

Development Services

Storage Rack Guidelines

Purpose

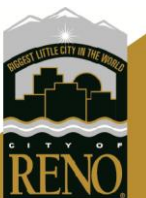
This handout summarizes the requirements for a complete plan submittal for the installation of storage pallet racks, movable shelf racks, and stacker-racks in commercial or industrial buildings. The following guidelines must be reviewed by the applicant and approval shall be obtained before commencing any work. Not all items will apply to all projects.

The Following Work Requires a Permit:

- **Storage Racks > 5'9"**
 - All storage racks that are greater than 5 feet, 9 inches.
- **High-Piled storage**
 - High-piled storage includes racks, shelving, solid piled or pallet storage 12 feet or higher. The overall height for high-piled storage racks is taken from the ground to the "top of storage".
- **Hazardous Material Storage**
 - Storage racks for certain high hazard commodities, such as rubber tires, Group A plastics, flammable liquids, batteries, or similar commodities where the top of storage is greater than 6 feet in height.
- **Related Modifications**
 - Modifications such as egress illumination, exit signs, or new openings required by the building code or Fire Department may require supplemental permitting.

Building Permit Requirements per Rack Type & Height

- **Storage Racks > 5'9"**
 - Structural Plans
 - Structural Calculations (If applicable)
 - Racks between 5 feet, 9 inches and 8 feet shall be anchored in accordance with current adopted ASCE 7 and may require structural calculations at the discretion of the Building Official.
 - Special Inspections Application
- **Storage Racks > 8'**
 - Structural Plans
 - Structural Calculations
 - Special Inspections Application
- **High-Piled Storage ≥ 12' or Hazardous Material Storage ≥ 6'**
 - Structural Plans
 - Structural Calculations
 - Special Inspections Application
 - RFD High-Piled Combustible Storage Worksheet



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Fire Department Requirements per Rack Type & Height

- **High-Piled Storage**
 - RFD High Piled Combustible Storage Operational Permit
 - Fire Sprinkler Permit (if applicable)
 - Fire Alarm Permit (if applicable)
- **Hazardous Material Storage**
 - RFD Hazardous Materials Operational Permit
 - Fire Sprinkler Permit (if applicable)
 - Fire Alarm Permit (if applicable)

Please contact the Reno Fire Department to obtain additional information at (775) 334-2300 or RFDBusinessLicense@reno.gov

Plan Submittal Guidelines

All building permit applications are to be submitted electronically through the online permitting portal at www.onenv.us.

Requirements may be added or waived at the discretion of the Building Official.

Not all items will apply to all projects.

Structural Calculations

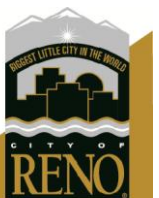
The structural calculations shall be prepared by a currently licensed professional engineer registered in the State of Nevada and shall be stamped and electronically signed.

Special Inspections Application

The special inspections application shall be completed by Property Owner, Structural Engineer & Third-Party Inspection Agency as required by current codes and must include the Special Inspectors' certifications and qualifications.

Architectural Plans

- **Cover Sheet**
 - Site Information - Aerial photos such as Google Earth or Google Maps are not accepted
 - Project identification, address, and Site Plan illustrating paved Fire Department access and ingress doors.
 - Name, address, phone number of business owner/contractor/design professional.
 - Complete description of scope of work.
 - Sheet Index.
 - Design Criteria:
 - Occupancy group
 - Type of construction
 - Seismic design category
 - Square ft. of unit and area of work
 - Type of Fire sprinklers/alarms
 - Height of building
 - Code editions used



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- **Floor Plan**

- Floor plan of entire structure.
- Floor plan of storage area with racking identified and dimensioned.
- Latitudinal and Longitudinal flue spaces dimensioned.
- Location of Fire Department access doors with dimensions noted.
- Exit signage and emergency lighting locations identified.
- Means of egress travel distances illustrated from most remote locations to nearest exits.

- **Building Section Plan**

- Section view illustrating the number of tiers and dimensions relative to floor/roof structure & fire sprinklers heads above.
- Aisle clearances dimensioned.

- **Structural Plans**

- Shelf and rack support base anchorage connection details and specifications to reinforce concrete slab and footing foundation and/or elevated wood floor framing system.
- Rack details showing dimensions, number of tiers, if these are single, double or multiple racks.
- Shelving installation method, support and brace framing details; if utilizing drilled and inset expansion or epoxy type anchorage bolt systems, specify on plans "Special Inspection and Testing shall be required".
- Structural design shall comply with requirements based on the following current adopted versions of:
 - International Building Code (IBC)
 - American Society of Civil Engineers (ASCE) 7
 - Rack Manufacturers Institute Specifications for Steel Storage Racks.

Approval is subject to compliance with all the current adopted codes, provisions, and any other items as required by the City of Reno.

