

# SHELTER

DESIGNING **WITHIN** A HURRICANE SHELL

AN ARCH OUT LOUD DESIGN COMPETITION

IN PARTNERSHIP WITH  deltec  
homes

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***“We yearn to be closer to nature and experience its beauty, while we are being increasingly brutalized by its harshest elements”***

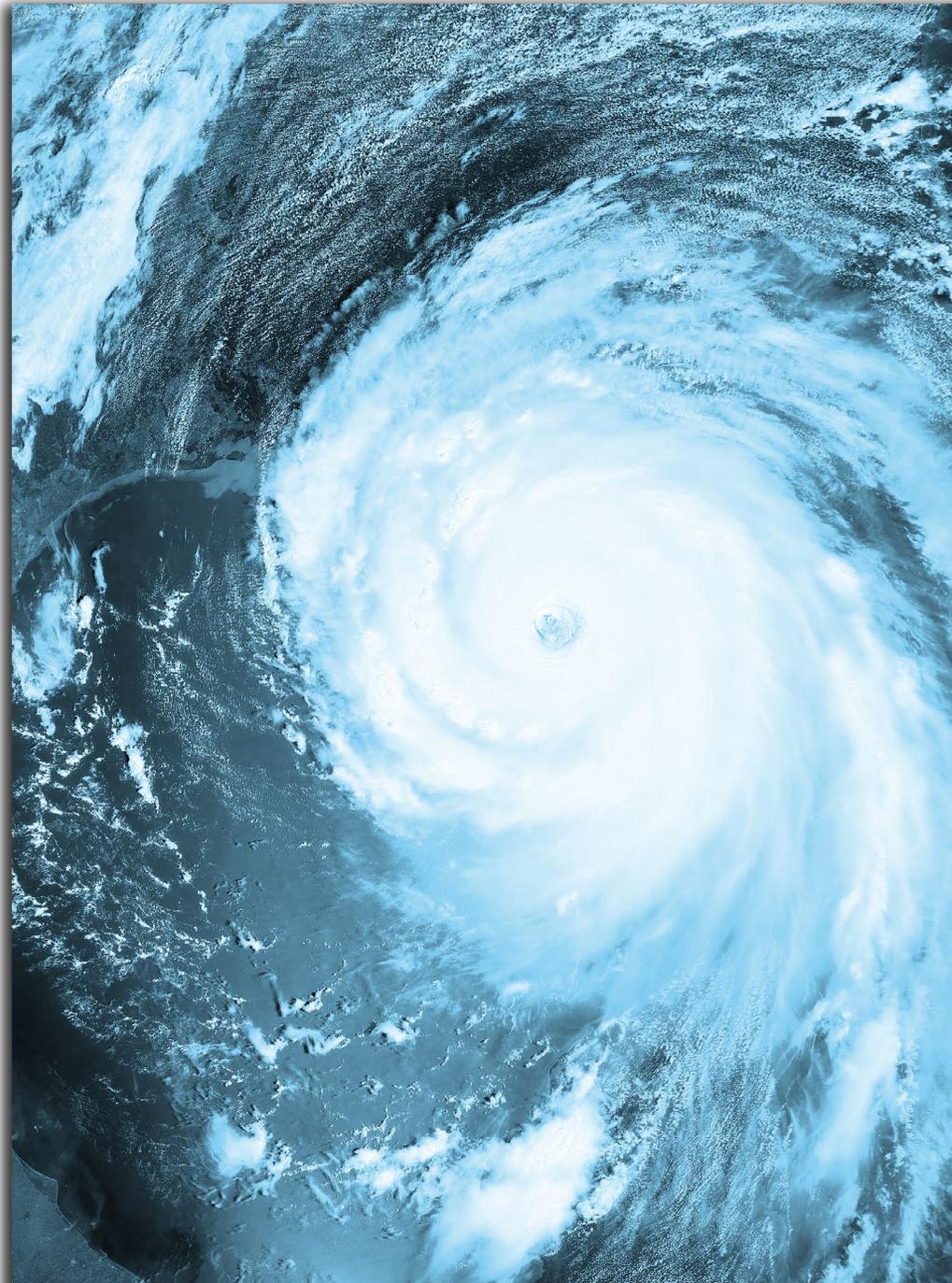
# BACKGROUND

**The year 2020 was officially the most active Atlantic hurricane season on record.**

Since 1950 the National Hurricane Association has assigned names to each qualifying storm beginning with the letter A and working towards the end of the alphabet. Tropical Storm Arthur began the Atlantic hurricane season in May 2020 and five months later the alphabetical naming system had been exhausted with the formation of Tropical Storm Wilfred. 2020 is only the second year where the Greek alphabet has been required to supplement additional storm names.

Both literally and figuratively, humanity resides in the midst of two distinct trends. While we yearn to be closer to nature and experience her beauty, we are being increasingly brutalized by her harshest elements. We watch as the changing climate brings natural calamity and damage to a larger group of people and a wider swath of geography. We watch the increasing frequency and strength of nature wreaking havoc among our communities. We watch as those who lose their homes to hurricanes and natural disasters rebuild and hope that when the next storm comes, it will not be their home that is once again destroyed.

| aerial view of hurricane storm |





| Deltec hurricane homes |

# CHALLENGE

arch out loud challenges participants to design the hurricane resilient home of the future.

Category five hurricane winds commonly reach speeds between 160 and 190 miles per hour, causing widespread destruction in a matter of seconds. Yet with the implementation of fundamental engineering and principles in design techniques, coastal residential structures that implement structural shells have proven the ability to withstand the strongest storms.

This relationship between form and function isn't new. However, how might we harness this relationship to create a better living environment, one that is both protective and unique? **How might designing within the form of a proven hurricane-resilient structural shell provide new opportunities within the creative process and a new perspective for how residents might live in coastal environments?**

# SELECT YOUR SHELL

Proven techniques for constructing hurricane resistant homes have been in practice for decades. Circular designs assure that hurricane strength winds do not build up enough pressure on any side of a home to cause catastrophic structural failures. Radial support systems work in unison, reducing weak points. Superior prefabricated parts outperform construction materials that are commonly used in on-site assembly.

How do you design within a dynamic structurally proven system while providing an inviting coastal living opportunity? SHELTER provides designers the opportunity to explore emerging cultural trends.

Participants may select one of the three unique structural shells below to design within. Upon registration you will receive the digital models for all three shells.

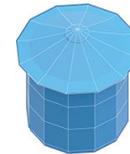


## MINIMAL HOME

750 S.F.

Trends of minimalistic living and tiny homes may seem like recent movements but societies have been experimenting with the concepts for decades. Historically, many of the motivations for living in a smaller home have been driven by the desire to reduce the financial burden of traditional homeownership, yet modern dwellers are taking a more all encompassing approach to the efficient lifestyle. As global priorities shift to prioritize daily efficiency, flexibility in location, and reduction in carbon footprint, minimal living has become a physical embodiment of living a larger life within a smaller footprint.

MINIMAL HOME challenges designers to explore the 750 square foot, single story home. For residents that prioritize their location within nature as much as they prioritize the space within their own walls, how might life be lived to the fullest within a smaller shell?

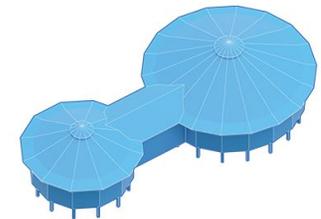


## VERTICAL HOME

2,250 S.F.

We live in the midst of two conflicting trends. As humanity increasingly desires a stronger connection with the outdoors, home builders continue to construct larger residences on smaller plots of land. In the United States the average residential lot has decreased almost 20% in the last 30 years while the average home square footage has reached record levels. This has resulted in the highest lot usage on record, leaving minimal room for natural outdoor space.

VERTICAL HOME challenges designers to explore the stacked house, comprising three levels at 750 square feet each. The stacked house not only opens up space for outdoor use but offers views that only a fraction of residential structures can claim. What advantages does vertical building bring and how might the daily agenda of an individual or family best work within a home that rises instead of sprawls?



## EXTENDED HOME

2,700 S.F.

The 2020 global pandemic has prompted many questions about how we use our homes. Space that was originally intended for dining, gathering, and resting underwent an immediate transformation to facilitate working, working out, educating, caretaking, and a platform for nearly all of our daily activities.

EXTENDED HOME challenges designers to explore the advantages of separated spaces. For residents calling for the benefits of a separate yet connected footprint, participants may study different uses for this residential model. Feel free to define and design the best use of an extended home, whether it be for designated work space, accommodations for extended family members, an income producing rental unit, artistic studio space, the separation of living and entertainment spaces, or whatever use best fits the complex needs of an individual or family.

# PROCESS

**Step 1** Register your team at [www.archoutloud.com/shelter](http://www.archoutloud.com/shelter)

Upon registration you will receive the digital model for all three shell options.

**Step 2** Select one of the three shells and start designing within :

**1 Minimal Home 2 Vertical Home 3 Extended Home**

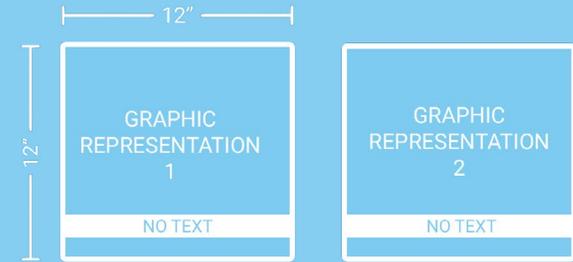
**Step 3** Create your submission materials

Four (4) 12" x 12" (30.48cm x 30.48cm) graphic representations and one (1) 12" x 12" project text summary. All materials are to be submitted as a combined PDF document.

Graphic representations may not include text other than number labels (ex. 1,2,3, etc.). Graphic boards will be reviewed by jury members alongside their respective text summaries, where number labels may be defined.

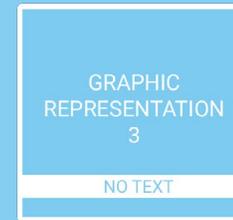
Submission materials may include perspective renderings, axons, plans, sections, or other drawings that best describe the design.

**Step 4** Submit your proposal here for selection consideration of the Overall Excellence Award, Minimal Home Award, Vertical Home Award, Extended Home Award.

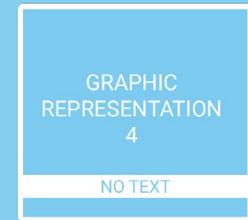


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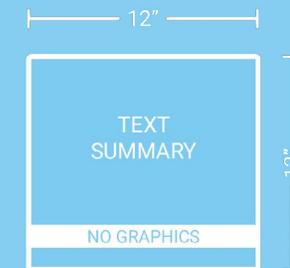
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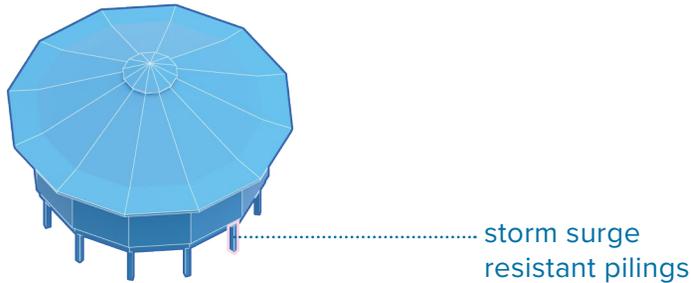
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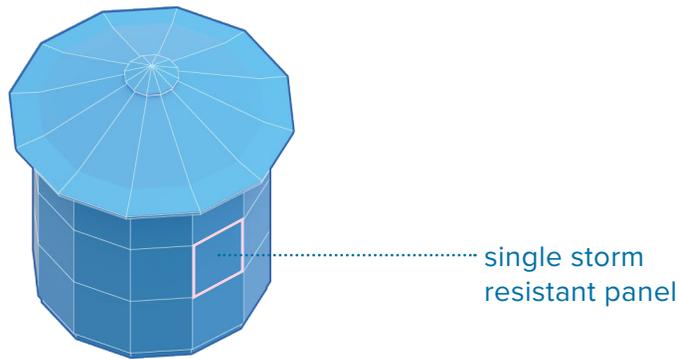
COMBINED PDF DOCUMENT

# GUIDELINES & OBJECTIVES

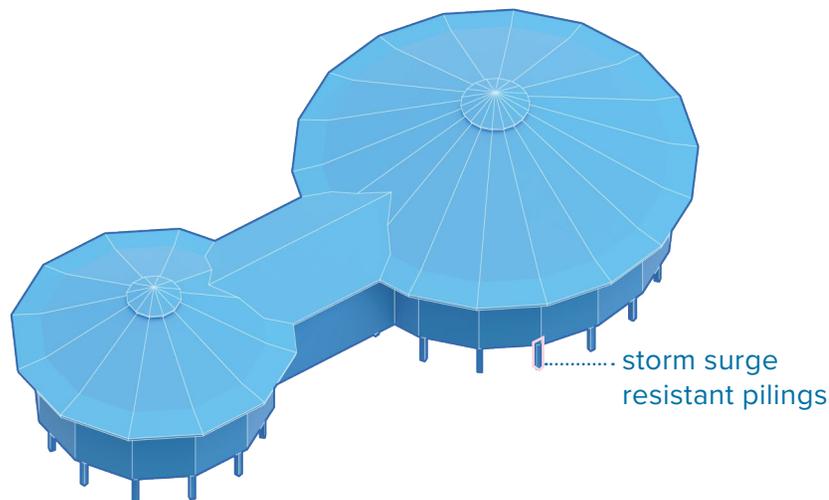
## 1 Minimal Home



## 2 Vertical Home



## 3 Extended Home



1. Participants must only use one of the three shell types (per registration).
2. Participants are required to design the interior elements within the existing shell.
3. Participants can add “exterior elements”, such as decks and entryways, that are extensions of the interior space.
4. Participants may choose to design for a specific lifestyle or the needs of a potential resident.
5. Participants should incorporate the design of window and entry openings.
6. Openings for windows or entry points should be within panels and not span across multiple panels.
7. Participants can implement open floor plan layouts due to no requirements for internal load bearing walls.

See *frequently asked competition questions* on [www.archoutloud.com/shelter-FAQ](http://www.archoutloud.com/shelter-FAQ)

# AWARDS

## OVERALL EXCELLENCE AWARD

**\$5,000**

+ CERTIFICATE & PRESS PUBLICATIONS

## MINIMAL HOME AWARD

**\$1,000**

+ CERTIFICATE & PRESS PUBLICATIONS

## VERTICAL HOME AWARD

**\$1,000**

+ CERTIFICATE & PRESS PUBLICATIONS

## EXTENDED HOME AWARD

**\$1,000**

+ CERTIFICATE & PRESS PUBLICATIONS

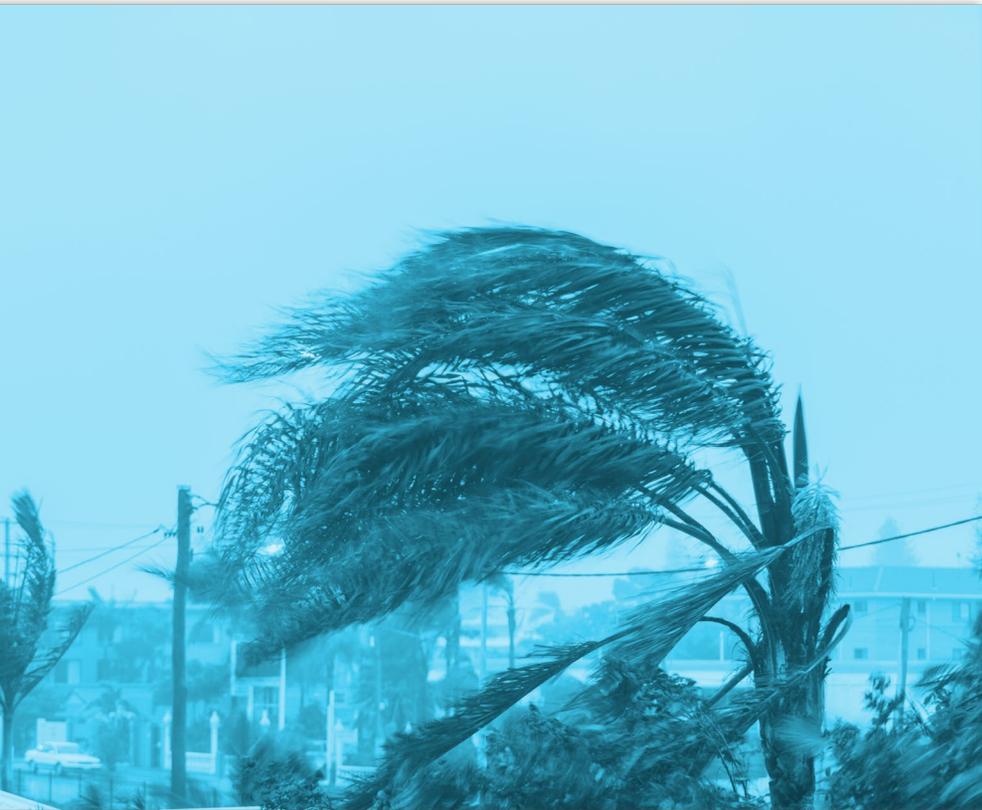
## 10 HONORABLE MENTIONS

CERTIFICATE & PRESS PUBLICATIONS

## DIRECTOR'S CHOICE AWARDS

(HIGHEST RECOGNIZED PROPOSALS  
BY ARCH OUT LOUD)

CERTIFICATE & PRESS PUBLICATIONS



| hurricane winds |

# SCHEDULE

DEC 18, 2020	Competition Start Date
JAN 26, 2021	\$45 Advanced Entry Ends
MAR 02, 2021	\$65 Early Entry Ends
APR 02, 2021	\$85 Regular Entry Ends
<b>APR 03, 2021</b>	<b>Submission Deadline</b>
APRIL 2021	Results Announced

| hurricane destruction |



# JURY



**MARK GARDNER**  
JAKLITSCH /GARDNER  
PRINCIPAL



**BILL HANLEY**  
DWELL MAGAZINE  
EDITOR-IN-CHIEF



**GARETT HWANG**  
UN STUDIO  
DIRECTOR



**MOON HOON**  
MOON HOON  
FOUNDER, PRINCIPAL



**ANGIE LEE**  
FX COLLABORATIVE  
PARTNER



**STEVE LINTON**  
DELTEC HOMES  
PRESIDENT



**LOIS WEINTAL**  
RYERSON SID  
CHAIR



**GEORGEEN THEODORE**  
INTERBORO  
CO-FOUNDER, PRINCIPAL



| Deltec home standing after hurricane |

# OUTLOOK

As coastal storms grow even more powerful, we continually see an expansion of communities living within their path. The very environment that provides such a desirable lifestyle also creates increasing dangers. This positions architects, engineers, and problem solvers to study our existing single family home structures, the evolution of building techniques, and the role that design can play in creating the future resilient home.

arch out loud has partnered with Deltec Homes in the SHELTER exploration. Deltec Homes is a certified Benefit Corporation that has continuously pushed the limits of resilient coastal homes for over 50 years. Deltec has developed a panelized structural shell system that has outperformed other hurricane oriented structures in the midst of some of the most destructive storms on record.

Deltec is focused on innovation and advancement with a mission to lead cutting edge solutions for coastal living. **How will your designs help shape the hurricane home of the future?**

| aerial view of hurricane storm |



DESIGN  
WITHIN.

## JOIN THE EXPLORATION

We are excited to see your designs for the hurricane home. You can join now by going to the link below and registering your team. Upon registration you will receive a digital model to start your design.

[CLICK HERE TO ENTER](#)