Testimony of John C. Fowke

On Behalf of the
National Association of Home Builders

Before the

House Transportation and Infrastructure Committee

"Hearing on The Benefits of Investing in Resilience and Mitigation"

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Chairwoman Titus and Ranking Member Webster, I am pleased to appear before you today on behalf of the National Association of Home Builders (NAHB) to share our experience and views regarding building resilience and mitigation. My name is Chuck Fowke, and I am NAHB's Chairman of the Board. I am also the founder and president of Homes by John C. Fowke Inc., and have built hundreds of homes throughout the Tampa Bay area. In addition to being a custom home builder, I have served on the City of Tampa and State of Florida Hurricane Codes Committees. In my capacity on those committees, I have had a firsthand look at what catastrophic disasters can do to homes and communities and how investing in mitigation can alleviate some of the challenges.

NAHB represents more than 140,000 members who are involved in land development and building single-family and multifamily housing, remodeling and other aspects of residential and light commercial construction. NAHB's members construct approximately 80 percent of all new housing built in the United States each year. NAHB's mission is to enhance the climate for housing and the building industry, including providing and expanding opportunities for all people to have access to safe, decent and affordable homes.

This testimony will focus on the following key points:

- Maintaining housing affordability must be the cornerstone to any efforts to create cleaner and stronger homes.
- Modern building codes (e.g., post-2000) are resilient.
- State and local governments must retain authority over their land use and code adoption processes.
- Modernizing the existing housing stock is crucial.
- Incentive programs and other funding mechanisms must be provided to offset the increased costs for above-code and mitigation activities.

The unusual number of significant natural disasters over the past several years has been sobering. At the same time, they have ignited a nationwide dialogue about risk, resiliency and mitigation. NAHB has been actively engaged in these discussions for many years and we have taken a leadership role in improving the resiliency and performance of new and existing homes. In fact, NAHB and its members have a long history of supporting, developing and participating in many state and local initiatives, as well as various federal activities aimed and reducing disaster losses and improving resiliency. We have repeatedly demonstrated our commitment to working with all levels of government to promote and implement sound disaster and floodplain management policies and improve the resiliency of the homes we build and the communities we serve. In doing so, we take pride in helping to develop cost-effective, market-driven solutions that maintain housing affordability while balancing the needs of growing communities with the need for reasonable protection of life and property.

Today, I would like to discuss the importance of housing affordability, the role modern building codes play in reducing damage from natural disasters, the need for mitigation policies and programs to improve the resiliency of the existing housing stock, and suggested financing mechanisms and other initiatives to spur investment in the production of homes that are both resilient *and* affordable.

Housing Affordability

Housing affordability continues to be a concern for households across the nation. Many people cannot afford to purchase a new home or install energy efficient or resilient features in an existing home – and that's before Congress considers any new policies aimed at tackling climate change. These challenges are real and we are hopeful that this Subcommittee will refrain from enacting any policies that will exacerbate these existing realities.

According to NAHB research conducted earlier this year, housing affordability in the single-family market remains near a 10-year low. Only 58.3 percent of new and existing homes sold in the last quarter of 2020 were affordable to families earning the U.S. median income of $72,900, while these same families could only afford about 40 percent of the new homes. [1,2] At lower income levels, the reality is even starker. Based on conventional assumptions and underwriting standards, the minimum income required to purchase a $100,000 home is $22,505. In 2021, about 21.1 million households in the U.S. are estimated to have incomes below that threshold and, therefore, cannot afford a $100,000 home. To make matters worse, in many areas of the country, homes priced below $100,000 simply don't exist.

Clearly, owning or renting a suitable home is increasingly out of financial reach for many households. In fact, almost a third of the nation's households are cost burdened and pay more than 30 percent of their income for housing. At the same time, net new households are being formed faster than new single-family and multifamily homes are coming online to accommodate them, so there is both a surge in need and not nearly enough supply.

The nation continues to experience a housing shortage and an affordability crisis. Despite these real challenges, many continue to suggest that home builders should build structures that are more resilient and/or efficient in an effort to respond to and stem the impacts of climate change, meet carbon emissions limits or further environmental goals. Oftentimes, such additional requirements are unnecessary because many new homes outperform existing ones and these new mandates will only serve to exacerbate the current housing affordability crisis.

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[1] Quint, Rose, *Housing Affordability Holds Steady; Challenges Loom*, National Association of Home Builders, February 8, 2021, accessed at https://eyeonhousing.org/2021/02/housing-affordability-holds-steady-challenges-loom/ on March 15, 2021.

[2] Zhao, Na, Ph.D., *NAHB Priced-Out Estimates for 2021*, National Association of Home Builders, February 2021, accessed at https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2021/special-study-nahb-priced-out-estimates-for-2021-february-2021.pdf?_ga=2.166628414.1684294592.1615476404-1214384301.1615476404 on March 15, 2021.

For example, building costs are estimated to increase between $4,000 and $16,000 due to the changes from the 2009 to the 2015 Residential Building Code[3] and the additional cost of raising the height of the foundation for a new 2000-square-foot home was estimated in 2017 to range from $890-$4,470 per foot of elevation.[4] Obviously, those costs are passed along to the consumer and can have a significant impact on the pool of eligible buyers. Indeed, NAHB estimates that in 2021, a $1,000 increase in the median new home price would price 153,967 U.S. households out of the market.[5] But, as shown, complying with many code changes or undertaking building retrofit activities can be significantly more costly than $1,000.

Stricter construction standards and mitigation come with a price tag. Regardless of the level of benefit, some entity has to provide the upfront funding required to conduct the construction or mitigation activities or they will not occur. This is where the challenge lies for most consumers and homeowners. Just because more stringent codes or pre-disaster mitigation may provide a benefit doesn't mean it can or will be implemented. While the federal government has historically made funding available for these types of activities, most of the programs have been consistently oversubscribed and target the highest risk structures or the lowest income properties, which make it unlikely that they will be able to fully serve the array of mitigation needs associated with existing housing. New sources, avenues, and incentives must be found if we are to make meaningful progress on resiliency while maintaining housing affordability.

Building Codes

It is clear that the unusual number of significant natural disasters occurring over the past few years, coupled with ongoing concerns over the effects of climate change, have increased awareness of and raised concerns about the resilience of buildings. Although most states and localities are governed by building regulations that are designed to protect homes and their occupants from severe weather events and hazards, some argue that more should be done. NAHB disagrees. Modern codes have proven to be resilient. More stringent codes can come at costs that not only curtail homeownership and significantly hinder housing affordability, but can severely impact state and local economies because they greatly influence how or if existing structures and cities are reengineered, rebuilt and/or remodeled and impact how and where or if new homes and communities are built. Instead of ratcheting up their stringency, the nation

[3] Home Innovation Research Labs. (2014, December). *Estimated Costs of 2015 IRC Codes*. NAHB. https://www.nahb.org/-/media/NAHB/advocacy/docs/top-priorities/codes/code-adoption/irc-2015-cost-study.pdf

[4] See Association of State Floodplain Managers, *The Costs & Benefits of Building Higher*, 2018, accessed at https://s3-us-west-2.amazonaws.com/asfpm-library/General/Benefits_Cost_Freeboard_ASFPM_2018.pdf on March 15, 2021. While it is not clear how these estimates were derived, many NAHB members have reported costs that are significantly greater than those indicated in this publication.

[5] Zhao, Na, Ph.D., *NAHB Priced-Out Estimates for 2021*, National Association of Home Builders, February 2021, accessed at (https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2021/special-study-nahb-priced-out-estimates-for-2021-february-2021.pdf?_ga=2.166628414.1684294592.1615476404-1214384301.1615476404) on March 15, 2021.

needs to embrace modern building codes and the positive role they play and focus on ensuring they are sufficiently flexible to address regional risks and associated considerations.

- Modern Codes are Resilient

  Building codes are designed to establish minimum requirements for public health and safety for commercial and residential structures. Although they have existed in various forms for decades, building codes in the United States achieved a milestone in 2000 when the three regional code organizations were consolidated into the International Code Council (ICC) and their codes were combined to create the first set of "I-Codes", which were published in 2000. Although there are other building codes available, the I-Codes are by far the most widely used model building codes, with some form of the International Building Code (IBC) adopted in all 50 states and versions of the International Residential Code (IRC) adopted in 49 states. Like most model building codes and referenced standards, the I-Codes are modified through a formal public consensus process every three years. This has resulted in the publication of a new edition in 2003, 2006, 2009, 2012, 2015, 2018 and 2021.

  When the I-Codes were created, a number of major improvements were immediately made to the traditional building code requirements within the residential building code to address issues observed after Hurricane Andrew in 1992 and the California earthquakes of 1989 and 1994. Although additional improvements have been made since the I-Codes' debut in 2000, the number of changes incorporated into the newer editions of the IRC that dramatically impact structural reliability and occupant life safety within residential structures have greatly diminished. In other words, the modern building codes (e.g., post-2000) have proven to be resilient and the need for triannual updates is not necessary for improved resilience. Homes designed and constructed to the national model building codes are built to withstand major damage from disasters and already provide substantial resiliency for many high seismic, high wind, heavy snow, wildfire and flooding events.

  Despite this, a number of recent proposals targeted at making buildings more resilient are predicated on requiring the use of "latest published editions" of certain codes or standards. This is unnecessary and creates a number of challenges. First, although many believe that homes built following the "latest published edition" of the building code equate to more resilient homes, that is not necessarily the case when compared to those built to previous editions of the IRC. Homes built to modern building codes – defined as any edition of the IRC – have been shown to be resilient. Evidence from FEMA and others demonstrate the IRC, throughout its history, has been very effective in preventing the destruction of homes due to various storms and earthquakes and

significantly reducing damage to wall and roof coverings.[6] Further, because many of today's new homes are built "above code," with additional sustainable and high-performance building features, they are even more durable and resilient.

Second, it is not clear that this definition recognizes and accommodates the different risks, building technologies and landforms that occur across the country or specifically allows the model codes to be amended – a step that is crucial to maintaining the resiliency of the codes. Third, because each state and local government follows its own code adoption, implementation, and enforcement processes and has limited dedicated resources, many are not able to adopt the latest published codes within expected timeframes. Evaluating and adopting a new building code is a time consuming and costly undertaking – a multi-step process that oftentimes requires state legislative as well as administrative action and that can take years to complete. Given these realities, mandating the adoption of the "latest published editions" creates an unintended disadvantage for many states and localities that, under other measures, would be considered fairly up to date in maintaining their codes (e.g., following a standard and predictable process and timeline).

The successful performance of the IRC over the past 20 years is an indication of the "maturing" of building codes as they have gone through the iterative process of refinement since 2000. While tweaking the code to reflect technological advances will continue, it is clear that major changes aren't as necessary as they used to be. Similarly, because the codes are nearing a point of diminishing returns in terms of the cost/benefit ratio, additional updates may not be cost-effective. Homes can be built to withstand any disaster, but homes cannot yet consistently be built to withstand any disaster *and* be affordable. New homes built to modern codes are safe. New homes built to modern codes are resilient. There is no need to require more stringent requirements or the adherence to the latest published edition of the code – especially if that is interpreted to mean the most recent version.

- <u>Modern Codes Address Local Conditions</u>

  State and local governments play a key role in the codes adoption process and determining the value of and need for certain code requirements. Because the model codes are meant to be amended, for decades, state and local governments have been responsible for evaluating each new edition of the model consensus-based building codes and determining which provisions are applicable within their borders. They do so by adding, removing, or revising provisions so that the codes better fit the construction practices and techniques, geography and risks, and economic and market conditions

[6] For example, FEMA's Summary Report on Building Performance - 2004 Hurricane Season (FEMA 490, March 2005) indicated that "no structural failures were observed to structures designed and constructed to the wind design requirements of…the 2000 IBC/IRC", and FEMA's Summary Report on Building Performance from Hurricane Katrina (FEMA 548, April 2006) stated "most structural failures observed…appeared to be the result of inadequate design and construction methods commonly used before IBC 2000 and IRC 2000 were adopted and enforced."

within the region. If they were unable to make these vital changes, state and local governments would be stuck trying to fit the square peg of national codes into the round hole that represents local conditions. Equally problematic, doing so would impose numerous unnecessary requirements on builders – requirements that translate into higher costs for buyers.

The ability to tailor the codes is a key component in ensuring the codes are resilient. Some states make few changes to the model codes, others hand-pick the provisions and/or amend certain requirements, and others use the model code as a baseline to create their own state-specific code. In this way, jurisdictions can assess their specific risks and needs to create the code that best suits their specific seismic, wind, flood, and/or other conditions. At the same time, they can avoid imposing mandates (and associated compliance costs) for provisions that are not applicable or designed to address levels of risks that are not present in their areas, such as elevation requirements outside the traditional flood hazard areas, or increased structural requirements for snow loads in more temperate regions.

Under this rubric, Nevada is free to identify the risks it faces and adopt the codes that are best suited to its locale, geography and economic conditions, while North Carolina is able to do the same. In fact, because the model codes are intended to be tailored, amendments are made to nearly every code that is adopted at the state or local level, whether it applies to only the administrative requirements or major rewrite of the entire document. For example, North Carolina adopted its 2018 building codes based on the 2015 I-Codes on January 1, 2019 with 38 pages of amendments.[7] Similarly, Nevada adopts the building codes at the local level, but collaborates statewide on the amending process and had 14 pages of amendments on the residential code alone.[8] Any federal efforts must not alter this vital underpinning and must allow and embrace amendments as an important component of ensuring both the codes' applicability and resiliency, and, in turn, its affordability.

- Building Codes do not Address Existing Homes

As currently structured, most building codes apply only to new construction. This means that any effort to increase the stringency or otherwise focus on the implementation of building codes overburdens new construction and essentially ignores the performance and resiliency of the existing housing stock. Such a result is unacceptable.

According the 2019 American Housing Survey, over half (65 million) of the nation's 124 million homes were built prior to 1980 (98 million prior to 2000); and therefore, most

[7] See http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2018_NCBuildingCode_amendments/2018_NCBuildingCode_amendments.pdf
[8] See http://www.clarkcountynv.gov/building/plan-review/Building%20Codes/2018_IRC_Amendments.pdf

were not subject to the modern building codes that are now in effect. Equally problematic, the latest Census statistics show the number of homes built before 1970 that are taken out of commission is only about 6 out of every 1,000 being retired per year. These low rates of replacement mean that the built environment in the U.S. will change slowly and continue to be dominated by structures that are at least several decades old. Indeed, optimistic estimates suggest that if 1.2 million homes were built every year, after 20 years only 16 percent of the conventional housing stock would consist of new homes built between now and then. In comparison, 68 percent would still consist of homes built before 1990.[9] Clearly, these statistics demonstrate the impact that newer building codes can have on the built environment is limited because new construction represents such a small portion of the housing stock. Any effort to increase those gains would be difficult and costly.

In sum, those who call for the adoption of more stringent and costly building requirements fail to acknowledge that this would do very little to provide further protection from natural disasters. Inappropriately focusing on new construction would create hardships for state and local governments and would make new housing prohibitively expensive for hard-working families at a time when the nation is already suffering through a housing affordability crisis.

Pre-Disaster Mitigation

The American housing stock continues to age, especially as residential construction continues its modest rebound after the Great Recession. Because recent production has fallen short of even the levels needed to accommodate the number of net new households, there is increasing pressure to keep existing homes in service longer – homes that may not perform as well or be as resilient as newer homes. Retrofitting these homes represents the biggest opportunity to improve the resiliency of the nation's housing stock.

- Existing Housing Stock Ripe for Retrofit

Older homes are less resilient and energy efficient than new homes. They were not built to the stringent requirements contained in modern codes, use (and lose) more energy, and are more susceptible to damage from natural disasters. Many of the post-disaster investigations support this conclusion. For example, in FEMA's Mitigation Assessment Team Report regarding Hurricane Sandy, the summary reads, "Many of the low-rise and residential buildings in coastal areas [that had observable damage] were of older construction that pre-dates the NFIP."[10] Similarly, the

[9] Emrath, Paul, Ph.D., *More New Homes Needed to Replace Older Stock*, National Association of Home Builders, August 2, 2018, accessed at https://eyeonhousing.org/2019/01/more-homes-needed-to-replace-older-stock/ on March 15, 2021.

[10] Federal Emergency Management Agency, Mitigation Assessment Team Report Hurricane Sandy in New Jersey and New York, November 27, 2013, accessed at (https://rucore.libraries.rutgers.edu/rutgers-lib/44511/PDF/1/play/) on May 19, 2019.

Insurance Institute for Business and Home Safety stated in its preliminary findings report for Hurricanes Harvey and Irma that, "Total destruction from wind occurred to mobile homes, as well as older site built conventional homes," and "Newer homes generally performed better than older buildings."[11] Clearly, upgrading existing buildings and improving their ability to withstand disaster events must play a key role in any efforts to improve the nation's overall resiliency.

- Flexible and Cost-Effective Options Critical

As policymakers seek to mitigate the effects of future natural disasters, they need to create an array of opportunities to facilitate upgrades and improvements to the older homes, structures and infrastructure that are less resilient to natural disasters because they were built when there were no national model codes in existence or constructed following codes that are now outdated. Modernizing existing structures and properties to improve their resiliency can take many forms – ranging from better sealing roof penetrations or installing hurricane shutters to elevating the structure or improving the site's stormwater management. Clearly, mitigation will be largely dependent on property location and condition, type of hazard and level of risk, geographic conditions, economic levels, community and individual resources and other factors. Like most efforts, however, there is no one solution that can address the full range of issues and needs associated with improving resiliency. Therefore, flexibility in program design, application and implementation is vital. Any federal assistance must also be broadly applicable over geographic and economic spectrums at both the community and individual levels. While some will need financial assistance, others may benefit from technical expertise or innovation.

At the individual home level, recognizing many households do not have the interest or means to conduct larger scale renovation projects, NAHB, in concert with the Federal Emergency Management Agency, the, International Code Council, and the Insurance Institute for Business & Home Safety, is developing a series of Tech Notes that describe different types of retrofit techniques that can be used to increase the resiliency of existing buildings. Importantly, these how-to fact sheets focus on strategies that require minimal costs (typically less than $1,000 for a typical home), but have a significant impact on reducing damage.

The first six topics that have been completed include sealed roof decks, attachment of roof coverings, flashing and sealing of roof penetrations, use of hurricane

[11] Brown-Giammanco, Ph.D., Hurricanes Harvey and Irma – IBHS Preliminary Findings Report, Insurance Institute for Business & Home Safety, accessed at (https://ibhs.org/wp-content/uploads/wpmembers/files/Hurricane-Harvey-Wind-Damage-Investigation_IBHS.pdf) on May 19, 2019.

shutters, use of impact resistant doors and methods of preventing ice dams. It is hoped that these new resources will help homeowners understand their options, recognize that certain mitigation options can be cost-effective, and compel them to take action. NAHB continues to demonstrate its commitment to increase the performance of homes through the development of these resources and the ongoing promotion of voluntary participation in green building programs.

We strongly urge Congress to recognize and promote voluntary, market-driven, and viable green building, high performance and resiliency initiatives for both new and existing homes. Unlike mandates, these programs can promote lower total ownership costs through insurance and utility savings as well as provide the flexibility builders need to construct homes that are recognized as being cost-effective, affordable and appropriate to a home's geographic location.

Incentives/Funding Mechanisms

Incentive programs that offset the increased costs for above-code and mitigation activities are an important tool to reduce the barriers that many resiliency opportunities pose and encourage more homeowners to invest in home modernization. For example, due to the high initial costs associated with investing in certain resiliency and mitigation efforts, many homeowners are unable to finance desired or necessary upgrades and, without assistance, would likely forego the improvements. Mitigation funding and/or incentives that are available at the federal and state levels, as well as those that could be offered through the real estate valuation and transaction processes, can address this issue, produce results and have proven to be attractive alternatives to mandates.

- Federal Incentives

Congress has taken a number of steps over the years to alleviate the challenges associated with funding retrofits – most prominently through federal funding for pre-disaster mitigation and tax incentives**.** NAHB asserts that continuing and expanding these types of programs is necessary in order to realize measurable change in the resiliency of the housing stock. Indeed, coming up with what can be significant up-front costs or increased down payments needed to finance improved resiliency is often the most difficult part of new or existing home upgrades.

Tax incentives are another proven way to realize results and, as they have been effective at advancing energy efficiency improvements, perhaps could be used as a model for resiliency. Sections 25C for qualified improvements in existing homes (building components), 45L for new homes and 179D for commercial buildings have permeated the market and assisted many families and building owners to invest in efficiency. Continuing and expanding programs like these, which have demonstrable results, will compel more homeowners to take positive actions.

- State Incentives

States can also play a role in enticing positive behavior. One alternative that has been used in several states is providing insurance discounts to homeowners who conduct specific activities. In Texas, the state's hurricane insurance pool, the Texas Windstorm Insurance Association, offers premium discounts of 19 percent to 33 percent for building code compliance. In Rhode Island, insurers are required to waive the hurricane deductible for insured homeowners who voluntarily implement mitigation measures that are specified in the insurance regulation. In Alabama, tax credits of up to $3,000 are available for retrofitting a taxpayer's legal residence to make it more resistant to hurricanes, tornadoes, other catastrophic windstorm events, or rising floodwaters.

In addition, the Alabama State Legislature established the Strengthen Alabama Homes Act in 2011 to provide grants to qualified homeowners to retrofit their homes to reduce property damage caused by hurricanes or other catastrophic windstorm events. Clearly, these state programs have proven to be popular, as they provide value through loss reduction, yet enable and facilitate broader participation through reduced costs. The recognition and expansion of programs like these is one way to engage participation while offsetting the hefty costs associated with upgrades.

- Other Incentives

There are a number of other opportunities to facilitate, incentivize, and offset the costs of voluntary above-code construction and/or pre-disaster mitigation that could be achieved through public-private partnerships and other collaboration. These options include modifications to property valuation and financing protocols; loans, grants and other funding programs; and insurance premium reductions within the National Flood Insurance Program (NFIP), among others.

Under current practice, in most instances, mortgage companies, appraisers, assessors and real estate professionals do not consider the costs or benefits associated with the various resiliency upgrades. This creates a disincentive to take proactive steps to reduce a home's exposure, as those expenditures are not necessarily considered to be valuable amenities. If the improvements are not included in the appraisal or appraised value of the structure, not only is the buyer uninformed about the home's qualities, his or her willingness to pay more can be significantly diminished.

By recognizing and valuating the upgrades, appraisers can consistently give weight to these improvements in their valuations, lenders may reconsider qualifying loan ratios, realtors can promote their benefits, and homeowners would get assurances

that the investments they have made will retain value and be recognized in resale. Homes will also get the upgrades needed to better weather storm events, thereby reducing future damage, insurance outlays and homeowner displacement.

Other opportunities to facilitate, incentivize, and offset the costs of voluntary above-code construction and/or pre-disaster mitigation include tax incentives, grants, the creation of a weatherization assistance-like program for resiliency, and/or financing programs that would allow the costs of retrofits to be added to a mortgage.

Congress is encouraged to consider a full range of federal incentive and funding opportunities, as well as ways to promote and facilitate state-level and private efforts to optimize the resiliency of new and existing homes. Clearly, overcoming the significant hurdles of how to finance upgrades and entice homeowners to take action will be a key to the success of any effort to increase investment in resilience and mitigation.

Moving Forward

Sound building codes are already in place in most communities and they are doing their job. NAHB is supportive of voluntary and incentive-based efforts to improve the nation's resilience, but remains concerned with how any expansion of federal authority over state and local governments' ability to adopt location-appropriate building codes or take other steps may impact where and how homes are built or severely constrain the production of affordable housing. NAHB is also troubled by the inappropriate focus the adoption of the most recent versions of codes places on new construction at the expense of the existing housing stock and strongly believes that expanding mitigation opportunities and targeting upgrades to existing structures could help to better manage and more evenly reduce the risks.

We strongly urge this Subcommittee through its oversight role to focus any efforts related to housing on cost-effective, market driven solutions that encourage greater resiliency in the nation's housing stock while preserving housing affordability for both new and existing homes. Further, given our members' knowledge and experience building homes and communities – activities that place them on the front lines in terms of designing, planning and building to reduce risks and minimize future losses, we stand ready to assist and help deliver positive results and help you reach your goals.

Conclusion

I would like to thank the Subcommittee for the opportunity to testify today and share NAHB's views. The nation's home builders have long supported the adoption and implementation of building codes as a way to ensure the homes we build are solid and safe. In doing so, what has become clear is that with each new home we build, we are transforming our communities into resilient cities of the future.