



Building Protect User Guide





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Scope and Purpose

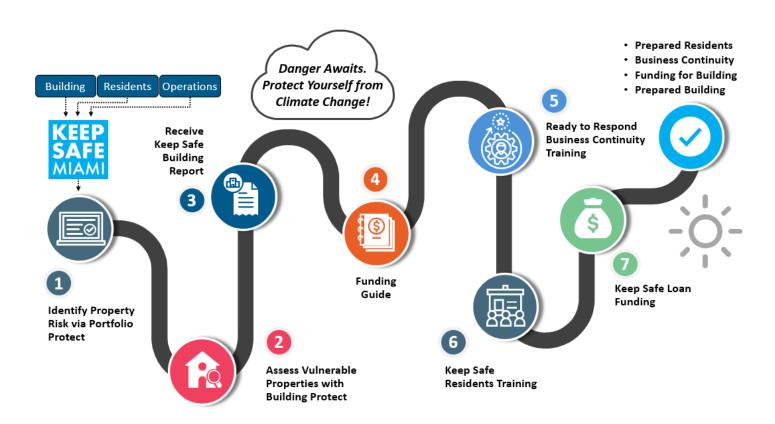
Keep Safe Miami is a program developed by Enterprise Community Partners, the City of Miami, Miami-Dade County, and Miami Beach that equips affordable housing owners and operators with tools to assess their buildings' resilience to climate change and natural disasters and provide them with actionable strategies and guidance on financing to address these vulnerabilities.



For owners of affordable housing, whether one or multiple properties, building damage can undermine the financial health and integrity of a building and impact a portfolio. Any resulting property loss or extensive repairs can significantly reduce the ability of residents to have a safe and healthy home, and lead to displacement of families and economic distress across entire communities.

By conducting a building-specific assessment using the Building Protect assessment tool, owners, operators, and developers of affordable housing can identify options for improving the efficiency and safety of their buildings. With Building Protect, users can identify strategies for high risk properties and access recommendations and resources to help minimize potential harm to their properties and keep residents' homes safe. Owners should work with a licensed professional and check local codes before implementing a recommended strategy.

Keep Safe Miami will take you on a journey to fully address the resilience of your affordable multifamily property, including the physical structure, building operations, and the residents that live within. Starting with Portfolio Protect, join us on this journey to understand the strategies you can employ to protect your building and your residents from risks of climate change and hurricanes.



Use of Building Protect to Assess your Multifamily Building for Climate Risks

The report this tool generates is a summary of the on-site assessment of the selected building and its existing vulnerabilities to climate change impacts.

Specific responses to the questions will trigger potential resilience opportunities to consider with appropriate professionals. General comparison of costs, complexity, as well as financial and technical resources available to implement the opportunities described can be found later in this document and on the program website. Given that each building and situation is unique, these reports are not designed to give you a step by step list and action plan. It is important to use the information from these tools as general guidance and talking points with other professionals. The Building Protect assessment tool report will offer the following:

- 1) Highlight areas of vulnerability to climate-related hazards which could compromise the property and its ability to provide safe housing conditions;
- 2) Suggest resilience strategies based on the responses to the questionnaire that may help strengthen the building's resilience to climate related events such that it could be prepared for safe and timely evacuation and quick post-event recovery;
- 3) Provide a report of potential opportunities to bring to building management, engineers, contractors or other professionals to develop an action plan that is informed and cost effective.

The work you do to collect the information as accurately as possible will have a lasting effect on the building and its residents. Answer the questions to the best of your knowledge and ability. If you are unsure of the answer, select "unsure" as the answer choice. Doing so will ensure you receive information about a strategy that could help that specific area.

How To Prioritize Keep Safe Multifamily Housing Strategies

While every aspect of building and resident safety is critical, it is hard to focus on every need at once. Strategies are broken into three main criticalities, or importance, levels.

Please note: It is NOT the intent of this chart to claim that any one strategy or hazard is more important or critical than another. Each property has its own needs and critical focus. Use your professional judgement as well as the advice from appropriate professionals to determine what is more critical to focus on for your property. Use the provided rating as a starting point for the discussion.

These are indicated in the output form for each question and should be used to help guide which mitigation approach you consider for a building and how you prioritize individual options.

Priority Scale - Criticality		Definition	
Critical	Strategies that relate to structural and safety concerns that can lead to life and safety issues for building occupants.	These strategies include assessing the building to determine if it will withstand effects from natural disasters as well as improve elements to ensure safety of building occupants.	
Moderate	Strategies that will mitigate impact by reducing/ minimizing exposure of crucial building elements to natural disasters.	Strategies such as protecting physical aspects of the building that can reduce the impact of hazards.	
Low	Strategies that will improve how occupants handle disaster aftermath and improve life cycle of building.	This type of strategy may not directly have an impact on building structure. Strategies include creation and implementation of plans for preparation and adaptation in case of emergency.	

^{*} This list is intended to be informative. Consult an appropriate professional to determine structural or safety concerns. Criticality developed in part through IBTS Disaster Reduction Mitigation Program, Department of Homeland Security guidance and Federal Emergency Management Agency and "Enterprise".

The following documentation covers the operation, functionality, and use of this tool as a building-level assessment.

Quick Start Guide

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Access the Property Record Project Page

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Submit the Assessment for Review

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Review your Report

1. Enroll in the Keep Safe Miami Program

Are you ready to assess your affordable multifamily property's resilience with Keep Safe Miami? Complete an enrollment form, which will include contact information and property specific details. Upon completion, an Enterprise Community Partners staff member will review your submission and follow up with next steps.

2. Login and Password

Once registered you will be provided an email/password login for the purposes of logging into the system. If you lose your password, click the 'forgot password' button on the login screen and the system will send an email to create a new password.

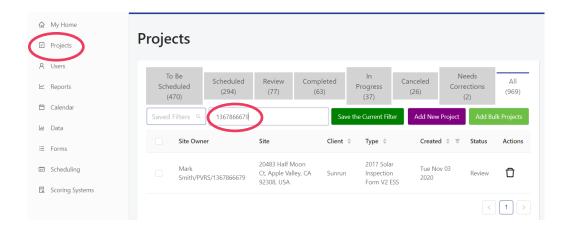
3. How to Access the Assessment

This tool will work on several browsers and mobile devices. While it is recommended you use a larger tablet (e.g., iPad, etc.,) and walk around the building as needed, please be aware that losing connection to the internet may cause you to lose information you entered. It is a good idea to have the questions printed out and available for use. A copy of the questions can be found with this user guide in the project record.



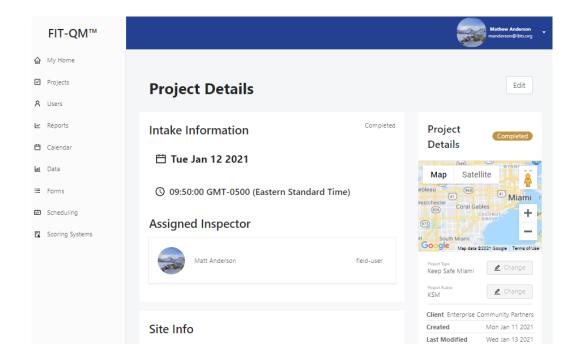
4. Access the Property Record on the Project Page

We have added the project(s) identified by the submission form into the system for you already. To work on an assessment, click on Projects in the left-hand menu, then access the desired project. You can search for projects by name, address, etc. Type your parameters into the search bar and hit the Enter key. Click on the property you want to complete an assessment for to access the project detail page.

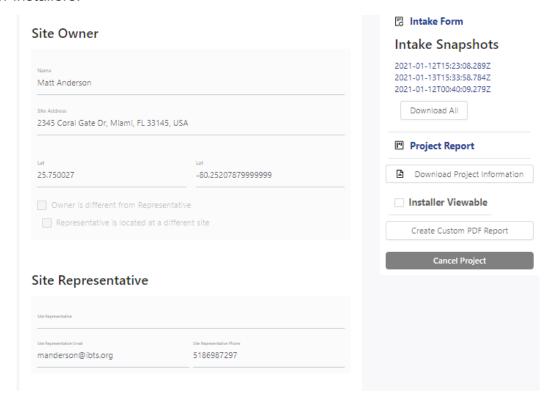


4.1 Project Detail Page

The project detail view page contains everything you need for a specific property. This is where the form you fill out is as well as this user guide and other valuable information. Select any project on the project list view.

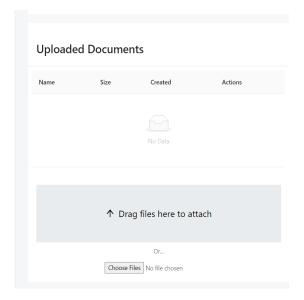


The project detail page contain all site contact information and controls view privledges for installers.



To upload a document, scroll down to the bottom of the record to the section called Uploaded Documents. Click Choose Files or drag and drop into the gray box to upload nonimage files. This user guide will be uploaded to this section and available for reference and review.





5. Perform your Building Assessment

While it is not required, someone familiar with the history, layout, and makeup of the building should perform the assessment. This will help save time as you work through the questions.

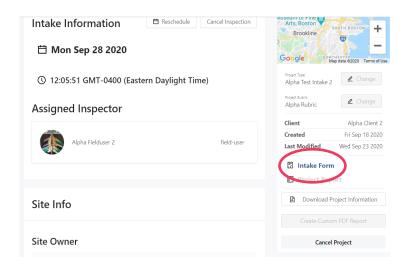
This tool will work on multiple browsers and devices. Start on the outside of the building answering the questions that relate to the hazards and work your way inside. There is no

right or wrong way to complete the assessment. The questions are arranged in a way to attempt to flow through a building. The amount of walking through the building, accessing the roof, common areas, or even individual units will depend on your familiarity of the building, availability of access and the effort you put into the answers, the work you do to collect the information as accurately as possible will have a lasting effect on the building and its residents. Answer to the best of your knowledge and ability. If you are unsure of the answer, select "unsure" as the answer choice. Doing so will ensure you receive information about a strategy that could help that specific area.

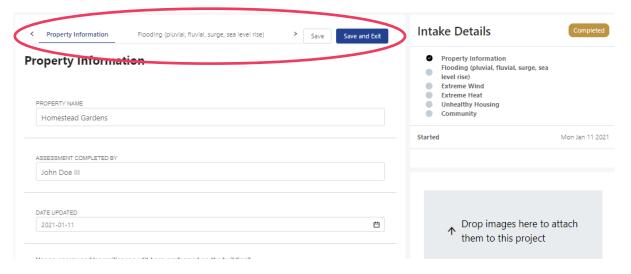
While it is recommended you use a tablet (e.g., iPad, etc.,) and walk around the building as needed, please be aware that losing connection to the internet may cause you to lose information you entered. It is a good idea to have the questions printed out and available for

use. A copy of the questions can be found with the user guide in the project record.

To complete an assessment, click Intake Form in the project detail page. After you begin an assessment you can save the form and come back to finish later if needed. There is no limit to the number of times you can save and continue later.

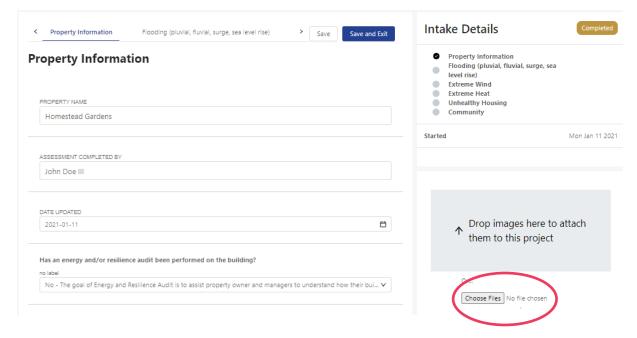


Complete all tabs located at the top of the assessment page. This is also where you can save and exit if you want to finish the questions later. Pay special attention to items that are required. You will not be able to complete an assessment if there are any outstanding required items.



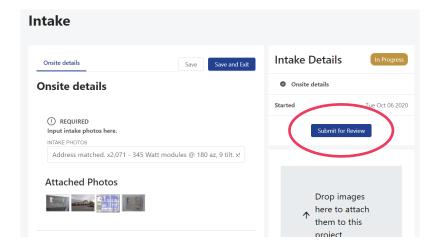
To upload photos in support of any of your answers, you can drag-and-drop, or use the Choose Files button to load them into the form. Once they upload you can drag a picture and drop it onto the question you want the picture associated with. This will transfer over to the report.





5.1 Submit the Assessment

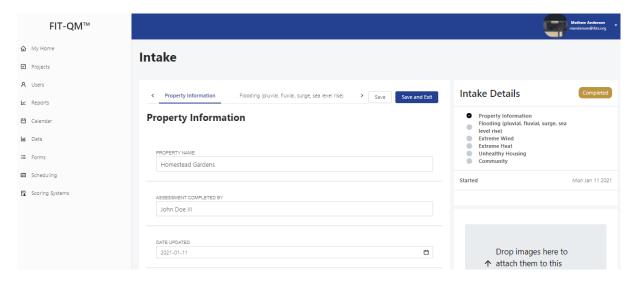
Once you have answered all the questions from each tab, you must click Submit for Review to move the assessment into review and report generation stage.



Once the assigned QA Reviewer has completed their review, they will send it back for corrections, or move it forward as completed.

Assessment Review and Processing

A quality manager at IBTS, contracted by Enterprise on Keep Safe Miami, will review the assessment form for completeness. If the assessment was marked as needing corrections, it is returned to you. Corrections can be made by going to the Needs Correction tab on the projects page. From there you can access the intake form as noted above and make the corrections marked for review and the assessment form is again returned to the quality manager by selecting Submit for Review as outlined in section 5.



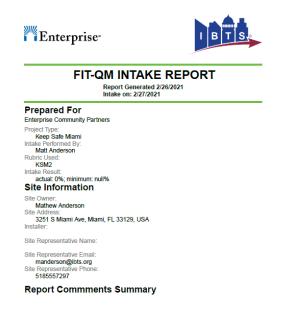
When the quality manager determines the form is filled out completely they finalize the assessment.

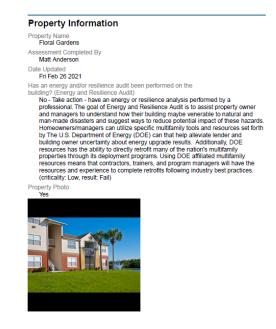
Access your Report

When the assessment is finalized, within 48 business hours of submitting it, a report is automatically generated by the system and is available to download from the Project Details page and the Reports tab. The report contains the responses to the assessment questions, including any photos and comments. It also contains criticality levels for each of the strategies Select Project Report in the Project details page for the assessment you completed.



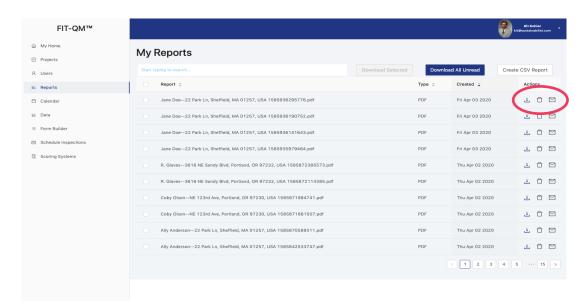
The project report will downloaded by you and can be opened, saved, and shared with others on your team. It will be accessible on this page as well as the Reports page for future review.



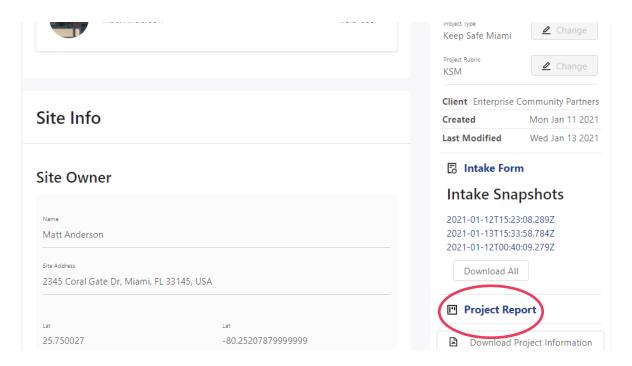


Accessing Reports Later

Completed reports are available at any time and remain with the project record. The Reports page allows users to view, manage, and download project reports they have permissions to see. Simply select the download option on the right side of the screen for the project you would like to download.



Similarly, as noted previously reports can be accessed through the project details page for a specific property. Select "Project Report" on the lower right side of the Details page, below the map. From here you can save, print, or email the report.



Understanding the Report

The report that Building Protect generates is an informative summary for the on-site assessment of the existing vulnerabilities to climate change impacts for an individual building. The list is not intended to be prescriptive. Use the report findings to have a conversation with building management and appropriate professionals to inform your decisions on operations and capital planning and how you invest in your portfolio.

Specific responses to the questions will trigger potential resilience opportunities to consider with appropriate professionals.



There are 63 individual questions divided among the hazard categories common in Miami (e.g. wind, heat, flooding etc.). An answer on the self-assessment that points to a vulnerability will follow this layout. Below is an example of the output from the report:

Extreme Heat 1

27. Are window frames or sealant failing? (Envelope Efficiency) 2

Yes - Take action - assess the efficiency of the envelope. Envelope efficiency can 3 reduce heating and cooling load in buildings resulting in lower utility bills and increasing a building's "passive survivability" during a power outage. Energy efficiency measures include an adequately insulated roof and walls, energy-efficient windows, sealing air leaks and reduction urban heat island effect through increased vegetation and albedo (reflective, cool) roofs. (criticality Low, result: Fail) 4

- 1. Hazard category where the questions are related
- **2.** Self-assessment question Use the information in parentheses to reference the main strategy list to see complexity, relative cost, and more information.
- **3.** Mitigation strategies common for the vulnerability identified. This information should be provided to building management, contractors, and other professionals to help determine what should be implemented for your building, your needs, and your budget.
- **4.** Criticality is defined above and consists of three levels (critical, moderate, and low). This is intended to be a guide and has been developed using professional judgment and input from various sources. Individual needs will vary, but you should consider strategies based on their level of criticality (focus on the critical items first, then the moderate, then the low). It is up to you to decide how best to approach your needs and your building. NOTE: "result: Pass/Fail" is a form-level aspect and should not be considered when reviewing your results.

Appendix A, KSM Strategies contains a breakdown of all the outputs that are possible on your report. You can use the information from your report and reference the Strategies guide to get a better indication of:

- a. General information about the strategy
- b. If the strategy may apply to other Miami specific hazards
- c. How critical the strategy may be to the building
- d. Relative cost for the implementation
- e. Relative difficulty/complexity of the implementation

This information is organized alphabetically by strategy to help you find the information from your report.

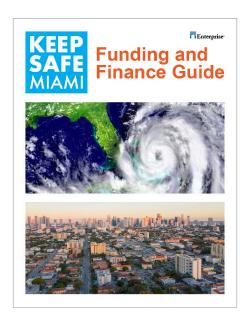
Funding and Finance Guide

(Download here)

Once you and your team have determined which resilience strategies to pursue, the issue becomes finding the resources to execute selected projects. Identifying potential areas to pursue the necessary capital, the funding and finance guide acts as a catalog of resources that will help affordable housing owners and portfolio managers identify possible funding sources.

The guide assists in identifying funding for:

- Grants, loans, subsidies and incentives, available now or potentially available in the next year.
- Proactive preparedness and resilient recovery from natural disasters.
- Retrofits that mitigate risks.



Additional Resources

The following list are the primary resources developed by Enterprise Community Partners and applicable for the Keep Safe Miami Initiative	Other Notable Resources
Keep Safe A Guide for Resilient Housing Design in Island Communities (KS)	Flood Mitigation Measures for Multi-Family Buildings FEMA P-2037 / October 2019
Multifamily Strategies Guide (MS)	Zero Waste Design Guidelines (ZWD)
Enterprise Mold Guide Creating a Healthy Home: A Field Guide for Clean-up of Flooded Homes (M)	EPA Lead Paint Abatement Guidelines (LPA)
Ready to Respond Business Continuity Tool (R2R)	AIA Covid Multifamily Guidelines (COVID)
Enterprise Green Communities (EGC)	Tank Storage Guidance (TSG)
Communities Together Resilience Hubs (CT)	

FEMA Technical Assistance

Representatives from FEMA are available to discuss your questions or concerns. If you have any additional questions on FEMA Building Science Publications, contact the helpline at FEMA-BuildingScienceHelp@fema.dhs.gov or 866-927-2104.

Visit the Building Science Branch of the Risk Management Directorate at FEMA's Federal Insurance and Mitigation Administration at https://www.fema.gov/building-science. For more information, see the FEMA Building Science Frequently Asked Questions Web site at https://www.fema.gov/frequently-asked-questions-building-science.

You may also sign up for the FEMA Building Science e-mail subscription, which is updated with publication releases and FEMA Building Science activities. Subscribe at https://public.gov/delivery.com/accounts/USDHSFEMA/subscriber/new.

FEMA recently released the National Flood Insurance Program Flood Mitigation Measures for **Multi-Family** Buildings, P-2037. This **publication** provides guidance for building owners, designers, investors, builders/contractors, institutional partners, housing agencies and residents, and property and facility managers on flood risk evaluation and mitigation of large **multi-family** buildings located in the floodplain.

Miami Affordability Project (MAP)

https://affordablehousing.miami.edu/miami-affordability-project/index.html

Developed by the University of Miami's Office of Civic and Community Engagement, the Miami Affordability Project (MAP) is an interactive online map centered on the distribution of affordable housing and housing needs in the greater Miami area. The latest version of MAP, launched in 2020, includes data about sea level rise and flooding impacts as they relate to Miami's affordable housing stock. For the first time, users are able to visualize information about two of Miami's most pressing challenges, affordable housing and climate change, together in an interactive map that can engage a wider audience of participants in discussions about livability, equity and responsible growth.

Resilience Policy Toolkit

https://affordablehousing.miami.edu/resilience-policy-toolkit/index.html

A climate-focused companion to the <u>University of Miami Housing Policy Toolkit</u>, outlining creative strategies and policies to equitably address the resilient future of Miami's affordable housing stock. In this toolkit UM investigates climate-related policies and programs that were successfully implemented in other U.S. cities to integrate with parallel goals and approaches locally.

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For more information, please visit

www.enterprisecommunity.org/keepsafemiami





Please contact keepsafemiami@enteprisecommunity.org with any questions.

Legal Disclaimer

Disclaimer for KEEP SAFE MIAMI

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