

STANDARD DEFLECTIONS

Listed below are the standard deflection limitations used to design each building member according to code requirements.

IBC 2000 / 2003

Component	Live Load Alone	Wind 1 or Snow Load Alone	Dead Load + Collateral Load + Live Load or Snow Load
Purlins and Eave Struts Not Supporting a Ceiling	L/150	L/150	L/180
Supporting a Plaster Ceiling	L/360	L/360	L/180
Supporting a Non-Plaster Ceiling	L/240	L/240	L/240
Girts	N/A	L/90	N/A
Endwall Rafters Not Supporting a Ceiling	L/150	L/150	L/180
Supporting a Plaster Ceiling	L/360	L/360	L/180
Supporting a Non-Plaster Ceiling	L/240	L/240	L/240
Endwall Columns	N/A	L/90	N/A
Main Frame Rafters Not Supporting a Ceiling	L/150	L/150	L/180
Supporting a Plaster Ceiling	L/360	L/360	L/180
Supporting a Non-Plaster Ceiling	L/240	L/240	L/240
Main Frame Lateral Drift Metal Walls	N/A	H/60 3	N/A
Masonry	N/A	Notes 2, 3, 4	N/A
Stucco/Dryvit	N/A	H/100 3,4	N/A

Notes:

1. Wind Load taken as 0.7 times the 50-year reoccurrence value for components and cladding.
2. Per AISC Design Guide 1, a 1/16" crack allowed at the base of the wall taken at a point matching the top of the wall.
3. Under a 10-year mean occurrence value assumed to be 75% of the 50-year value.
4. Minimum Value. Project-specific requirements may result in a more stringent criteria.

ASCE-7 2002 / 1993

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Kentucky 2002

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Florida 2004 / 2001

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

California 1997

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Indiana 1998

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Minnesota 2003 / 1998

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

New Jersey 2000

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Ohio Building Code 2005 / 2002

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

OBBC 1998 - 180*

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

***Note:**

The 180 designation refers to the deflection limitations imposed by the code. This Code can be used if there are no attached masonry or suspended ceilings used in construction.

OBBC 240 - 240**

Component	DL + CL + LL	DL + WL
Purlins	L/240	L/240
Eaves	L/240	L/240
Girts	L/240	L/240
Endwall Rafters	L/240	L/240
Endwall Columns	L/240	L/240
Main Frame Rafters	L/240	L/240

**The 240 designation refers to the deflection limitations imposed by the code. This Code can be used if there are attached masonry or suspended ceilings used in construction.

Michigan 2003

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

Wisconsin 2002 / 1997

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

MBMA 1996

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

New York 2002 / 1993

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180

North Carolina 2002 / 1998 / 1996

Component	DL + CL + LL	DL + WL
Purlins	L/180	L/180
Eaves	L/180	L/180
Girts	L/120	L/120
Endwall Rafters	L/180	L/180
Endwall Columns	L/120	L/120
Main Frame Rafters	L/180	L/180