

BOCA (1996) - SBC (1997) & UBC (1997) Wind Speed Conversion Chart for Non-Essential Structures, Under 60 ft. in Height

Base Wind Speed Ht. (ft.)	Condition	70 MPH			80 MPH			90 MPH			100 MPH			110 MPH		
		BOCA	SBC	UBC	BOCA	SBC	UBC	BOCA	SBC	UBC	BOCA	SBC	UBC	BOCA	SBC	UBC
0 to 15'	Typical	20	15	20	25	20	25	30	25	30	40	30	35	50	35	40
0 to 15'	Corner	25	15	20	30	20	30	40	25	35	60	35	50	70	40	50
>15' to 20'	Typical	20	15	20	25	20	25	35	25	30	50	30	35	60	35	50
>15' to 20'	Corner	25	20	25	35	25	30	50	30	40	60	35	50	70	50	60
>20' to 25'	Typical	25	20	20	30	20	25	35	25	30	50	35	40	60	40	50
>20' to 25'	Corner	30	20	25	35	25	30	50	30	40	60	40	50	80	50	60
>25' to 30'	Typical	25	20	20	30	25	25	40	30	35	50	35	40	60	40	50
>25' to 30'	Corner	30	20	25	40	25	35	50	35	40	70	40	50	80	50	60
>30' to 40'	Typical	25	20	20	35	25	30	40	30	35	60	40	50	70	50	50
>30' to 40'	Corner	30	20	25	40	30	35	50	35	50	70	50	60	90	50	70
>40' to 50'	Typical	25	20	25	35	25	30	50	35	35	60	40	50	70	50	60
>40' to 50'	Corner	35	25	30	50	30	35	60	35	50	80	50	60	90	60	70
>50' to 60'	Typical	30	20	25	35	30	30	50	35	40	60	40	50	80	50	60
>50' to 60'	Corner	35	25	30	50	30	40	60	40	50	80	50	60	100	60	70

ASCE 7/95 Wind Speed Conversion Chart for Non-Essential Structures, Under 60 ft. in Height

EXPOSURE WIND SPEED Ht. (ft.)	Condition	Exp. B		Exp. C		Exp. B		Exp. C		Exp. B		Exp. C		Exp. B		Exp. C	
		90 MPH	90 MPH	100 MPH	100 MPH	110 MPH	110 MPH	120 MPH	120 MPH	130 MPH	130 MPH	140 MPH	140 MPH	150 MPH	150 MPH		
0 to 15'	Typical	20	25	25	30	30	35	35	50	40	50	50	60	60	70		
0 to 15'	Corner	25	30	30	35	40	50	50	50	50	60	60	70	70	80		
>15' to 20'	Typical	25	25	30	30	35	40	40	50	50	50	50	60	60	70		
>15' to 20'	Corner	30	30	35	40	40	50	50	60	60	70	70	80	70	90		
>20' to 25'	Typical	25	25	30	35	35	40	40	50	50	60	60	70	60	70		
>20' to 25'	Corner	30	35	35	40	40	50	50	60	60	70	70	80	80	90		
>25' to 30'	Typical	25	30	30	35	35	40	40	50	50	60	60	70	70	80		
>25' to 30'	Corner	30	35	35	40	50	50	50	60	60	70	70	80	80	90		
>30' to 40'	Typical	25	30	30	35	35	50	50	50	50	60	60	70	70	80		
>30' to 40'	Corner	30	35	40	50	50	60	60	70	70	80	80	90	90	100		
>40' to 50'	Typical	25	30	35	40	40	50	50	60	60	70	60	70	70	90		
>40' to 50'	Corner	35	40	40	50	50	60	60	70	70	80	80	90	90	100		
>50' to 60'	Typical	30	30	35	40	40	50	50	60	60	70	70	80	80	90		
>50' to 60'	Corner	35	40	40	50	50	60	60	70	70	80	80	90	90	110		

NOTES:

- The wind load values in the boxes are in pounds per square foot (PSF) and have been rounded up to match published wind loads in the Clark catalog.
- The exposure used for BOCA and UBC is "Exposure C." SBC does not use an exposure.
- In the ASCE table $P=0.00256 \cdot K_z \cdot K_{zt} \cdot (V^2)^{1/4} [(G_{Cp} - G_{Cpi})]$.
- In the ASCE table for exposure C, typical wall calculation, $G_{Cp}=-1.1$ and $G_{Cpi}=-0.18$. For corner wind condition, exposure C calculation is $G_{Cp}=-1.4$ and $G_{Cpi}=-0.18$. For exposure B the G_{Cp} & G_{Cpi} coefficients were taken as 85% of the exposure C coefficients.
- Reference ASCE sections 6.5.3.1 and 6.5.3.3.1 for applicability of correct exposure.
- The G_{Cp} coefficients for both tables are based on a 10 sq. ft. tributary area. Longer length studs may have reduced wind loads, per the various codes.
- When using these tables, the height of the building is to be considered the highest point of the building.
- When using these tables, there is no reduction in wind pressure for sloped roofs.
- These tables are not applicable for buildings over 60 feet in height.
- These tables are only to be used for non-essential commercial structures. They should not be used for hospitals, churches, rescue, police, fire, shelters, utilities, communications or other emergency service facilities. If there is any doubt about a building being non-essential it should be clarified with the architect or engineer of record.
- These tables are only to provide a reference for estimating Clark members to be used to meet code requirements on non-essential commercial structures. The wind loads have been calculated using the most stringent criteria in the codes.
- Having the steel framing system designed by a professional engineer, in most cases, will result in use of lower wind loads than shown in these tables. The professional engineer may be able to determine that a reduced member size or gauge may be used, based on the specific engineering of the building.