THE CHALLENGE
Millions of families across the U.S. can’t afford a place to call home. The system doesn’t work.

THE SOLUTION
Together with our partners, we focus on the greatest need – the massive shortage of affordable rental homes – to achieve three critical goals:

- **Increase the Supply of Affordable Housing** to meet the urgent need.
- **Advance Racial Equity** after decades of systematic racism in housing.
- **Build Resilience & Upward Mobility** to support residents, strengthen communities to be resilient to the unpredictable and make upward mobility possible.
Keep Safe Florida

Partners and Supporters

TRUIST

- The City of Miami, Florida
- City of Orlando
- Tampa Bay Regional Planning Council
- Florida Housing Coalition
- IBTS
KEEP SAFE FLORIDA

- Building Hazards and Resident Preparedness
  - Flooding
  - Extreme Wind
  - Extreme Heat
  - Unhealthy Housing
  - Community and Operations
KEEP SAFE FLORIDA

1. Assess Your Risk

2. Identify Buildings with the Greatest Need

3. Use the Building Protect Assessment Tool

Funding Resources Guide
(can be used throughout the steps)
## PUTTING THE REPORT TO WORK

### Critical Actions

The following action items were identified during the assessment as critical considerations to your community or property. These items have the highest potential impact to structural and safety concerns that can lead to life and safety issues for building occupants.

<table>
<thead>
<tr>
<th>Cat.</th>
<th>Strategy</th>
<th>Action Description</th>
<th>Ratings</th>
<th>Reference Information</th>
</tr>
</thead>
</table>
|      | Elevated Living Space          | Explore floodproofing solutions and use sump pumps in low lying areas. If possible repurpose living space that is below Design Flood Elevation (DFE) or using them for non-residential purposes can minimize damage to electrical and mechanical equipment along with livable space during a flood. Some examples of repurposing spaces below DFE includes, converting the space into parking garage, storage, entryways etc.                                                                                      | Criticality: HIGH  
Cost Rating: $$  
Difficulty Rating: MODERATE | https://www.climatesafehousing.org/strategies  
https://www.climatesafehousing.org/elevated-living-space                                                                                                                                     |
|      | Structural Assessment and Prioritization | Have a structural assessment performed. The condition of a building’s structure depends on continuous monitoring and frequent maintenance.  
This strategy focuses on how to evaluate a structure by identifying points of weakness and implementing solutions. Be aware of the following conditions: cracks and fissures, exposed interior rebar and corrosion, loose or rusted joints, and condition in fastening of windows, doors, and other apertures. Consult with a building professional (can be a contractor, engineer, or architect) to get the most thorough inspection possible. | Criticality: HIGH  
Cost Rating: $$$  
Difficulty Rating: DIFFICULT | https://www.climatesafehousing.org/cutting-it-all-together |
Enterprise
Hazard Strategies Guide

The strategies below address a range of potential hazards and vulnerabilities. Select a strategy to learn more and to access Resources for Action that can help make buildings and residents safer and healthier, and lead to more resilient communities.

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>CRITICALITY</th>
<th>SEA LEVEL RISE</th>
<th>FLOODING</th>
<th>EXTREME WIND</th>
<th>EXTREME HEAT</th>
<th>UNHEALTHY HOUSING</th>
<th>COST/COMPLEXITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Potable Water</td>
<td>CRITICAL</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Backup Power to Critical Systems</td>
<td>CRITICAL</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Backwater Valves</td>
<td>MODERATE</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Clearing Debris on Site</td>
<td>MODERATE</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Community Resilience</td>
<td>CRITICAL</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Community Resilience Spaces</td>
<td>MODERATE</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

A backwater valve is a moderately economical retrofit that can prevent significant problems from sewer line failure by blocking reverse flow from entering the building through wastewater pipes. A backwater valve should be installed in any building that has a sewer connection below the highest manhole cover on the sewer system, specifically, if the building is in the Special Flood Hazard Area (SFHA).

Q RESOURCES FOR ACTION
- RS Prevent Wastewater Backflow in Homes
- MB Backwater Valves

8
## BUILDING A PLAN

### Flooding
- **Explore floodproofing measures and use sump pumps in low-lying areas.**
- **Flood Elevation Design (FDE)** 
- **Repurposing living space that is below Design Flood Elevation (DFE) or using them for non-residential purposes can minimize damage to electrical and mechanical equipment along with livable space during a flood.**
  - Some examples of repurposing spaces below DFE includes: converting the space into parking, garage, storage, entryways, etc.

### Resources for Action
- **Elevated Living Spaces**

### Criticality, Sea Level Rise, Flooding, Extreme Wind, Extreme Heat, Unhealthy Housing, Garden Style, Low/Mid-Rise

### Difficulty and Cost Ratings
- **Difficulty Rating**: $\text{High}$
- **Cost Rating**: $\text{High}$

### Reference Information

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**www.climatesafehp.org**

**www.climatesafehousing.org**
BUILDING A PLAN – STRATEGIES FOR MULTIFAMILY BUILDING RESILIENCE

For every identified strategy
- Theory – why is this important
- Descriptions and Functions
- Strategy into Action
- Tied to Operations and Maintenance Plan
- General Cost
- Resources
- Case Studies
Top Ten Risks Identified
Keep Safe Florida Cohort One – 43 responses
### Key Takeaways

<table>
<thead>
<tr>
<th></th>
<th>Funding</th>
<th>Subsidy and grant dollars are critically needed to address resilience vulnerabilities in affordable housing. A pathway to funding should be clear.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Resilience = Preservation of Affordable Housing</td>
<td>Ensuring resilience of affordable housing ahead of a disaster is preserving critical affordable housing stock.</td>
</tr>
<tr>
<td>3</td>
<td>Building + Operations</td>
<td>Owners and operators must address both building level vulnerabilities and operational realities.</td>
</tr>
<tr>
<td>4</td>
<td>Insurance Costs are Rising</td>
<td>Rising insurance costs are putting affordability at risk—can resilience improvements lead to reductions in premiums?</td>
</tr>
</tbody>
</table>
KSF
- 63.6% identified as non-profit organizations
- 36.4% identified as for profit organizations
PORTFOLIO COMPOSITION

Both Keep Safe Programs served organizations that ranged in size in terms of their affordable housing portfolios.

Number of Affordable Housing Properties

The number of units within organizations’ portfolios was appraised differently in each survey and can be found in the respective finding slide deck.
ACCESSING TOOLS AND RESOURCES

Of those who used Portfolio Protect and Building Protect, most found the information helpful and applied strategies to their buildings.

- **Portfolio Protect** helped my organization identify individual buildings in our portfolio that have the highest climate risks:
  - Strongly Agree: 8
  - Agree: 6

- **My organization has used Building Protect's suggested implementation strategies to strengthen our building(s) climate resiliency**:
  - Strongly Agree: 3
  - Agree: 8
  - Disagree: 3
USEFULNESS OF KEEP SAFE CONTENT

As a result of participating in the Keep Safe Program

- All respondents gained a clear understanding of recommended adaptation and mitigation strategies
- All respondents had a better understanding of resilience project funding and financing
- Most respondents had actionable plans to strengthen the resilience of their housing units
Emergency Preparedness, Water Management and Natural Disasters were recurring mitigation strategies identified across both programs.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Revamping our emergency response plan”</td>
<td>KSM</td>
</tr>
<tr>
<td>“Newest rehab will adhere to the 40 year certification process”</td>
<td>KSM</td>
</tr>
<tr>
<td>“Water usage”</td>
<td>KSF</td>
</tr>
<tr>
<td>“Hurricane Crisis plan”</td>
<td>KSF</td>
</tr>
<tr>
<td>Stormwater management/ReduceFlooding’</td>
<td>KSF</td>
</tr>
<tr>
<td>“Adopting landscaping barriers to mitigate the effect of flooding”</td>
<td>KSM</td>
</tr>
<tr>
<td>“Structural fixes to protect from flooding and wind storms”</td>
<td>KSM</td>
</tr>
<tr>
<td>“Flood proofing, elevation”</td>
<td>KSM</td>
</tr>
<tr>
<td>“Natural disaster preparation (hurricane, tornado, earthquake)”</td>
<td>KSF</td>
</tr>
</tbody>
</table>
IDENTIFYING AND INTEGRATING MITIGATION/ADAPTATION STRATEGIES

Energy Efficiency was a recurring mitigation strategies identified across both programs

- “Improving HVAC” -KSM
- “Purchasing some energy star appliances” -KSM
- “Structural Fixes to protect from increasing energy costs” -KSM
- “Energy Efficiency” -KSF
- “Energy Efficient Windows, Water Heater, & A/C units” -KSF
- “Proper sizing and replacement of HVAC system” -KSF
Respondents are currently facing the following challenges related to addressing resilience needs and climate risks in their portfolio:

- Identifying contractors to execute on the work in a relatively small project. - KSM
- Staff capacity and turn over - KSM
- Cost of Materials - KSF
- Adequate staff needed to implement the strategies - KSF
- Having someone dedicated to resource development is one of our biggest challenges - KSF
- Identifying funding sources to address recommended mitigation strategies
- Connecting with appropriate professionals to determine mitigation strategies that are most critical to focus on for properties
- Implementing strategies that apply to multiple identified hazards

Respondents identified these challenges as follows:

- Identifying funding sources to address recommended mitigation strategies: 13
- Other (please specify):
  - 5
- Connecting with appropriate professionals to determine mitigation strategies that are most critical to focus on for properties: 4
- Implementing strategies that apply to multiple identified hazards: 3

KSM CURRENT CHALLENGES
What support and/or information does your organization still need to address the recommended strategies identified through the Program?

**Funding & Resources** were the recurring support and information needs across both programs.

- “Finding supplemental funding to implement the things discovered” - KSM
- “Apply for and secure funding to implement strategies” - KSM
- “Identify further sources of funding or guidelines on how to obtain them” - KSM
- “Follow up on funding recommendations” - KSM
- “Easier access to financing” - KSF
- “Finding contractors willing to work on smaller projects” - KSM
- “Loaning” a knowledgeable staff member from enterprise to housing agencies.” - KSM
- “Staff/Consulting resources to flesh out strategies” - KSM
- “Specific Technical Assistance in applying tools to asset management and new construction” - KSF
- “A list of recommended materials that should be used for making our buildings more energy efficient or types of roofs” - KSF
http://EnterpriseCommunity.org/KeepSafeFlorida

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Thank You

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