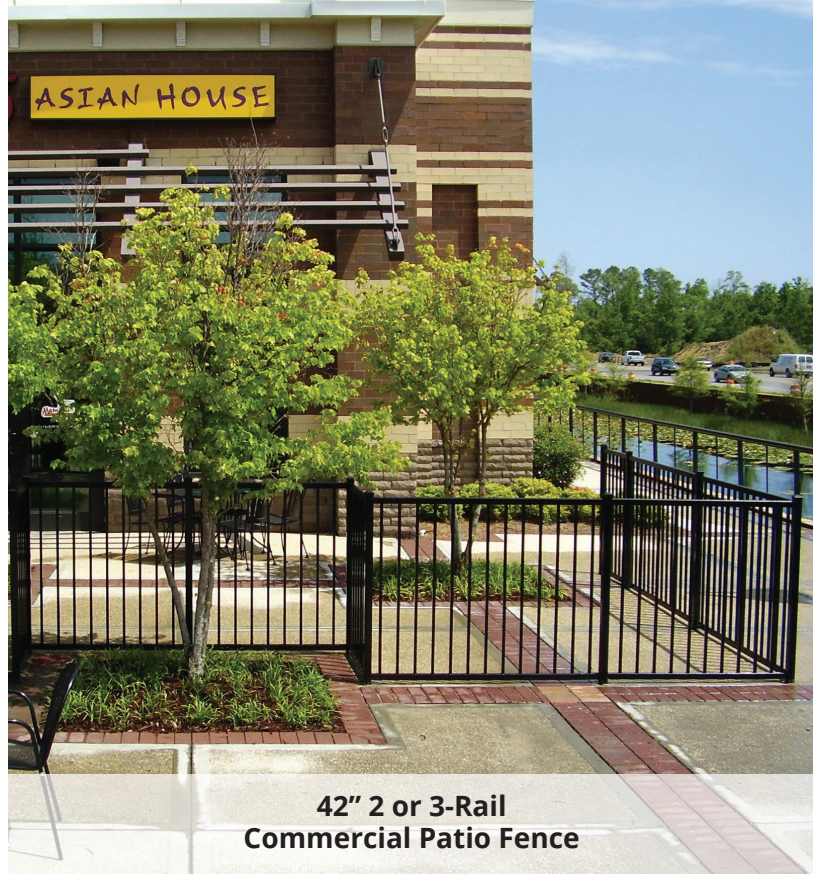




**42" & 48" 3-Rail  
Retaining Wall Fence**



**42" 2 or 3-Rail  
Commercial Patio Fence**

## **FALLGard™** - FALL PROTECTION FENCE SYSTEMS

When FALL PROTECTION is paramount for a property, **Elite's FALLGard Perimeter Fence Systems** deliver dependable performance. Part of the **Elite COREGard Architectural Products** brand of **Elite Fence Products**, FALLGard fences are certified through rigorous physical testing to meet ICC Chapter 16 and ASCE-7 requirements. FALLGard is engineered from heavy-duty aluminum components and built for high traffic, public environments such as retaining walls and commercial patios. FALLGard fence systems provide maximum security and protection without sacrificing the view.

Designed for long-lasting performance, FALLGard fences resist rusting, warping and cracking, all without the need for painting or ongoing maintenance. FALLGard fences are powder coated to exceed AAMA 2604 standards for superior durability. FALLGard fences backed by a limited lifetime warranty.

- **Engineered for TESTED Performance.**
- **Meets or Exceeds ICC Chapter 16 and ASCE-7 Requirements**
- **3-Part Submittals Available**
- **Applications: Retaining Walls, Rooftops and Commercial/ Retail Patios**



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## FALLGard Key Standards:

Fall protection railings (guardrails) must comply with local building codes like IBC/IRC for safety.

**Strength:** Must withstand at least 200 lbs of force applied downward or outward within 2 inches of the top edge, at any point, without failure.

**Building Codes (e.g., IRC/IBC):** Often for retaining walls over 30 inches high (measured from footing bottom to top of wall) to protect the public. Also consult local codes.

## FALLGard Key Requirements:

### ASCE 7-10 Section 4.5.1 — Handrail and Guardrail Load Requirements

ASCE 7-10, Section 4.5.1 specifies the minimum design loads for handrail and guardrail systems to ensure they can safely resist both concentrated and distributed loads.

#### Key Load Requirements:

- **Single Concentrated Load:** The system must be designed to resist **200 lb** applied in **any direction at any point** along the handrail or top rail
- **Uniform Distributed Load:** The system must also resist **50 lb/ft** applied in **any direction** along the handrail or top rail
- **In Fill and Panel Fillers:** Intermediate rails (excluding the handrail) and panel fillers must withstand a **horizontally applied normal load of 50 lb** on an area **not exceeding 12 in x 12 in** including openings and spaces between rails.

#### Design Intent:

- The **200 lb point load** is intended to simulate a person pushing or leaning against the rail, while the **50 lb/ft uniform load** simulates pedestrian traffic or incidental contact along the rail
- The code focuses on **strength** rather than deflection, though deflection limits may be required by other standards or local codes

**In Summary:** ASCE 7-10 4.5.1 requires handrail/guardrail systems to resist a 200 lb point load in any direction and a 50 lb/ft uniform load (with exemptions for certain occupancies), plus specific requirements for intermediate rails and panel fillers, all to ensure structural safety and occupant protection.

### IRC Chapter 16 — RESIDENTIAL Guards and Handrails

In the **2021 International Residential Code (IRC)**, guards and handrails are defined differently:

- **Guard** — a vertical barrier to prevent accidental falls from elevated walking surfaces.
- **Handrail** — a vertical member for grasping and stability when climbing stairs or ramps

**Design Loads:** IRC has long required 200 lb. in any direction at any point along the top for both guards and handrails. This load must be resisted in all directions, including inward, to account for potential lateral forces

#### Key Takeaways:

- **Load Resistance:** 200 lb. in all directions at the top of the guard or handrail.
- **Inspection:** While push/pull tests are common, the 2021 IRC's load requirements mean structural capacity must be verified to the code's design load.

## FALLGard Safety Testing:

*Elite uses rigorous, top-tier testing to evaluate the quality, safety, and performance of our FALLGard Fence Systems*



### IBC Chapter 10 — COMMERCIAL Guard and Handrail Requirements

**IBC Chapter 10 (Means of Egress)** sets out the code requirements for guards and handrails to prevent falls and provide guidance during vertical travel.

#### Guards (IBC §1015)

Guards are required along **open-sided walking surfaces** where there is a vertical drop greater than **30 inches (762 mm)** within **36 inches (914 mm)** horizontally of the open edge

- **Minimum height:** 42 in (1,067 mm) in all occupancies, measured vertically from the adjacent walking surface
- **Exceptions:** Loading docks, audience side of stages, raised platforms for entertainment, fixed-gateway transit station platforms, and similar functional openings
- **Strength:** Must comply with Section 1607.9 (typical design loads: 50 plf along top, 200 lb concentrated force)
- **Openings:** Maximum sphere opening size is 4 in (102 mm)

#### ADA Secondary Handrails (IBC §1014)

Handrails are required for **stairways, ramps, stepped aisles, and ramped aisles**

#### Height:

- Stairs: 34-38 in (864-965 mm) above the nosing of the tread
- Ramps: 34-38 in above the ramp surface

**Graspability:** Smooth, rounded, and free of sharp edges; must be accessible to users

**Continuity:** Uninterrupted along the length of the stair or ramp; intermediate handrails may be required for wide stairways

**Fittings:** Should prevent rotation and allow for comfortable gripping

**Strength:** Must comply with Section 1607.9 for structural attachment

#### Key Differences

- **Guards** respond to **fall exposure** (drop > 30 in within 36 in) and are vertical barriers.
- **Handrails** respond to the **presence of stairs or ramps** and are horizontal elements for guidance and support



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