RISK FOOTPRINT™ REPORT

Accelerate Your Resilience

PROPERTY DETAILS:

801 Brickell Avenue
Miami, Florida 33131
lat: 25.76566 long: -80.19041

REPORT DATE & DETAILS:

Date: February 22, 2023
Status: Complete

REAL-TIME WEATHER & COASTAL FLOODING | weather.gov | noaa.gov

801 Brickell Avenue, Miami, Florida 33131

		Current Risks												Future Risks			
		Aggregate	FEMA NRI Risk	Pluvial	Fluvial	Tidal Flooding	Storm Surge	FEMA Flood	Tsunami	Wind Zone	Tornado	Wildfire	Earthquake	2060 SLR	2050 Heat	2050 Rainfall	2050 Drought
Property:	3	Low	Low	Low	Medium	High	High	Low	Medium	Medium	Low	Low	Medium	Low	Low	High	
Neighborhood:	6	Low	High	Medium	High	High	High	Low	Medium	Medium	Low	Low	High	Low	Low	High	

TABLE OF CONTENTS

RISK FOOTPRINT™ nearmap FATHOM TRUE Flood Risk

NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION'S (NOAA) PARTNER

WRN WEATHER-READY NATION

COASTAL RISK

www.coastalriskconsulting.com
844-SEA-RISE (732-7473)

RISK FOOTPRINT™

2/22/2023

Dear Client,

Thank you for purchasing the new RiskFootprint™ Report, the state-of-the-art assessment for floods, natural hazards, extreme weather, and climate change impacts. You have taken an important first step to better understand the risks facing your residential, commercial, industrial, or governmental property. The information found in this Report will empower you to make your property safer, more sustainable, and resilient – and to protect its market value in a changing environment.

The RiskFootprint™ Report is generated from our automated, proprietary model that screens properties for a variety of potential hazards and provides actionable intelligence for portfolio risk management, property transfer due diligence, loan and insurance underwriting and decisions relating to investments in risk/claims reducing, resilience measures.

If your RiskFootprint™ Report indicates that your property faces risks, our Advisory Services team of professionals can assist you with our six-step, B-Resilient™ Solutions process to help you take appropriate cost-effective risk mitigation and adaptation actions.

If you would like to find out more about our innovative products and services,
contact customerservice@riskfootprint.com.

Sincerely,

Albert J. Slap

Albert J. Slap, President
844-SEA-RISE (732-7473)
albertslap@riskfootprint.com
www.riskfootprint.com

HEAVY RAINFALL (PLUVIAL) FLOOD RISK and POOR DRAINAGE AREAS

PLUVIAL MAX INUNDATION DEPTH (METERS)

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4+

POOR DRAINAGE HOTSPOTS

- VERY POOR
- POOR
- MODERATE
- MILD

1000-Year Interval Pluvial Flood Risk*

See note re: Fathom Maps on page 10

Poor Drainage Hotspots

RIVERINE (FLUVIAL) FLOOD RISK and FEMA FLOOD HAZARD ZONES

FLUVIAL MAX INUNDATION DEPTH (METERS)

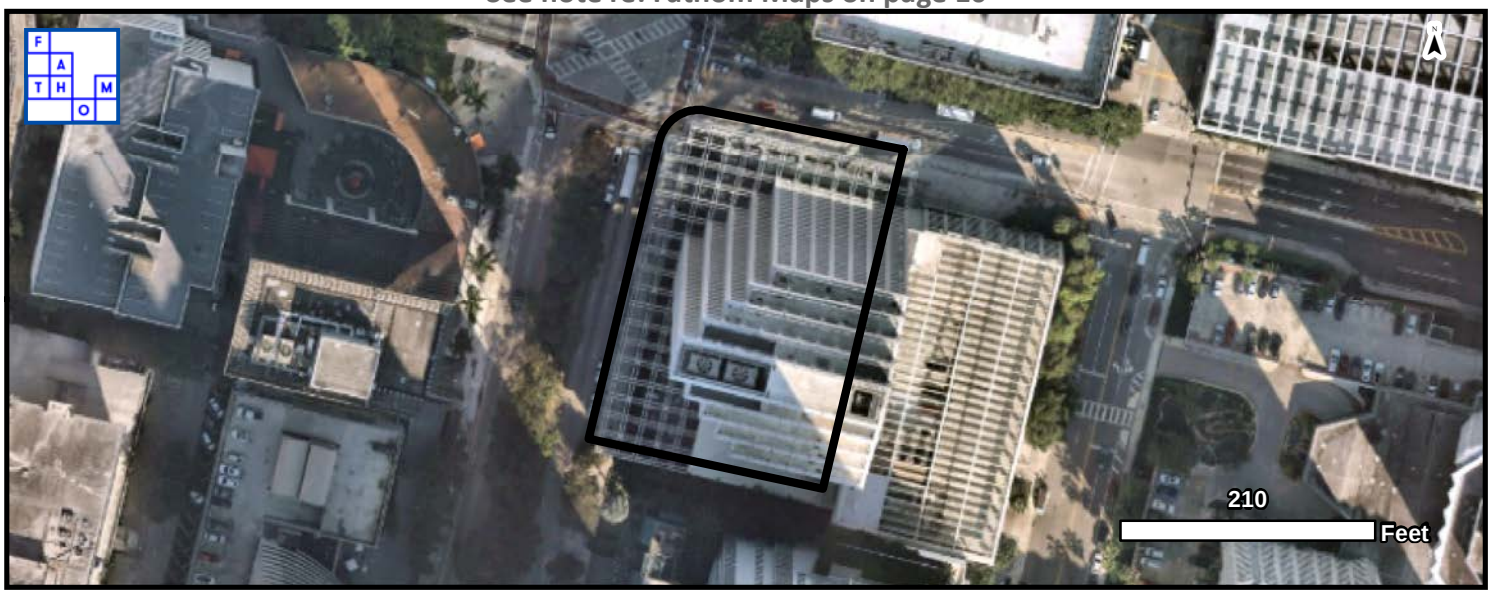
- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4+

FEMA FLOOD HAZARD ZONES

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- < 0.2 Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area of Undetermined Flood Hazard
- Special Floodway
- Regulatory Floodway

1000-Year Interval Fluvial Flood Risk*

See note re: Fathom Maps on page 10



FEMA Flood Hazard Zones

This property is in Zone AE with a BFE of 11.0 Feet (NGVD29)

Tidally-Influenced Flooding Potential*

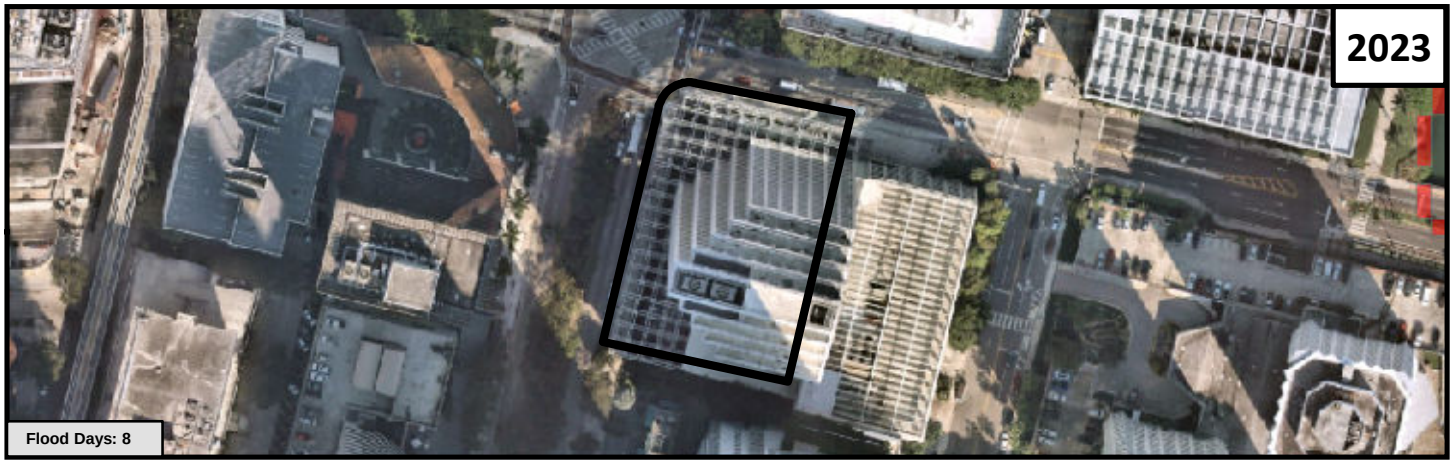
**Illustrations of flooding below include the effect of levees and other flood control measures to the extent they are displayed in the NOAA SLR Viewer (see page 10 for Glossary & References)*

Current Year High Tide Flooding

NOAA flooding threshold for this location is 53 cm (21 in) above Mean Higher High Water (MHHW). High Tide flooding occurs when high tides exceed the flooding threshold.

MHHW at Miami Beach, FL is 0.3 ft above NAVD88 (North American Vertical Datum of 1988)

High Tide Flooding
(MHHW + Flooding Threshold)

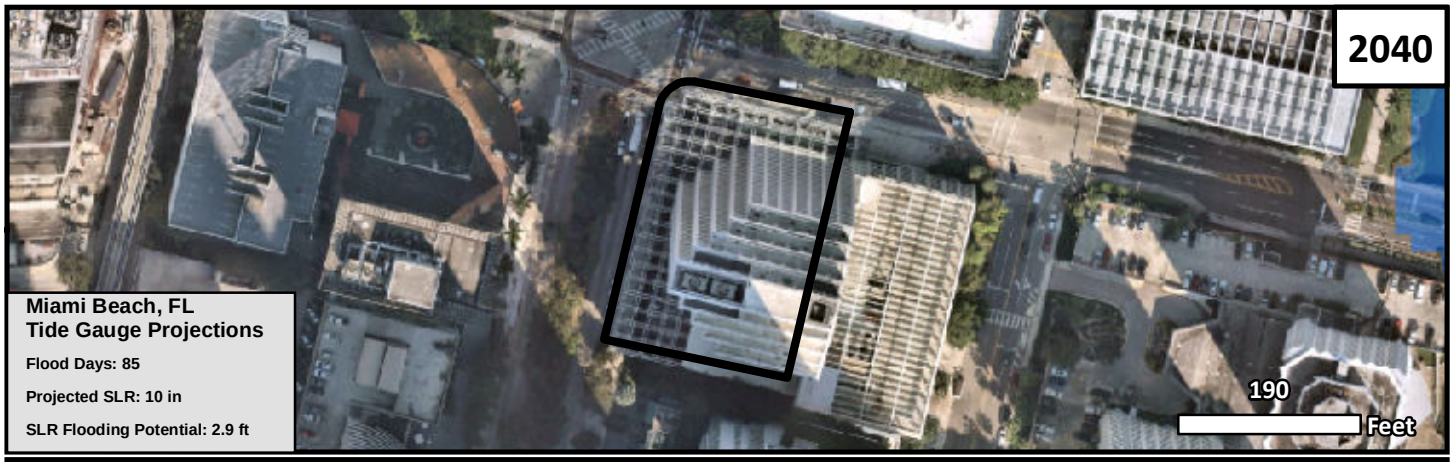


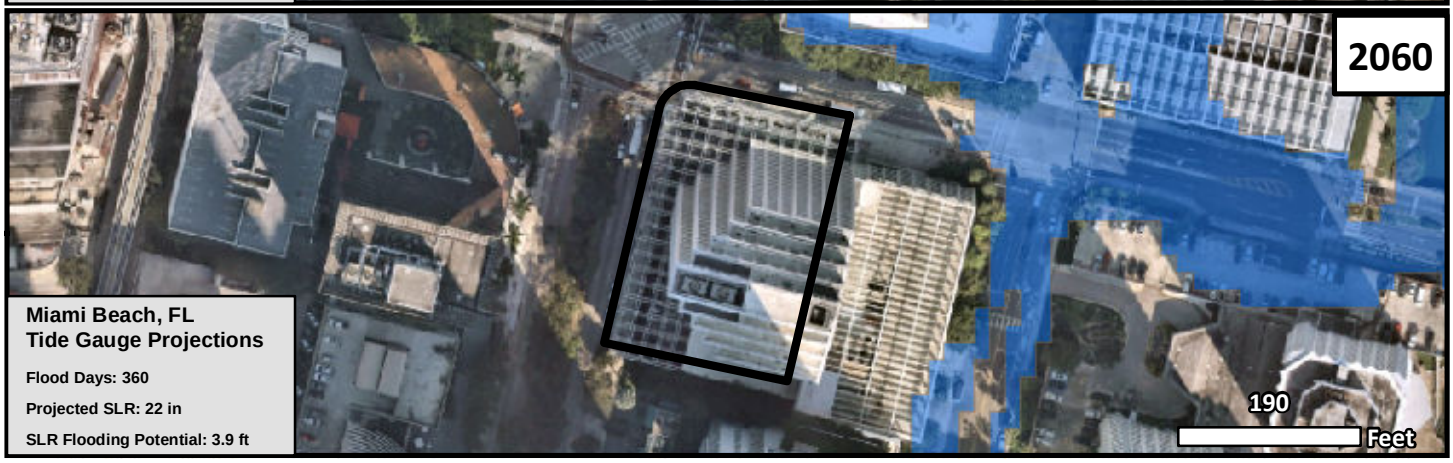
Future Projected Flooding Due to Sea Level Rise (SLR)

Areas representing inundation as a result of projected SLR in 2040 & 2060.

Flood Days = Number of days tidal flooding is expected with SLR.
Projected SLR = Estimated NOAA SLR projection for the nearest tide gauge.
SLR Flooding Potential = Relative to NAVD88

SLR Flooding Potential
(MHHW + Flooding Threshold + SLR)





Storm Surge

Maximum Possible Hurricane Storm Surge (2023)

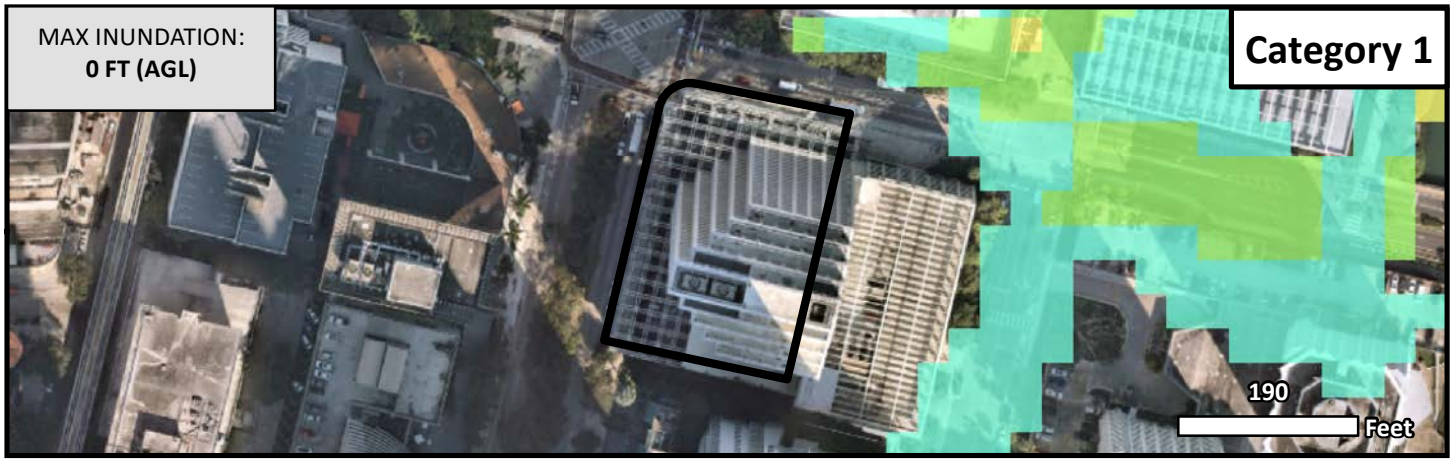
Per data from the US National Hurricane Center:
Annual probability of Category 1 winds and higher: **23.0%**
Annual probability of Category 3 winds and higher: **13.0%**

NAVD88 - North American Vertical Datum of 1988 *AGL - Above Ground Level*

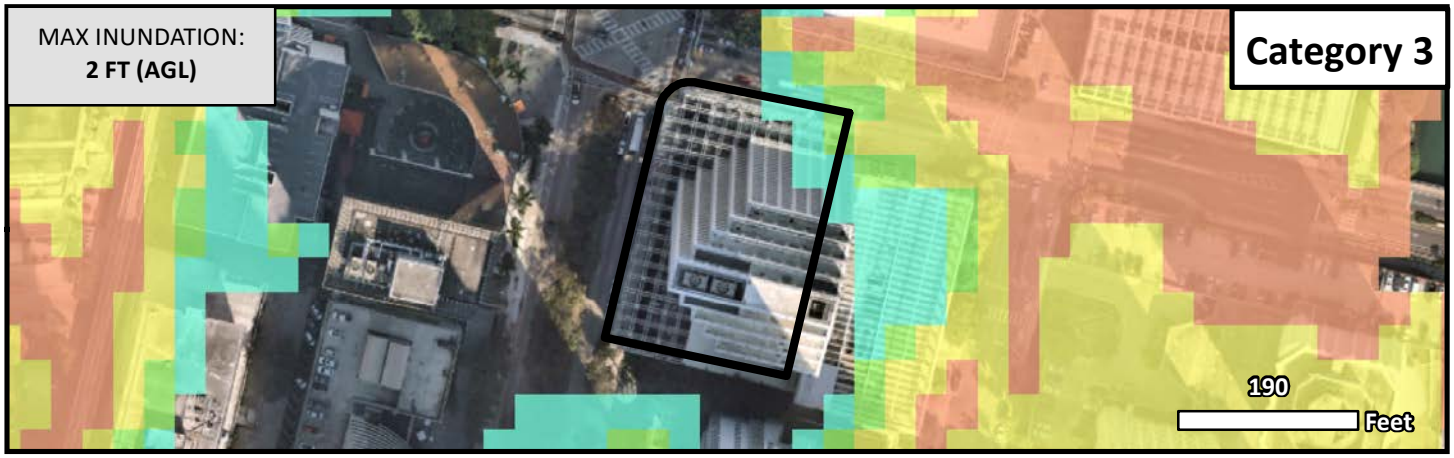
INUNDATION (AGL)

- 0 - 1 ft
- 1 - 2 ft
- 2 - 4 ft
- 4 - 8 ft
- 8 - 12 ft
- > 12 ft
- Levee Area

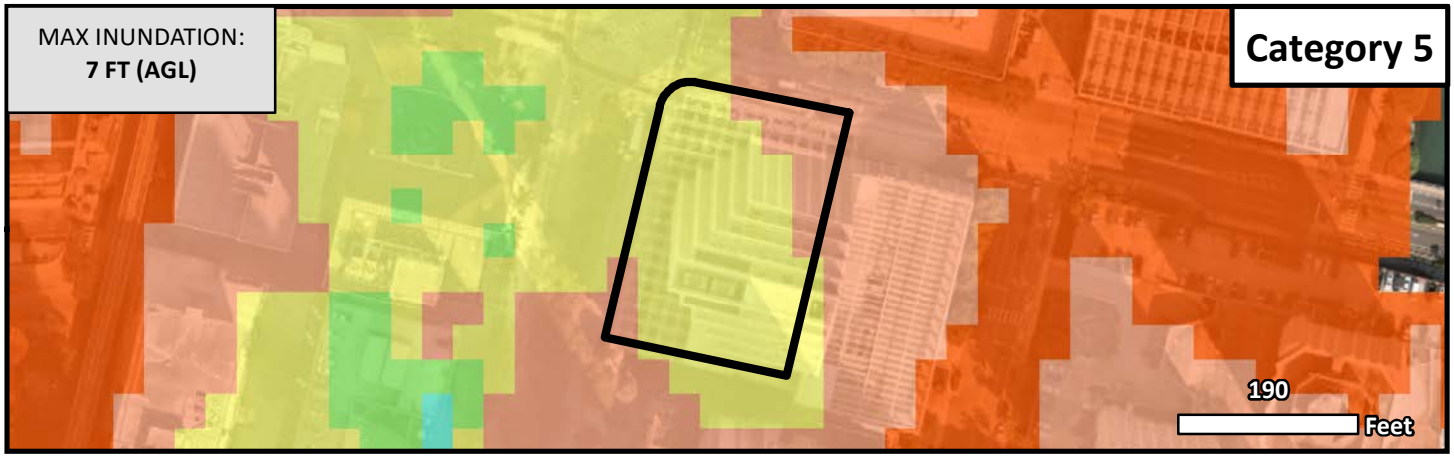
MAX INUNDATION:
0 FT (AGL)



MAX INUNDATION:
2 FT (AGL)



MAX INUNDATION:
7 FT (AGL)

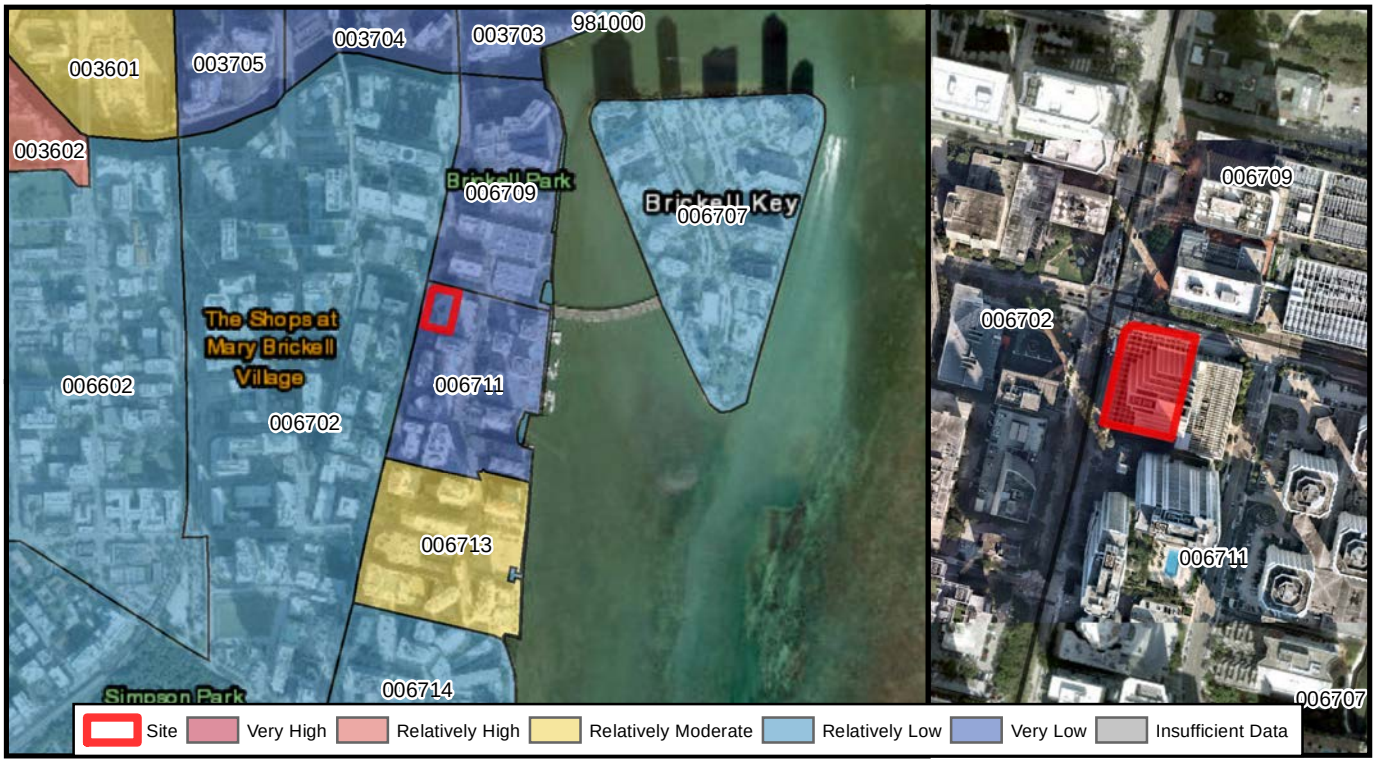


** N/A - No data available.*

FEMA National Risk Index (NRI)

Census Tract View

801 Brickell Avenue is in Census Tract 006711



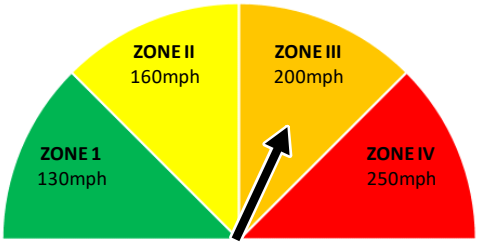
Risk Index is Very Low

NRI Hazard Ratings

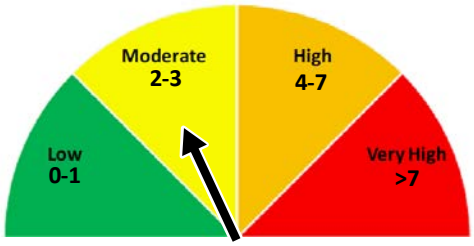
Avalanche: Not Applicable	Heat Wave: No Rating	Strong Wind: Very Low
Coastal Flooding: Relatively Low	Hurricane: Relatively Low	Tornado: Relatively Low
Cold Wave: Very Low	Ice Storm: Not Applicable	Tsunami: Not Applicable
Drought: No Rating	Landslide: Relatively Low	Volcanic Activity: Not Applicable
Earthquake: Very Low	Lightning: Relatively Low	Wildfire: No Rating
Hail: Very Low	Riverine Flooding: Relatively Moderate	Winter Weather: No Rating

Natural Hazards and Community Resilience

FEMA Wind Zone: III

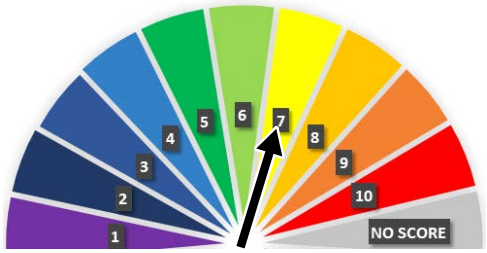


Tornado Risk: 2 occurrence(s)



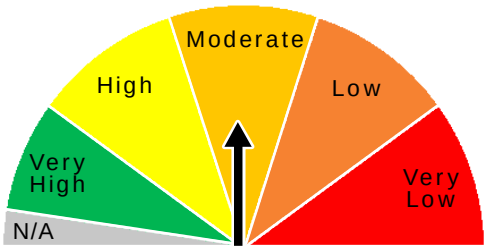
The 1,000-square-mile area surrounding the property has recorded 2 EF2 or higher tornadoes in the past 30 years

Community Rating Score: 7



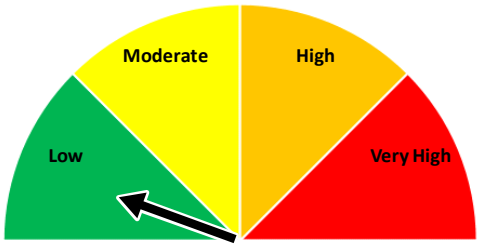
This property is potentially eligible for a 15.0% reduction in flood insurance

NRI Community Resilience



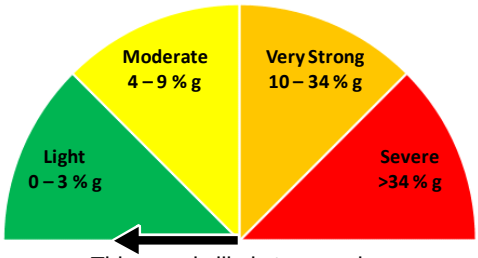
Miami-Dade County Community Resilience is Relatively Moderate

Wildfire Potential: Low



Wildfire Potential is a measure of wildfire likelihood and intensity

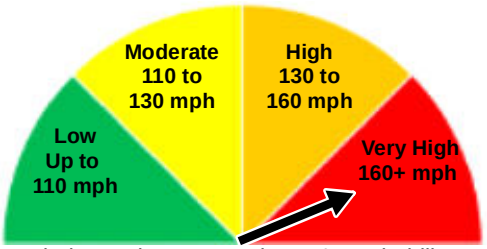
Earthquake Intensity: 0% g



This area is likely to experience No ground shaking in the next 50 years

ASCE Design Wind Speed: 169 mph

(3-second ultimate design wind speed for Risk Category II buildings)



Wind speed corresponds to 7% probability of occurrence in 50 years. (ASCE 7-16)

Note:

This site is NOT in a special wind region.

This site is in a hurricane-prone region.

(See page 10 for Glossary & References)

Property Elevation: *See page 12 for Glossary & References*

Land elevation within the property boundary ranges from 6.9 ft to 10.6 ft. The average elevation of this property is 9.6 ft. Elevations use North American Vertical Datum of 1988 (NAVD 88). The first floor height (FFH) of this property is 0.50 ft above ground level.

Future Climate Change Impacts

Projections By Emission Scenarios (RCPs)*

Extreme Heat	2030	2040	2050
RCP 4.5	Low	Low	Low
RCP 8.5	Low	Low	Low

Extreme Rainfall	2030	2040	2050
RCP 4.5	Moderate	Low	Low
RCP 8.5	Low	Low	Low

Drought	2030	2040	2050
RCP 4.5	Low	High	High
RCP 8.5	Low	Low	Low

Metric Ranking Guidelines

* See Page 10 for Glossary & References

Extreme Heat	Less than 25%	25% - 50%	Greater than 50%
% of Global Climate Models predicting 20% or greater increase in days of maximum air temperature above 85° F (compared with 2021)	Low	Moderate	High
Extreme Rainfall	Less than 25%	25% - 50%	Greater than 50%
% of Global Climate Models predicting 20% or greater increase in days of annual maximum daily rainfall (compared with 2021)	Low	Moderate	High
Drought	0.0 or Greater	Between 0.0 and -0.2	-0.2 or Less
Mean annual 12-month Standard Precipitation Index (SPI) compared with 2021	Low	Moderate	High

RiskFootprint™ Glossary and References

Cover Page – AGGREGATE RISK SCORE – The Aggregate Risk Score is presented separately for both the property and the neighborhood (within a ½ mile radius of the property boundary). It is a summation of the Risk Zones scored for the 15 hazards in the table as follows:

0 "Red" Zones	Low Aggregate Risk
1 to 3 "Red" Zones	Moderate Aggregate Risk
4 or more "Red" Zones	High Aggregate Risk

Note that even if the Aggregate Risk Score is "yellow", with only 1 red zone risk, e.g., for storm surge risk, this could be significant to the property owner. Also, sometimes the property in question is at low Aggregate Risk, but the neighborhood is at high risk, possibly causing ingress/egress or supply chain problems.

Page 3 – PLUVIAL (HEAVY RAINFALL) FLOOD RISK – Potential for heavy rainfall flooding above ground level (AGL) of the property with 0.1% probability. The term "1,000-year flood" means that, statistically speaking, a flood of that magnitude(or greater) has a 1 in 1,000 chance of occurring in any given year. In terms of probability, the 1,000-year flood has a 0.1% chance of happening in any given year. These statistical values are based on observed data. https://www.usgs.gov/faqs/what-a-1000-year-flood?qt- news_science_products=0#qt-news_science_products.

Page 3 - POOR DRAINAGE HOTSPOTS – "Poor Drainage Hotspots" identifies hyper-local areas of a property where water from heavy rainfall will tend to pond and fail to drain properly, sometime resulting in standing water for days. The RiskFootprint™ report uses a high-resolution elevation model along with soil and groundwater data from the Natural Resources Conservation Service to assign risk within our proprietary, flood hotspot methodology (NRCS drainage classes).

FATHOM PLUVIAL (HEAVY RAINFALL) & FLUVIAL (RIVERINE) FLOOD PROBABILITY (https://www.fathom.global). Fathom has pioneered methods using leading research and the latest datasets to model flood risks for both fluvial and pluvial perils. The dataset we use from Fathom-US incorporates the latest available inputs and the methodology has been validated via the peer-review process and published in world-leading journals. Fathom-US was validated against the entire FEMA flood hazard catalogue, identifying that current FEMA data misses around two thirds of total flood exposure nationwide. Fathom's pluvial models also represent flash-flooding nationwide.

Page 4 – FLUVIAL (RIVERINE) FLOOD RISK – Potential for river flooding above ground level (AGL) of the property with 0.1% probability as a result of an overflowing river.

Page 4 - FEMA FLOOD HAZARD BOUNDARIES – (overview) (definitions) These zones are derived from the National Flood Hazard Layer (NFHL) depicted on a community's Flood Insurance Rate Map (FIRM).
Note: Flood defenses in the FEMA maps may indicate a lower risk of flooding at a particular location. Flood defenses, however, may or may not be operational or competent at any given time and, flood waters may overtop defenses, thereby flooding areas with lower modeled risks.
Note: The RiskFootprint™ Report helps you dimension risk of loss from flood hazards and better understand insurance needs. It is not appropriate, however, for insurance placement using the National Flood Insurance Program (NFIP), which exclusively utilizes effective FEMA flood maps for underwriting. Most commercial and industrial buildings do not rely on NFIP insurance. FEMA flood maps, therefore, are only one view of flood risks among others presented herein.

Page 5 – CURRENT AND FUTURE TIDALLY-INFLUENCED FLOODING POTENTIAL – Modeled potential for current year "High Tide Flooding" and tidal flooding due to future Sea Level Rise (SLR) in 2040 and 2060. The methods, models and mapping are derived from the latest data and tools provided by NOAA and NASA (2022) and the ***NOAA Sea Level Rise Viewer*** https://bit.ly/3N2jD5U

NOAA and NASA data sources used for calculation of Flooding Potential are:
Height of Mean Higher High Water relative to NAVD88 at the nearest tide gauge -
https://tidesandcurrents.noaa.gov/datums.html?

NOAA Flooding Threshold - https://sealevel.nasa.gov/flooding-days-projection/

NOAA Sea Level Rise (SLR) Projections -
https://api.tidesandcurrents.noaa.gov/dpapi/prod/webapi/product/slr_projections.json?units=english&report_year=2022&scenario=intermediate-high

Flood Days = Number of days tidal flooding with SLR is expected at the nearest tide gauge –
https://sealevel.nasa.gov/flooding-days-projection/

Notes:

1. Projections of flooding potential in the RiskFootprint™ report are based on the NOAA "minor flooding" threshold. Flooding thresholds are national flood thresholds derived from NOAA Technical Report NOS CO-OPS 086: Patterns and Projections of High Tide Flooding Along the U.S. Coastline Using a Common Impact Threshold. (February 2018).
2. Illustrations of flooding in areas with levees should be reviewed together with NOAA's "Leveed Areas Disclaimer".
3. Inland locations for which the NOAA SLR Viewer shows no flooding potential within one mile of the property boundary will return N/A (not applicable) for data on this page.

Page 6 - HURRICANE STORM SURGE – Potential for flooding on the property in the current year because of hurricane storm surges carrying ocean water inland. The RiskFootprint™ Report utilizes data from the National Storm Surge Maps (Version 3) that has been developed by the National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service's (NWS) National Hurricane Center. The data is derived from the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model version 3 *(latest version).*

The SLOSH model is a numeric model that combines atmospheric pressure, size, forward speed, and hurricane track data to model potential wind fields that then drive storm surge. The SLOSH model can be run on historic, hypothetical, or predicted hurricanes and at different locations to understand the influence of shoreline features, like bridges, roads, and inlets. SLOSH outputs are determined based on Category 1, 3, and 5 hurricanes. Hurricane categories are based on the Saffir-Simpson Wind Scale, a 1 to 5 rating based on a hurricane's maximum sustained wind speed.

HISTORIC HURRICANE STRIKE PROBABILITY – The Risk Footprint™ Hurricane Strike statistics are derived from 110 years of climatological data from the National Hurricane Center. https://www.nhc.noaa.gov/aboutnhcprobs5.shtml.

Page 7 – FEMA NATIONAL RISK INDEX - The National Risk Index is a dataset and online tool designed and built by FEMA to help illustrate the U.S. communities most at risk for 18 natural hazards. The Risk Index leverages available source data for natural hazard and community risk factors to develop a baseline relative risk measurement for each U.S. County and Census tract, to help users better understand the natural hazard risk of their communities. https://hazards.fema.gov/nri/
Calculation of FEMA NRI Risk Index:
Risk = Expected Annual Loss x Social Vulnerability x $\frac{1}{\text{Community Resilience}}$

***Source**: FEMA National Risk Index Technical Documentation Nov 2021*

Page 8 – NATURAL HAZARD RISK METERS

FEMA WIND ZONES – (website**)** The United States is divided into four Wind Zones created by FEMA for construction purposes throughout the country. Buildings in their respective wind zones must be able to withstand the maximum wind speed as indicated by FEMA. Note that older buildings may not have been designed to these standards.

COMMUNITY RATING SYSTEM –(website) The Community Rating System (CRS) awards points for steps taken by

municipalities to manage the flood plain to reduce the community's risk. Flood insurance rates are discounted for participating municipalities that have accumulated points, thereby saving homeowners on NFIP flood insurance premiums. You should make sure your insurance agent is providing you with the appropriate discount.

NRI COMMUNITY RESILIENCE – (website) is a relative measure of the community that is associated with the parcel compared to all other communities at the nationwide level for its resilience to natural hazards. It is used in FEMA's National Risk Index (website), which identifies communities most at risk to natural hazards. Commonly, the community is a county, but depending on the location, may be a parish, borough, or an independent city. Community Resilience is defined by FEMA as the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. The score is based on 6 factors: 1. Human Well-Being/Cultural/Social; 2. Economic/Financial; 3. Infrastructure/Built Environment/Housing; 4. Institutional/Governance; 5. Community Capacity; and 6. Environmental/Natural.

WILDFIRE POTENTIAL – (website) Based on the US Forest Service's 2020 Wildfire Risk to Communities Product, Risk to Potential Structures dataset

TORNADO FREQUENCY – (website) Tornado historical data is based on the NOAA National Weather Service (NWS) Storm Prediction Center's (SPC) severe report database, which compiles tornado occurrences.

EARTHQUAKE INTENSITY – (website) Based on the USGS Earthquake Hazard Program - National Seismic Hazard Mapping Project (NSHMP) and depicts areas using peak ground acceleration (PGA) as its parameter and standard gravity (g) as its measure.

ASCE DESIGN WIND SPEED – (website) The American Society of Civil Engineers (ASCE) creates building codes for residential and commercial structures in the United States. The ASCE Wind Meter is based on ASCE/SEI 7-16, and is the 3-second gust wind speed at 33 ft above ground for Exposure C, Risk Category II buildings. Wind speed corresponds to approximately a 7% probability of exceedance in 50 years.

Special Wind Region
There are special regions in which wind-speed anomalies are known to exist. When selecting basic wind speeds in these special regions, use of regional climatic data and consultation with a wind engineer or meteorologist is advised. (ASCE 7-16).

Hurricane-prone region
Defined in the 2015 and later International Building Code (IBC) as:

- The U.S. Atlantic Ocean and Gulf of Mexico coasts where the ultimate design wind speed, Vult, for Risk Category II buildings is greater than 115 mph (51.4m/s); and;
- Hawaii, Puerto Rico, Guam, Virgin Islands, and American Samoa.

https://www.fema.gov/glossary/hurricane-prone-region

Property Elevation
First Floor Height (FFH) is an estimate of the height of the first floor above ground level based on data derived from True Flood Risk, Inc.'s Artificial Intelligence (AI) technology. Large buildings may have multiple FFHs because of various access points. For a more detailed study of vulnerabilities, potential in-structure flooding depth and value-at-risk, please contact customerservice@riskfootprint.com

Page 9 – FUTURE CLIMATE CHANGE IMPACTS IN 2030, 2040 & 2050 – Projections for Future Extreme Heat, Extreme Rainfall & Drought impacts were derived from data downscaled from 32 General Circulation Models (GCMs) using LOCA (Localized Constructed Analogs), a statistical downscaling technique that improves the detail of data from GCMs. LOCA was developed and implemented by a team including representatives from NASA, US Army Corps of Engineers, University of Colorado and Scripps Institution of Oceanography. Using LOCA, the 32 GCMs were downscaled from the CMIP5 archive at a 1/16th degree spatial resolution. http://loca.ucsd.edu/.

a. Extreme Heat
Extreme heat risks related to the projected increase in maximum daily air temperature. Datasets from Representative Concentration Pathways 4.5 and 8.5* are used to determine the percentage change in number of days per year for annual maximum daily air temperature greater than 85°F (~29.44° Celsius) averaged over 2026-2030, 2036-2040 and 2046-2050 compared with no. of days per year averaged over 2021-2025.

b. Extreme Rainfall

Extreme rainfall risks related to the projected increase in maximum daily rainfall (precipitation). Datasets from Representative Concentration Pathway 4.5 and 8.5* are used to determine the percentage change in annual maximum daily precipitation averaged over 2026-2030, 2036-2040 and 2046-2050 compared with the annual maximum daily precipitation averaged over 2021-2025.

c. Drought

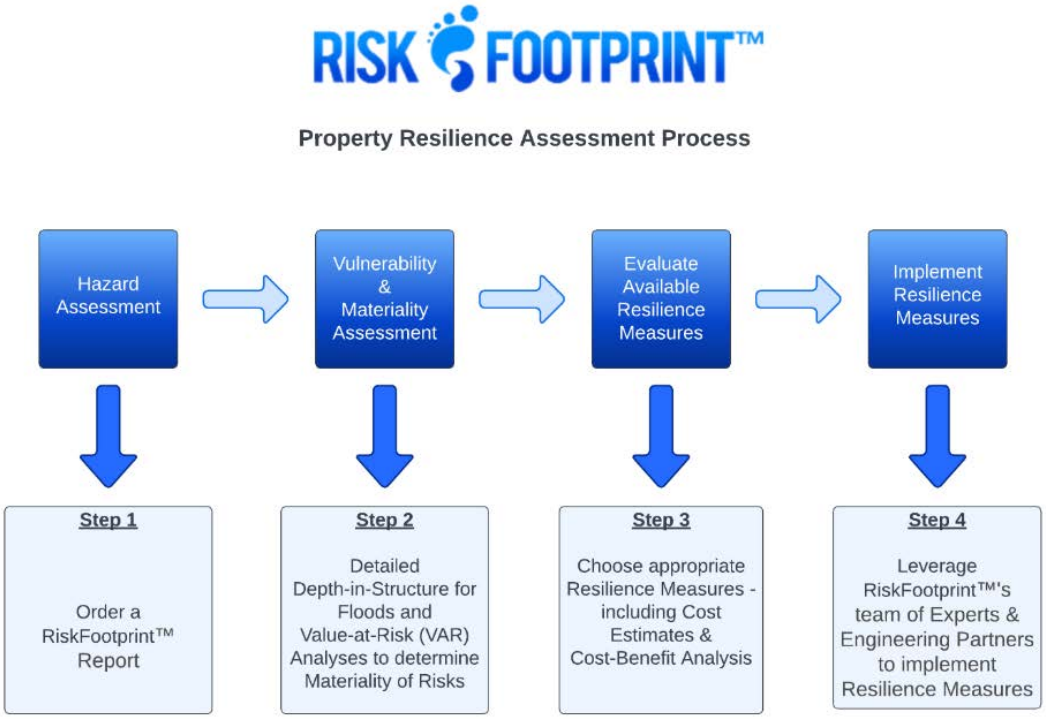
Drought risk as measured by the 12-month Standard Precipitation Index (SPI), to characterize meteorological drought on a range of timescales. The SPI calculation for any location is based on the long-term precipitation record for the specific period. A **12-month** SPI is a comparison of the precipitation for 12 consecutive months with the same 12 consecutive months during all the previous years of available data. https://www.in.gov/dnr/water/water-availability-use-rights/water-resource-updates/monthly-water-resource-summary/explanation-of-standard-precipitation-index-spi/

***Representative Concentration Pathways (RCPs)**

Values of Representative Concentration Pathway (RCP) represent the range of greenhouse gas emissions. RCP 4.5 refers to an intermediate emission scenario while RCP 8.5 refers to a high emission scenario. In this report, we do not include RCP 2.6 because it's a stringent emission scenario which is very unlikely based on current trends.

Note: Possible non-linear trend in severity of climate impacts for certain locations: *The Ranking Guidelines for Low, Medium, and High are based on the % of models that show results within a certain range. Also, although projections of future temperature trends are generally linear, increasing heat creates changes in atmospheric conditions that may impact projected trends of extreme rainfall and drought over certain time periods. As a result of a combination of these factors, projections of extreme rainfall and drought may not always show a linear trend in severity for the next few decades.*

Note: Apparent contradictions in different datasets: *The RiskFootprint™ Report is comprised of both proprietary and open- source datasets. The various hazard scores and risk assessments included in the Report may be shown at different levels of granularity or specificity and measured over varying time frames. The different bases and methodologies used may lead to apparent contradictions. For example, a FEMA 100-year flood Base Flood Elevation (BFE) may not be the same as a NOAA storm surge height for the same return period. The National Risk Index (NRI) Strong Wind rating at the Census Tract level may not be the same as the ASCE Design Wind Speed at a specific building address. Accordingly, RiskFootprint™ Users are advised to consider the hazard assessments and risk scores in the Report only as starting points in the Property Resilience Assessment (PRA) Process.*



For further information on Property Resilience Assessments, RiskFootprint™ Scoring Methods or annual Dashboard subscriptions, please contact Customer Service at 844-732-7473 or email at customerservice@riskfootprint.com.