Advancing Resilience Through FORTIFIED™ Standards

FLORIDA HOUSING COALITION

A Multifamily Affordable Housing Pilot Project In Florida

November 2025

Illustration: Sweetwater Property

Supported by the rwjf robert wood johnson foundation

center for community investment

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About the Report

This report presents the outcomes of a pilot study implemented by the Florida Housing Coalition (FHC) in 2024–2025 with support from the Robert Wood Johnson Foundation and the Center for Community Investment, and in partnership with IBHS, AON, and affordable housing developers across Florida.

The project had two primary objectives:

1. Evaluate the feasibility and cost-effectiveness of integrating FORTIFIED standards into new affordable multifamily housing projects in Florida; and

2. Produce a set of recommendations for scaling resilient construction through public finance mechanisms, developer engagement, and third-party certification.

ACKNOWLEDGMENTS

The project team thanks the three participating affordable housing developers —Banyan, ReVital, and Coast Life— for their time and willingness to examine their construction designs and engage in candid discussions about risk, resilience, insurance, and affordability.

The team also deeply appreciates the experts at AON for implementing risk modeling on the projects, and Global Risk Consultants for their support and responsiveness during numerous technical review meetings.

We are especially grateful for the guidance and support of the Robert Wood Johnson Foundation and the Center for Community Investment, which made this work possible.

Special thanks to Greg Bloom and Kate Stein for their leadership in the insurance sector and to all participants in the February 2025 Finance Roundtable for contributing their insights and expertise. This open dialogue and collaborative spirit helped shape practical strategies for scaling resilient, affordable housing solutions for this report.

Section I: Introduction

Between 1980 and 2024, Florida experienced 94 confirmed weather/climate disaster events with losses exceeding $1 billion according to the NOAA NCEI database. The 36 tropical cyclones have caused an estimated $300 to $420 billion in damages and greatly exacerbated the existing housing affordability crisis.

Recent studies indicate that escalating property insurance costs have led multi-family property owners to raise deductibles, while insurers have responded by tightening coverage limits and introducing additional policy exclusions. These combined factors prolong post-disaster recovery timelines, exacerbate the affordable housing shortage, and make it increasingly difficult for property owners to maintain rent levels that meet Area Median Income (AMI) requirements.

Disaster-related housing instability particularly affects low- and moderate-income homeowners, renters, seniors, and people with disabilities. These groups are often less prepared for disasters and slower to recover. Resilient roof retrofits across a portfolio of Section 8 multifamily and single-family homes in hurricane prone states could reduce expected storm-related losses by 30%-50% directly affecting the displacement of these populations (1). Resilient construction is a key component for ensuring long-term affordability and protecting against increasing disasters.

Defining construction that is both resilient to various hazards and financially feasible for affordable housing developers is a crucial goal of the Florida Housing Coalition. As the leading technical assistance and training organization in the state, the Coalition is developing new resources to assist developers and local governments in defining and investing in resilient construction practices that strengthen housing stability and protect investments and families for the long-term.

The Florida Building Code (FBC) is widely considered to be one of the most robust building codes in the nation, particularly for hurricane resistance. In the past few years, new research and examples of developments built to FORTIFIED in several southern states demonstrated substantial risk reduction benefits. This warranted an assessment of applicability and benefits for affordable housing in Florida.

To explore this, the Coalition, with funding from the Robert Wood Johnson Foundation (RWJF) and in collaboration with the Insurance Institute for Business and Home Safety (IBHS) and AON, implemented an applied research project to evaluate the application of FORTIFIED Roof, Silver, and Gold standards in new multifamily affordable housing developments. The project also included risk modeling, cost-benefit framing, and direct engagement with

Banyan Development's Hibiscus project roof compliance documentation photograph.

Executive Summary

The FORTIFIED program, a nationally recognized resilient construction third-party certification, establishes enhanced, evidence-based construction benchmarks for wind and storm durability utilizing a state of the art testing facility located in South Carolina (2). Up to date research through their "Disaster Dynamics Academies" facilitates the ongoing conversation of resilience (3). The program includes a rigorous independent inspection process to ensure that construction matches the designs, thereby improving overall performance. The FORTIFIED Multifamily standard is structured into Roof, Silver, and Gold designation levels.

The project team worked with three developers of affordable multifamily properties to examine the IBHS FORTIFIED Multifamily standards compared to their current construction. The team investigated the construction cost implications, risk reduction outcomes, and potential insurance premium impacts of FORTIFIED standards. Working in close collaboration with the developers, risk experts, and construction consultants, the project identified multiple opportunities to increase the alignment of resilience goals with affordable development processes. Through this project, the Coalition ascertained the feasibility and value of integrating third-party resilience standards into affordable housing development policy and finance mechanisms to incentivize developers.

Specific findings included:

Building to FORTIFIED Gold is Financially Feasible in High-Risk Areas.

The project found that the Florida Building Code (FBC) requirements for buildings in Exposure D areas closely align with the IBHS Fortified Gold Standard. Both are focused on addressing high winds and include requirements for impact rated openings. The developers were building in Lee County and Columbia County. The FBC does not require areas outside of Exposure D to have impact rated windows and doors, while FORTIFIED Silver and Gold does require them.

Building to IBHS FORTIFIED Roof in Inland Areas Provides Additional Benefits.

The AON modelling showed that building to the FORTIFIED Roof in areas outside of Exposure D would result in greater risk reduction compared to the FBC. While building to FORTIFIED Roof was financially feasible, developers indicated that the added costs of impact rated windows in rural inland counties which had low AMI levels would be challenging to make the financial proforma work out, unless grants or incentives were provided. Information is needed to evaluate the cost differential for impact windows and doors.

Integrate Resilience into the Project from the Beginning.

The developers were at different stages of design and construction. The project demonstrated the value of and need for integrating resilient construction standards early into the development design process. Developers rely on their architects to create drawings and plans which include specifying above the code construction requirements for green and resilient standards.

Architects are key to resilient building.

Architects for the developers were well-versed with wind resistant design to meet the FBC requirements. With little extra effort, the designs were aligned to meet FORTIFIED. Ensuring that Florida architects are aware of and trained on FORTIFIED standard would enhance the overall development. IBHS offers the FORTIFIED Wise ™ Professional Course and after completing the training, they can become certified. Increasing awareness of FORTIFIED standards and affordable design would benefit Florida development.

Developers would like Points and Incentives for Voluntary Above the Code Standards.

Developers confirmed that many FORTIFIED and FBC construction standards were already closely aligned for coastal high wind areas. They suggested embedding voluntary 3rd party resilience standards into Florida Housing Finance Corporation's (FHFC) Request For Applications and Qualified Allocation Plan, and local government RFAs, including performance-based incentives and verification support. Currently, the FHFC includes four green building certification programs but does not include FORTIFIED.

Support Standardization of Resilience Criteria in Risk Modelling Variabilities and Insurance Industry Education.

AON modelling showed different projections between the two models they used to evaluate annual avoided loss and cost benefits. Discussions indicated some potential disconnects from local offices and premiums regarding the replacement costs of concrete structures and associated reduced risks over the long-term.

Integrating Standards into State and Local Government Housing Programs Will Accelerate Utilization.

The Coalition provides technical assistance to 30 developers on average each year through its programs. As a result of the insights gained from this project, the Coalition is updating its programs to provide green and resilient technical assistance to developers in early stages of development and creating alliances with certification experts. The Coalition will also engage the 130+ State Housing Initiative Partnership (SHIP) offices to facilitate awareness and make recommendations to update plans and programs.

Project Process and Activities

This summary provides an overview of the process for implementing the FORTIFIED Multifamily Study. The team employed a diverse set of qualitative data collection strategies designed to capture technical details and stakeholder experiences.

The project compiled property and site-specific development information, conducted numerous stakeholder interviews, held multiple small group meetings, facilitated two virtual roundtables, and provided one-on-one technical assistance, and through AON, obtained advanced catastrophe risk modeling. More detailed information follows this overview.

Research Questions

The project sought to understand: 1) the extent to which the FORTIFIED standards differ from FBC and can reduce vulnerability; 2) the financial impacts of implementing FORTIFIED compared to FBC requirements; 3) the benefits for multifamily developers and property owners in implementing third-party certification; and 4) the policy incentives necessary to support wider adoption of resilient construction.

Activity 1: Engage Developers to Assess their Properties

To understand the practical realities, the Coalition invited ReVital Development, Banyan Development, and Coastal Life Development to participate in the project. Banyan and ReVital were selected because they have experience building resilient and sustainable housing and have properties currently in development that could be assessed through the process. Coastal Life is a newer developer.

Each developer recognized the need to address Florida's increasing hazards and viewed the project as an opportunity to learn new information which could reduce their future operational risks. The Coalition held a kickoff meeting with the developers and RWJF, IBHS, and GRC.

The developers were asked to complete a worksheet which combined IBHS FORTIFIED and AON criteria to detail project characteristics, including location-specific data used by AON to model risk exposure and potential loss reduction. The team scheduled individual meetings with the developers and GRC to review property specific construction and FORTIFIED details.

Activity 2: AON Conducts Risk Modeling

Through the support of RWJF, AON became a project partner and offered to conduct independent catastrophe risk modeling using their industry catastrophe models to evaluate the comparative performance of baseline FBC construction versus FORTIFIED Roof™ features. Each model scenario assessed Average Annual Loss (AAL) and expected storm damage severity to provide a quantitative foundation for understanding resilience outcomes. After AON completed the modeling, the Coalition scheduled meetings with ReVital and Banyan and AON to review the information.

Activity 3: GRC Reviews Construction Information

Developers also completed FORTIFIED application and construction forms and submitted to GRC for their technical review. The Coalition provided technical assistance through Zoom meetings to address specific construction and application requirements.

Activity 4: Engage Developers and Finance Thought Leaders

Virtual roundtable meetings were facilitated to triangulate findings from on-the-ground developer assessments with broader market, insurance, and policy perspectives. The session convened stakeholders across Florida's affordable housing ecosystem—including the partner developers, insurance experts, policy analysts, and financial intermediaries—to discuss observations and facilitate new insights through structured engagement.

Activity 5: Conduct Analysis of Public Financing Policy and IBHS FORTIFIED

The Team conducted a review of other state housing finance programs that integrated FORTIFIED programs with incentives and grant mechanisms.

Activity 6: Engage Insurance Thought Leaders

The Coalition conducted interviews with insurance industry advocates and thought leaders.

Results and Opportunities for Improvement

The FORTIFIED Multifamily Pilot Project provided a critical testbed for understanding how above-code resilience standards can be embedded into Florida's affordable housing production pipeline. Technical assistance was provided to the pilot development teams by the Florida Housing Coalition, IBHS, and GRC throughout the study. The pilot revealed some strengths in third-party integration, as well as challenges in aligning construction timelines and enhancing the communication process during certification. The following qualitative themes were analyzed.

Advancing Construction Practices

The pilot confirmed that most FORTIFIED standards are achievable within Florida's current affordable multifamily construction context, especially in regions already subject to high wind and coastal risk standards. The project highlighted differences between the Florida Building Code (FBC) and FORTIFIED standards in inland areas. Early plan review by certified evaluators proved essential to identify and potentially resolve discrepancies before construction commenced.

Even well-prepared design documents require close field monitoring, as evaluators frequently observe discrepancies during phased inspections. These can include deviations in nail spacing or roof decking installation. The FORTIFIED certification process necessitates a higher standard of field execution, underscoring the value of independent, third-party oversight.

Improving Timeline and Process Coordination

The certification process introduced manageable yet meaningful steps to project delivery—most notably, documentation reviews, pre-installation inspections, and compliance verification. Projects that engage evaluators early and build these checkpoints into their schedules encounter minimal delays. In contrast, delayed evaluator involvement often results in missed compliance milestones. This experience highlights the crucial role of timing in achieving certification success and underscores the importance of proactive resilience planning during pre-development and permitting.

Developers also benefit from structured tools that improve workflow. Standardized forms, annotated checklists, and inspection templates help align project teams and ensure consistent interpretation of FORTIFIED requirements. These tools can serve as scalable assets for training and quality assurance in future projects.

Enhancing Communication Across Development Teams

This pilot project revealed that proactive communication among architects, contractors, and evaluators is critical to success. In several cases, the absence of shared technical documentation created ambiguity in the field. When evaluators acted as technical partners rather than post-construction reviewers, construction teams responded positively and made timely adjustments.

Moreover, evaluator involvement contributes directly to industry capacity-building. Through the certification process, developers and general contractors can gain valuable insight into building science and hazard mitigation. This learning-by-doing approach suggests expanding access to third-party evaluation services can help elevate overall construction quality in the affordable housing sector.

Application of Risk Modeling

Developers and insurers respond positively to site-specific risk data. These tools provide a quantitative framework for translating hazard exposure—such as wind, flood, and storm surge—into actionable design and construction choices that reduce expected losses and support resilient underwriting.

The project found there is room for improvement in harmonizing risk modeling tools and integrating risk modeling results to broker level to support development assessments, Adoption of FORTIFIED may be enhanced by greater acknowledgment from the insurance sector and training for developers, architects and local agencies. Enhancing transparency risk models will be critical to increasing industry and government use.

Recommendations for Scaling

With support from the Robert Wood Johnson Foundation, the Coalition has expanded its capacity to champion resilient, third-party certified affordable housing. The project generated key recommendations for scaling resilience across Florida's housing system—through technical assistance, policy alignment, workforce training, and education. With statewide reach and strong partnerships, the Coalition will continue to support more equitable storm-ready homes.

Integrate Resilience into the Predevelopment Loan Program (PLP)

The Coalition provides technical assistance to developers approved for the Florida Housing Finance Corporation's Predevelopment Loan Program (PLP). Annually, the Coalition assists 25-40 participating PLP developers.

The Coalition is updating its PLP services beginning Fall 2025 to provide technical assistance on green and resilient third-party certification programs, such as FORTIFIED. The early guidance will help developers and their architects optimize construction design plans and prepare for 3rd party certification. This capacity building approach will support future developments.

Incorporate Resilience into QAP and RFA Policy Frameworks

The Coalition believes that updates to FHFC's Qualified Allocation Plan (QAP) and Request for Applications (RFA) to incentivize FORTIFIED certification would be feasible as an optional point-scoring category or a design requirement in high-risk wind zones.

As part of its technical assistance mission, the Coalition will continue to offer guidance and engage stakeholders to ensure clear implementation pathways.

Deliver Resilience Training and resources for Developers

To promote resilient design across the broader affordable housing field, Coalition is developing a Green and Resilient Accelerator program. The initiative will include: standardized intake forms, checklists, and other developer resources tools for assessing project resilience.

These materials will be embedded in Coalition's Catalyst Program, which provides education to all 67 counties and 55 entitlement cities receiving State Housing Initiatives Partnership (SHIP) funding.

Expand Florida's Certified Resilience Construction Workforce

Scaling resilient housing requires well-trained and experienced professionals and workforce. The project identified the need for additional training modules for multiple professions -- from roofers to architects to increase awareness of technical requirements for FORTIFIED..

Another identified need includes increasing the number of Florida-based IBHS-certified FORTIFIED Evaluators.

These activities will improve consistency in construction practices and increase Florida's readiness for FORTIFIED adoption and develop higher level construction standards as the norm.

Support Coordination between Green and Resilience Third-Party Certification Programs

The leading green certification programs include resilience criteria in their programs. Ensuring that wind, flood and heat criteria in green programs and FORTIFIED criteria are harmonized would greatly benefit developers.

As such, the Coalition believes that the formation of a Green and Resilient Housing Working Group to review Florida hazards, 3rd party certification, building criteria and incentives would be useful. A working group could create cross-walk documents and guidance for developers seeking to implement green and resilient programs.

Through statewide technical education and consensus-building, Coalition is committed to helping streamline compliance to meet the needs of developers.

Section II

Project Partner Actions and Findings

- GLOBAL RISK CONSULTANTS
- CONSTRUCTION ANALYSIS KEY FINDINGS
- AON
- OVERVIEW OF DEVELOPER PROJECTS
- REVITAL DEVELOPMENT
- BANYAN DEVELOPMENT
- COAST LIFE COMPANIES

Project Partner

Global Risk Consultants (GRC) IBHS Third-Party Evaluator

Pre-Construction Assessment and Evaluator Review

To begin the project, IBHS-certified evaluators from Global Risk Consultants (GRC), part of TÜV SÜD America, conducted a review of the Florida Building Code and the FORTIFIED standards and met with the Coalition to explain the key differences. Developers were encouraged to review the FORTIFIED Multifamily Standard which was updated in 2025 (4). Each project could have one to ten buildings per site and building heights were capped at 50 feet.

Once the developers were on board, GRC conducted a thorough review of architectural and structural drawings, details, and site photographs using the project data from the FORTIFIED Multifamily Wind New Construction Application form (6). These evaluations established the baseline for certification eligibility and identified areas where project plans either exceeded or fell short of the requirements for FORTIFIED Roof™, Silver™, or Gold™ designation.

The developers received assistance in reviewing their designs and assessing the feasibility and implementation implications of FORTIFIED Roof, Silver, and Gold standards in comparison to Florida Building Code minimums. While material and labor costs were not directly calculated, IBHS-certified evaluators and third-party inspectors provided feedback on design implications and construction detailing necessary for certification. Since the Banyan properties had recently been completed and received their Certificate of Occupancy, GRC also reviewed inspection photographs.
This coordinated technical support enabled each development team to increase their understanding of the certification requirements.

TÜV SÜD Global Risk Consultants®

FORTIFIED MULTIFAMILY CERTIFICATION PROCESS

Review Construction Standard

https://fortifiedhome.org/wp-content/uploads/Fortified_Multifamily_Wind_Standards_2025.pdf

Complete Application

https://fortifiedhome.org/fortified-multifamily/

Fill Out FORTIFIED Multifamily Wind Form

https://fortifiedhome.org/wp-content/uploads/FORTI-FIED-Multifamily-2025-Wind-New-Construction-New-Addi-tions-Form-v2.pdf

FORM REVIEW, FIELD INSPECTIONS, DESIGNATION

https://fortifiedhome.org/wp-content/uploads/MF-flow-chart-1-2022.pdf

FORTIFIED GRC COMPLIANCE CONSTRUCTION ANALYSIS

1. Building height
2. Number of different roofs
3. Roof slope
4. Roof deck
5. Roof deck fastening
6. Wood nailers
7. Sealed roof deck
8. Drip edge
9. Rodge and off ridge vents
10. Roof mounted photovoltaic systems
11. Parapets > 3'
12. Exterior wall assembly
13. Windows (design pressure / impact resistance)
14. Exterior doors (design pressure / impact resistance)
15. Lateral wind load resistance
16. Gable ends
17. Flood exposure / 1% annual chance flood depths
18. Lowest adjacent grade elevation (NAVD 88)

Construction Analysis

Key Findings

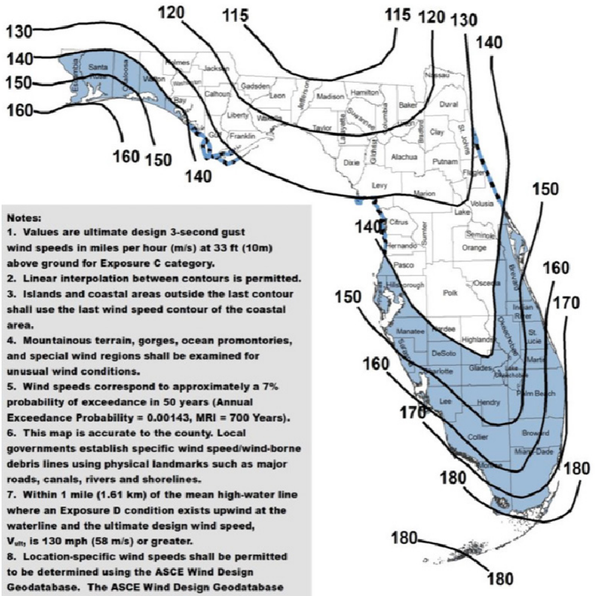
IBHS FORTIFIED and Florida Building Code Align on Wind Resistance for Exposure D

The Florida Building Code provides recommendations for specific mitigation techniques to reduce wind impacts based on locational factors and risks. Effective with the 7th Edition (2020), the FBC incorporated key components of the FORTIFIED standards.
The project team reviewed the FBC 8th Edition (2023) and FORTIFIED Multi-Family program construction requirements. The team identified alignment between FBC and FORTIFIED GOLD construction requirements for properties that will be built in locations in the Exposure D Category.

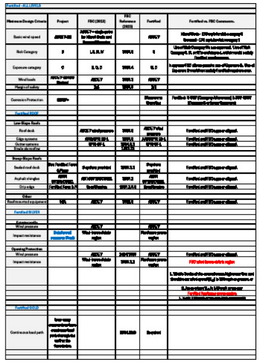
Key requirements include: sealed/secondary water barriers for roofs; improved attachments for roof decking; bracing of gable ends; enhanced roof-to-wall connections and opening protection (e.g., impact-resistant windows or hurricane shutters).

ReVital's Sweetwater apartment located in Lake City Columbia County met FORTIFIED Roof. ReVital considered adding impact resistant windows but deemed that it was not feasible within the budget.

The ReVital and Banyan properties included in the study are located in Lee County and were built to withstand extreme weather. The developer teams were excited to learn that their properties would be eligible for FORTIFIED GOLD certification with no additional construction costs.



Notes:
1. Values are ultimate design 3-second gust wind speeds in miles per hour (m/s) at 33 ft (10m) above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRI = 700 Years).
6. This map is accurate to the county. Local governments establish specific wind speed/wind-borne debris lines using physical landmarks such as major roads, canals, rivers and shorelines.
7. Within 1 mile (1.61 km) of the mean high-water line where an Exposure D condition exists upwind at the waterline and the ultimate design wind speed, V_{ult}, is 130 mph (58 m/s) or greater.
8. Location-specific wind speeds shall be permitted to be determined using the ASCE Wind Design Geodatabase. The ASCE Wind Design Geodatabase



Project worksheet comparing Florida Building Code and FORTIFIED

Wind Details

Wind Speed	165 Vmph
10-year MRI	90 Vmph
25-year MRI	112 Vmph
50-year MRI	126 Vmph
100-year MRI	137 Vmph

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings shall be protected against wind-borne debris as specified in Section 26.12.3.

Data Source
ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1~CC.2-4, and Section 26.5.2

	Project HER	Project S	Project HIB
Standard	ASCE 7	ASCE 7	ASCE 7
Wind speed (V_ult)	153 mph	120 mph	152 mph
Wind speed (V_asd)	119 mph	93 mph	118 mph
Risk category	II	II	II
Exposure category	C	C	C
Hazard	Hurricane-prone region	Hurricane-prone region	Hurricane-prone region
Wind-borne debris protection (FBC)	Required	Not required	Required
Wind-borne debris protection (Fortified)	Required	Required	Required
Wind-borne debris protection provided	Yes	Yes	Yes

Work in progress at the Banyan Hibiscus Phase II.

Project Partner

AON

Risk Modeling to Assess Avoided Loss

AON conducted risk modeling to evaluate the potential benefits of implementing FORTIFIED Multifamily standards using data from ReVital Development and Banyan's properties and locations.

The catastrophe models that AON works with are stochastic models, which include event sets with thousands of events, each with different severity levels and probabilities of occurrence. For this analysis, they looked at the impact of the various FORTIFIED programs on average annual loss, which is a metric representing the expected loss on an annual basis, considering all these events and their probabilities of occurrence.

AON used two models, A and B, to generate Average Annual Loss (AAL) estimates comparing standard Florida Building Code compliance with FORTIFIED Roof, Silver, and Gold scenarios.

The modelling showed a reduction in Average Annual Loss (AAL) modeled for projects following FORTIFIED standards. Model A showed significant reductions in AAL when FORTIFIED standards were applied. Sweetwater showed a 33–38% reduction in AAL, Hermosa showed a 38–41% reduction, and Hibiscus Phase II reflected a 26–28% decrease in AAL.

Model B showed a more modest reduction in risk for all properties. AON and IBHS discussed the potential factors and inputs. While the project did not dig into the specific variables, the team recognized the value of modelling companies working to harmonize methods to provide consistency for insurers.

Inland vs Coastal Building Code

The inland project—typically classified as low-risk—showed a relatively higher modeled loss compared to the coastal sites because it lacked impact-rated windows, which are not required under the FBC in that zone. This finding illustrates how current code minimums can leave buildings vulnerable, even in moderate-risk areas, and how FORTIFIED standards help reduce risks.

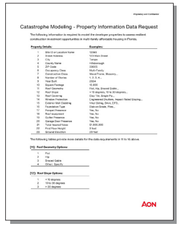
Modeling Verifies Performance

The reductions demonstrate the long-term financial benefits of avoided damage, providing a measurable basis for evaluating the economic performance of resilience focused construction. The verified modeling reinforced the value of "above the code" design and highlighted the potential for FORTIFIED certification to support improved insurance outcomes across Florida's affordable multifamily housing sector.

AON

Catastrophe Modeling Project Flow and Deliverables

Collect Property Data



- Location data
- Property risk characteristics
- Assumptions for policy terms and values

Model Property Scenarios

Built to Code

FORTIFIED Roof

FORTIFIED Silver

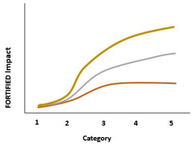
FORTIFIED Gold

Quantify the Impact of FORTIFIED

Reduction in AAL between FBC and Fortified is a measure of annual savings and can be used to quantify the "benefit" in a cost/ benefit analysis

Differences in event losses provide an estimate of estimated benefit if an event occurs

Event rates are used to provide context for the likelihood of different events occurring at a given location



Catastrophe Models to Quantify FORTIFIED Standards on Multifamily Dwellings

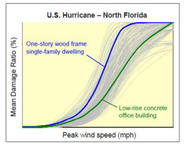
The Anatomy of a Catastrophe Model

From 120+ years of historical observations to 10k+ years of simulated events

Catastrophe models use observed history to create a synthetic set of possible hurricane events

Location
51°04'52.0"N
114°04'39.3"W

Address location information is used to determine which hurricane events impact a property



Property characteristics are used as inputs into the model to differentiate building responses to the same event

Damage is translated to loss using inputs for policy terms (limits, deductibles, etc.)

RISK MODELING DATA POINTS

- Location Name
- Street Address
- City
- County Name
- ZIP Code
- Occupancy Class
- Construction Class
- Number of Stories
- Year Built
- Building Square Footage
- Roof Geometry
- Roof Slope
- Roof Covering
- Window Protection
- Exterior Wall Cladding
- Foundation Type
- Parapet (low wall) Presence
- Roof equipment
- Gutter Presence
- Garage Door Presence
- Total Insured Value
- First Floor Height
- Ground Elevation
- Exposure Category

Overview of Developer Properties

The study engaged three purpose-driven and experienced development firms—ReVital Development, Banyan Development Group, and Coast Life Companies. Each was selected for their commitment to high-quality affordable housing, long-term community investment, and openness to innovation.

Each developer brought a unique perspective shaped by their development goals, and stage of project design or construction at the time of entering the pilot. Their contributions provided critical insight into how FORTIFIED standards could be applied across different project types and geographies.

ReVital Development

Founded in 2020 and based in Tampa, ReVital's mission is to preserve, create, and sustain high-quality, safe, and affordable housing that supports economic security and access to opportunities for all. ReVital partners with housing authorities, nonprofits, and local governments to deliver durable and socially impactful communities, particularly for seniors, veterans, and families with limited incomes. Re-Vital assessed its Hermosa Phase 1 and 2 properties in North Fort Myers, Lee County and as well as the Sweetwater development planned for Lake City, Columbia County. The properties entered the pilot after construction documents had already been developed. Through engagement, ReVital discovered that the Hermosa building plans were already aligned with the FORTIFIED Gold standard, and the Sweetwater was aligned with FORTIFIED Roof. Through the study, the firm demonstrated a strong commitment to evaluating its drawings and construction plans through the FORTIFIED lens and is already planning to incorporate FORTIFIED in the construction design of future developments.

Banyan Development Group

Headquartered in Orlando and founded in 2016, Banyan brings decades of experience in affordable housing finance, development, and compliance. The firm's mission is centered on producing communities that are "as attractive and durable as they are functional and efficient," with an emphasis on long-term sustainability and green building practices. Banyan's Hibiscus projects were in the construction phase. Through the pilot, the firm recognized that its projects were already built to levels consistent with the FORTIFIED standard, reinforcing the compatibility of resilient design with affordable housing goals. The firm is also exploring how verified resilient construction, such as FORTIFIED certification, can reduce insurance costs. Notably, Banyan was also assessing the integration of roof top solar and FORTIFIED requirements—an approach aimed at maximizing both operational savings and structural resilience over time.

Coast Life Companies

Based in Cape Coral, Lee County Florida. Coast Life is a vertically integrated real estate development and management company with over 30 years of experience delivering high-quality workforce and mixed-income housing. Guided by a mission to develop meaningful communities through thoughtful design and long-term investment, Coastal Life is known for its live-work units and for reinvesting in the regions where it is built.

Unlike the other developers, Coast Life engaged with the pilot prior to beginning their design development phase. This gave them a valuable opportunity to explore how FORTIFIED standards could be integrated from the outset.

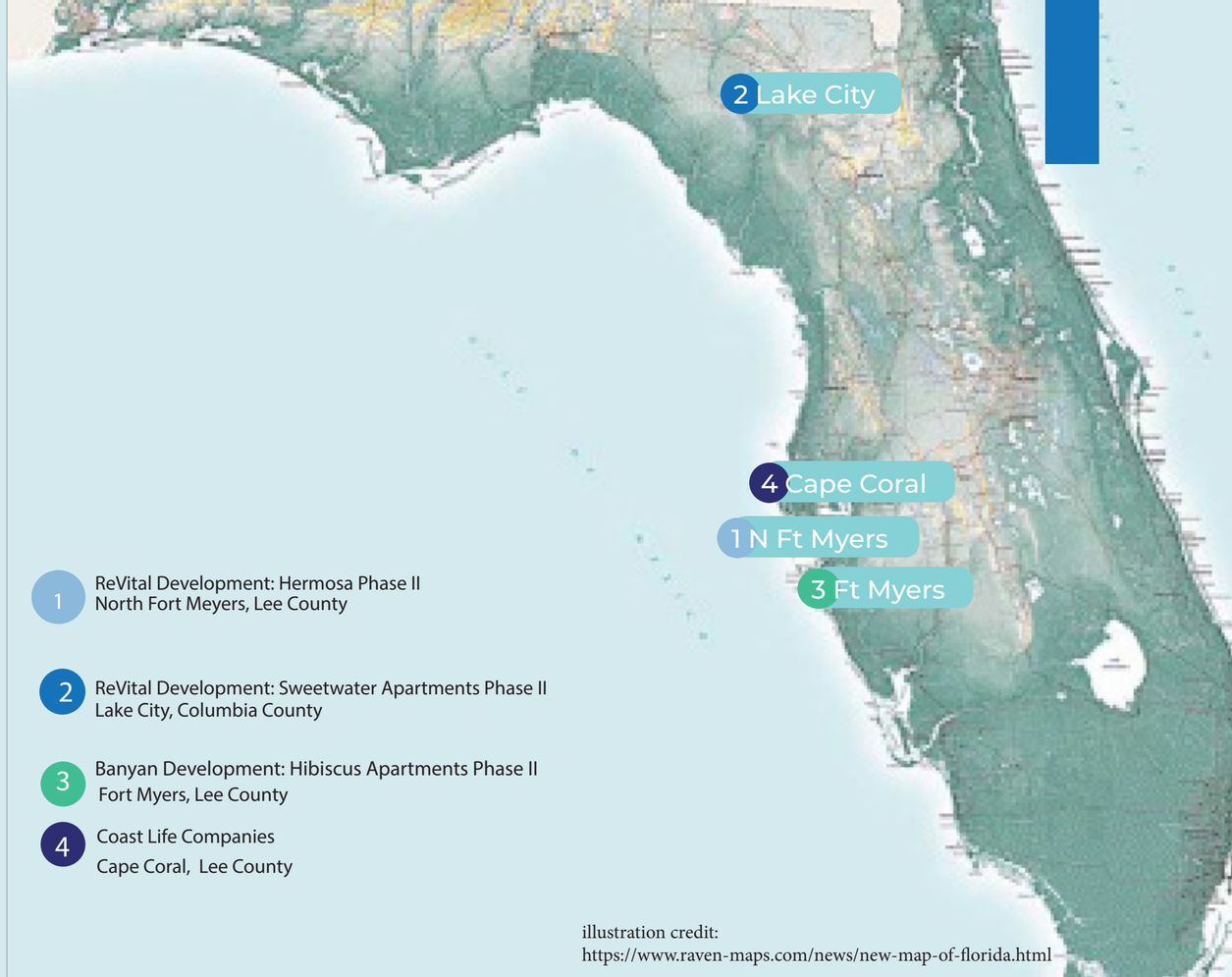


illustration credit:
https://www.raven-maps.com/news/new-map-of-florida.html

Developer Projects

ReVital Development

Hermosa Phase I and II

ReVital Development's Hermosa Phase I and Hermosa Phase II are located in North Fort Myers, Lee County. Phase I will offer 72 affordable units, comprised of 42 one- and 30 two-bedroom units, set aside at 33% and 60% of Area Median Income ("AMI"). The second phase will offer 88 affordable units, comprised of 56 one- and 30 two-bedroom units, set aside at 22%, 40%, and 60% of AMI. All 160 units will be exclusively available to seniors aged 62+, with leasing preference given to veteran applicants.

The project's structural system includes reinforced concrete block walls, hollow-core plank floor systems, and a TPO membrane roofing system over precast roof planks. It was engineered to resist wind speeds of up to 153 MPH, significantly exceeding the Lee County base design wind speed of 140 MPH. The roof system includes a sealed roof deck, secondary water barrier, and mechanical system elevation, consistent with FORTIFIED Gold standards. Impact-rated windows and doors were incorporated throughout the building to meet FBC hurricane resistance standards for properties in Exposure D. In addition, the building was elevated two feet above the base flood elevation to comply with HUD CDBG-DR funding requirements. Hermosa was fully reviewed by IBHS evaluators and third-party consultants and determined to meet all criteria for FORTIFIED Gold certification.

Hermosa Phase I was funded by the FHFC RFA 2022-201 Housing Credit Financing For Affordable Housing Developments Located In Medium And Small Counties. Other sources administered by Lee County include: HUD CDBG Disaster Recovery and the FHFC Hurricane Housing Recovery Program (HHRP) funding; loan from Lee County's Affordable Housing Trust Fund; State Apartment Incentive Loan program (SAIL) and other sources. See https://revitaldevelopment.com/communities for information on all funding sources

Hermosa I and Hermosa II are a public-private partnership between Birdsong Housing Partners, ReVital Development Group, and the Lee County Housing Authority. Substantial completion on Hermosa I and II is scheduled for early 2026.

PROJECT DETAILS

City North Fort Myers
County Lee County
Population Served Seniors 62+, veterans

# of Units Hermosa I unit mix is 44 1-bedroom/1-bathroom and 28 2-bed/2-bath apartments. The Hermosa II unit mix is 56 1-bedroom/1-bathroom and 32 2-bed/2bath apartments.

Hermosa

Developer Projects

ReVital Development

Sweetwater II

ReVital Development's Sweetwater II project in Lake City, Columbia County, Florida includes 48 units, 24 1-beroom/1-bath, 24, 2-bed/2-bath in two, three-story residential buildings. The properties will be constructed with concrete block walls on the ground level and wood framing systems for upper floors, with a wood floor system and wood trusses supporting a shingle roofing system.

Columbia County is inland and categorized as Wind Zone 2 and base wind design requirements are 100 MPH per the FBC. ReVital voluntarily designed the project to achieve wind resistance of up to 120 MPH, exceeding local code minimums by 20%. Because of its location, the project was not required by code to include impact-rated windows. Impact rated openings are required to achieve FORTIFIED Silver.

ReVital met with their GC and determined that the additional costs for the windows combined with the low rent rates due to the low AMI would not "pencil out". As such, ReVital is pursuing certification for FORTIFIED Roof. The site is elevated one foot above the base flood elevation in compliance with FBC requirements. The project demonstrates that developers can cost-effectively enhance building performance through structural upgrades, including enhanced connections and material selection.

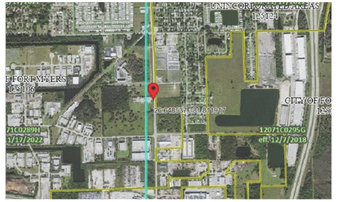
Sweetwater Apartments phase II is funded in FHFC RFA 2023–201 Housing Credit Financing for Affordable Housing Developments Located in Medium and Small Counties. Sources for this development are 9% LIHTC and a construction-to-permanent conventional loan.

Sweetwater Apartments is a partnership between Birdsong Housing Partners, ReVital Development Group, and the Greater Lake City Community Development Corporation, a non-profit.

PROJECT DETAILS

City Lake City
County Columbia County
Population Served AMI

# of Units 48 units, 24 1-bedroom/1-bath, 24, 2-bed/2-bath in two, three-story residential buildings



Developer Projects

Banyan Development

Hibiscus Apartment Phase II

Banyan Development's Hibiscus Apartments Phase Two (dba Brisas del Sur) in Fort Myers, Lee County, reflects a deliberate commitment to integrating resilience into affordable housing through construction practices that align with FORTIFIED standards. The project consists of 96 residential units across four three-story concrete block buildings, designed to withstand the regional hazard profile of Southwest Florida. Completed in early 2025, the development reached 100% occupancy within two months, underscoring the demand for high-quality, resilient, affordable housing in the area.

The first phase of this development, also 96 units and located on adjacent parcel to the south, weathered the impacts of Hurricane Ian in late September of 2022 with only one broken window and several damaged roof shingles.

Although not planned initially with FORTIFIED certification as a requirement, Hibiscus Phase II was built to specifications that meet key FORTIFIED construction criteria, including the use of metal roofing systems, concrete block construction, and sealed roof assemblies that enhance wind and water protection.

These features collectively reduce potential damage from hurricanes and other severe weather events, improving both safety and long-term durability.

The development was supported by the Florida Housing Finance Corporation (FHFC) through the 9% Low Income Housing Tax Credits (LIHTC) and the Construction Housing Inflation Response Program (CHIRP), as well as private financial partners including Valley Bank, Dudley Ventures, and the City of Fort Myers.

Banyan's design team integrated both resilience and green building strategies, including high-efficiency HVAC systems, ENERGY STAR appliances, water efficient fixtures, native Florida landscaping and a rooftop solar energy system positioning Hibiscus Phase II as a model for dual GREEN certification pathways.

This new development exemplifies how affordable multifamily housing can achieve enhanced structural performance and longterm operational benefits by embedding above-code resilience practices within existing funding and design frameworks.

PROJECT DETAILS

City Fort Myers
County Lee County
Population Served Up to 60% AMI

# of Units 96 units, in four, three-story residential buildings

Hibiscus

Developer Projects

Coast Life Companies

Coast Life Companies is spearheading a workforce housing initiative in South Cape Coral that reflects a forward-looking approach to integrated community development. The project combines 39 multifamily rental units with 8,300 square feet of ground-floor commercial space, creating a mixed-use environment that fosters walkability, employment access, and housing stability.

Designed with the local workforce in mind, the project prioritizes functionality, cost-efficiency, and long-term durability, aligning with Coastal Life's commitment to resilient construction practices in coastal regions.

Approved building and mechanical plans allow the project to move quickly into development, while zoning and site planning support a range of future tenant uses, enhancing neighborhood livability. The development aligns with Florida's Live Local Act, reserving 40% of the residential units for households earning up to 120% of the Area Median Income (AMI).

This provision strengthens the community's housing affordability goals while ensuring sustained economic diversity.

From a resilient standpoint, Coastal Life Companies intentionally designed the project to exceed minimum building code requirements by evaluating FORTIFIED Gold standards early in the design development process.

This proactive approach reflects the company's broader mission to lead by example in building safer, stronger multifamily housing in high-risk, high-growth coastal areas. The Cape Coral site represents not only a strategic location but also a model for how developers can integrate resilience, affordability, and mixed-use functionality into Florida's evolving housing landscape.

PROJECT DETAILS

City Cape Coral
County Lee County
Population Served 40% - 120% AMI

Section III

Additional Project Activities

- STAKEHOLDER MEETINGS: FINANCE ROUNDTABLE
- INSURANCE SECTOR REVIEW
- ANALYSIS OF FUNDING MECHANISMS

Stakeholder Meetings

Finance Roundtable

On April 11, 2025, the Florida Housing Coalition convened a virtual finance round-table bringing together developers, resilience experts, insurance professionals, and policy leaders. The purpose was to share early findings from the project and uncover awareness and perceptions about risks, resilient, above-code construction practices, insurance costs and potential incentives.
The session included presentations and then a facilitated open discussion. To kick it off, IBHS presented information on the economic and operational impacts of adopting FORTIFIED standards, with one model showing reductions of 38% in Average Annual Loss (AAL) and 41% in potential severity—metrics that provide a strong foundation for underwriting reform and improved insurability.

Executives with ReVital Development and Banyan Development reviewed their project data, demonstrating that resilient construction can be achieved with minimal cost impacts. Notably, their projects were already meeting or approaching FORTIFIED thresholds, affirming that resilience and affordability can be mutually reinforcing goals.

Attendees expressed support for incorporating voluntary resilience criteria into Florida Housing Finance Corporation funding mechanisms and defining clear performance standards. The developers provided additional context on anticipated financial benefits, including reduced longterm maintenance costs, fewer disaster-related disruptions, and enhanced operational continuity. Developers emphasized that, as long-term asset holders, they see value in building for durability and minimizing future risk, especially in coastal and high-hazard zones.

Balancing Investment and Rent Rates

However, they also described concerns about balancing green and resilience investments with affordability constraints under traditional finance mechanisms. One of the developers recommended that FHFC implement a pilot process with one RFA that included voluntary higher standards. If a developer was interested, they could check the box. This would be like the process used by the National Housing Trust Fund on their housing application.

They noted that standards need to be integrated early in the design process and more precise guidance and industry training were needed. FORTIFIED training is available for single family housing (FORTIFIED Home) but not currently for multi-family developments. A developer recommended training for GCs and installers which included certification. This would enable committed contractors to set themselves apart and generate more business.

While the strength of the FORTIFIED standards and 3rd party process was noted, the participants underscored the need for alignment between insurance pricing structures and third-party certification and materials. One developer noted that despite the industry-wide recognition of risk reduction benefits for building with concrete block, their insurance policy did not appear to reflect a reduction in risk and was based on replacement costs.

Collectively, the discussions reflected a shared vision for advancing resilience as a core value in affordable housing, supported by evidence-based standards, multi-sector collaboration, and policy innovation.

FLASH collaborates with Florida leaders and offers a range of building safety programs, including the Strong Homes program that follows FORTIFIED.

"We are often asked why we need to use FORTIFIED standards if we have our excellent Florida building code and the mitigation grant programs on the residential side? Our answer—it's the verification. It matters. The added quality control ensures superior safety and building performance while providing confidence to potential insurers," said Leslie Chapman-Henderson, FLASH President and CEO.

"There's also an enduring training component that comes along with that work in the field. We worked with our partners at Mennonite Disaster Service (MDS) to engineer their plans to meet Fortified Gold for the 50-plus post-hurricane Michael builds that we did together. They embraced the new way, and it is now a permanent part of their operation, ensuring the best quality wherever they build across the globe."

KEY TAKEAWAYS

- Resilient 3rd party certification could be added as voluntary program to RFAs
- Implement a pilot with one RFA to evaluate developer perspectives.
- When Disaster Recovery funding is available, add FORTIFIED requirements to contracts and require general contractors to put it in their subcontracts.
- Implement a FORTIFIED training program in Florida for Architects, GCs and installers focused on multifamily development.

Insurance Sector Review

Outside of the State of Florida, state governments, housing agencies, insurance commissions and the insurance industry itself increasingly recognize the value of housing built to FORTIFIED standards. A list of mitigation insurance discounts and Tax Savings by state can be accessed through the Smart Home America website (6).

Florida Statute 627.0629 requires insurance companies to offer Florida homeowners wind insurance savings "discounts, credits, or other rate differentials..." for construction techniques that mitigate wind and reduce damage and loss in windstorms. FloridaDisaster.org created a wind insurance savings calculator in 2003 with the last update in 2011, serving single-family and multi-family dwellings (7).

The Florida Office of Insurance Regulation (FLOIR) is in the process of updating the Uniform Mitigation Verification Inspection Forms (OIR-B1-1699 and OIR-B1-1700) aka "Wind Mit", which serve as regulatory instruments for documenting wind mitigation features by the Florida Building Code (FBC) (8).

The inspection form must be completed by a licensed, certified inspector and submitted to the policyholders and insurance company to be eligible for premium discounts. The discounts are typically valid for five years, contingent upon no material structural alterations. The FORTIFIED recertification inspection is completed every five years.

Acknowledges IBHS but No Credits for FORTIFIED

Citizens Insurance, the state-run insurance provider offers policy discounts on FBC wind mitigation improvements such as impact-rated windows, roof construction discounts, and roof-to-wall connections. Premium discounts can be reached if a structure was built after January 1, 2002. Citizens promotes the Insurance Institute for Business & Home Safety (IBHS) as experts on windstorm construction (9) (10). However, Citizens webpage does not indicate that it will provide credits or discounts for properties that are certified to FORTIFIED.

Industry Supports FORTIFIED But Not Publicly Well Defined

In reviewing insurance companies, the Coalition identified that US AAA and Travelers Insurance recognize IBHS FORTIFIED building in Florida. A 2017 National Institute of Building Sciences study concluded that for every $1 spent on hazard mitigation, $6 is saved on future disaster costs. At Travelers, mitigation credits are available for homes designated as FORTIFIED by IBHS (11). Travelers has provided funding to Habitat for Humanity, SBP and Rebuilding Together Florida. SBP has completed 320 FORTIFIED homes in Alabama, Florida, Louisiana, New Jersey, New York, North Carolina, Puerto Rico, South Carolina and Texas.

Of these homes, 182 were supported by funding from Travelers and 47 SBP staff received FORTIFIED construction training. More work is needed to identify other companies.

Interviews with several representatives from the insurance sector and advocates confirmed awareness of FORTIFIED standards. They acknowledged the value of third-party verification, but mainly described the current system as functioning adequately, and did not discuss specific challenges or gaps in underwriting practices.

Promoted by Insurance for Good, The Miami-Dade Property Insurance Strategy Forum was discussed and provides a set of recommendations to improve property insurance affordability and availability setting precedents for ongoing national dialogue (12). The Coalition acknowledges that engaging individual representatives does not provide insight to corporate strategies and decision making, which is needed.

The project identified potential disconnects between how developers and insurers perceive and value risk-reduction benefits. It highlights the need for programs which can promote transparency, bridge perspectives, support data sharing, and identify actionable opportunities to align risk reduction efforts with insurance incentives in the affordable housing sector.

Insurance Information Institute advocates for a collaborative, forward-thinking approach that brings together insurers, regulators, and housing agencies to create solutions tailored to the affordable housing context (13). A collaboration between IBHS, its members, other insurance providers and the Coalition would support affordable housing developers, builders and LMI homeowners, whose homes are built to FORTIFIED standards.

Funding Mechanisms

The Florida Qualified Allocation Plan

In Florida, the Qualified Allocation Plan (QAP) is the foundational policy document that governs the allocation of federal Low-Income Housing Tax Credits (LIHTCs), administered by the Florida Housing Finance Corporation (FHFC). The QAP outlines the criteria, scoring system, and threshold requirements used to evaluate affordable housing proposals seeking competitive tax credit financing.

Within this framework, Requests for Applications (RFAs) serve as the implementation tools that guide developers through the application process for specific funding opportunities, such as tax credits, state housing trust funds, and other financing resources.

Together, the QAP and RFAs shape the standards, priorities, and incentive structures that influence how and where affordable housing is built across Florida.

By establishing eligibility criteria and rewarding certain design features, such as green building certification or accessibility standards, these documents have a direct impact on construction practices and innovations adopted by affordable housing developers.

As such, they represent a critical opportunity to embed resilience strategies into statewide housing policy and practice helping developers be more competitive and assuring more resilient construction in affordable housing.

To create awareness of resilience in Florida's affordable housing policy framework, the Coalition and IBHS submitted letters to the Florida Housing Finance Corporation (FHFC) recommending amendments to the Qualified Allocation Plan (QAP) and associated Requests for Applications (RFAs).

The Coalition's letter outlined the findings of the project and encouraged FHFC to establish a Resilience Working Group to review standards. IBHS encouraged FHFC to recognize third-party verified resilience standards—specifically IBHS's FORTIFIED Roof, Silver, and Gold certifications—as eligible strategies in the QAP.

Incentive Programs in Other States

The Coalition reviewed initiatives in other states that have integrated FORTIFIED standards into affordable housing finance programs.

Several states have taken steps to incentivize resilient construction, providing developers with structured, third-party verified pathways to strengthen multifamily buildings against wind and moisture-related hazards..

FORTIFIED certification benefits homeowners and property owners in more than a dozen states where insurers offer specific discounts, grants, and tax credits to homes with a FORTIFIED designation, which can be as high as 55%.

In North Carolina, utilizing the FORTIFIED program could mean eligibility for mitigation credits from the homeowners insurance company. In other states, discounts are provided for specific upgrades included in the FORTIFIED standard (14).

LOUISIANA FORTIFY HOMES

Louisiana's Fortify Homes program grants up to $10,000 for homeowners to upgrade their roofs to standards set by the Insurance Institute for Business & Home Safety (IBHS) (15). By aligning proven construction standards with direct funding, these programs provide compelling examples of how the public and private sectors can collaborate to mitigate risk, enhance insurability, and foster long-term housing stability in vulnerable

IBHS provides a resource on their website to research mitigation incentives, insurance discounts, and grants or tax credits per state. These incentives can be as high as $5000 or more, to homeowners and developers who strengthen their homes and projects against storms (16). Studies prove it pays to have the added protection of a FORTIFIED project. A "Find a Professional" link on this page links developers to FORTIFIED service provides, evaluators, roofers, and technical assistants (17(. communities.

FHLBANK DALLAS

With their FORTIFIED Fund Rental program, the FHLB Dallas is providing grants to support the upgrade of existing roofs on affordable rental housing to FORTIFIED Roofs. The program was designed for Dallas member institutions to submit applications in collaboration with public housing authorities (PHAs) in FHLB Dallas' District of Arkansas, Louisiana, Mississippi, New Mexico and Texas.

The FHLB Dallas administers the program through its member banks and nonprofit housing partners, creating a replicable and scalable model that links resilience investment with financial support (19).

https://www.fhlb.com/community-programs/homeownership-and-homebuyer-programs/fhlb-dallas-fortified-fund

References

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1 IBHS ASKS, "WHAT IF?" Making Section 8 Housing FORTIFIED Report https://ibhs.org/wp-content/uploads/IBHS_Whatif_Section8.pdf

Pg 8

2 IBHS Research Center https://ibhs.org/about-ibhs/ibhs-research-center/
3 IBHS Year in Review 2024 https://ibhs.org/2024-year-in-review/#:~:text=In%202024%2C%20IBHS%20leadership%20focused,with%2015%20state%20insurance%20commissioners.

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4 FORTIFIED Multifamily Standard 2025 https://fortifiedhome.org/wp-content/uploads/Fortified_Multifamily_Wind_Standards_2025.pdf 5 FORTIFIED Multifamily Wind New Construction Application Form https://fortifiedhome.org/wp-content/uploads/FORTIFIED-Multifami-ly-2025-Wind-New-Construction-New-Additions-Form-v2.pdf

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6 Smart Home America: FORTIFIED Incentives Per State https://www.smarthomeamerica.org/discounts-and-incentives/list-of-fortified-dis-counts-and-incentives

7. Florida Disaster: https://apps.floridadisaster.org/wisc/background.aspx
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15.Louisiana FORTIFIED Home Program https://ldi.la.gov/fortifyhomes#:~:text=The%20Louisiana%20Fortify%20Homes%20Program,%26%20Home%20Safety%20(IBHS).
16. FORTIFIED Financial Incentives https://fortifiedhome.org/incentives/ 17. FORTIFIED Providers Directory https://fortifiedproviders.com/
18.FHL Bank Dallas: FHLB Dallas FORTIFIED Fund https://www.fhlb.com/community-programs/homeownership-and-homebuyer-programs/fhlb-dallas-fortified-fund

Glossary of Key Terms

Affordable Housing
Housing that is financially accessible to individuals or families earning at or below the median income for a region. It is often supported by public subsidies, tax credits, or nonprofit development to ensure longterm affordability and housing stability.

Average Annual Loss (AAL)
A metric used in risk modeling to represent the expected average yearly financial loss from natural hazards. It helps compare the cost-effectiveness of mitigation strategies across building types and locations.

Building Inspections
Formal reviews are conducted at various stages of construction to ensure that building components meet applicable codes, standards, and specifications. In the FORTIFIED process, certified third-party evaluators also undertake inspections to verify compliance with enhanced resilience requirements.

Designated Wind-Borne Debris Region
A geographic area identified by building codes where buildings must meet stricter standards, such as impact-rated windows and reinforced doors, due to increased risk of windborne debris during hurricanes or high-wind events.

Evaluator (FORTIFIED Evaluator)
An engineer and certified professional responsible for verifying compliance with FORTIFIED standards through on-site inspections, documentation review, and construction oversight.

FORTIFIED Standard
The Insurance Institute for Business & Home Safety (IBHS) developed a voluntary, above-code construction standard to increase a building's durability against severe weather. The standard includes three certification tiers—Roof, Silver, and Gold.

Green Standards
Thirsday party certification programs—such as Florida Green Building Coalition (FGBC), Enterprise Green Communities, National Green Building Standard (NGBS) and LEED — which promote energy efficiency, water conservation, indoor air quality, healthy housing andnd environmental stewardship in building design and construction.

Insurance Premium Reduction
The potential financial benefit (lower premiums) offered by insurers for properties that meet above-code construction standards like FORTIFIED is due to reduced expected damage and claims.

Load Path (Continuous Load Path)
A structural system of connections that safely transfers wind, seismic, or other forces from the roof down to the foundation. Ensuring a continuous load path is a key requirement for achieving FORTIFIED Gold and is critical to maintaining a building's structural integrity during extreme weather.

Model Building Codes
Standardized construction codes, such as the Florida Building Code (FBC), establish baseline safety requirements. FORTIFIED standards can exceed these codes.

Predevelopment Loan Program (PLP)
A Florida Housing Finance Corporation program that provides early-stage funding and technical assistance to nonprofit housing developers to prepare projects for construction.

Qualified Allocation Plan (QAP)
The policy document guiding the distribution of Low-Income Housing Tax Credits (LIHTC) by FHFC. QAPs can include priority incentives for resilience, sustainability, or geographic targeting.

Request for Applications (RFA)
A funding opportunity released by the Florida Housing Finance Corporation (FHFC) invites affordable housing developers to apply for competitive financing.

Resilient Construction
Advanced design and building practices that increase a structure's resistance to hazards such as wind, flooding, or heat.

Risk Modeling
A predictive analysis technique that uses historical data and geographic hazard exposure to estimate potential future losses from disasters. In this pilot, AON's risk modeling estimated Average Annual Loss (AAL) to assess cost-benefit ratios for FORTIFIED upgrades.

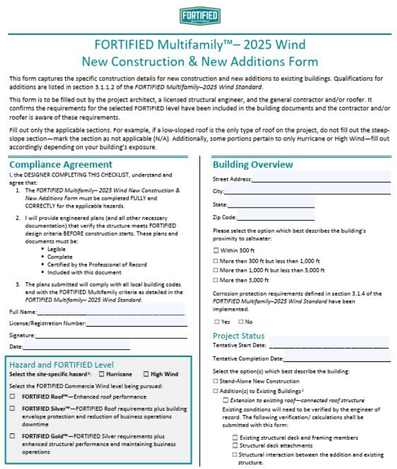
Technical Assistance (TA)
Experts (e.g., Florida Housing Coalition) provide support to developers, local governments,and other nonprofits. TA may include help with financing strategies, construction planning, or integrating resilience into design and operations.

Third Party Certifications
Independent verification of construction methods and materials by a qualified evaluator. In the case of FORTIFIED, IBHS and certified Evaluators conduct site inspections to ensure compliance and issue designations.

Appendix 1

FORTIFIED Multifamily Construction Standards and 2025 Wind Form Application Page 1

https://fortifiedhome.org/multifamily-technical-resources/



FORTIFIED

FORTIFIED Multifamily™– 2025 Wind
New Construction & New Additions Form

This form captures the specific construction details for new construction and new additions to existing buildings. Qualifications for additions are listed in section 3.1.1.2 of the *FORTIFIED Multifamily–2025 Wind Standard*.

This form is to be filled out by the project architect, a licensed structural engineer, and the general contractor and/or roofer. It confirms the requirements for the selected FORTIFIED level have been included in the building documents and the contractor and/or roofer is aware of these requirements.

Fill out only the applicable sections. For example, if a low-sloped roof is the only type of roof on the project, do not fill out the steep-slope section—mark the section as not applicable (N/A). Additionally, some portions pertain to only hurricane or High Wind—fill out accordingly depending on your building's exposure.

Compliance Agreement

I, the DESIGNER COMPLETING THIS CHECKLIST, understand and agree that:

1. The *FORTIFIED Multifamily– 2025 Wind New Construction & New Additions Form* must be completed FULLY and CORRECTLY for the applicable hazards.
2. I will provide engineered plans (and all other necessary documentation) that verify the structure meets FORTIFIED design criteria BEFORE construction starts. These plans and documents must be:
   - Legible
   - Complete
   - Certified by the Professional of Record
   - Included with this document
3. The plans submitted will comply with all local building codes and with the FORTIFIED Multifamily criteria as detailed in the *FORTIFIED Multifamily– 2025 Wind Standard*.

Full Name:_____

License/Registration Number:_____

Signature:_____

Date:_____

Hazard and FORTIFIED Level

Select the site-specific hazard(s): ☐ **Hurricane** ☐ **High Wind**

Select the FORTIFIED Commercia Wind level being pursued:

☐ **FORTIFIED Roof™**—Enhanced roof performance

☐ **FORTIFIED Silver™**—FORTIFIED Roof requirements plus building envelope protection and reduction of business operations downtime

☐ **FORTIFIED Gold™**—FORTIFIED Silver requirements plus enhanced structural performance and maintaining business operations

Building Overview

Street Address:_____

City:_____

State:_____

Zip Code:_____

Please select the option which best describes the building's proximity to saltwater:

☐ Within 300 ft

☐ More than 300 ft but less than 1,000 ft

☐ More than 1,000 ft but less than 3,000 ft

☐ More than 3,000 ft

Corrosion protection requirements defined in section 3.1.4 of the *FORTIFIED Multifamily–2025 Wind Standard* have been implemented.

☐ Yes ☐ No

Project Status

Tentative Start Date: _____

Tentative Completion Date:_____

Select the option(s) which best describe the building:

☐ Stand-Alone New Construction

☐ Addition(s) to Existing Building[1]

☐ *Extension to existing roof—connected roof structure*

Existing conditions will need to be verified by the engineer of record. The following verification/ calculations shall be submitted with this form:

☐ Existing structural deck and framing members

☐ Structural deck attachments

☐ Structural interaction between the addition and existing structure.

Citation Reference:
Florida Housing Coalition
RWJF FORTIFIED Multifamily
Construction Analysis 2025