Date: May 24, 2023 @ 02:30 PM

Support: 5

Oppose: 2

I wish to comment: 4

| | | |
|---|---|---------------------------------------|
| Name: Melissa Singson | Email: melissa@tilecoinc.com | Zip: 96707 |
| Representing: Tileco, Inc. | Position: Support | Submitted: May 22, 2023 @ 02:35 PM |
| Name: Mark Matsumoto | Email: mark@hawaiiilecet.org | Zip: 96817 |
| Representing: Hawaii LECET | Position: I wish to comment | Submitted: May 22, 2023 @ 03:21 PM |
| Name: Tracy Tonaki | Email: ttonaki@drhorton.com | Zip: 96813 |
| Representing: D.R. Horton | Position: I wish to comment | Submitted: May 22, 2023 @ 04:18 PM |
| Name: Jodi Robinson | Email: jodi@blueplanetfoundation.org | Zip: 96813 |
| Representing: Blue Planet Foundation | Position: Support | Submitted: May 22, 2023 @ 04:19 PM |
| Name: Micah Munekata | Email: mmunekata@ulupono.com | Zip: 96813 |
| Representing: Ulupono Initiative | Position: Support | Submitted: May 22, 2023 @ 07:31 PM |
| Name: Will Kane | Email: willk@strategies360.com | Zip: 96813 |
| Representing: Hawaii Gas | Position: Support | Submitted: May 23, 2023 @ 12:09 PM |
| Name: Caroline Carl | Email: caroline.a.carl@leidos.com | Zip: 96817 |
| Representing: Hawaii Energy | Position: Support | Submitted: May 23, 2023 @ 02:09 PM |
| Name: Greg Thielen | Email: greg@ccs-hawaii.com | Zip: 96734 |
| Representing: Self | Position: Oppose | Submitted: May 23, 2023 @ 07:47 PM |
| Testimony: I am the volunteer chair of the BIA codes committee. I am testifying in support of BIA testimony in opposition to Bill 4. | | |
| Name: Stefanie Sakamoto | Email: ssakamoto@imanaka-asato.com | Zip: 96789 |
| Representing: BIA Hawaii | Position: Oppose | Submitted: May 23, 2023 @ 10:14 PM |
| Name: Harry Saunders | Email: fsakai@castlecooke.com | Zip: 96817 |
| Representing: Castle & Cooke Hawaii | Position: I wish to comment | Submitted: May 24, 2023 @ 09:36 AM |
| Name: Evan Oue | Email: eoue@imanaka-asato.com | Zip: 96744 |
| Representing: | Position: | Submitted: |



TILECO INC. 91-209 HANUA STREET | KAPOLEI, HAWAII 96707 | 808.682.5737 | info@tilecoinc.com | www.tilecoinc.com

May 22, 2023

To: Chair Matt Weyer, Vice Chair Esther Kiaʻāina, and members of the Committee on Housing, Sustainability and Health

Re: TESTIMONY IN SUPPORT OF BILL 4 CD1 (2023) RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE.

Established in 1967, Tileco Inc. manufactures a full range of products, including concrete masonry units, segmental retaining wall systems, landscaping units, aggregates and agricultural lime, for distribution throughout the state of Hawaii.

We are in support of the current proposed language in CD1 to Bill 4 (2023) regarding the exception for insulation in Concrete, CMU, and mass walls 6 inches or greater in thickness:

- In paragraph (16), which amends Section C402.2.2:
 - (2) Replaces the language "where a natural masonry surface is used" with "and have an unpainted finish with or without a clear sealer" in Exception 3.
- In paragraph (40), which amends Section R402.2.5:
 - (2) Amends Exception 3 by replacing "where a natural masonry surface is used" with "and have an unpainted finish with or without a clear sealer."
- (39) For consistency, we request that Table 402.1.2, footnote j. be updated to include the same language used in the above amendments.

Justifications:

The term "natural masonry surface" is unregulated terminology without formal definition by a governing body, and is therefore subject to interpretation. Replacing "natural masonry surface" with clarifications regarding unpainted finishes and the use of sealers will provide clear and concise compliance prescriptive options for design professionals

The proposed amendment also attempts to reconcile the discrepancy that arises between energy efficiency requirements and affordability when designing with mass walls. Although the energy efficiency of mass walls may be improved by means of solar reflectance, projection factors, and continuous insulation, these compliance options are costly deterrents for owners and developers that hinder the concrete industry's ability to stay cost-competitive and recapture dwindling market share.

A balance between improved energy efficiency performance and affordability can be achieved by implementing a minimum requirement for wall thickness. Mass walls, unlike other building systems, have a high thermal mass that regulates indoor temperatures via thermal lag and temperature damping, which offsets the need for insulation. A minimum 6 inch width requirement ensures that mass walls will have sufficient thermal mass to be energy efficient, while eliminating the need for costly alternatives (SRI paint, overhangs, insulation etc.).

Additionally, the myriad of benefits that result from building with mass walls (*see below*) are nullified if cost-prohibitive amendments deter owners and design professionals from utilizing this building material.

Benefits of Mass Walls

Safety

- Superior fire-resistance over other wall systems (passive fire protection, compartmentation)
- Resilient (blast-and-impact-resistant; withstands hurricanes, floods, strong winds, tsunamis)
- FEMA-approved safe rooms

Health and Well-Being

- Resistance to mold and termites promotes enhanced air quality
- Natural sound-proofing provides tenant privacy and reduces excessive external noise
- Resiliency & durability offers occupants security and peace of mind against natural disasters or terrorist attacks
- High thermal mass maintains comfortable temperatures

Green

- Locally sourced materials
- Manufactured locally
- Facilities powered by PV systems, including a renewable zero-waste facility
- Byproducts of manufacturing utilized by local farming community
- Recycled materials (Solid Waste Management permit)
- Longevity and durability of buildings (materials that last)
- Building envelopes can be repurposed/reused
- Material sequesters carbon emissions
- No surface finished required (no VOC's)
- Thermal mass is energy efficient (delays peak energy load, reduces total energy load)

Note that these benefits occur as a natural result of simply building with mass walls. Concrete & CMU do not require additional materials or labor to achieve these benefits—they are an inherent part of the building material. For example, fire-resistance is achieved without the addition of coatings or sprinklers; sound-proofing is the result of the density of the material; comfortable indoor temperatures are the result of high thermal mass.

Thank you for the opportunity to provide testimony.

Respectfully,

Tileco, Inc.



HAWAII LABORERS-EMPLOYERS COOPERATION AND EDUCATION TRUST

650 Iwilei Road, Suite 285 · Honolulu, HI 96817 · Phone: 808-845-3238 · Fax: 808-845-8300

May 22, 2023

**HONOLULU CITY COUNCIL
Committee on Housing, Sustainability and Health
City Council Chamber
Honolulu, Hawaii 96813
DATE: Wednesday, May 24, 2023
TIME: 2:30 p.m.**

TESTIMONY ON BILL 4 CD1 (2023) - RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE

**To Committee Chair Weyer, Vice Chair Kia`aina and members of the Honolulu City
Council Committee on Housing, Sustainability and Health:**

Hawaii LECET is a labor-management partnership between the Hawaii Laborers' International Union of North America, Local 368, its' 5000+ members and its' 250+ unionized contractors. The Laborers' International Union of North America is the largest international construction trade union in the United States and Canada.

Mahalo for the opportunity to testify on Bill 4 CD1 (2023), which seeks to update the Building Energy Conservation Code of the City and County of Honolulu. We are in support of the language in CD1 regarding the exception for insulation for mass walls as it is currently written in Sections C402.2.2 and R402.2.5, as it provides a clear and concise understanding of the application of this requirement.

In addition, regarding Table R402.1.2, Insulation and Fenestration Requirements by Component, Hawaii LECET supports amending Footnote j(3) to read as follows: "Concrete, CMU and similar mass walls are 6 inches or greater in thickness and have an unpainted finish with or without a clear sealer" to be consistent with the rest of the wording in the proposed Bill 4 CD1.

We would also like to emphasize that the natural benefits of utilizing mass walls, such as superior fire and impact resistance, resistance to mold and termites, and sustainability (building envelopes can be reused and recycled), to name just a few, are negated when cost-prohibited amendments deter utilizing this building material.

Hawaii LECET asks for your support on Bill 4 CD1, Sections C402.2.2 and R402.2.5, and with the above requested amended footnote wording for Table R402.1.2. Thank you for your consideration.

With respect,

Hawaii Laborers-Employers Cooperation & Education Trust



May 22, 2023

The Honorable Matt Weyer, Chair
The Honorable Esther Kia'aina, Vice Chair
Members of the Committee on Housing, Sustainability and Health
City and County of Honolulu
Honolulu, Hawaii 96813-3077

RE: **Bill 4 (2023), Proposed CD1 – Adoption of the 2018 State Energy Conservation Code**
Meeting: May 24, 2023 @ 2:30pm

Aloha Chair Weyer and Members of the Committee on Housing, Sustainability and Health

Mahalo for the opportunity to submit testimony on behalf of D.R. Horton, offering comments to Bill 4 (2023), Proposed CD1-MW4 relating to the adoption of the 2018 State Energy Conservation Code (IECC). D.R. Horton has participated in stakeholder meetings with the Office of Climate Change, Sustainability and Resiliency (OCCSR). We appreciate Matt Gonser, Nicola Hedge and Ben Sullivan's collaborative approach to shaping future policy and commitment to proposing policy that does not increase the cost to housing.

Upon continued review of the proposed CD1, D.R. Horton offers the following consolidated comments from D.R. Horton along with our architectural, electrical and mechanical design consultants. We respectfully note that our review and comments are based on **two strong overarching positions**:

1. Proposed policy should not increase the cost of housing,
2. Proposed policy by the State our County should not go above and beyond the ICC model code.

The below color legend has been used for clarity:

Red = increased cost to housing

Blue = recommended amendment language

Yellow highlight = Current language from Ordinance 20-10/Bill 25 (2019) that has been DELETED from Bill 4.

C109.1(e) Electric Vehicle Ready Space (EV Ready Space):

We support the proposed language with the following amendment to accommodate varying parking lot design configurations:

*"ELECTRIC VEHICLE READY SPACE (EV READY SPACE) means a designated parking stall that is provided with a dedicated circuit for future Level 2 EVSE. The circuit shall terminate in a suitable termination point such as a receptable, **pullbox**, **handhole** or junction box located in close proximity to the proposed location of the EV parking stall."*

C405.2 Lighting Controls Exceptions:

We support the proposed amended language.

C406.3 Reduced lighting power.

We support the proposed amended language.

C409.1 Baseline percentage electric vehicle readiness compliance path.

We support the proposed amended language.

C409.2 Points-based electric vehicle readiness compliance path.

We support the proposed amended language.

R103.2. Information on construction documents.

The design of single-family and duplex homes fall under the International Residential Code (IRC). The intent of the IRC (vs the International Building Code – IBC) is to reduce the requirements of engineering and construction drawings for single-family and duplex homes. The proposed amendments in this section are counteractive to the fundamental intent of the IRC.

This section is requiring additional “details” be added to construction documents. “Details” is a technical term in construction that typically means providing intricate drawings of construction components for the purpose of illustrating how to precisely build a specific part or component of a home. The requirement of “details” in this section will necessitate professional engineering expertise not typically required for single-family and two-family duplex permits under the IRC. The proposed language in this section will now require the builder/homeowner to contract additional engineering disciplines to provide actual design and construction “details” and calculations. This engineering scope of work will incur additional design consulting fees and additional errors and omission insurance. **We believe this will add approximately \$1,000 - \$2,000 per production single-family/two-family duplex homes (added cost for one-off custom home design will be much higher) increasing the cost of housing.**

We recommend the following be deleted from the section:

~~For all residential construction, details must include, but are not limited to the following, as applicable:-~~

- ~~(a) Insulation materials and their thermal resistance (R-values);-~~*
- ~~(b) Fenestration U-Factors and solar heat gain coefficients (SHGCs);-~~*
- ~~(c) Area-weighted U-factor and SHGC calculations;-~~*
- ~~(d) Electric vehicle ready infrastructure; and-~~*
- ~~(e) Solar ready infrastructure.-~~*

~~For all residential construction, except single-family residential construction less than 4,000 square feet, details must additionally include, but are not limited to the following, as applicable:-~~

- ~~(f) Mechanical system design criteria and power requirements;~~*
- ~~(g) Mechanical and service water heating system and equipment types, sizes and efficiencies;~~*
- ~~(h) Economizer description;-~~*
- ~~(i) Equipment and system controls;-~~*

~~(j) Fan motor horsepower (hp) and controls;~~
~~(k) Duct sealing, duct and pipe insulation and location;~~
~~(l) Lighting fixtures schedule with wattage and control narrative;~~
~~(m) Location of daylight zones on floor plans; and~~
~~(n) Air sealing details.~~

R401.3.1 Sampling from the 2018 Hawaii State Energy Code has been deleted.

The CD1 amendment proposes to renumber R401.3 Certificate (Mandatory) to R401.4. It does not, however, propose to renumber R401.3.1 Sampling from the approved 2018 Hawaii State Energy Code. It also goes on to propose that R401.3.1 be amended to Minimum efficiency. Thus, R401.3.1 Sampling from the approved 2018 Hawaii State Energy Code has been deleted.

The deletion of sample testing will increase the cost of production housing as it will now require every single production house to be tested, **increasing the cost of housing by \$200-300 per house**. Sampling allows similar production home plan types to be randomly tested per RESNET standards.

Based on discussions with OCCSR, we believe this was an oversight and strongly recommend adding the following amendment to reinsert sampling back in:

***"R401.4.1 Sampling.** For builders of multiple single family and multi-family units of similar construction type and envelope systems (i.e. production home building), air infiltration/duct testing may be completed by following Chapter 6 (Standards for Sampled Ratings"), of the current Residential Energy Service Network (RESNET) National Home Energy Rating System Standards."*

R403.5.1.1 Circulation Systems:

We support the proposed amended language.

R403.5.1.2 Heat Trace Systems:

We support the proposed amended language.

R403.5.3 Hot Water Pipe Insulation:

The proposed language in this section goes above and beyond the model ICC code. We believe the intent of this section is to achieve energy savings for centralized water systems serving entire buildings and was not meant to be applied to unitized/individualized water systems serving a single multi-family, single-family and duplex dwelling unit. We have conducted a cost vs energy benefit analysis comparing uninsulated PEX piping vs insulated PEX piping and determined the following:

Adding insulation to a 50' length of PEX piping can save a net \$0.04 of energy and \$0.00425 of water per day, or \$14.60 of energy and \$1.55 of water per year. This is assuming a family taking 4 showers/day, 2 showers in the morning and evening that are less than 30 mins apart.

- Adding insulation to PEX piping adds \$800 to the cost of a typical 2.5 bath MF unit/SF home.
- It will take nearly 50 years to recover that cost via \$ energy savings.
- An \$800 increase to a 30-year fixed mortgage loan will increase a buyer's monthly payment by \$5/month or \$60/year at a loan rate of 7%.
- Thus, this requirement will ultimately cost the homeowner a net \$43.85/year.

We strongly recommend the following amendment to Exemption 3:

- *"3. Piping in multi-unit dwellings serving only one dwelling unit."*

R403.6 Mechanical Ventilation (Mandatory):

We support the proposed amended language.

R403.6.1 Whole-house mechanical ventilation system fan efficacy:

We recommend this section be deleted for consistency with R403.6 above.

R408.1 Solar-Ready Zone:

The proposed language in this section goes above and beyond the 2018 model ICC code. More importantly, it is proposing to transfer scopes of work and liability that are the responsibility of solar contractors to the builder/homeowner, such as R408.1.1 Construction document requirements for solar ready zone, R408.1.5 Shading, R408.1.6 Capped roof penetration sleeve and R408.1.10 Construction documentation certificate. **This is also proposing to unnecessarily transfer both the design engineering and actual construction costs of the solar contractor's scopes of work to the builder/homeowner. The decision to incur this cost should be provided to and made by the individual homeowner interesting in installing a photovoltaic system on their home.**

The approved solar readiness language adopted with Ordinance 20-10, aka Bill 25(2019), has proven to be adequate to encourage PV installation penetration in production home building. *We recommend the entire R408.1 Solar-Ready Zone be deleted and replaced with the currently approved R404.2 Solar conduit and electrical panel readiness of Ordinance 20-10.*

R408.2 Electric Vehicle Readiness:

We support the proposed amended language.

Mahalo for your time and consideration, it is very much appreciated. Should you have any questions, please do not hesitate to contact me at (808)782-4109 or ttonaki@drhorton.com.

Sincerely,



Tracy Tonaki
President
Hawaii Division



COMMITTEE ON HOUSING, SUSTAINABILITY & HEALTH

City & County of Honolulu

May 24, 2023, 2:30 PM

**TESTIMONY IN SUPPORT OF BILL 4 (2023)
RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE**

Aloha Chair Weyer, Vice Chair Kia'aina, and Committee members:

Blue Planet Foundation **supports Bill 4 (2023), Proposed CD2 (Submitted by Councilmember Weyer)**, which timely updates the City's Building Energy Code to the 2018 edition of the International Energy Conservation Code (the State Energy Code), with local amendments.

Building codes have direct and indirect impacts on our wellbeing and quality of life. By establishing and regularly updating uniform state and county building codes, the City can ensure that building design, construction, and operation address society's most important concerns, including public health and safety, environmental protection, and consumer protection against costly monthly utility bills.

Timely energy code updates conserve energy and lower monthly utility bills

The primary function of energy codes is to reduce energy consumption in buildings, which reduces greenhouse gas emissions and pollution from burning fossil fuels—key priorities if we hope to achieve Hawai'i's ambitious climate goals. Energy codes can also lessen peak energy demand and reduce our reliance on imported energy sources, which increases utility system reliability and energy security, respectively. Moreover, energy codes create a more comfortable living and working environment through improved indoor air quality. They also help occupants save money by reducing monthly energy bills, which stimulates the economy.

States and municipalities across the country use national model codes and standards—like the International Energy Conservation Code (IECC)—as a starting place for adopting state- and local-specific versions based on their unique characteristics and climates. Like other jurisdictions, Hawai'i and its four counties develop their building energy codes based upon the IECC. A governing body—the International Code Council—produces an updated version of the IECC through a democratic and deliberative process every three years. As noted by the Environmental and Energy Study Institute, "[t]he process of updating model codes every three

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years is optimal to ensure new technologies, materials and methods, as well as better approaches to health and safety, can be incorporated into the next generation of buildings with sufficient time for proof of performance.”¹

Local code amendments address City’s climate goals

In addition to updating the City’s Building Energy Code to the State Energy Code (IECC 2018), there are a number of important local amendments proposed in Bill 4 that will support long-term affordability for Hawai’i residents and businesses while moving the City closer to achieving its goals set forth in the science-based, Council-adopted Climate Action Plan for O’ahu.

- **Adopt a voluntary stretch code:** This *100% voluntary stretch code* provides non-mandatory guidance to encourage building industry leaders who choose to go above and beyond the baseline code. The focus of the stretch code proposed in Bill 4 relates to the design of grid-interactive, efficient buildings (GEBs). As is critical in Hawai’i’s transition to 100% renewable energy, GEBs can flex their energy load depending on the time and cost of electricity throughout the day to limit costly peaks in demand on the electricity grid. Stretch codes have been used widely in other jurisdictions to help accelerate market acceptance and adoption of future versions of the energy code while maintaining flexibility for developers to plan for the future.
- **Require large, single-family homes (those over 4,000 square feet) to be highly energy-efficient:** This includes provisions that would require installed electric water heaters, electric spas, and large air conditioning systems to be “smart appliances” capable of responding to grid signals, as well as code requirements for solar reflectivity and insulation. This provision can help drive adoption of best practices that support long-term energy savings, without negatively impacting affordable housing.

Although Blue Planet largely supports these proposed local amendments to the code, we do have **concerns of the Proposed CD1 relating to the C402.2.2 Above-grade wall and R402.2.5 Mass walls (Bill 4 items 9 and 40, respectively)**. Exception #3 would allow certain buildings constructed with concrete walls to be exempt from insulation requirements. As Hawai’i experiences more frequent and intense warmer temperatures due to climate change, the insulation of buildings is critical to keep interior temperatures cool and comfortable. By insulating our homes, we not only reduce energy use and electricity costs, but can prevent heat-related illness and death—particularly in multi-unit dwellings that are occupied by children, the elderly, and others susceptible to illness. We urge the committee to further refine the code language in these sections to ensure adequate insulation in O’ahu’s buildings.

Finally, we urge the Committee **to preserve the existing EV- and solar PV-ready provisions adopted in the last Energy Code update**, which have been critical for accelerating affordable, clean energy for residents and building out O’ahu’s woefully inadequate electric vehicle charging network. It is essential we maintain these provisions if we are serious about meeting an

¹ Vaughn, Ellen and Jim Turner, *The Value and Impact of Building Codes*, 2013, <https://www.eesi.org/files/Value-and-Impact-of-Building-Codes.pdf>.

equitable clean energy future. We cannot afford to backtrack on our progress towards the City's climate, equity, and resilience goals.

Conclusion

Most individuals spend a majority of their lives inside buildings. Yet buildings are often overlooked as important levers for influencing our safety, health, and economic and environmental quality of life. Providing regular and timely updates to building codes is crucial for keeping pace with changing technology, updated health and safety standards, and the City's clean energy and climate goals. After all, **buildings constructed today will remain in our building stock for decades to come.**

Thank you for the opportunity to provide testimony.



Email: communications@ulupono.com

HONOLULU CITY COUNCIL COMMITTEE ON HOUSING, SUSTAINABILITY & HEALTH
Wednesday, May 24, 2023 — 2:30 P.M.

UluPono Initiative supports Bill 4 (2023), Proposed CD1, Relating to the Adoption of the State Energy Conservation Code.

Dear Chair Weyer and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at UluPono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation choices, and better management of freshwater resources.

UluPono supports Bill 4 (2023) Proposed CD1, which updates the Building Energy Conservation Code of the City and County of Honolulu through the adoption of the Hawai'i State Energy Conservation Code.

UluPono Initiative supports Bill 4 (2023) and its updates to the City's Building Energy Code to the 2018 edition of the International Energy Conservation Code (the State Energy Code), with local amendments. Effectively mitigating the climate impacts of building design is crucial to meeting long-term climate objectives. According to the U.S. Energy Information Administration, U.S. residential and commercial buildings account for approximately **40% of all energy consumed**.¹ Therefore, building energy codes, which govern up to **80% of a building's energy load**,² increase energy efficiency and yield significant savings for home and building owners in Hawai'i.

UluPono Initiative supports the development and inclusion of the voluntary stretch code (Item 27 Appendix CB Voluntary Stretch Code – Commercial), which provides a non-binding pathway for developers looking to exceed current code requirements in reducing the climate impact of their design. As noted by the New Buildings Institute, stretch codes give jurisdictions the ability to familiarize the design and construction communities in advanced practices before the base energy code is improved. Engineers, architects, builders, and developers can access standardized specifications and become experienced with them, and in the future receive incentives for using, innovative designs, products, and practices that they might not otherwise apply. Because the base code is updated every

¹ [EIA Annual Energy Outlook](#)

² <https://www.energycodes.gov/why-building-energy-codes>

three years, adopting a stretch code gives jurisdictions and manufacturers of building materials, mechanical systems, lighting, and other technologies time to prepare before the base code ‘catches up’ to the stretch code requirements (i.e., it gives them a head start).”³ Notably, several local architecture firms recently acknowledged the need to reduce the carbon impact of building design by committing to the American Institute of Architects’ 2030 commitment program, which aims to transform building design to address climate change by setting standards and goals.⁴

UluPono Initiative also supports the intent of the minimum efficiency code requirement (Item 36 R401.3.1 minimum efficiency), as it would eventually lead to deeper integration with grid needs and potentially enable users to reduce their energy bills by reacting to grid signals. Further investigation into market availability of these appliances and their ability to integrate into upcoming utility demand response programs would improve the effectiveness of these requirements. This is important because deep integration of grid-interactive appliances will be essential to support increased renewable energy integration. Renewable energy sources like wind and solar power are inherently variable, which means that their output fluctuates based on weather conditions and other factors. This variability can make it challenging to balance electricity supply and demand on the grid, which in the worst case, could lead to issues like blackouts and brownouts. Grid-interactive appliances can help to address these challenges by enabling electricity consumers to adjust their energy use in response to grid conditions. For example, a smart water heater could delay its heating cycle during periods of high demand on the grid, reducing the need for additional power generation from fossil fuel based peak generating units. A 2019 white paper by ACEEE states that retrofitting commercial buildings with smart connected equipment can reduce total energy consumption by 8–18%, with some analysts estimating even greater energy savings in newly constructed buildings.⁵ Furthermore, the use of grid-interactive appliances can also help to reduce overall electricity costs for consumers by allowing them to take advantage of lower-priced electricity during off-peak hours, or leverage grid interactive appliances to mitigate demand charges.⁶

³ “Stretch Codes: A Key Tool on the Path to Carbon Neutral Buildings.” Jim Edelson, New Buildings Institute December 16, 2020. <https://newbuildings.org/stretch-codes-a-key-tool-on-the-path-to-carbon-neutral-buildings/>

⁴ “6 Hawai‘i-based architecture firms commit to carbon neutrality by 2030.” Casey Harlow, Hawaii Public Radio April 21, 2023. <https://www.hawaiipublicradio.org/local-news/2023-04-21/6-hawaii-based-architecture-firms-commit-to-carbon-neutrality-by-2030>

⁵ Grid-Interactive Efficient Building Utility Programs: State of the Market. Christopher Perry, Hannah Bastian, and Dan York October 2019 ACEEE White Paper. <https://www.aceee.org/sites/default/files/pdfs/gebs-103019.pdf>

⁶ Show Me the Money: The Business Opportunity of Grid-Interactive Buildings, Cara Carmichael July 17, 2018 Rocky Mountain Institute. <https://rmi.org/show-me-the-money-the-business-opportunity-of-grid-interactive-buildings/>

With respect to the electric vehicle (EV) ready code update included in the bill, UluPono supports the baseline percentage electric vehicle readiness compliance path, but recommends expanding the applicability of EV ready requirements to all existing residential multi-family buildings and existing commercial buildings that add 8 or more new parking stalls in multi-family buildings and 12 or more new parking stalls in commercial buildings, identified in Section 409.1. If triggered under this requirement, at least 25% of the newly-added parking stalls would need to be EV charger ready for residential multi-family buildings and existing commercial buildings. This amendment would eliminate the carveout for EV ready from compliance originally included in Bill 25 (2019) and increase EV charging infrastructure deployment opportunities in the future. There is a significant and growing need for EV charging infrastructure as numerous forecasts project an ever-increasing density of EVs on the road in the coming decade. A report by Allied Market Research predicts that the U.S. EV market will grow at a compound annual growth rate (CAGR) of 22.6% from 2020 to 2027, reaching \$535.6 billion by 2027.⁷ Another study by the National Renewable Energy Laboratory (NREL) forecasts that battery-electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs) could represent 34% of all light-duty vehicle sales in the United States by 2030. A more recent forecast by S&P Global Mobility projects electric vehicle sales in the United States to reach 40% of total passenger car sales by 2030, with more optimistic projections showing electric vehicle sales surpassing 50% by 2030.⁸ The relatively long lifespan of buildings requires careful planning when it comes to facilitating and enabling an electrified future. Adding EV-ready provisions makes it easier and less costly to add EV-charging amenities in the future.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

⁷ [Source: Allied Market Research, "Electric Vehicle Market by Type, Vehicle Class, and Propulsion System: Global Opportunity Analysis and Industry Forecast, 2020–2027," March 2021].

⁸ Stephanie Brinley, "EV chargers: How many do we need?" S&P Global Mobility, January 9, 2023, <https://www.spglobal.com/mobility/en/research-analysis/ev-chargers-how-many-do-we-need.html>; and Michael Wayland, "Auto executives say more than half of U.S. car sales will be EVs by 2030, KPMG survey shows," *CNBC*, November 30, 2021, <https://www.cnbc.com/2021/11/30/auto-executives-say-more-than-half-of-us-car-sales-will-be-evs-by-2030-kpmg-survey-shows.html>.



The Honorable Mathew Weyer, Chair
The Honorable Esther Kia'āina, Vice Chair
Members of the committee on Housing, Sustainability and Health

Bill 4 (2023)
Wednesday, May 24, 2023 @ 2:30 p.m.
Honolulu Hale

RE: Bill 4 (2023) Proposed CD1-MW4- Relating to the Adoption of the State Energy Conservation Code

Chair Weyer, Vice Chair Kia'āina and members of the Committee,

Hawaii Gas **supports** Bill 4 (2023) Proposed CD1-MW4 **as amended**, which corrects a potential conflict with state statute.

In HRS 196-6.5, the state has already long established the standard of a solar water heater for new home construction. Contained within that statute is a provision that allows for an exemption due to very specific reasons, that would allow other renewable energy technology systems to be used. Bill 4- CD1 MW4 aligns county energy code with state statute, thereby eliminating a conflict between the two codes.

To address this conflict, Pgs. 30 & 31, were amended in CD1 MW4 as follows:

(36) Adding Subsection R401.3.1. Subsection R401.3.1 is added to read:

R401.3.1 Minimum efficiency.

Buildings shall comply with the following requirements, except where a requirement is preempted by a variance approved pursuant to HRS § 196-6.5. These measures shall be treated as mandatory, and no credit shall be taken for the measures in the compliance path selected for compliance with R401.2:

(37) Adding Subsection R401.3.2. Subsection 401.3.2 is added to read:

R401.3.2 Additional efficiency.

Buildings shall comply with the following requirements, except where a requirement is preempted by a variance approved pursuant to HRS § 196-6.5. These measures shall be treated



as mandatory, and no credit shall be taken for the measures in the compliance path selected for compliance with R401.2:

Hawaii Gas supports these changes. These amendments ensure the City & County of Honolulu can continue its progress in reducing climate impacts, while guaranteeing all renewable energy systems are available for use.

Hawaii Gas is committed to doing our part to reduce the effects of climate change on our state, and the planet, and we are making great strides. We have been proactively working on initiatives to reduce our carbon footprint even prior to the state passing a law in 2018 to be carbon neutral by 2045. In fact, we have the LOWEST carbon footprint of any energy utility in the state.

We already produce clean, renewable, affordable and reliable energy, including solar. HG currently generates Renewable Natural Gas (RNG) at the Honouliuli Wastewater Treatment Plant, as well as hydrogen at our Synthetic Natural Gas (SNG) facility in Campbell Industrial Park. We are turning your waste into a renewable gas resource, which is being used to power very efficient, affordable on demand gas water heaters.

We strongly support the mission to help Hawaii reach its clean energy goals. Our actions prove that and will continue to do so, as we look forward to working with the City and County and private entities on more RNG projects. Our current biogas facility at Honouliuli Wastewater Treatment Plant removes the greenhouse gas equivalent of 400 cars from our roads annually and eliminates the need for 15,000 barrels of oil. As we develop more of these opportunities, those numbers will only grow. The Waimanalo Gulch landfill and Sand Island wastewater treatment plant are sources of biogas that exist today, which we are more than willing to partner with the City and County of Honolulu to develop into renewable natural gas as soon as possible. In turn, this will increase HG's renewable content, provide the City and County of Honolulu with a new revenue source, and further reduce greenhouse gas emissions for our state. This is a win-win-win for everyone.

The renewable energy field is a big one. Hawaii Gas believes there is a role for solar, wind—and gas energy, including an increasing role for renewable natural gas and hydrogen.

Mahalo to the Committee for its time and attention to this matter and for the opportunity to testify in support on Bill 4 (2023) Proposed CD1-MW4.



Before the Honolulu City Council – Committee on Housing, Sustainability and Health
Wednesday, May 24, 2023 at 2:30 p.m.

Testimony in SUPPORT of BILL 4 CD1 (2023) - RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE. Updating the Building Energy Conservation Code of the City and County of Honolulu through the adoption of the Hawai'i State Conservation Code. (Bill passed first reading on 2/22/23; Committee postponed action on 4/5/23)

Chair Weyer, Vice Chair Kia'aina, and Members of the Committee:

Thank you for the opportunity to provide comments in support of Bill 4 CD1.

Hawai'i Energy works to empower island families and businesses on behalf of the Hawai'i Public Utilities Commission (PUC) to make smart energy choices to reduce energy consumption, save money, and pursue a 100% clean energy future. Energy efficiency – the energy we do not use – is the cheapest option to help us achieve our 100% clean energy goal by eliminating waste and being more efficient. We believe updated energy codes are critical in this effort and part of a global movement of make progress on climate change mitigation through codes and standards.

International Energy Conservation Code (IECC) 2018 represents the latest opportunity for the Honolulu City Council to update building codes, as required by state law, with local amendments. We applaud the Council's efforts in 2020 to update its energy codes for the first time in more than a decade, and we support the ongoing effort to develop and refine Bill 4 with building industry stakeholders to ensure the updated codes make sense for the O'ahu.

The amended IECC 2018 will promote greater energy resilience and help Hawai'i reach our statewide commitment to achieve 100 percent clean energy by 2045. The O'ahu amendments were carefully developed with the input of many agencies, organizations and the design and construction industry to minimize unintended consequences such as increased construction, materials and labor costs – while assuring occupants the benefits of high-performance buildings that consume less electricity.

Hawai'i Energy supports the adjustments to IECC 2018 to ensure the code actually makes sense for Hawai'i, including keeping us aligned with the market's shift to LEDs, provisions to reduce unnecessary heat gain in new buildings, and simplifications of the code for our unique market. We also support the intent of the energy stretch code amendments to open up opportunity of increased collaboration between building development teams and the electricity sector to enable high performance buildings to better support the grid and the large volume of renewable energy being added annually, and the increased energy performance requirements for larger homes.

Thank you for the opportunity to testify in support of Bill 4 CD1. The sensible energy code amendments in the proposed Building Energy Conservation Code of the City and County of Honolulu are a critical chance for O'ahu to take another step forward in the transition to 100 percent clean energy. They will provide lasting economic benefits to residents and businesses who are already burdened with high costs. If you have any questions on Hawai'i Energy's programs or our work toward the adoption of stronger energy codes, please do not hesitate to contact me.

Sincerely,
Caroline Carl
Executive Director
Hawai'i Energy



**HONOLULU CITY COUNCIL
COMMITTEE ON HOUSING AND SUSTAINABILITY
Honolulu Hale
2:30 PM**

May 23, 2023

RE: Bill 4 (2023) - RELATING TO THE STATE ENERGY CONSERVATION CODE

Chair Weyer, Vice Chair Kiaaina, and members of the Council:

My name is Greg Thielen, Codes Committee Chair of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities we all call home.

BIA Hawaii opposes all code amendments that make our local codes more stringent than the national model codes or the State Building Code. It is our position that local amendments should first and foremost address housing affordability. By adopting codes that are more stringent and therefore more expensive we diminish our ability to construct affordable housing. We also create a disincentive for the people of Oahu to upgrade our existing older homes to newer more resilient and efficient homes. True energy efficiency can only be met through incentivizing energy efficiency upgrades in older homes, not heaping more and more penalties onto the construction of newer housing. BIA Hawaii encourages the Committee to require those that propose code amendments to provide local based cost/benefit analysis before any code amendment is considered.

While we object to all code amendments that make our code more stringent, we are particularly concerned with the following amendments –

C109.1(e) Electric Vehicle Ready Space (EV Ready Space): We support the proposed language with the following amendment to accommodate varying parking lot design configurations: “ELECTRIC VEHICLE READY SPACE (EV READY SPACE) means a designated parking stall that is provided with a dedicated circuit for future Level 2 EVSE. The circuit shall terminate in a suitable termination point such as a receptacle, pullbox, handhole or junction box located in close proximity to the proposed location of the EV parking stall.”

We OBJECT to Appendix CB Honolulu Stretch Code. We recognize this code is optional, however the intention behind this portion of the code was to offer a “carrot and stick” approach. Where is the carrot?

We STRONGLY OBJECT to section R103.2 Information on construction documents. This section is requiring that additional design and calculations for electrical and mechanical scopes of work be added to construction documents. Since electrical and mechanical engineering are typically not required for single family permits, the builder/homeowner will now be required to contract two additional engineering disciplines for design consulting fees and additional errors and omission insurance.

We have COMMENTS ON R402.1.3 Sampling: Bill 4 deletes the sampling allowance that was added in Bill 25 (2019). BIA STRONGLY ENCOURAGES this section to be restored. The deletion of sample testing will increase the cost of production housing as it will now require every single house to be tested, increasing the cost of housing by \$200-300 per house. Sampling allows similar plan types to be randomly tested per RESNET standards.

We STRONGLY OBJECT to the entire R401.3 section concerning Large Home Compliance. Adding this language is nothing more than the “foot in the door” to gradually impose these standards on all homes. The requirements of this section are drastically expensive and are being sold under the guise of a greenhouse gas tax on the wealthy that build large homes. Each ensuing code cycle the argument will be made to continue to lower the bar on this square footage threshold. Furthermore there has been no evidenced offered that there is a nexus between SF and energy consumption. In actuality, the number of occupants is a far better indicator of energy consumption. Would the Council support taxing people that are forced through economic necessity to live in multi-generational households? Because that is ultimately what this measure will do. This is by far the worst of all the proposed amendments.

R403.5.3 Hot Water Pipe Insulation: The proposed language in this section goes above and beyond the model ICC code. We believe the intent of this section is to achieve energy savings for centralized water systems serving entire buildings and was not meant to be applied to unitized/individualized water systems serving a single multi-family, single-family and duplex dwelling unit. We agree with the data and further testimony of DR Horton on this section.

R408.1 Solar-Ready Zone: The proposed language in this section goes above and beyond the 2018 model ICC code. More importantly, it is proposing to transfer scopes of work and liability that are the responsibility of solar contractors to the builder/homeowner, such as R408.1.1 Construction document requirements for solar ready zone, R408.1.5 Shading, R408.1.6 Capped roof penetration sleeve and R408.1.10 Construction documentation certificate. This section is also proposing to unnecessarily transfer both the design engineering and actual construction costs of the solar contractor’s scopes of work to the builder/homeowner. The decision to incur this cost should be provided to and made by the individual homeowner installing a photovoltaic system on their home. The approved solar readiness language adopted with Ordinance 20-10, aka Bill 25 (2019), has proven to be adequate to encourage PV installation penetration in production home building. We agree with the testimony of DR Horton, and recommend the entire R408.1 Solar-Ready Zone be deleted and replaced with the currently approved R404.2 Solar conduit and electrical panel readiness of Ordinance 20-10.

The state of Hawaii is in a dire housing crisis. As the Honolulu City Council is aware, the cost of housing in Hawaii is extremely high, with Oahu’s median price of homes being currently over \$1 million. Approximately 153,967 U.S. households are priced out of buying a home for every \$1000 increase in price, according to the National Association of Home Builders (NAHB). Thus, we strongly oppose provisions that will unnecessarily raise the cost of much-needed housing on Oahu.

We appreciate the opportunity to express our concerns on Bill 4.



May 23, 2023

The Honorable Matt Weyer, Chair
Esther Kia'aina, Vice Chair
and Members of the Housing, Sustainability and Health Committee
Honolulu City Council
City and County of Honolulu
Honolulu Hale
530 South King Street
Honolulu, Hawai'i 96813-3077

Dear Chair Weyer, Vice Chair Kia'aina and Members of the Housing, Sustainability and Health Committee:

Subject: ***Bill 4 (23) – Relating to the Adoption of the State Energy Conservation Code***

I am Harry Saunders, President of Castle & Cooke Hawai'i. Thank you for the opportunity to submit testimony regarding Bill 04 Relating to the adoption of the State Energy Conservation Code.

Castle & Cooke Hawaii is in opposition to any amendment that adds to the cost of housing and puts home ownership out of reach for more people. We believe that careful consideration of costs vs. benefits should be undertaken before changes are adopted; changes made for the sake of theoretical monthly savings are moot if the changes price the home out of reach in the first place.

We appreciate the opportunity given by Chair Weyer to meet with other stakeholder groups on this issue. We believe that significant progress has been made, however, we still have a few comments/concerns:

R103.2 Information on construction documents

These requirements will necessitate the hiring of additional professional consultants to provide the requested calculations/details. This is a significant expense for information of limited value. Are the plan reviewers going to check the calculations? Are they qualified to do so? Please keep in mind that most consultant charges average out to roughly \$3,000 - \$4,000 per sheet.

The Honorable Matt Weyer, Chair
Esther Kia'aina, Vice Chair
and Members of the Housing, Sustainability and Health Committee
May 23, 2023
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R401.3.1 Sampling

It was our understanding from the meeting that sampling would be reintroduced. This is especially important for production builders like Castle & Cooke who build multiple examples of several model types in each project.

R403.5.3 Hot Water Pipe Insulation

We don't believe these requirements should apply to single family homes or multi-family homes with their own water heaters. Castle & Cooke installs solar hot water systems on single family homes, duplexes and low-rise multi-family homes. The line between the solar collectors and hot water tank are insulated. Since all of these homes (including the multi-family units) have their own water heaters, it is not worth the cost of insulating these lines because of the short runs. The hot water piping runs from the tank to the farthest fixture vary between 15' for a one bedroom condo to 40' for a larger single family home. This requirement should apply to buildings with central hot water plants only.

R408.1.3-5 Solar Ready Zone

This issue is problematic for several reasons: the area has to be clear of all obstructions, including vents and roof mounted equipment. This may be difficult, especially for duplexes with limited roof area, roof venting requirements, solar hot water panels, and plumbing venting. Furthermore, the shading requirement may limit roof design as each model/building type will be placed at varying orientations. Additionally there is little leeway to re-orient buildings as the street layouts for Koa Ridge were approved as part of the City-required Master Roadway Plan.

Mahalo for your consideration of my testimony. Should you have any questions, please feel free to contact us:

Harry Saunders
President
Castle & Cooke Hawai'i
hsaunders@castlecooke.com
Phone: 548-4884

Garret Matsunami
Vice President Residential Operations
Castle & Cooke Homes Hawaii, Inc.
gmatsunami@castlecooke.com
Phone: 626-3625



May 23, 2023

Councilmember Matt Weyer, Chair
Councilmember Esther Kia'aina, Vice Chair
Committee on Housing Sustainability and Health

RE: **Bill 4 – RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE.**
Hearing date – May 24, 2023 at 2:30 P.M.

Aloha Chair Weyer, Vice Chair Kia'aina and Members of the Committee,

Thank you for allowing NAIOP Hawaii to submit testimony in **OPPOSITION WITH COMMENTS ON BILL 4 – RELATING TO THE ADOPTION OF THE STATE ENERGY CONSERVATION CODE**. NAIOP Hawaii is the Hawaii chapter of the nation's leading organization for office, industrial, retail, residential and mixed-use real estate. NAIOP Hawaii has over 200 members in the State including local developers, owners, investors, asset managers, lenders and other professionals.

Hawaii is facing a severe housing affordability crisis. The building of affordable housing in Hawaii has become increasingly more difficult. Currently, interest rates for 30 years fixed residential mortgages have significantly risen from 3.07% to 6.90% within the past 2 years representing a near 150% increase. This has led to a dramatic increase in monthly costs of owning a home in Hawaii. Moreover, construction loan interest rates have increased from .05% to 3.81% representing a nearly seventy-five-fold increase which dramatically increase the costs of building residential units.

In addition, during this high-cost period, building codes have created additional challenges for home building. The simple reality is that the building codes have changed from minimum standards for the health and safety of building occupants to a regressive tax on housing.

Accordingly, NAIOP Hawaii objects to portions of the proposed amendments to the 2021 IECC which will add unnecessary costs to housing. Specifically, cost benefit analysis shows that there is no good reason to exceed the current code requirements especially during a severe housing affordability crisis. Furthermore, all the amendments

are more stringent than both the original model as well as the State of Hawaii approved Energy Code.

An analysis of the true cost to housing of each proposed amendment should be conducted by the SBCC prior to adoption. Consequently, NAIOP Hawaii would like comment to the following specific amendments:

1. We **STRONGLY OBJECT** to **R103.2 Information on construction documents**: This section requires additional design and calculations for electrical and mechanical scopes of work be added to construction documents. Since electrical and mechanical engineering are typically not required for single family permits, the builder/homeowner will now be required to contract two additional engineering disciplines for design consulting fees and additional errors and omission insurance. This will add approximately \$1000 - \$2000 per production home (added cost for non-production homes will be much higher, increasing the cost of housing).
2. We **SUPPORT WITH AMENDMENT** to C109.1(e): We support the proposed language with the following amendment to accommodate varying parking lot design configurations: “ELECTRIC VEHICLE READY SPACE (EV READY SPACE) means a designated parking stall that is provided with a dedicated circuit for future Level 2 EVSE. The circuit shall terminate in a suitable termination point such as a receptacle, pullbox, handhole or junction box located in close proximity to the proposed location of the EV parking stall.
3. We **STRONGLY OBJECT** to the entire **R401.3 Large Home Compliance**: First, this portion as written can apply to any home of any size provided even one room has air conditioning. This means very small homes are affected by the Large Home Compliance Section. Secondly there is no nexus between home size and energy consumption. It is our experience that many Oahu homeowners are turning to multi-generational homes in the face of our increasing housing crisis and those people will be the most affected by this language. Finally, some of the mandates in this section do not even exist. Namely smart appliances capable of responding to grid signals.
4. We have **CONCERNS** with to section 408.1 Solar Ready Zone. The proposed language in this section goes above and beyond the 2018 model ICC code. More importantly, it is proposing to transfer scopes of work and liability that are the responsibility of solar contractors to the builder/homeowner, such as R408.1.1 Construction document requirements for solar ready zone,

R408.1.5 Shading, R408.1.6 Capped roof penetration sleeve and R408.1.10 Construction documentation certificate. This section is also proposing to unnecessarily transfer both the design engineering and actual construction costs of the solar contractor's scopes of work to the builder/homeowner. The decision to incur this cost should be provided to and made by the individual homeowner installing a photovoltaic system on their home. The approved solar readiness language adopted with Ordinance 20-10, aka Bill 25 (2019), has proven to be adequate to encourage PV installation penetration in production home building. We agree with the testimony of DR Horton, and recommend the entire R408.1 Solar-Ready Zone be deleted and replaced with the currently approved R404.2 Solar conduit and electrical panel readiness of Ordinance 20-10.

5. We **STRONGLY RECOMMEND** section R402.1.3 Sampling from Ordinance 20-10 that has been deleted be inserted back. The deletion of sample testing will increase the cost of production housing as it will now require every single house to be tested, increasing the cost of housing by \$200-300 per house. Sampling allows similar plan types to be randomly tested per RESNET standards.
6. We have **CONCERNS** with to section R403.5.3 Hot Water Pipe Insulation: The proposed language in this section goes above and beyond the model ICC code. We believe the intent of this section is to achieve energy savings for centralized water systems serving entire buildings and was not meant to be applied to unitized/individualized water systems serving a single multi-family, single-family and duplex dwelling unit. We agree with the data and further testimony of DR Horton on this section.
7. We **OBJECT** Appendix CB of the Honolulu Stretch Code. We recognize this code is optional, however, this amendment would not provide the incentives as originally intended under this measure.
8. We **SUPPORT** proposed amended language for Section C409.1.
9. We **SUPPORT** proposed amended language for Section C409.2.
10. We **SUPPORT** proposed amended language for Section C406.3.
11. We **SUPPORT** proposed amended language for Section C405.2.

We strongly encourage the SBCC to refrain from moving forward with any decision making on this code until a cost benefit analysis is done on each of the proposed amendments. We appreciate your consideration of our comments and hope to work with

Councilmember Matt Weyer, Chair
Councilmember Esther Kia'aina, Vice Chair
Committee on Housing Sustainability and Health
May 23, 2023

you to do the analysis necessary to fully vet and consider the true cost impact of the proposed amendments so that such impacts may be weighed against the perceived benefits of the proposed changes. **In turn, NAIOP Hawaii respectfully recommends that the proposed amendments should be eliminated and the language within the model code remains. Additional restrictions beyond the model code are arbitrary and unnecessarily adds cost to the building of housing.**

Accordingly, NAIOP Hawaii opposes this measure due to the impacts that it will have on getting homes built for our residents. Thank you for the opportunity to testify on this measure.

Mahalo for your consideration,

A handwritten signature in black ink, appearing to read 'J Camp', with a stylized flourish at the end.

Jennifer Camp, President
NAIOP Hawaii