CONSTRUCTION & DEVELOPMENT PROCEDURES GUIDE

Updated 2026

BERTHOUD FIRE PROTECTION DISTRICT

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WELCOME TO BERTHOUD FIRE PROTECTION DISTRICT

Berthoud Fire Protection District (BFPD) is a fire protection district serving a 103-square mile service area that includes the town of Berthoud, as well as portions of unincorporated Larimer, Weld and Boulder counties. BFPD was formally established on June 26, 1950, as a fire protection district organized under Title 32 of Colorado Revised Statutes. Prior to that, the agency existed since 1888 as a fire department.

BFPD is an all-hazards emergency services agency, providing fire suppression; emergency medical services; basic and technical rescue; hazardous materials mitigation; fire prevention, inspection, and investigation; public education; and domestic preparedness, planning and response for approximately 25,000 residents. The District's core values of courage, compassion, and professionalism are applied by all members of the District to provide the highest level of service possible to all citizens and guests of the communities served.

ABOUT THIS GUIDE

This Guide has been developed with the intent of clarifying the requirement of the IFC as adopted in our communities. Our goal in the construction and development review process is to assist property owners, construction contractors, and design professionals as they design and build properties and buildings that meet minimum life safety standards. We strive to ensure that all buildings are safe for the building owners, visitors, customers, as well as for firefighters. We do this through the consistent application of the adopted International Fire Code (IFC), national standards, county and municipal codes and standards, agency policies, and best management practices.

The BFPD jurisdiction, including Town of Berthoud and Larimer, Boulder, and Weld counties, can be found at the following website:

https://www.berthoudfire.org/district-map

Within the BFPD jurisdiction, the following IFC code has been adopted:

Town of Berthoud	2024 International Fire Code
Larimer County	2024 International Fire Code
Boulder County	2024 International Fire Code
Weld County	2024 International Fire code

2025 Colorado Wildfire Resiliency Code
https://drive.google.com/file/d/1bhSESWE9pei6MMsv52VeGtC_WBgD7bVA/view?usp=sharing

Free access to the International Fire Code can be found at the following website:

https://codes.iccsafe.org/content/IFC2024V2.1

The specific amendments adopted and enforced within each local municipality can be found on the BFPD website at www.berthoudfire.org

In addition to the International Fire Code, several standards published by the National Fire Protection Association (NFPA) are also enforced within the BFPD jurisdiction. Information on all NFPA standards can be found at the following website:

www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/Free-access

GETTING STARTED: PLANNING APPROVAL AND BUILDING PERMIT PROCESSES

For most proposed new residential and commercial developments, new buildings or building additions, the first step is the most important to receive approval from the municipal (town or county) planning and zoning department. This is usually accomplished when the developer submits all the required planning documents, plans, plats, and other public improvement construction documents. These are reviewed by the municipal or county government for compliance with their planning and zoning rules before any building construction permits are issued.

Berthoud Fire Protection District review is also required for all planning documents and building permit submittals for projects within its jurisdiction to ensure compliance with adopted International Fire Code. Before beginning any new development or construction project, the applicant (developer, general contractor, property owner, etc.) must contact the appropriate municipality to obtain planning approval as well as any required building permits.

Town of Berthoud (www.berthoud.org)

Planning and Building Departments 970-532-2643

Weld County (www.weldgov.com)

Planning and Building Department 970-400-6100

Larimer County (www.larimer.org)

Planning Department 970-498-7679

Building Department 970-498-7700

Boulder County (www.bouldercounty.gov)

Planning Department 303-441-3930

It is also important to remember that additional municipal government requirements may apply to any given project or proposal, including but not limited to business license, liquor license, sign permit, and access permit. Please be sure to give complete and accurate information to the planning or building department staff so that nothing is missed during your application process.

Once the municipal or county government has given initial approval for the project to move forward, the applicant must provide all the same documents to Berthoud Fire Protection District for review. Ideally, documents should be provided electronically, but the applicant may choose to provide two (2) complete sets of printed documents if it is not possible to submit electronically.

For questions or more information, contact Berthoud Fire Protection District at 970-532-2264 or refer to our website at www.berthoudfire.org.

WHAT PLANS ARE REVIEWED BY BFPD?

Fire code requires that BFPD performs plan review for the purpose of confirming, applying, and enforcing fire code requirements from the Preliminary Development Plan (PDP) stage, all the way through to Final Plat, to all types of proposed developments and construction projects, including but not limited to:

a. Planned Unit Development (PUD)
b. Commercial subdivisions
c. Residential subdivisions
d. Mixed-Use subdivisions
e. Special improvement districts
f. Commercial business development
g. Industrial parks
h. Minor residential developments
i. Multi-family developments
j. Use by Special Review

In addition to development reviews, BFPD also reviews construction documents, plans, etc. and issues construction permits for any construction project being completed in all the following proposed occupancies and/or buildings:

Assembly occupancies (A1 through A5)	Institutional occupancies (I1 through I4)
Business occupancies (B)	Mercantile occupancies (M)
Educational occupancies (E)	Residential occupancies (R1 through R4)
Factory/Industrial occupancies (F1 and F2)	Storage occupancies (S1 and S2)
High Hazard occupancies (H1 through H5)	Miscellaneous occupancies (U)

BFPD also performs plan review for the purpose of applying fire code requirements and issuing permits to the following types of mechanical, electrical, and hydraulic systems:

a. Fire alarm systems
b. Fire sprinkler systems
c. Kitchen hood and duct systems
d. Spray paint/finish booths
e. Commercial cooking extinguishing/exhaust systems
f. Clean-agent suppression systems
g. Fire pumps
h. Hazard control system
i. Hazardous materials storage/use/dispensing systems
j. High-piled storage systems

BFPD also performs plan review, applies fire code requirements and issues permits for tents/canopies, fireworks sales stands, indoor and outdoor fireworks display, hazardous materials processes, hazardous materials storage, special events, mobile food vendors, and a wide variety of other areas, as addressed in the International Fire Code.

DEVELOPMENT DESIGN REQUIREMENTS

Berthoud Fire Protection District reviews information that is submitted for all proposed residential, commercial and/or mixed-use developments to ensure compliance with requirements of the International Fire Code and associated standards.

Approved fire apparatus access roads shall be required for every facility, building, and/or portion of a building hereafter constructed or moved into or within the jurisdiction. Fire apparatus access roadway grades shall not exceed 10 percent, and all intersections and turnarounds shall be level, except for crowning for water run-off. Traffic calming devices shall be prohibited unless approved by the Fire Code Official. This includes but is not limited to speed bumps, speed humps, speed cushions, traffic circles, and neckdowns.

Number of Fire Apparatus Access Roads Required

Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads. Exceptions to this requirement include developments where all dwelling units are equipped throughout with an approved automatic fire sprinkler system or when the development plan includes a future second point of access, as approved by the Fire Code Official.

Multiple-family residential projects with more than 200 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads. Projects having up to 200 dwelling units may have a single approved fire apparatus access road when all buildings, including nonresidential occupancies, are equipped throughout with approved automatic fire sprinkler systems.

Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses.

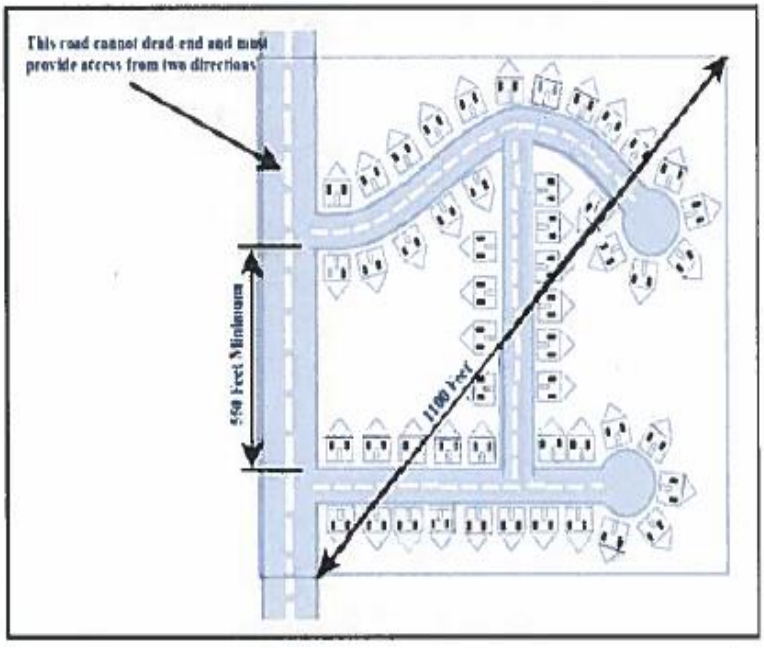


Figure 1: Separation of Multiple Access Roadways

Surface and Load Capacities

Fire apparatus access roads shall be of an all-weather surface (concrete, asphalt, or other approved driving surface) that is easily distinguishable from the surrounding area and can support not less than 75,000 pounds live load (gross vehicle weight). BFPD may require documentation from a registered engineer that the finished construction is in accordance with the approved plans or the requirements of the International Fire Code.

Fire Apparatus Design Specifications

The fire apparatus that are operated by Berthoud Fire Protection District have the following specifications:

FIRE ENGINES	
Inside Cramp Angle	40 degrees
Axle Track	83 inches
Wheel Offset	5.3 inches
Tread Width	13.5 inches
Chassis Overhang	78 inches
Additional Bumper Depth	22 inches
Front Overhang	78 inches
Wheelbase	231.5 inches
Inside Turn	21 feet 0 inches
Curb to Curb Turn	36 feet 7 inches
Wall to Wall Turn	40 feet 3 inches

AERIAL LADDER	
Inside Cramp Angle	45 degrees
Axle Track	86 inches
Wheel Offset	4.7 inches
Tread Width	17.7 inches
Chassis Overhang	78 inches
Additional Bumper Depth	19 inches
Front Overhang	97 inches
Wheelbase	251.5 inches
Inside Turn	19 feet 10 inches
Curb to Curb Turn	36 feet 2 inches
Wall to Wall Turn	41 feet 3 inches

Turning Radius

The minimum turning radius for all turns within a property or subdivision shall be 25 feet inside, 50 feet outside or must meet the B40 turning template.

Cul-de-Sac Requirements

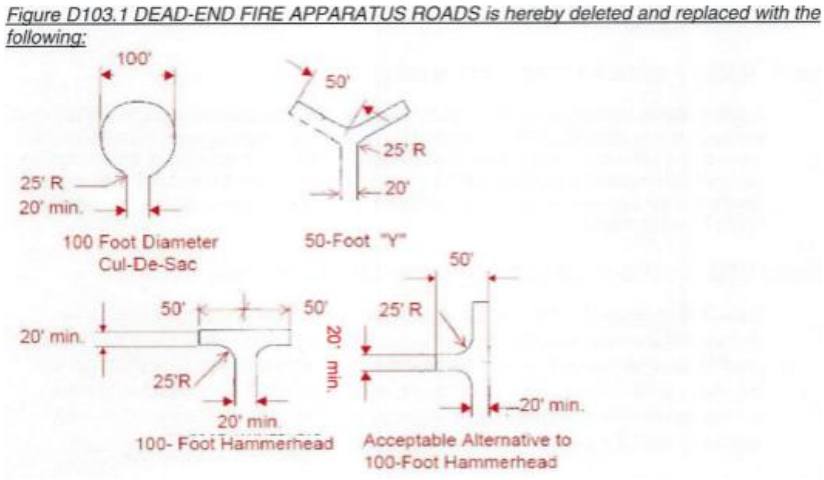
If two fire apparatus access roads cannot be installed and a cul-de-sac exceeds 400 feet in length, all buildings beyond 400 feet from the entrance to the cul-de-sac, as measured from the roadway centerline, are required to be protected by an approved automatic fire sprinkler system.

LENGTH (Feet)	WIDTH (Feet)	TURNAROUNDS REQUIRED
0 - 150	20	None required
151 – 500	20	120-foot hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac

501-750	26	120-foot hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac
Over 750	Special approval required	

Dead-End Roads

Dead-end roadways in excess of 150 feet in length shall be provided with an approved turnaround.



Overhead Clearance

All fire apparatus access roads, including aerial fire apparatus access roads, shall have a minimum overhead clearance of 13 feet 6 inches.

Fire Apparatus Access Road Width

Fire apparatus access roads shall have an unobstructed driving surface width of not less than 20 feet, exclusive of shoulders, and an unobstructed vertical clearance of not less than 13 feet 6 inches. This includes public streets, private streets, private drives, and parking lot drive aisles. An Emergency Access Easement may be required to be dedicated on non-public roadways.

Roads 20 to 26 feet wide shall be posted on both sides as a fire lane.

Roads 26 to 32 feet wide shall be posted on one side as a fire lane.

Where serving two or less dwelling units and accessory buildings, the driving surface may be reduced to 12 feet, although the unobstructed width shall be 20 feet.

Aerial Fire Apparatus Access Roads

Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approval aerial fire apparatus access roads shall be provided. The highest roof surface is measured to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. Aerial fire apparatus

access roads shall have a minimum unobstructed driving surface width of 26 feet, in the immediate vicinity of the building. This includes public streets, private streets, private drives, and parking lot drive aisles. An Emergency Access Easement may be required to be dedicated on non-public roadways.

At least one of the required aerial fire apparatus access routes shall be located 15-30 feet from the building and shall be positioned parallel to at least one entire long side of the building that has openings suitable for firefighter entry into the building. Examples of openings are windows, balconies, smoke tower landings, etc. The sides(s) of the building with aerial access shall be approved by the Fire Code Official.

Fire Apparatus Access Road Distance from Buildings

An approved fire apparatus access road shall be within 150 feet of all portions of the first story exterior wall of any building, as measured by an approved route around the exterior of the building.

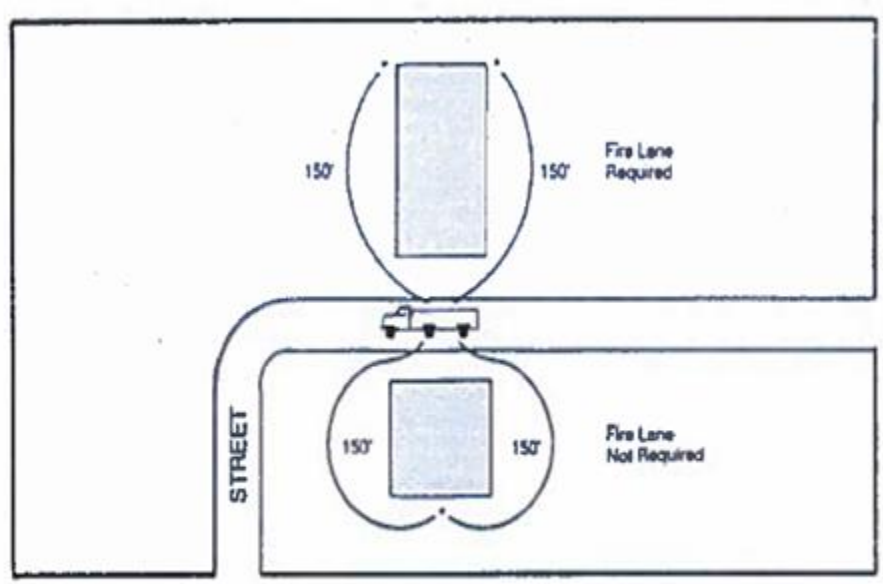


Figure 3: Fire Apparatus Access Road Distance from Buildings

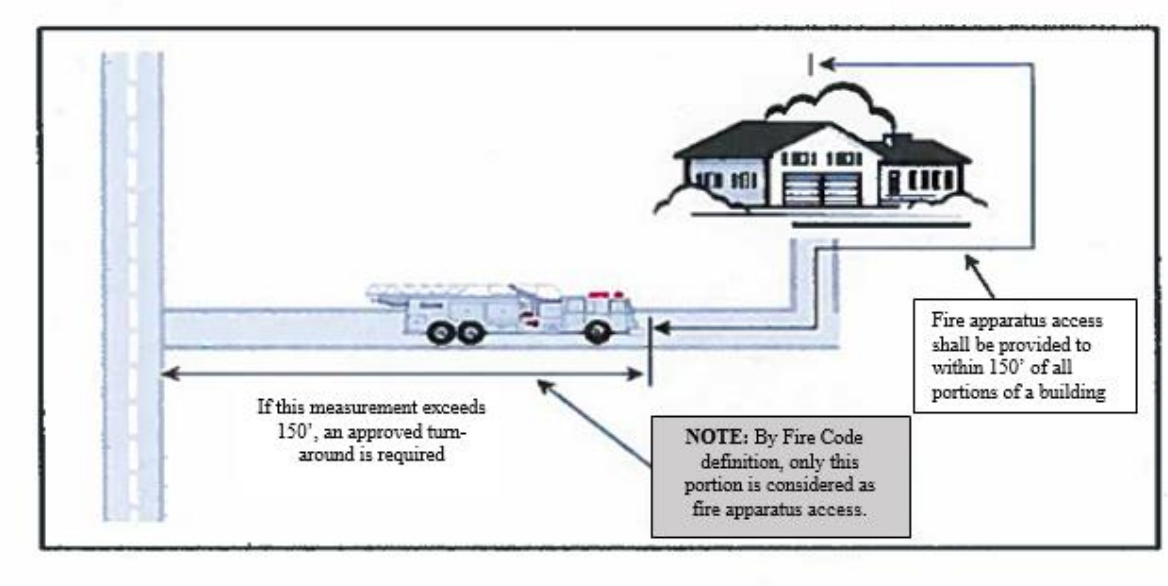


Figure 4: Dead-End Fire Apparatus Road

Gates

Gates that are installed to secure fire apparatus access roads shall comply with all the following:

- Minimum unobstructed width of 20 feet
- Gates serving one- or two-family dwellings shall be a minimum of 12 feet in width
- Gates shall be set back a minimum of 30 feet from the intersecting roadway
- Gates shall be of the swinging or sliding type
- Manual operation shall be capable by one person
- Electric gate operators, when required, shall be listed in accordance with UL 325
- Gate components shall be always maintained in an operative condition, or replaced or repaired when defective
- Gates intended for automatic operation shall be designed, constructed, and installed to comply with the requirements of ASTM F2200
- Electric gates shall be equipped with a means for operation by fire department personnel (sire activation or Knox key switch). Private key-pad is not acceptable
- Manual opening gates may require a Knox padlock or Knox Box to ensure fire department access

Bridges and Elevated Surfaces

Where a bridge or an elevated surface is part of a fire apparatus road, either public or private, the bridge shall be constructed and maintained in accordance with the State of Colorado Department of Transportation and the American Association of State Highway and Transportation Officials *Standard Specification for Highway Bridges*. Bridges and elevates

structures shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the Fire Code Official. Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs, or both shall be installed and maintained when required by the Fire Code Official. The design engineer may be required to provide written final approval of the bridge to BFPD after construction is completed. Maintenance of the bridge shall be the responsibility of the party(s) that use the bridge for access to their property(s). BFPD may at any time, for due cause, ask that a registered engineer inspect the bridge for structural stability and soundness at the expense of the property owner(s) the bridge serves.

WATER DISTRICTS

The Berthoud Fire Protection District response area is served by three water districts (map available below). Each water district may have unique requirements for its service area. For additional information, please contact the water district that serves your project.

Town of Berthoud Water Department 970-532-2643 / 970-532-2393 (water plant)

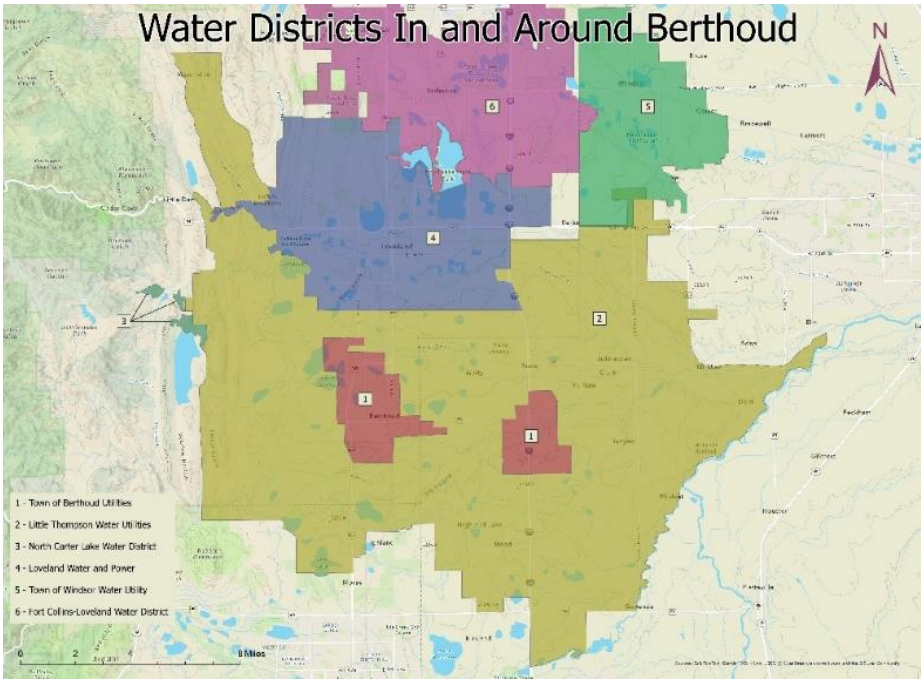
www.berthoud.gov

Little Thompson Water District 970-532-2096

www.ltwd.org

Central Weld County Water District 970-352-1284

www.cwcwd.com



FIREFIGHTING WATER SUPPLIES

Berthoud Fire Protection District reviews all submitted plans for compliance with water supply requirements of the adopted fire code.

Access and firefighting Water Supply During Construction

Approved fire apparatus access roadways and firefighting water supplies shall be installed and operational prior to any combustible construction or storage of combustible materials on the site.

Commercial and Multi-Family Building Fire Flow

The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be determined in accordance with Appendix B and Table B105.1, as displayed on the following page. The required fire flow for a building shall not exceed the available GPM in the water delivery system at 20 psi.

One- and Two-Family Dwelling Fire Flow

The minimum available fire flow for single-family dwellings and duplexes served by a municipal water supply shall be 1,000 gallons per minute. If the structure is 3,600 square feet or larger, the required fire flow shall be determined according to Table B105.1, as displayed on the following page.

> Exception: A reduction in the required fire flow of 50 percent, as approved, is allowed when the building is equipped with an approved automatic fire sprinkler system.

Required Fire Flow for Rural Buildings

Required fire flows for buildings constructed in rural areas in which adequate and reliable water supply systems do not exist shall be calculated in accordance with National Fire Protection Association (NFPA) Standard 1142-22: *Standard on Water Supplies for Suburban and Rural Water Supplies.* Please contact the Fire Marshal's Office for special assistance and other requirements that may apply.

Fire Department Connection (FDC)

The fire sprinkler system's fire department connection (FDC) shall be a 5-inch Storz connection with a 30-degree downward angle for NFPA 13 systems, or a single 2.5-inch connection for an NFPA 13R system. A fire hydrant shall be located within 150-feet of a fire department connection (FDC).

Fire hydrants and FDCs shall be located on the same side of the fire apparatus access roadway as the building being protected. The location of both the fire hydrant and the FDC shall be approved by the Fire Code Official.

A permanent sign shall be installed at the FDC that specifies fire sprinkler, sprinkler and standpipe, or standpipe. When an FDC serves multiple addresses and/or only portions of buildings (such as basement or standpipe), permanent signs shall be installed at the FDC identifying the location(s) served by the FDC.

Fire Hydrant Flow Testing

Flow tests are often required prior to the design of fire sprinkler systems, or to verify adequate municipal water supply is available for new developments. Oftentimes, the fire sprinkler system designer will schedule and complete the flow test in cooperation with the water provider. Berthoud Fire Protection District does not perform hydrant flow tests but does work with the water district that serves the property to ensure they are completed and documented appropriately. To schedule a flow test, please contact the water provider. Approved documentation of the final test results shall be provided to Berthoud Fire prior to final approval of the water supply system.

SECTION B105
FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings.

In the urban fire-flow area, the minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses up to 3,600 square feet in area shall be 1,000 gpm, with a flow duration of 1 hour. In rural fire-flow areas, minimum fire-flow and flow duration shall be 500 gallons per minute, with a flow duration of 1 hours, for one-and two- family dwellings, Group R-3 and R-4 and townhomes less than 3,600 square feet in area.

For any one- and two- family dwellings, including Group R-3 and R-4 and townhouses exceeding 3,600 square feet in area above ground, regardless of location, minimum fire-flow and flow duration requirements shall be specified as Table B105.1(1).

Exception: The fire code official is authorized to decrease the minimum required fire-flow and flow duration for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses protected by an approved automatic sprinkler system.

TABLE B105.1
MINIMUM REQUIRED FIRE-FLOW AND FLOW DURATION FOR BUILDINGS

TABLE B105.1(2) REFERENCE TABLE FOR TABLES B105.1(1) AND B105.2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) [b]	FLOW DURATION (hours)
Types IA and IB[a]	Types IIA and IIIA [a]	Types IV and V-A[a]	Types IIB and IIIB [a]	Type V-B[a]		
0–22,700	0–12,700	0–8,200	0–5,900	0–3,600	1,500	2
22,701–30,200	12,701–17,000	8,201–10,900	5,901–7,900	3,601–4,800	1,750	
30,201–38,700	17,001–21,800	10,901–12,900	7,901–9,800	4,801–6,200	2,000	
38,701–48,300	21,801–24,200	12,901–17,400	9,801–12,600	6,201–7,700	2,250	
48,301–59,000	24,201–33,200	17,401–21,300	12,601–15,400	7,701–9,400	2,500	
59,001–70,900	33,201–39,700	21,301–25,500	15,401–18,400	9,401–11,300	2,750	
70,901–83,700	39,701–47,100	25,501–30,100	18,401–21,800	11,301–13,400	3,000	3
83,701–97,700	47,101–54,900	30,101–35,200	21,801–25,900	13,401–15,600	3,250	
97,701–112,700	54,901–63,400	35,201–40,600	25,901–29,300	15,601–18,000	3,500	
112,701–128,700	63,401–72,400	40,601–46,400	29,301–33,500	18,001–20,600	3,750	
128,701–145,900	72,401–82,100	46,401–52,500	33,501–37,900	20,601–23,300	4,000	4
145,901–164,200	82,101–92,400	52,501–59,100	37,901–42,700	23,301–26,300	4,250	
164,201–183,400	92,401–103,100	59,101–66,000	42,701–47,700	26,301–29,300	4,500	
183,401–203,700	103,101–114,600	66,001–73,300	47,701–53,000	29,301–32,600	4,750	
203,701–225,200	114,601–126,700	73,301–81,100	53,001–58,600	32,601–36,000	5,000	
225,201–247,700	126,701–139,400	81,101–89,200	58,601–65,400	36,001–39,600	5,250	
247,701–271,200	139,401–152,600	89,201–97,700	65,401–70,600	39,601–43,400	5,500	
271,201–295,900	152,601–166,500	97,701–106,500	70,601–77,000	43,401–47,400	5,750	
295,901–Greater	166,501–Greater	106,501–115,800	77,001–83,700	47,401–51,500	6,000	
—	—	115,801–125,500	83,701–90,600	51,501–55,700	6,250	
—	—	125,501–135,500	90,601–97,900	55,701–60,200	6,500	
—	—	135,501–145,800	97,901–106,800	60,201–64,800	6,750	
—	—	145,801–156,700	106,801–113,200	64,801–69,600	7,000	
—	—	156,701–167,900	113,201–121,300	69,601–74,600	7,250	
—	—	167,901–179,400	121,301–129,600	74,601–79,800	7,500	
—	—	179,401–191,400	129,601–138,300	79,801–85,100	7,750	
—	—	191,401–Greater	138,301–Greater	85,101–Greater	8,000	

For SI: 1 square foot = 0.0929 m^2, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. Types of construction are based on the *International Building Code*.
b. Measured at 20 psi residual pressure.

Fire Hydrant Spacing

Where a portion of the facility or building hereafter constructed or moved into or within Berthoud Fire jurisdiction is more than 400 feet from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided were required by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet.
2. For buildings equipped throughout with an approved automatic sprinkler system, the distance requirement shall be 600 feet.

Fire Hydrant Number and Distribution

The minimum number of distribution of fire hydrants available to serve a building shall not be less than that listed in Table C102.1 below.

TABLE C102.1 REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS[n]

FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS[a, b, c, f, g] (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT[d, f, g]
1,750 or less	1	500	250
1,751–2,250	2	450	225
2,251–2,750	3	450	225
2,751–3,250	3	400	225
3,251–4,000	4	350	210
4,001–5,000	5	300	180
5,001–5,500	6	300	180
5,501–6,000	6	250	150
6,001–7,000	7	250	150
7,001 or more	8 or more[e]	200	120

For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

a. Reduce by 100 feet for dead-end streets or roads.
b. Where streets are provided with median dividers that cannot be crossed by firefighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis.
c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
d. Reduce by 50 feet for dead-end streets or roads.
e. One hydrant for each 1,000 gallons per minute or fraction thereof.
f. A 50 percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
g. A 25 percent spacing increase shall be permitted where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2 or 903.3.1.3 of the *International Fire Code* or Section P2904 of the *International Residential Code*.
h. The *fire code official* is authorized to modify the location, number and distribution of fire hydrants based on site-specific constraints and hazards.

Undeveloped Areas

Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar problems, hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.

Consideration for Locating Fire Hydrants

Existing fire hydrants in areas are allowed to be considered to meet the required number of hydrants as approved. Hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads.

Hydrants that are separated from the subject building by railroad tracks, bridges, arterial streets, or differing grades shall not contribute to the required number of hydrants, unless approved by the Fire Code Official.

Hydrants that are separated from the subject building by interstate highways or divided highways shall not contribute to the required number of hydrants.

PLAN REVIEW PROCESS

A minimum of 14 business days is required to complete the review of submitted plans. An expedited review process of 7 days may be selected and will require an additional fee. Additional time may be necessary based upon the complexity of the projects and the completeness of the submitted information. If plan review is anticipated to exceed 14 business days, the Life Safety Chief/Fire Marshal will notify the applicant of the delay and the reasons for the delay.

Before beginning any new construction or remodel construction project, the general contractor should determine if fire alarms and/or fire sprinkler systems will be required for the project. If any fire protection system is required, a valid Berthoud Fire Protection District permit is required to begin construction of the fire alarm and/or fire sprinkler system.

The Applicant must submit electronic plans for review.

If a fire protection system contractor is proposing to make modifications to an existing fire protection system that is limited to affecting 10 or fewer devices, the permit submittal may include the Berthoud Fire Protection District Plan Review/Permit Application form and a "Letter of Scope" that specifically describes the modifications to be performed. Based on the amount of work to be completed, it may be possible to decrease the amount of supporting documentation to be submitted.

ADDRESSING AND STREET NAMES

The naming of streets and assignment of addresses is a responsibility of the municipality (town and/or county). Berthoud Fire Protection District reviews proposed street names and addresses as a 'second set of eyes' to ensure that street naming and addressing conventions are followed. Additionally, this serves as a valuable opportunity to ensure that duplicate street names in different communities are avoided whenever possible.

Within Larimer County, all municipalities have agreed to abide by roadway naming standards designated in multiple documents, such as the Street Inventory System, Approved Suffixes, and Rules of the Streets. The requirements can be found at: www.larimer.org/streets/ . An additional approval process is required by the involvement of the Larimer Emergency Telephone Authority (LETA). LETA must also approve all proposed street names prior to final plat. To contact LETA, please call 970-541-1579 or visit their website at http://leta911.org .

Building Identification

All new and existing buildings shall have approved address numbers, building numbers, or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. The color of the numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be of a minimum size and stroke width, related to the size of the structure. Where is by means of a private road and the building cannot be viewed from the public way, a monument, pole, or other sign or means shall be used to identify the structure.

Address Numeral Size

Refer to Section 505.1 of the Berthoud adopted amendments for complete address identification requirements.

One- and two-family dwellings, including townhouses, shall have minimum 6-inch-high address numerals with a minimum stroke width of ½ inch. Individual suite or unit addresses shall have minimum 4-inch-high numerals with a minimum stroke width of 1 inch.

Commercial and multifamily buildings shall have minimum 6-inch-high numerals with a minimum stroke width of 1 inch. Buildings three or more stories in height, or with a floor area of 15,000 to 50,000 square feet, shall have minimum 8-inch-high numerals with a minimum stroke width of 1 inch. Buildings with a total floor area of 50,000 square feet or greater shall have minimum 12-inch-high numerals with a minimum stroke width of 1½ inches.

Monument signs shall have minimum 6-inch-high address numerals with a minimum stroke width of 1 inch. Where a building cannot be viewed from the public way, approved address identification shall be provided at the property entrance or another approved location.

Additional address identification may be required by the Fire Code Official where necessary for emergency response.

Street or Road Signs

Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allow passage by vehicles. Signs shall be of an approved size, weather resistant, and shall be maintained until replaced by permanent signs.

KNOX BOXES

Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life saving or firefighting purposes, the Fire Code Official is authorized to require a Knox box to be installed in an accessible location. The Knox box shall be of an approved type listed in accordance with UL 1037 and shall contain keys to gain access as required by the Fire Code Official.

Berthoud Fire Protection District requires a Knox box to be installed on any building with a monitored fire protection system. BFPD will designate the approved locations(s) for Knox box installation. More than one Knox box may be required to be installed due to the size or use of a structure. The number of required Knox boxes will be determined at the time of site or building permit review.

The top of the Knox box shall be installed 60 to 72 inches above the finished grade.

Information on ordering Knox box supplies from the Knox Company can be found at their website, https://www.knoxbox.com/.

GENERAL CONSTRUCTION AND FIRE PROTECTION SYSTEM PERMITS AND INSPECTIONS

Berthoud Fire Protection District will issue permits to Applicants after the plan review process has been completed. The Applicant shall be responsible for obtaining valid permits from the municipal or County jurisdiction in addition to any BFPD required permits.

BFPD will perform inspections for all permits issued by the district. A final inspection from BFPD is required in order for the owner/occupant to obtain a Certificate of Occupancy (CO) or Letter of Completion, prior to occupying the building. Final inspections for BFPD building permit (general construction) and fire protection systems (fire alarm, fire sprinkler, commercial hood system) shall be scheduled for the same time and all applicable contractors must be present for testing and inspecting. For these multi-systems inspections, the general contractor or owner is responsible for coordinating with all involved subcontractors and BFPD for attendance. For inspections that only involve fire protection systems, the fire protection system contractor shall be responsible for scheduling the inspection with BFPD.

Prior to scheduling any inspections, Contractors shall read all BFPD comments and/or conditions that were issued with the permit to ensure that all requirements have been met prior to scheduling the inspection.

The project address and permit number(s) must be provided when scheduling inspections.

To schedule an inspection with BFPD, either call the Fire Marshal at 970-308-3331 or 970-532-2264 or email planreviews@berthoudfire.org at least 48 hours prior to the desired date and time of the inspection.

For all permit applications, the Applicant shall complete the appropriate permit application form and shall pay the appropriate non-refundable permit fee or deposit, as indicated on the BFPD Fee Schedule.

FEE SCHEDULE AND IMPACT FEES

Pursuant to Section 32,1-1002(1)(d), CRS, and Resolution number 2025-0812B, Berthoud Fire Protection District's Board of Directors has adopted a fee schedule for all plans, permits, and other documents.

Impact fees are a one-time payment that is intended to fund the construction and expansion of public facilities needed to accommodate new development, as determined by level of service standards, with the intent being that new development pays for its proportionate share of the capital costs of additional infrastructure capacity to serve the new development. The developer must submit the Impact Fee Form with the other documentation required by the Town of Berthoud and/or Larimer County as part of the development permit application process. Impact fees are not currently required through Boulder or Weld counties. If the application is denied, the developer is not required to pay the Impact Fee. If an application is granted and development permit issued, the developer must pay the Impact Fee before a Certificate of Occupancy will be issued in connection with the development. The adopted impact fees and details can be found at the following website:

https://www.berthoudfire.org/fee-schedule-payment-information

FIRE ALARM PERMITS

Submittal for fire alarm system permits shall include the following information. This list is not intended to be inclusive of all requirements for a fire alarm substantial, but rather as a guide to indicate minimum requirements:

- Copy of valid Contractor License/Contractor License number (if applicable)
- Completed Plan Review/Permit Application form
- One (1) complete set of electronic plans
- Minimum of one (1) set of material cut sheets
- Voltage drop calculations
- Battery calculations
- Symbols list
- Riser diagram

Every building with a monitored fire alarm system shall have a Knox box installed at an approved location.

FIRE SPRINKLER PERMIT

Submittals for fire sprinkler system permits shall include the following information. This list is not intended to be inclusive of all requirements for a fire sprinkler submittal, but rather as a guide to indicate minimum requirements.

- Copy of valid Contractor License/Contractor License number (if applicable)
- Completed Plan Review/Permit Application form
- One (1) complete set of electronic plans
- Minimum of one (1) set of material cut sheets
- Hydraulic calculations
- Water supply information

Fire Department Connections (FDCs) shall be provided for all buildings with installed fire sprinkler systems. The FDC shall be a five (5) inch Storz connection with a 30-degree downward angle.

COMMERCIAL KITCHEN HOOD AND EXHAUST SYSTEMS

Any commercial cooking that produces grease-laden vapors must be performed beneath an approved hood system that includes fire suppression capabilities. Installation and/or modification of any commercial kitchen hood system requires BFPD plan review and permit prior to changes being made.

Commercial kitchen hood systems must meet the following requirements:

- Comply with NFPA 17 and UL 300 standards, as well as adopted International Fire Code, International Building Code, International Mechanical Code, and any applicable local amendments and/or rules.
- Design plans must show interconnection for fuel supply and electrical shut-off, ventilation control, damper control, and associated ducting systems.
- All commercial kitchen hood systems must be electronically monitored by an approved fire alarm system as a dedicated zone.
- Appropriate Class K portable fire extinguishers properly mounted within 30 feet of the cooking location.
- A manual system actuator must be provided at least 10 feet, and not more than 20 feet, from the cooking location.

The following information shall be included with all permit submittal packages:

- Copy of the design/installation contractor's applicable state license/registration
- Completed BFPD Application form with complete and correct project information
- Complete set of all material cut sheets
- Complete project plans to show all cooking locations, all suppression system information, and all exhaust duct specifications.

PUBLIC SAFETY COMMUNICATION ENHANCEMENT SYSTEM

As mentioned in section 510.1, approved in-building emergency responder communication enhancement systems (ERCES) for emergency responders shall be provided in all new buildings. In-building ERCES within the building shall be based on the existing coverage levels of the public safety communications systems utilized by the jurisdiction, measured at the exterior of the building. The ERCES, where required, shall be of a type determined by the fire code official and the frequency license holder(s). Existing buildings shall be provided with approved radio coverage for emergency responders as required by Chapter 11 of the Fire Code.

Buildings and structures which cannot support the required level of radio coverage shall be equipped with a radiating cable system, a distributed antenna system with Federal Communication Commission (FDC) certified signal boosters, or other systems approved by the Fire Code Official to achieve the required adequate radio coverage. Public safety radio amplification systems shall be designed and installed in accordance with criteria specified in the International Fire Code and NFPA 1225.

HAZARDOUS MATERIALS ANALYSIS

Proposed structures that are intended to contain materials that pose a health and/or physical risk, as defined in the Fire Code, and if used, stored, or handled on site, must submit a completed Hazardous Materials Impact Statement (HMIS) to BFPD at the time of building permit application. The HMIS must be prepared by a licensed design professional in accordance with Chapter 50-General Provisions/Hazardous Materials, Tables 5003.1.1.(1) through 5003.1.1(4), and Fire Code Appendix E-Hazard Categories. The HMIS shall include the following information for each material:

- Product name
- Component(s)
- Chemical Abstract Service (CAS) Number
- Location(s) where stored and/or used
- Container Size
- Hazard Classification
- Amount in storage
- Amount in use - closed systems (no vapors escaping to the atmosphere)
- Amount in use – open systems (vapors may escape to the atmosphere)
- Maximum Allowable Quantity (MAQ)
- MAQ Exceeded (yes or no)

REQUIREMENTS DURING CONSTRUCTION AND/OR DEMOLITION

Please refer to Chapter 33 of the International Fire Code for additional information and specifications on fire safety during construction and demolition.

Vehicle Access and Water Supply

When fire apparatus access roads or water supply for fire protection is required to be installed for a project, such as installation shall be completed and made serviceable prior to and during the time of construction except when approved alternative methods are provided. Approved vehicle access shall be provided to all construction and demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent Fire Department Connections (FDCs). Vehicle access shall be provided by either temporary or permanent roads that are capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available. An approved water supply for fire protection, either temporary or permanent, shall be available as soon as combustible materials arrive on site.

Temporary Address Signs

Temporary address signs shall be installed at the entrance to construction sites in such a manner to be readily visible to vehicle traffic. These temporary address signs shall be approved by the Fire Code Official and shall contain, as a minimum, the address numerals. Temporary address signs may be required to contain the street name as well as the address numerals.