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**STATE OF HAWAII  
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS**

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March 12, 2012

The Honorable Rida Cabanilla, Chair  
Committee on Housing  
House of Representatives  
State Capitol, Room 442  
Honolulu, Hawaii 96813

Dear Chair Cabanilla:

Subject: S.B. 2397, S.D. 1 Relating to Fire Sprinklers

I am Kenneth G. Silva, Chair of the State Fire Council (SFC) and Fire Chief of the Honolulu Fire Department (HFD). The SFC and the HFD strongly oppose S.B. 2397, S.D. 1.

During its Regular Session of 2011, the Twenty-Sixth Legislature enacted House Resolution No. 47, H.D. 1, which requested that the State Building Code Council (SBCC) submit a report no later than 20 days before the Regular Session of 2015 convenes of its findings, recommendations, and actions taken to adopt the requirement that automatic fire sprinklers be installed in new one- and two-family dwellings.

The SBCC is reviewing the 2009 editions of the International Building and Residential Codes, which require residential fire sprinklers in new one- and two-family dwellings as minimum requirements. The SBCC formed a fire sprinkler investigative committee of stakeholders from public/private sectors, industry, and code regulators to explore issues relating to automatic fire sprinkler installations. The investigative committee's work is ongoing, and most infrastructure issues are complete.

However, issues relating to in-house systems must still be addressed. It would be a disservice to the community to enact an antisprinkler law based on one viewpoint without considering the research done by this committee, which represents all interests. The investigative committee's final report will be forwarded to the SBCC, who will decide what to adopt for the entire state.

The Honorable Rida Cabanilla, Chair

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The building codes are a comprehensive compilation of codes that address all aspects of the built environment. The resulting national codes reflect a consensus that balances safety; cost/benefit; and the most technologically advanced products, materials, and processes. Code revisions are enacted slowly, and many are a result of fatalities, serious injuries, or large property losses. When building codes are adopted at the county and state levels, they must undergo the administrative rules process, including being discussed at public hearings to allow the public an opportunity to participate and provide input. This process should not be circumvented.

There is no requirement in the current county or state building codes that mandates the installation of fire sprinklers in new one- and two-family residential dwellings. When homes undergo the county building permit process and do not meet fire department access road or fire fighting water supply requirements (hydrants), the fire code allows fire sprinklers to be installed as an alternative to meet the intent of the fire code. This bill may eliminate that alternative and would require the homeowner to meet road and water supply requirements, which is usually at a much greater cost than fire sprinklers, before a permit is issued.

By not allowing counties to mandate fire sprinklers in residential homes, adult residential care homes may not be allowed to be permitted or built, as fire sprinklers are required in this type of occupancy due to its incapacitated residents. If this bill passes, it would eliminate the counties' homerule to permit residential homes to be built when they do not meet other building or fire code requirements.

Home fire sprinklers are a proven way to protect lives and property against fires. These life saving systems respond quickly and effectively to the presence of a nearby fire. Approximately 90% of the time, fires are contained by the operation of just one sprinkler head. Hundreds of gallons of water are saved, and toxic air pollutants and ground water runoff are also significantly reduced.

Smoke alarms and other building safety requirements have progressively reduced fire losses and deaths. Working smoke alarms reduce the risk of fire fatalities by 50 percent. However, they are only effective if occupants are cognitively and physically capable of responding during a limited timeframe of rapid fire growth. National statistics have shown disproportionate fire deaths for the young and elderly for decades, which is an example of the types of individuals unable or incapable of exiting a home fire in a timely manner. The risk of dying in a home fire decreases by approximately 80 percent when fire sprinklers are present. Home sprinkler systems respond quickly to reduce heat, flames, and smoke from a fire, thus allowing families valuable time to safely exit.

The Honorable Rida Cabanilla, Chair

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Opponents of residential fire sprinkler systems like to boast that newer homes are safer and the fire and death problem is limited to older homes. The age of a home is a poor predictor of fire death rates. When an older home is associated with a higher death rate, it is usually a result of a disproportionate share of poorer, less educated households. Statistically, the only fire safety issue that is relevant to the home's age is outdated electrical wiring. Beyond that, it has little or nothing to do with fire safety.

A fire at 2 a.m. is just as deadly in a new home as it is in an older one. In fact, new methods of construction negatively impact occupant and fire fighter life safety under fire conditions. The National Research Council of Canada tested the performance of unprotected floor assemblies exposed to fire and found that these structures are prone to catastrophic collapse as early as six minutes from the onset of fire. Underwriters Laboratories conducted a study to identify the danger to fire fighters created by the use of lightweight wood trusses and engineered lumber in residential roof and floor designs. The findings point to the failure of lightweight engineered wood systems when exposed to fire. The same study found that the synthetic construction of today's home furnishings increased the risk by providing a greater fuel load. Fire sprinklers can offset increased dangers posed by lightweight construction and create a safer fire environment for fire fighters to operate in.

The contention that new home prices will dramatically rise is inaccurate. Hawaii's higher home prices are more directly impacted by high land prices, shipping costs for building materials, and contractor costs. On a national average, home fire sprinkler systems add 1% to 1.5% of the total building cost to new construction. In Hawaii, estimates obtained by the SBCC's fire sprinkler investigative committee were approximately \$1.50 per square foot. For example, a system, including permitting, installation, and materials, for a 2,500-square foot home, would cost \$6,000 to \$7,000. At \$200 per square foot, the home would cost \$500,000. The residential sprinkler system would be 1.3% of the total price. The most economical time to install sprinklers is during new construction.

Saving lives means more than just preventing deaths. Fire sprinklers not only reduce the risk of death, they also reduce property loss. In the City and County of Honolulu from 2006 to 2010, single-family home fires accounted for 40.7% (499) of the total fires; 52.6% (\$40,517,668) of all fire dollar losses; 53.3% (56) of the fire injuries; and 66.7% (10) of the fire fatalities. In contrast, buildings that were sprinklered accounted for 4.2% (52) of the total fires; 0.6% (\$428,320) of all fire dollar losses; 5.7% (6) of the fire injuries; and 6.7% (1) of the fire fatalities. The statistical report for this period is provided as Attachment A.

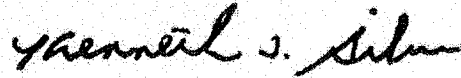
The Honorable Rida Cabanilla, Chair  
Page 4  
March 12, 2012

Prohibition laws are normally enacted to control or ban potentially dangerous or harmful products or behaviors. Automatic fire sprinklers are a proven fire, life safety, and property protection measure with an outstanding performance record in reducing fire fatalities, injuries, and property losses.

The SFC and the HFD urge your committee's deferral of S.B. 2397, S.D. 1.

Should you have any questions, please contact SFC Administrator Socrates Bratakos at 723-7151 or [sbratakos@honolulu.gov](mailto:sbratakos@honolulu.gov).

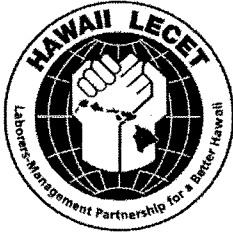
Sincerely,



KENNETH G. SILVA  
Chair

KGS/LR:cn

Attachment



Testimony of Maurice Morita  
Assistant Director  
Hawaii LECET  
1617 Palama Street  
Honolulu, HI 96817

HOUSE COMMITTEE ON HOUSING  
Wednesday, March 14, 2012  
10:00 a.m., Conference Room 325

**SB 2397 - RELATING TO FIRE SPRINKLERS**

Aloha Chair Cabanilla, Vice Chair Ito, and Members of the Committee:

My name is Maurice Morita and I am the assistant director of Hawaii LECET (Laborers-Employers Cooperation and Education Trust). Hawaii LECET is a partnership between the Hawaii Laborers' Union, Local 368 and our union contractors.

The Hawaii LECET **strongly supports** SB 2397, SD1, which prohibits counties from requiring installation or retrofitting of automatic fire sprinklers in new or existing one-or two family dwelling units used only for residential purposes.

The Hawaii LECET strongly feels the "choice" of what type of safety device to put into one's home should be up to the homeowner. Besides fire sprinklers, there are wired smoked alarms and other safety devices to warn someone there is a fire in one's home.

The cost to put a fire sprinkler in a new or existing one or two family dwelling would be an additional cost to the homeowner which some estimate approximately \$6,000 to \$7,000.00. This cost may not include the trenching of new water pipes for the fire sprinkler.

Thank you for the opportunity to submit this testimony.



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March 12, 2012

Representative Rida Cabanilla, Chair  
Committee on Housing  
State Capitol, Room 325  
Honolulu, Hawaii 96813

RE: SB 2397, Relating to Fire Protection

Dear Chair Espero and Members of the Committee:

I am Greg Thielen, President and RME of Complete Construction Services. I am a Small Business Owner and have over 20 years experience in the Construction Industry.

I strongly **SUPPORT SB 2397** and request you pass this bill with amendments.

Because of the way State law dictates counties adopt codes and because of certain special interest groups within the counties themselves it is almost certain that all four counties will mandate fire sprinklers in every single family home within the next year or two. This law is necessary to prevent that from happening.

Why should the State of Hawaii oppose fire sprinklers in single family homes? Mandating fire sprinklers drives up the cost of housing while providing no meaningful improvement to life/safety issues. It is a simple cost benefit analysis and the cost is huge and the benefit is non-existent.

Thank you for the opportunity to provide this testimony.

Sincerely,

Greg Thielen  
President/RME

**BIA-HAWAII**  
**BUILDING INDUSTRY ASSOCIATION**

**Testimony to House Committee on Housing**

Wednesday, March 14, 2012

10:00 a.m.

Capitol Room 325

**RE: S.B. 2397 SD1, Relating to Fire Sprinklers**

Dear Chair Cabanilla, Vice-Chair Ito, and members of the Committee:

My name is Gladys Marrone, Government Relations Director for the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, BIA-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.

**BIA-Hawaii strongly supports SB 2397 SD1** which, as written, prohibits counties from requiring installation or retrofitting of automatic fire sprinklers in new or existing one- or two-family dwelling units used only for residential purposes.

We propose an **amendment** to SB 2397 SD1: No code adopted by a county may include a requirement that fire sprinklers be installed in a new single family dwelling or a residential building that contains no more than two dwelling units, except for new homes that require a variance from access road or fire fighting water supply requirements. This language will not prevent the Fire Departments from requiring fire sprinklers in new homes that do not meet access road or fire fighting water supply requirements (hydrants).

The home building industry is committed to the safety of the communities in which they build, but BIA-Hawaii opposes mandating fire sprinklers in new one- and two-family homes because: 1) new homes are built with better fire safety measures and other fire safety measures are required that are proven to save lives; 2) fire sprinklers are not cost-effective; 2) targeted fire safety education programs work; 3) fire sprinklers have not been proven to enhance the safety of occupants; and 4) if a homeowner wants to install a fire sprinkler, that option should be theirs.

**New homes are built better and safer.**

There have been significant improvements to the fire safety of homes over the past few decades leading to a dramatic and continued decrease in fire incidents, injury, death, and property loss. There is no data to suggest that sprinklers will significantly improve this decline.

Several examples of inexpensive fire safety improvements to residential construction that have led to these reductions in fire incident, injury and death include:

- Interconnected, hardwired smoke alarm systems
- Carbon monoxide detectors
- Improved electrical systems

Representative Rida Cabanilla, Chair  
Committee on Housing  
March 13, 2012  
SB 2397 SD1  
BIA-Hawaii testimony

- Improved framing and fire blocking techniques, and
- Improved fire ratings on interior furnishings and building material

Furthermore, the majority of residential fires that occur today are in older homes that generally do not have many of the improved fire safety features required in today's construction. Based on our own research (see attached), since 2005, of available data, residential fires on Oahu involved older homes. Most were built prior to 1970, and as far back as 1912. Sprinkler proponents argue that "new homes become old." However, that argument lacks substance because it does not acknowledge that the fire safety features required in today's construction are permanent, as is the protection they provide. Fire sprinklers in new homes will not make them safe. Fire sprinklers in old homes will make them safe.

**Fire sprinklers are not cost-effective.**

Costs for residential fire sprinklers can vary. One of our developers received an estimate of **\$6,500** from a reputable sprinkler company using union labor for a new 1,400 square foot, two-story home, or \$4.64 per square foot. Additionally, another developer got an estimate in 2008 for **\$34,000** to sprinker a 6-plex consisting of 3-bedroom units at 1,100 square feet each, or \$5.15 per square foot. The latter cost did not include the cost of infrastructure to bring the water to the building as it was on a separate water supply to ensure adequate pressure.

Proponents have presented estimates of \$4,000 and up, but those are based on mainland figures and do not include the cost of shipping and labor. As we have seen recently in Kailua, homeowners were quoted upwards of \$16,000 for a sprinkler system, and it was unclear whether that cost included connecting the system to the City's water source. Depending on where the new home will be built, issues such as water pressure, or whether trenching is required, all add to the cost of the system.

We are committed to the safety of the communities we build and the residents who live there, but this additional cost can disqualify someone for a mortgage.

**Fire education programs work.**

BIA-Hawaii supports fire safety education programs for consumers as one of the most effective and reasonable means to preventing residential fires and reducing death, injury, and property loss well as cost-effective residential fire protection technologies that are required by current codes. Education is key in deterring human behavior that may start residential fires, such as leaving a stove unattended or smoking in bed.

Other fire prevention efforts, such as targeted fire safety/prevention education programs, have also been successful. Programs of this nature should be considered first since they will ultimately prevent more fires and property loss and, more importantly, injury and death. For example: The State of South Carolina successfully implemented a fire safety program entitled "Get Alarmed South Carolina." As a result their fire death rate dropped 41% from 1996 to 1998. The program included a smoke alarm distribution component. Fire prevention education programs work, especially for those homes and home environments at greatest risk.

**Fire sprinklers have not been proven to enhance the safety of occupants**

Sprinkler mandates apply only to those homes at least risk. Furthermore, based on National Fire Protection Data, the risk of death in a home with sprinklers is still close to 30% and property loss



Representative Rida Cabanilla, Chair  
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March 13, 2012  
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is still substantial and would still be far less overall than the overall cost of sprinklers under mandatory requirements.

**Homeowners should decide.**

Since the homeowner will be burdened with the tremendous cost of a fire sprinkler system, they should be able to decide whether a sprinkler system suits their needs. Homeowners should decide whether a 5-10% savings in homeowner's fire insurance, which equates to about \$65/year for one of our members, works for them. Proponents also discuss a possible tax credit as an incentive to install fire sprinklers. However, if sprinklers are mandated, tax credits as incentives don't work.

**Additional important information.**

*I-Codes:* Residential fire sprinklers are required in the 2009 International Building Code (IBC) and International Residential Code (IRC), which the SBCC will discuss this year. However, these I-Codes are only *model* codes, and not the minimum standard requirements. It becomes the minimum standard when the State adopts their code. Fire sprinklers goes far beyond the minimum requirement for public health and safety, particularly since fire safety measures are already required in the codes. These existing and new fire safety requirements cost far less than fire sprinklers and are proven to save more lives.

*Legislation:* Hawaii would not be the first state to do what SB 2397 SD1 proposes to do. To date, at least **35 states** across the nation have either amended the mandate out at the state level, or have passed legislation requiring that no model code be adopted by a municipality mandating residential sprinklers.

*Decreased fire deaths:* According to the Centers for Disease Control and Prevention (CDC), there were 377,000 home fires in the United States in 2009 which killed 2,565 people and injured another 13,050, not including firefighters. In 2009, there were 305,000,000 people living in the United States. The CDC goes on to say that the number of fatalities and injuries caused by residential fires has declined gradually over the past several decades, and many residential fire-related deaths remain preventable through education.

*Fire Sprinkler Investigative Committee:* Finally, fire sprinkler proponents argue that this requirement is not yet required in any code, so this bill is premature. However, the State Building Code Council (SBCC) has formed an investigative committee that is preparing a report pursuant to H.R. 47 HD1 (2011), which requested that the SBCC adopt the requirement that automatic fire sprinklers be installed in new one- and two-family residences. That report is due to the Legislature in 2015, but it will be biased in favor of residential fire sprinklers because that is what the committee is tasked to do.

SB 2397 SD1 is required because discussions at the SBCC on the upcoming 2009 IRC, which includes the sprinkler requirement, will likely begin in mid-2012 and the requirement can be adopted before the committee report is due. If it is adopted, then State DHHL housing projects, the Administration's plan for affordable housing, and Hawaii's economic recovery will be negatively impacted.

**BIA-Hawaii strongly supports SB 2397 SD1, with an amendment.**



**Hawaii Farm Bureau**  
F E D E R A T I O N

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March 14, 2012

HEARING BEFORE THE  
HOUSE COMMITTEE ON HOUSING

TESTIMONY ON SB 2397, SD1  
RELATING TO FIRE SPRINKLERS

Room 325  
10:00 AM

Chair Cabanilla, Vice Chair Ito, and Members of the Committee:

I am Brian Miyamoto, Chief Operating Officer and Government Affairs Liaison for the Hawaii Farm Bureau Federation (HFBF). Organized since 1948, the HFBF is comprised of 1,800 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interest of our diverse agricultural community.

HFBF supports SB 2397, SD1, which would prohibit the requirement of installing or retrofitting of fire sprinklers for new or existing detached one- or two-family dwelling units in a structure used only for residential purposes. Such a requirement would add substantially to the cost of building or renovating homes. It would be especially costly in the case of farm dwellings, which may be in areas not served by public water systems or where the spacing of hydrants exceeds residential standards.

We further request that SB 2397, SD1 be amended to extend this prohibition of sprinkler requirements to non-residential agricultural and aquacultural buildings and structures located outside the urban zone. HFBF is supporting other bills introduced this session that would reduce the cost and construction time of low-risk, non-residential farm structures by exempting these structures from county building permit requirements. Due to their location and functions, these buildings and structures present a lower risk of property damage and personal harm from fire than do dwelling units. Their exemption from permit requirements is necessary to allow farmers to build, at reasonable cost, structures to protect their crops and equipment from thieves, vandals, and the weather. Prohibiting a requirement for sprinkler systems would remove one major potential cost of constructing these structures, and would therefore further the State's goal of greater food self-sufficiency.

I can be reached at (808) 848-2074 if you have any questions. Thank you for the opportunity to testify.

Testimony of Glenn Ida  
Representing,  
The Plumbers and Fitters Union, Local 675  
1109 Bethel St., Lower Level  
Honolulu, Hi. 96813

**In Opposition of SB 2397,SD1**

Before the House:  
Committee on Committee on Housing  
Wednesday, Mar. 14, 2012  
10 AM, Conference Room 325

Aloha Chair Rep. Rida Cabanilla, Vice-Chair Rep. Ken Ito and Members of the Committee,

My name is Glenn Ida; I represent the 1300 plus active members and about 600 retirees of the Plumbers and Fitters Union, Local 675.

Local 675, is in Opposition of SB 2397, SD1 which Prohibits counties from requiring installation or retrofitting of automatic fire sprinklers in new or existing one or two family dwelling units used only for residential purposes.

The requirement of fire sprinklers in multifamily occupancies started in the 1980's. An optional International Residential Code (IRC) Appendix extended those requirements to single-family homes in 2006, and in 2008 the members of the International Code Council approved fire sprinklers as a standard feature to be included in all new homes. The action was upheld on appeal and later reaffirmed at a 2009 public hearing before the ICC Residential Building Code Committee, which oversees the IRC. As a result the fire sprinkler requirement will be included in the 2012 edition of the International Residential Code (IRC).

Currently, there is no requirement in the county or state building codes that mandates the installation of fire sprinklers in new one- and two-family residential dwellings. When homes undergo the county building permit process and do not meet fire department access road or fire fighting water supply requirements (hydrants), the fire code allows fire sprinklers to be installed as an alternative to comply with the fire code. SB2397 may prohibit that alternative and would require the homeowner to bear the cost of installing a fire hydrant to code, before a building permit is issued.

Local 675 Training Coordinator, Mr. Harold McDermott, is a member on a sub-committee of the State's Building Codes Council which meets regularly and is discussing the issue of residential fire sprinklers along with other stakeholders which will provide a report before the requirement goes into effect. He has on record an estimated the cost for a system of around \$4000.00 for a 1500Sq ft., for a brand new two-story home, and added that the homeowner may receive some savings on homeowner's insurance.

Page 2:

Home fire sprinklers are a proven way to protect lives and property against fires. Modern fire sprinkler heads respond quickly, effectively and individually to the presence of a nearby fire. Most of the time, fires are contained by the operation of just one sprinkler head. Thus, saving hundreds of gallons of water and significantly reducing toxic air pollutants and water damage.

Local 675 believes that this Bill is premature and the work of the sub-committee be allowed to finish and give its recommendations to the State Building Code Council.

Therefore, Local 675 Opposes SB 2397, SD1.

Thank you for this opportunity to testify.

Glenn Ida, 808-295-1280

THE GENTRY COMPANIES



March 14, 2012

The Honorable Rida Cabanilla, Chair  
House Committee on Housing  
State Capitol, Room 442  
Honolulu, HI 96813

RE: S.B. 2397, S.D. 1, Relating to Fire Sprinklers

Dear Senator Dela Cruz and Members of the Committee:

My name is Debbie Luning, Director of Government Affairs for Gentry Homes, Ltd., testifying in **strong support** of S.B. 2397, S.D. 1, Relating to Fire Sprinklers. The purpose of this bill is to prohibit the counties from requiring the installation or retrofitting of automatic fire sprinklers or an automatic fire sprinkler system in any new or existing detached one- or two-family dwelling unit in a structure used only for residential purposes. We believe that mandatory installation of fire sprinklers in single family and duplex homes, while well-intentioned, will not necessarily achieve the desired results of saving lives due to home fires. We are also concerned about the added cost to new homebuyers if it becomes a mandate. Our concerns about mandating fire sprinklers are summarized below.

- 1) **The requirement to install fire sprinklers would apply only to newly constructed homes, not to older homes which are basically the source of the problem.** Homes built nowadays are much safer in terms of fire prevention because of the types of materials, construction design and methods that are used. Examples include safer electrical wiring, double wall drywall construction, fire-rated garages, draft stops, cement siding and integrated smoke detector alarm systems that are very sensitive. These features were not necessarily included in homes built over 15 years ago; yet, the mandates in these resolutions would not apply to older homes -- they would only apply to newly constructed homes.
- 2) **Fire sprinklers will be ineffective unless there is a direct source of heat that triggers the sprinklers.** Smoke and noxious gases are the biggest threats in a home fire, and asphyxiation by poisonous fumes in the air outweighs burning as cause of death by a 3:1 ratio. A fire sprinkler, unless triggered by heat, will be ineffective under these circumstances.

3) **Fire sprinklers will be ineffective unless they are regularly maintained.** One cannot merely install a fire sprinkler system; it has to be regularly maintained in order for the system to work effectively. It is our contention that many homeowners will be negligent in regularly maintaining their fire sprinkler systems, thereby rendering them ineffective.

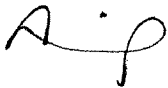
4) **Insurance companies will not cover the cost of damage caused by false alarms.** This is a very real and very practical concern. Insurance companies will not cover the cost of water damage should the fire sprinkler go off accidentally or unexpectedly – there has to be an actual fire in order for them to do so. This could mean tens of thousands of dollars of damage that the homeowner will have to pay for out of his/her own pocket.

5) **Mandating the installation of fire sprinklers in new homes would affect affordability.** Whenever additional requirements are placed on the development of newly constructed homes, the cost of homes increase and more people get priced out of the housing market. If one of the goals of the Legislature and government is to provide more affordable homes for Hawaii's people, it doesn't make sense to place additional requirements that add to the cost of a home, especially when the requirement has not been proven to be necessary. We are by no means advocating placing people's lives at risk, but we do have concerns about mandating fire sprinklers which may not be needed in newly constructed homes.

For the reasons stated above, we are strong support of this bill and urge its passage with the amendment proposed by the Building Industry Association of Hawaii. Thank you for the opportunity to provide comments.

Sincerely,

GENTRY HOMES, LTD.



Debra M. A. Luning  
Director of Governmental Affairs and  
Community Relations



Testimony of C. Mike Kido  
External Affairs  
The Pacific Resource Partnership

House Committee on Housing  
Representative Rida T.R. Cabanilla, Chair  
Representative Ken Ito, Vice Chair

SB 2397, SD1 – Relating to Fire Sprinklers  
Wednesday, March 14, 2012  
10:00 am  
Conference Room 325

Aloha Chair Cabanilla, Vice Chair Ito, and Members of the Committee:

My name is C. Mike Kido, External Affairs of the Pacific Resource Partnership (PRP), a labor-management consortium representing over 240 signatory contractors and the Hawaii Regional Council of Carpenters, formerly the Hawaii Carpenters Union.

PRP supports SB 2397, SD1 Relating to Fire Sprinklers which prohibits counties from requiring installation or retrofitting of automatic fire sprinklers in new or existing one- or two-family dwelling units used only for residential purposes.

PRP opposes mandating fire sprinklers in new one- and two-family homes for the following reasons:

First, Hawaii had the nation's lowest fire death rate in 2008, 1.6 per million residents, according to data compiled by the U.S. Fire Administration (a branch of FEMA). The national rate was 12.0 deaths per million. (The District of Columbia topped the list at 32.2 million.)

Nationally, residential building electric malfunction fires are trending downward, going from 30,000 in 2006 to 26,100 in 2010, a decline of 13%. Heating-related malfunctions are the second leading cause of residential fires in the US. Because few Hawaiian homes have heating systems, the incidence of residential fires is lower than the elsewhere.

According to the National Fire Protection Association, up to 90% of residential fires are contained by the operation of just one sprinkler, and that fatality risk is reduced by about 80% with automatic fire sprinkler systems.

Next, FEMA estimates the cost of a home sprinkler system in new construction at \$1.61 per square foot. The Building Industry Association of Hawaii calculates that the average size of a new single-family home is 2,377 square feet. Using the FEMA estimate, the additional cost of system installation comes to \$3827 for an average home.

Hawaii's distance and other factors together make the FEMA estimates low. A 20% Hawaii premium would mean installation costs of \$1.92 per square foot. Using three estimates for new residential construction costs (\$100, \$150, and \$200 per square foot) suggest the additional cost of a sprinkler system would be 1.92%, 1.28%, and 0.96%, respectively. These figures are in line with national estimates, which assume that home fire sprinkler installation adds 1-1.5% to the total building cost in new construction. Based on new SFH area of 2,377 square feet, the incremental increases would thus be partly mitigated by Hawaii's overall construction costs, with the biggest percentage burden falling on builders/owners of cheaper units.

According to the National Fire Protection Association, almost two-thirds of home fire deaths resulted from fires in homes without smoke alarms (38%) or with non-functioning fire alarms (24%). The 1994 Uniform Building Code Section 310.9.1 adopted by Hawaii requires residents to install smoke detectors in all new and renovated dwelling units.

The death rate per 100 reported home fires, NFPA data shows, is twice as high in homes without a working smoke alarm as it is in those protected by functioning alarm systems. NFPA has also cited a survey showing that in one-fifth of US homes with smoke alarms the alarms were not working.

Statewide fire policy is coordinated by the State Fire Council (SFC), on which the chiefs of the four county fire departments and other administrators serve. The SFC's aim is to "develop a comprehensive fire service emergency management network of the protection of life, property, and the environment through the state." The current state fire code was approved by the sitting governor in 2001; Maui was the final county to adopt the code, in 2006, while Hawaii County continues to utilize a 1988 code due to legal issues. According to the Honolulu Fire Department's website, Hawaii and Colorado remained the only two states not having a state fire marshal as of June 1, 2009.

Thank you for the opportunity to share our views with you and we respectfully ask for your support on SB 2397, SD1.





**Alan Shintani INC.**  
GENERAL CONTRACTOR BC 13068

March 14, 2012

Representative Rida Cabanilla, Chair  
Representative Ken Ito, Vice Chair  
Committee on Housing  
State Capitol, Room 325  
Honolulu, Hawaii 96813

**RE: SB 2397 SD1, Relating to Fire Sprinklers**

Dear Chair Cabanilla, Vice Chair Ito, and Members of the Committee:

**Alan Shintani, Inc. strongly supports SB 2397 SD1** which, as written, prohibits counties from requiring installation or retrofitting of automatic fire sprinklers in new or existing one- or two-family dwelling units used only for residential purposes. I would like to propose an amendment so SB 2397 SB1 will read, **“No code adopted by a county may include a requirement that fire sprinklers be installed in new single-family dwelling or a residential building that contains no more than two dwelling units, except for new homes that require a variance from access road or fire fighting water supply requirements.”** This language will not prevent the Fire Departments from requiring fire sprinklers in new homes that do not meet access road or fire fighting water supply requirements (hydrants).

Alan Shintani, Inc. is committed to the safety of the communities in which we build, but opposes mandating fire sprinklers in new one- and two-family homes because: 1) new homes are now being built with better fire safety measures and other fire safety measures are required that are proven to save lives; 2) fire sprinklers are not cost-effective; 3) targeted fire safety education programs work; 4) fire sprinklers have not been proven to enhance the safety of occupants; and 5) if a homeowner wants to install a fire sprinkler, that option should be theirs.

**New homes are now being built better and safer.**

There have been significant improvements to the fire safety of homes over the past few decades leading to a dramatic and continued decrease in fire incidents, injury, death, and property loss. There is no data to suggest that sprinklers will significantly improve this decline. Furthermore, the majority of residential fires that occur today are in older homes that generally do not have many of the improved fire safety features required in today's construction.

**Fire sprinklers are not cost-effective.**

Costs for residential fire sprinklers can vary, but proponents have only presented cost estimates based on mainland figures and the County of Maui, about \$7,000 to \$9,000. As we have recently seen, Kailua homeowners were quoted a price upwards of \$16,000 for a sprinkler system. It was unclear whether that cost also included connecting the system to the City's water source. Depending on where the new home will be built, issues such as water pressure or whether

trenching is required, will also significantly add to the cost of the system. Another substantial expense not included is the cost of shipping, labor, and maintenance.

**Fire sprinklers have not been proven to enhance the safety of occupants.**

Sprinkler mandates apply only to those homes at least risk. Based on National Fire Protection Data, the risk of death in a home with sprinklers is still close to 30% with property loss still substantial. Overall, this would still be far less than the total cost of sprinklers under mandatory requirements.

**Homeowners should have the choice to choose.**

The homeowner should decide whether a sprinkler system is what they want. Even though the government is responsible for the public's health and safety, the homeowner is still who will bear the additional cost. Proponents also discuss a possible tax credit as an incentive to install fire sprinklers. However, if sprinklers are mandated, tax credits as incentives do not work.

Hawaii would not be the first state to do what SB 2397 SD1 proposes to do. To date, according to the National Association of Home Builders, at least 35 states across the nation either have amended the mandate out at the state level, or have passed legislation requiring that a municipality mandating residential sprinklers adopt no model code.

Fire sprinkler proponents argue that this requirement is not yet required in any code, so this bill is premature. However, the State Building Code Council (SBCC) has formed an investigative committee that is preparing a report pursuant to HR 47 HD1 (2011), which requested that the SBCC adopt the requirement that automatic fire sprinklers be installed in new one- and two-family residences. The report is due to the Legislature in 2015, but will be biased in favor of residential fire sprinklers because that is what the committee is tasked to do.

Finally, SB 2397 SD1 is required. Discussions at the SBCC on the upcoming 2009 IRC, which includes the sprinkler requirement, will likely begin in mid-2012 and the requirement can be adopted before the committee report is due. If adopted, State DHHL housing projects, the Administration's plan for affordable housing, and Hawaii's economic recovery will be negatively impacted.

**Alan Shintani, Inc. strongly supports SB 2397 SD1, with an amendment.**

Thank you for the opportunity to share my views with you.

Sincerely,



President  
Alan Shintani, Inc.

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Tuesday, March 13, 2012 3:12 PM  
**To:** HSGtestimony  
**Cc:** tony@rmasalesco.com  
**Subject:** Testimony for SB2397 on 3/14/2012 10:00:00 AM

Testimony for HSG 3/14/2012 10:00:00 AM SB2397

Conference room: 325  
Testifier position: Support  
Testifier will be present: No  
Submitted by: Anthony Borge  
Organization:  
E-mail: [tony@rmasalesco.com](mailto:tony@rmasalesco.com)  
Submitted on: 3/13/2012

Comments:  
In Support of S.B. 2397 SD1 Relating to Fire Sprinklers

We are a locally owned and operated window manufacture/distributor that has been in business for over 50 years. We employ 16 full-time people. We support S.B 2397 SD1 with an amendment that would prohibit counties from requiring installation or retrofitting of automatic fire sprinkler systems in new or existing residential one and two family dwellings. Fire sprinklers should be an option for homeowners. New homes are built with flame retardent materials, safty devices such as smoke/carbon monoxide detectors, improved electrical systems following enhanced saftey codes. Existing, responsible homeowners upgrade there homes in terms of saftey with smoke detectors, GFI outlets etc. Please do not pass another measure that would increase the cost of new homes or the cost of existing homeownership. Homes are safer now than the ever were. Let the homeowner decide to fire sprinkler his castle or not.

Thank you.

Respectfully submitted by Anthony Borge