SOLUTION OVERVIEW
For 30 years Jonathan Rose Companies (JRCo) has been creating green, healthy and resilient low-income communities across the country. JRCo seeks to use innovative technologies, financing, and sustainable operating strategies to overcome present and future challenges. In 2018, JRCo took on a new challenge – assessing and implementing resilience strategies across its national portfolio of more than 80 properties spanning 18 states and various geographical climates. Using tools and resources from peers and partners such as the Enterprise Community Partners “Ready to Respond” Toolkit, JRCo started its resilience assessments at the regional level and worked its way down to the site level over time. Today, JRCo is conducting detailed property resilience assessments and incorporating recommended measures into its retrofit and capital improvements strategy.

ORGANIZATION TYPE
Affordable Housing Developer

BARRIER
National affordable housing portfolio seeks to assess the risk imposed by climate change across dozens of properties but lacks process and funding for assessments and implementation of improvements.

SOLUTION
Conducted regional risk analysis using local government-developed emergency and climate action plans, identified risks and integrated detailed assessments into capital events and inspections protocols, and created a plan for property-level resilience support.

OUTCOME
Resilience measures are integrated into on-going property capital improvements and properties receive enhanced training and resources to aid emergency planning.

POLICIES

https://betterbuildingssolutioncenter.energy.gov/implementation-models/jonathan-rose-companies-implementing-portfolio-wide-resilience-assessments

For more information, visit https://betterbuildingssolutioncenter.energy.gov
In 2019, Jonathan Rose Companies began drafting a company-wide resilience policy. This document would provide an overview of the company’s resilience strategy, focusing on how the strategy would be incorporated into all business lines including New Development, Acquisitions, Asset Management and Operations, and Investor Relations.

The resilience policy aligned its risk analysis strategy with the GRESB Resilience Module, which categorizes risk into three types: physical, transitional, and social:

1. Physical risk is based on geographic location and regional climate priorities.
2. Transitional risk accounts for regulatory changes in policy or laws and encourages management to participate in advocacy efforts and incorporate property design for the future energy grid.
3. JRCo addresses social risk by designing spaces and adding programming that aids in social cohesion and strengthens local partnerships.

In addition to the overarching resilience policy, JRCo created a more detailed document that would define the implementation of a “resilience center” at each property. In the event of an emergency, existing community rooms or spaces would serve as temporary resilience centers. Resilience centers would not only aid in the communication to residents during an emergency, but also would be equipped with a standard supply of resilience-related items — a “resilience kit.” These consist of essential supplies containing potable water, power strips, flashlights, batteries, duct tape, a first aid kit, a hand-operated emergency radio and more.

JRCo also hired a Regional Facilities Manager whose first initiative was to perform a complete overhaul of the Rose Community Management Emergency Management Policy. The policy incorporates specific community contact information and site-specific emergency practices. The policy was finalized in early 2020 and is available to properties in both physical and digital formats.

PROCESS
Regional Risk Mapping:
During the Summer of 2018, Jonathan Rose Companies was looking for a way to assess climate risk across its large national portfolio. The JRCo sustainability team connected with resilience staff at Enterprise Community Partners and received valuable guidance: they should begin by using publicly available regional climate risk data to identify the most common types of risk across the portfolio and the properties with the most risk.

Using this guidance and Enterprise’s Ready to Respond Toolkit for Multifamily Building Resilience, the JRCo team identified physical risks by consulting local and regional hazard mitigation or emergency plans typically found on a city’s or county’s public website. Most documents contained a risk assessment or vulnerability analysis that clearly prioritized the area’s top hazards based on several factors like historical frequency, future potential, and magnitude of impact.

The highest priority risks were then ranked across the entire portfolio and added as layers within a
Google Maps Tool. The top-ranked hazards included: flooding, winter storms, extreme heat, tornadoes, drought, high winds, hurricanes, wildfires, and erosion. With this database, JRCo could now visualize its national portfolio and see which hazards appeared most frequently in each region. The top three hazards based on this high-level assessment were flooding, winter storms, and extreme heat.

**Pilot Internal Assessments:**
With the completion of the regional risk map, JRCo needed to assess property-specific risks and begin matching regionally listed hazards to individual sites. Before a formal assessment could be implemented, the team conducted several phone interviews with site staff including property managers and maintenance supervisors. These interviews were key in differentiating site-level hazards from regional hazards. JRCo also composed a questionnaire to aid in the interview process. The questionnaire asked about historical hazards at the property, the location and updated status of an emergency action plan, and whether residents received any emergency training upon move-in.

Based on these interviews, the regional risk map, and the Ready to Respond Toolkit, JRCo created an internal risk report for individual properties, allowing a site team or asset manager to easily identify the top risks of a particular property. Under each hazard category (i.e. flooding, winter storm, etc.) the report listed some common effects (i.e. electrical damage, resident evacuation) alongside recommended resilience strategies and their associated costs. The JRCo team took cost information from the Ready to Respond Toolkit and illustrated costs as a single dollar sign ($) for low-cost measures, ranging up to four ($$$) for high-cost measures.

**3rd-Party Technical Assessments:**
The internal risk reports, while beneficial, were very time-consuming. The team also needed an assessment that would contain a more technical analysis of a property’s resilience opportunities. JRCo approached New Ecology, a sustainable development consultant, to conduct three resilience opportunity assessments at a set of properties in Stamford, Connecticut. The technical assessment required the sharing of historical utility data and property drawings and included a single-day site visit. During the site visit the New Ecology team conducted interviews with the property manager, maintenance supervisor, and asset manager. The final technical report provided several resilience recommendations, included maintaining backup power to critical systems, providing access to potable water, updating the emergency management manual, and installing backwater valves. Each recommended measure also included an associated estimated cost and a priority ranking.

**Operational Improvements:**
Recognizing the need to incorporate emergency and resilience planning into capital improvements, JRCo is planning to add resilience checklist items to bi-annual property inspections. This improvement will not only ensure that resilience measures are added to property budgets but will allow site staff to become familiar with potential risks and be proactive in finding solutions before problems occur.

Additionally, standardized resilience kits are being prepped and organized for individual properties. Resilience kits will contain essential items such as flashlights, power strips, first-aid kits, and more, and will be stored in identified resilience centers at the property. The kits will be organized by the JRCo procurement department and be delivered to properties across the country by partnering with...
a single national distributor. Over time, these kits will become part of the acquisition process and be delivered systematically to new properties as they enter JRCo’s portfolio.

**TOOLS AND RESOURCES**

- Enterprise Community Partners: Ready to Respond Toolkit: Strategies for Multifamily Building Resilience
- Jonathan Rose Companies' Natural Hazards Risk Questionnaire
- GRESB Resilience Module
- Vulnerability Assessment, Resilience Audit and Solar Tool for Affordable Housing by the Department of Energy & Environment of the District of Columbia

**MEASURING SUCCESS**

As of April 2020, Jonathan Rose Companies had developed its first resilience policy, has conducted a portfolio-wide regional resilience assessment and completed three third-party technical assessments.

In 2019, two JRCo investment funds participated in the GRESB Resilience Module and ranked first among peer funds globally. The GRESB Resilience Module evaluates how real estate companies are preparing for changing conditions, assessing long-term trends, and becoming more resilient over time.

**OUTCOMES**

Without any direct payback period, resilience measures are often implemented with the understanding that, under the best scenario, the property may never use them. However,
conducting routine resilience assessments and establishing disaster preparation protocols is key to ensuring the longevity of a property and safety of its residents.

Based on the third-party technical resilience assessments, JRCo has begun incorporated resilience measures at its properties in Stamford, Connecticut. The emergency manuals for these properties and for all of Rose Community Management’s properties have been upgraded as suggested.

The resilience strategy of Jonathan Rose Companies relies on the routine and wide-spread nature of its resilience assessments. Once these assessments have been integrated into the operational routine of Rose Community Management staff, the next step will be to identify measures that can be implemented across multiple properties at once by partnering with local or national distributors.