

Structural Design Criteria

Building Code and Design Basis

Item	Description
Building Code	2015 International Building Code (IBC) with local amendments
Authority Having Jurisdiction	City of Janesville, Wisconsin
Risk Category	II

Dead Load

Dead loads are determined from the actual weights of materials and fixed service equipment. Typical assumed weights for assemblies are as follows:

Assembly Type	Dead Load (PSF)
Metal Panels	3
Curtain Walls	10
Stone or Brick Veneer	40
Adhered Stone or Brick	10
Single-Ply Membrane Roof with Insulation	10

Equipment Loads

- Assumed loads for known equipment are shown on the structural drawings.
- Any change in type, size, location, or weight of equipment must be reported to the Engineer of Record (EOR) for verification of the supporting members **before** shop drawing submission.
- Equipment loads include the weight of concrete pads or curbs, if applicable.
- For equipment **not shown** on the structural drawings, if the unit weight divided by its bearing area exceeds the specified live load for that location, the contractor must notify the EOR prior to shop drawing submission.

Suspended Ceilings and Mechanical Systems

Item	Allowance
Hanging Ceilings and Mechanical Equipment (ductwork, sprinkler piping, etc.)	5 PSF

Live Loads

Live loads shall be as indicated on the structural drawings and comply with the applicable sections of the IBC.

Occupancy or Use	Uniform	Concentrated
Corridors	100 psf	-
Office Buildings - Corridors above first floor	80 psf	2,000 psf
Office Buildings - Offices	50 psf	2,000 psf
Stairs and exits	100 psf	300 psf
Roof - Ordinary, flat, pitched, or curved unoccupied roofs	20 PSF	300psf

Snow Load

Parameter	Value
Ground Snow Load, S_g	30 PSF

Wind Design

Parameter	Value
Ultimate Design Wind Speed (V_u)	115 mph (3-sec gust)
Nominal Design Wind Speed (V_w)	89 mph (3-sec gust)
Exposure Category	II
Internal Pressure Coefficient	± 0.18
Components and Cladding Pressures	See structural drawings and pressure schedule
Main Wind Force Resisting System	Wood shear walls

Rain Load

Parameter	Value
100-Year Rainfall Intensity	3.0 in/hr
Maximum Roof Rain Load	0 PSF (i.e., no accumulation)
Maximum Rainwater Depth (Static + Hydraulic Head)	0 in (i.e., no accumulation)

Seismic Design

Parameter	Value
Geotechnical Report No.	N/A - assuming min. soil bearing
Site Class	D
Mapped Spectral Accelerations (S_s, S_1)	0.11, 0.06
Design Spectral Accelerations (S_{DS}, S_{D1})	0.099, 0.086
Seismic Design Category (SDC)	B
Design Base Shear	XX% of Seismic Weight

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