

## Purpose

This handout summarizes the requirements for a complete plan review submittal for the installation of storage pallet racks, movable shelf racks and stacker-racks in commercial or industrial buildings. The following guideline shall be reviewed, and approval must be obtained before commencing any work.

## Permits Required

- **A building permit is required for the following type of work:**
  - Storage racks greater than 5'-9" inches in height.
  - Storage racks between 5'-9" and 8' shall be anchored in accordance with ASCE 7-16 Section 15.5.3. Submit rack installation drawings, including floor plans, baseplates and anchorage details for each type of rack.
  - Storage racks greater than 8' in height shall be anchored in accordance with ASCE 7-16 Section 15.5.3 and shall have complete rack engineering. Submit rack installation drawings, including floor plans, rack framing system, member connections, baseplates and anchorage details for each type of rack.
  - Storage racks greater than 12' above ground shall be provided with structural calculations and a Fire Department "high-piled" permit and approval.
  - Storage racks for certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, or similar commodities where the top of storage is greater than 6' in height.
    - *High-piled storage can include racks, shelving, solid piled or pallet storage 12' or higher. A Fire Department permit is still required regardless of whether the rack height is less than 12', but the proposed storage will be 12' or higher.*
    - *The overall height for high-piled storage racks is taken from the ground to "top of storage". Refer to the "Plan Submittal Checklist for High-Piled Combustible Storage" handout for detailed information.*

## Minimum Plan Requirements

### COVER/TITLE-SHEET AND PLOT PLAN

- Plot plan and/or Cover sheet: job address and suite number; name, address, phone number of business owner/contractor/design professional.
- Complete description of scope of work; type of business; current codes; type of construction; occupancies; type of fire sprinkler system.

### ARCHITECTURAL PLANS

- Floor plans identifying location and square footage of all storage areas, racks, and shelving; location of exit door, exit access doors and exit signs.
- Location of and dimensions of smoke vents and curtain boards (if required).
- Provide aisle clearances between racks at **36"** when serving one side and **44"** minimum aisle width when serving both sides of an aisle per CBC Chapter 10.

### STRUCTURAL PLANS

- Shelf and rack support base anchorage connection details and specifications to reinforced concrete slab and footing foundation and/or elevated wood floor framing system.

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- If utilizing drilled and inset expansion or epoxy type anchorage bolt systems, specify on plans “Special Inspection and Testing shall be required”.
- Rack details showing dimensions, number of tiers, if these are single, double or multiple racks.
- Shelving installation method, support and brace framing details.
- Structural design shall comply with requirements based on the following:
  - 2022 California Building Code (CBC)
  - American Society of Civil Engineers (ASCE) 7, Section 15.5.3
  - Rack Manufacturers Institute Specifications for Steel Storage Racks (RMI/ANSI MH 16.1 or RMI/ANSI MH 16.3)

### Fire Protection Systems

- Fire sprinklers, fire alarm, fire pump, underground fire lines, generators, perimeter fencing, and gate plans are separate permits and require submittals as indicated below.
- Fire protection system plans and associated documentation (signed).
- Fire sprinkler systems shall be designed per the City of West Sacramento Commercial Fire Sprinkler Standards and Residential Sprinkler Standards where applicable.
- Separate plans and permit application shall be submitted directly to the Building Division counter for processing.

### Fees

- Due to the complexity of permit fees for new construction, it is recommended that you contact the Building and Engineering counter to review all applicable costs such as development fees, building fees, school district fees, etc. Construction data such as total valuation, site valuation, R/W valuation, itemized square footage areas, and type of construction are required for a complete fee assessment.