Building Design Wind Limits vs. Hurricane Wind Categories
"Apples vs. Oranges"

Wind Velocity for Structural Design Criteria / HVHZ in Miami-Dade County		
Applicable Building Code	**Time in Effect**	**Wind Velocity (3-Second Gust in MPH)***
No Codes, Local Ordinances**	1954-1974	N/A
South Florida Building Code**	1977-1994	N/A
Southern Standard Building Code	1945-1994	110
Standard Building Code	1945-2001	110
Florida Building Code – 2001 Edition	2001-2004	146
Florida Building Code – 2004 Edition	2004-2007	146
Florida Building Code – 2007 Edition	2007-2010	146
Florida Building Code – 2010 Edition	2010-2014	186
Florida Building Code – 2014 Edition	2014-2017	186
Florida Building Code – 2017 Edition	2017-2021	186
Florida Building Code – 2020 Edition(See attached code excerpt)	2021-Present	195

FIU – Modesto Maidique Campus (Selected Facilities) Comparable Matrix – Wind Velocity for Structural Design and Risk Categories				
Facility/Building Name	**Public Shelter?**	**Building Code**	**Wind Velocity (3-Second Gust in MPH)***	**Building Risk Category*** **
Parkview II Housing (Under Construction	N/A	FBC – 2017 Edition	175	II
SIPA II (Under Construction)	N/A	FBC – 2017 Edition	186	III
Parkview I Housing	Partial	FBC – 2010 Edition	226	III
Parkview I Housing (Ex. Public Shelter)	N/A	FBC – 2010 Edition	186	III
Parking Garage #5 (Mix-Use Occupancy)	N/A	FBC – 2007 Edition	186	IV
Parking Garage #6 (Mix-Use Occupancy)	N/A	FBC – 2010 Edition	186	III
Primera Casa Building	N/A	Southern Standard Building Code – 1970 Edition	110	N/A
Recreation Center	N/A	FBC – 2001 Edition	146	III
Mango Building	N/A	FBC – 2010 Edition	186	III

**HVHZ Buildings are designed using wind velocity (3-second gust) in MPH, as applied to the Building's Risk Category.*
Hurricanes are classified by actual sustained wind speeds per the Saffir-Simpson Scale as follows:
Category I = 74-95 mph Category II = 96-110 mph Category III = 111-129 mph Category IV = 130-156 mph Category V = >156 mph

***Not Applicable to FIU.*

****Risk Category is based on nature of building occupancy and not related to Saffir-Simpson hurricane categories.*

Building Risk Categories (generally) are as follows:
I. Agricultural & Minor Storage (Low Hazard)
II. Other structures than those listed as I, III & IV.
III. Most University Buildings.
IV. Essential facilities (e.g. emergency management operations centers).

FLORIDA BUILDING CODE 7TH EDITION (2020)

CHAPTER16 - STRUCTURAL DESIGN - SECTION1620

HIGH-VELOCITY HURRICANE ZONES—WIND LOADS

1620.1
Buildings and structures, and every portion thereof, shall be designed and constructed to meet the requirements of Chapters 26 through 31 of ASCE 7.

Exception: Exposed mechanical equipment or appliances fastened to a roof or installed on the ground in compliance with the code using rated stands, platforms, curbs, slabs, walls, or other means are deemed to comply with the wind resistance requirements of the 2007 Florida Building Code, as amended. Further support or enclosure of such mechanical equipment or appliances is not required by a state or local official having authority to enforce the Florida Building Code.

1620.2
Wind velocity (3-second gust) used in structural calculations shall be as follows:

Miami-Dade County

- Risk Category I Buildings and Structures: 165 mph
- Risk Category II Buildings and Structures: 175 mph
- Risk Category III Buildings and Structures: 186 mph
- Risk Category IV Buildings and Structures: 195 mph

Broward County

- Risk Category I Buildings and Structures: 156 mph
- Risk Category II Buildings and Structures: 170 mph
- Risk Category III Buildings and Structures: 180 mph
- Risk Category IV Buildings and Structures: 185 mph