



Hudson Fire Protection District

HUDSON FIRE PROTECTION DISTRICT

Contractor Fact Sheet – 2024 IFC Requirements & Fire Prevention Standards

FIRE CODE AUTHORITY & ADOPTED CODES

Hudson Fire Protection District (HFPD) serves as the Fire Code Official for all commercial and residential properties within the fire district.

The district enforces the 2024 International Fire Code (IFC) with all adopted appendices.

Hudson Fire issues permits for:

- New construction
 - Tenant improvements
 - Change of use
 - Remodels
 - New development
 - Operational permits
 - Special use permits
- (As authorized in 2024 IFC Chapter 1)

All questions may be directed to:

Fire Marshal/Division Chief Randon Grimes — rgrimes@hfpdco.org

Office Hours: Monday–Thursday, 7:00 AM–4:00 PM

PLAN SUBMITTALS & ENGINEERING REQUIREMENTS

Most plan submittals must be stamped by a Colorado Licensed Professional Engineer (PE). This includes, but is not limited to:

- All commercial fire sprinkler system plans
- Fire alarm system plans (as required)



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- Fire apparatus access road engineering
- Water supply/hydrant placement plans
- Structural changes affecting fire protection systems

Plans may be submitted electronically via email to:
rgrimes@hfpdco.org

CONSTRUCTION FIRE SAFETY PLAN (NFPA 241)

All new buildings and all building additions require an approved Construction Fire Safety Plan prior to building permit issuance.

Tenant finish projects over 5,000 sq. ft. also require this plan, as do smaller projects at the discretion of the plan reviewer.

The Construction Fire Safety Plan must address relevant requirements from NFPA 241, including but not limited to:

- Site fire protection during construction
- Fire department access and staging
- Temporary fire protection systems
- Smoking control
- Hot work operations
- Housekeeping and debris removal
- On-site security and fire watch
- Temporary heating equipment
- Combustible waste management
- Emergency contact information

A Construction Fire Safety Plan must be submitted with initial construction documents, reviewed, and approved by Hudson Fire.



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INSPECTIONS & SCHEDULING REQUIREMENTS

- Inspections may only be conducted Monday–Thursday, 7:00 AM–4:00 PM
- All inspection requests must be made via email
- Requests must be submitted a minimum of 72 hours in advance
- Send requests to: rgrimes@hfpdco.org

Inspection requests should include:

- Project address
- Permit number
- Type of inspection (rough sprinkler, final alarm, hood test, etc.)
- Desired date/time
- On-site contact name and phone number

FIRE DISTRICT FEES

Impact Fees

Hudson Fire has adopted impact fees for all new construction, including single-family residences.

These fees help support emergency response infrastructure.

- Refer to the Hudson Fire Impact Fee Schedule for specific fee calculations.
- Impact fees can ONLY be paid by check, made out to:
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General Permit Fee Schedule

A general fee schedule applies to all permits issued by Hudson Fire.

Permit fees may be paid:

- By check, or
- Online using the district's payment portal:
<https://secure.colorado.gov/payment/hfpdco>



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FIRE SPRINKLER & STANDPIPE REQUIREMENTS

Often during preliminary review, it cannot be determined with certainty whether a building will require a fire sprinkler system, a standpipe system, or both.

Hudson Fire evaluates the need based on:

- Fire areas and fire separation
- Construction type
- Occupancy type
- Occupant load
- Square footage
- Access for emergency vehicles
- Hazard classification
- Fire flow availability

All fire sprinkler and standpipe systems must be designed and installed in accordance with:

- The adopted fire code
- All applicable NFPA standards

Fire Department Connection (FDC) Requirements

FDCs must be placed to allow access by fire apparatus without obstructing access to the building.

FDC requirements include:

- Must be within 100 feet of a fire hydrant
 - Must be oriented to allow hose lines and apparatus to operate without blocking other fire department access points
 - Landscaping must not obstruct FDC visibility or access
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Sprinkler Riser Room Requirements

When a sprinkler system serves more than one tenant space, the system must have a dedicated riser room.

Requirements:

- Minimum 36 sq. ft. room
- Exterior access required (direct entrance from outside)
- Door minimum dimensions: 3 ft × 6 ft 8 in
- Permanent sign on door with minimum 1-inch lettering on a contrasting background
- Adequate interior lighting and working clearance for maintenance

FIRE ALARM SYSTEM REQUIREMENTS

Like sprinkler systems, fire alarm system requirements depend on occupancy and building characteristics.

If required, the system must be designed/installed per:

- The adopted fire code
- NFPA 72
- All applicable listings and manufacturer requirements

Hudson Fire will determine fire alarm requirements based on:

- Occupancy type
 - Square footage
 - Fire protection systems present
 - Required occupant notification
 - Life safety system integration
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BUILDING ADDRESSING REQUIREMENTS

All new and existing buildings must have approved address identification visible from the public way.

Requirements:

- Arabic numbers (no spelled-out numbers)
- Minimum 4 inches high, ½-inch stroke width
- Contrast with background
- Located to be visible from the street or road fronting the structure

Where the building cannot be seen from the public way:

- A monument sign, pole, or approved alternate must be provided.

Multi-tenant buildings:

- Each tenant must have their suite number/letter posted in accordance with size requirements.

HIGH-PILED COMBUSTIBLE STORAGE REQUIREMENTS

Where high-piled combustible storage occurs:

- Exterior manddoors must be provided at intervals not to exceed 125 linear feet along fire apparatus access roads or exterior walking paths
- If storage areas cannot meet the sprinkler design density or exceed allowable height, the following is required:

Storage Height Limitation Striping

- A minimum 4-inch-wide stripe on a contrasting background
- Installed at 12 feet above finished floor (or 6 feet for high-hazard commodities)
- Must read:
“NO STORAGE ABOVE THIS LINE”



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If storage cannot be reduced to below these heights, all requirements in IFC Chapter 32 apply.

KNOX KEY BOX & ACCESS REQUIREMENTS

All commercial buildings in the district require a Knox Box.

Knox Box Requirements

- Installed at 5 ft 6 in above finished grade
- Location must be approved by Hudson Fire
- Must contain a full set of keys to:
 - All exterior doors
 - Interior doors with restricted access
 - Mechanical/electrical rooms
 - Fire alarm panels
 - Elevator controls (if applicable)
- Keys must be labeled with key tags
- Large buildings may require multiple Knox Boxes

Knox Boxes can be purchased at: www.knoxbox.com

Gate Access

All gates on fire apparatus access roads require:

- Knox Gate Switch (electric gates), OR
 - Knox Padlock (manual or chained gates)
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EMERGENCY RESPONDER RADIO COVERAGE (ERRCS)

All new buildings must provide adequate emergency responder radio coverage.

Not all buildings require an ERRCS system. A system is required only if testing indicates inadequate signal strength inside the building.

Testing must verify compliance with IFC requirements prior to issuance of a Certificate of Occupancy.

FIRE FLOW & FIRE HYDRANT REQUIREMENTS

Hudson Fire enforces Appendix B and C of the 2024 IFC.

Fire Flow

Fire flow for new buildings is based on:

- The total square footage of all floors within the exterior walls of the largest building
- The construction type
- Whether the building is sprinklered

Sprinklered buildings may qualify for reductions as approved by Hudson Fire.

Hydrant Spacing

- A fire hydrant must be within 400 feet of any portion of the building
- Additional hydrants may be required based on project layout and fire flow needs
- Appendix C provides additional spacing and distribution criteria

A hydrant plan with distances must be included in plan submittals.

FIRE APPARATUS ACCESS ROADS (FAAR)

Fire apparatus access roads must be designed to support Hudson Fire's Ladder Truck and other apparatus.



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General Requirements

- Must be engineered by a Colorado PE
- Surface: asphalt, concrete, or other approved all-weather surface
- Minimum weight capacity: 85,000 lbs
- Must provide access to within 150 feet of all non-sprinklered structures
- A full turning analysis using Hudson Fire's ladder truck turn template is required
 - Movements should be shown one at a time
 - Colored lines recommended to identify wheel paths, body paths, and overhangs

Grade Requirements

- Maximum grade: 7%
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Dead-End Roads

Dead-end fire apparatus access roads over 150 ft require a turnaround meeting Appendix D dimensions.

Two Points of Access Are Required When:

Per Appendix D, two separate, approved fire apparatus access roads are required for:

Commercial / Industrial

- Buildings > 30 ft in height or ≥ 3 stories
- Buildings > 62,000 sq. ft. (or >124,000 sq. ft. if fully sprinklered)

Multifamily

- More than 100 dwelling units (or 200 dwelling units if fully sprinklered)
- More than 200 dwelling units regardless of sprinkler protection



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One- or Two-Family Residential

- Subdivisions with more than 30 dwelling units

Access roads must be separated by at least $\frac{1}{2}$ the diagonal distance of the property.

AERIAL FIRE APPARATUS ACCESS REQUIREMENTS

Required when any building exceeds:

- 30 feet in height to the highest roof edge or parapet, measured from the lowest fire department access.

Requirements:

- Fire lane/FAAR width: 26 feet (exclusive of shoulders)
 - Provided along at least one entire side of the building
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FIRE LANE SIGNS & MARKINGS

Where required, fire lanes must be marked with:

- Permanent NO PARKING – FIRE LANE signs
- Signs must comply with jurisdictional engineering standards
- Signs must be included in the site's fire lane signage plan

Sign spacing must comply with 2024 IFC Appendix D.

OBSTRUCTIONS & LANDSCAPING CLEARANCES

Clearances must be maintained at all times:

- 3 feet of clear space around fire hydrants (measured from hydrant centerline)
- No obstructions directly in front of hydrants



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- All site trees must provide 13 ft 6 in of vertical clearance along fire access roads

CO₂ DETECTION SYSTEM REQUIREMENTS

A CO₂ detection system is required when:

- More than 100 lbs of CO₂ are used within a single area

Systems must be designed and installed per:

- 2024 IFC Section 5307
- Applicable NFPA standards
- Manufacturer criteria

CONTACT INFORMATION

Hudson Fire Protection District – Fire Prevention Division

Fire Marshal/Division Chief Randon Grimes

rgrimes@hfpdco.org

Monday–Thursday, 7:00 AM–4:00 PM

P.O. Box 7, Hudson, CO 80642