# MecaWind Software



## Summary

MecaWind is an Easy to use Application that will allow designers to quickly calculate wind pressures on buildings and other types of structures. All MecaWind versions include ASCE 7 ('05, '10', '16, '22) and the Pro and Ultimate versions include the Florida Building Code ('17 '20 and '23).



ASCE 7 is the standard for wind loading and it is NOT an easy standard to follow. We can't completely remove all difficulty associated with following ASCE 7; however, we can make your life simpler. We have addressed many of the requirements in ASCE 7 as well as having the benefit of many other designers using and critiquing the software every day. With a few inputs you receive wind pressure calculations which are professional and complete.

## **Building Types**

MecaWind can be used to calculate wind pressures on many different types of buildings. The software is one of the only available that will allow the designer to calculate wind pressures using every method available in ASCE 7 for both Main Wind Force Resisting System (MWFRS) as well as Components and Cladding (C&C).

















## Roof Types

There are many common roof types listed in ASCE 7, and all these roof types are handled withing MecaWind. The Software can also handle overhangs and parapets.









Arched Roof











### **Other Structures**

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#### Graphical Pressures (Pro & Ultimate Version)

Wind pressures on a Main Wind Force Resisting System (MWFRS) can be difficult to visualize, and that's why we created an option in the Pro version of MecaWind that allows users to visualize the pressures graphically. It also summarizes the reactions about the geometric center of the base for the structure.

#### Custom Roof Ultimate Version)

This option allows the consideration of a unique overhang on each side of the building for Gabled, Monoslope and Flat roofs. The gabled custom roof allows the ridge to be offset from the center, allowing for a unique slope on each side of the ridge.

#### C&C Zone Graphics (Ultimate Version)

Obtain a Scale graphical representation of all of he Components And Cladding (C&C) zones on the building. Automatically determine which zones are physically impossible to achieve based upon the building dimensions.

#### **Tornado Load** (Ultimate Version)

In ASCE 7-22 a new chapter was introduced that covers Tornado Loads. The Ultimate version of Mecawind makes consideration of Tonado loads a very simple process.









## Compare Versions of MecaWind

Features	Standard Version	Pro Version	Ultimate Version
Standards			
ASCE 7-05/10/16/22		e	<b>e</b>
Florida Building Code 17/20/23		e	<b>e</b>
Tornado Loads			e
Puilding Types			
Enclosed			
Dartially Enclosed			
Partially Enclosed			
Open	<b></b>		
L-Shaped		<b></b>	
Main Wind Force Resisting System			
Walls and Roofs (Symmetrical)	e	e	
Overhang	e	e	e
Parapets	ê	Ê	é
<b>MWFRS</b> Graphics & Base Reactions		9	
Custom Roofs (Gabled, Monoslope & Flat)			
Components and Claddina (C&C)			
Detailed Calculations & Summary Table	<b>e</b>	6	<b>e</b>
Zone Graphics			ê
Other Structures			
Stacks/Chimney	e	6	2
Tanks, Silos, and Bins	é	ě	ě
Open and Solid Signs	é	é	é
Truss Towers	é	ě	ě
Rooftop Equipment	é	é	é
Canopy	é	ě	ě
Free Standing	Ê	é	è
Solar Panels		ê	ê