



Benicia Fire Department – Fire Prevention Policies

Subject: FIRE DEPARTMENT ACCESS

Section: F

Effective Date: April 2, 2009

Standard F-601

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Revised Date: July 1, 2015

I. PURPOSE

To advise planning departments, architects, engineers, contractors and homeowners what the minimum Fire Department access and water supply requirements are for all new construction projects.

II. SCOPE

All newly proposed facilities, buildings or portion of buildings (commercial and residential) shall be reviewed for access and water supply requirements by the Fire Department prior to project approval. All required access roads **and** water supply systems shall be installed, in service and inspected **prior** to on-site construction or combustible storage.

III. FIRE DEPARTMENT ACCESS ROADS

Fire Department access roads shall be designed, installed and maintained in accordance with Chapter 5, Section 503 of the California Fire Code (CFC) and the following:

Road Specifications:

Access roads shall have an unobstructed width of not less than 20 feet and vertical clearance of not less than 13 feet, 6 inches (13'-6") to within 150 feet of all portions of the building or facility as measured by an approved accessible route around the exterior. Dead-end roads shall not exceed 150 feet in accordance with City of Benicia road standards.

Exception: When approved by the Fire Department, access roads serving not more than two (2) single-family residential units may have a minimum unobstructed width of 16 feet.

- Access roads of **less than 28 feet** unobstructed width shall have "NO PARKING – FIRE LANE" signs posted and curbs painted red with the words "NO PARKING – FIRE LANE" clearly marked.



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- Access roads of **28 feet or greater but less than 36 feet** of unobstructed width shall have “NO PARKING – FIRE LANE” signs posted, allowing for parking on one side **only**, and curb painted red with the words “NO PARKING – FIRE LANE” clearly marked.
- Access roads **36 feet or greater** of unobstructed width allow for parking on both sides.

“NO PARKING – FIRE LANE” signs and/or other appropriate measures or notices prohibiting obstructions shall be required where necessary to maintain unobstructed access. Such notices shall comply with the California Vehicle Code, Section 22500.1 and the Fire Department standards for Fire Lane Identification (F-602).

Rural Private Roads:

Rural private roads and roads located within State Responsibility Areas (SRA) shall comply with Public Resource Code (PRC) 4290 and City of Benicia Private Rural Road Standards.

Grade and Type of Surface:

Fire District access roads shall be constructed of an ALL-WEATHER driving surface capable of supporting the imposed loads (30 tons) of Fire Department apparatus.

Exception: When approved by the Fire Department, roadways accessible solely by engine company response shall be capable of supporting a minimum of 22 tons.

The gradient for Fire Department access roads shall not exceed 15%. Access roads shall conform to the City of Benicia standards for the following grades:

Note: Angle of approach or departure shall not be greater than 10% at 10 feet of the grade break.

- Less than 10%: Minimum all-weather surface



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- 10% to 15%: Minimum asphalt or concrete

Exception: When approved by the fire Department, for access roads serving not more than two (2) single-family residential units accessible solely by engine company response and when completely protected by an approved automatic fire sprinkler system, the maximum gradient of 15% may be increased but is not to exceed 20%. The roadway surfaces above 15% shall be of grooved concrete driveway.

Turning Radius:

Access roads shall have a minimum outside radius of 45 feet and a minimum inside radius of 25 feet.

Turnarounds and Turnouts:

Dead-end fire access roads in excess of 150 feet long shall be provided with an approved turnaround. Reference the Fire Department's Shunt, T-Turn and Circle turnaround design details attached (F-601-D1). The entire area of required turnarounds shall remain unobstructed at all times.

Emergency vehicle turnouts shall have a minimum roadway width of 28 feet for a minimum of 30 feet in length tapering back on both sides to original access road width. Fire Department access roads over 800 feet and less than 28 feet wide shall require periodic turnout(s) every 400 feet to accommodate safe passing of emergency vehicles. Emergency vehicle turnout(s) shall be required at all hydrants and Fire Department connections (FDC) on access roads less than 28 feet wide. Emergency vehicle turnouts shall have "NO PARKING" signs posted in accordance with the California Vehicle Code, Section 22500.1.

Gates:

Access gate openings shall not be less than the required roadway width and provide a minimum setback of 30 feet from the driveway intersection with a public road and swing inward. Electrically operated gates shall be equipped with a Knox Company key-



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operated switch. Manually operated gates shall be equipped with a non-casehardened lock or approved Fire Department lock. Contact the Fire Department for information on ordering the padlock or key-operated switch. Bollards are not approved for use within Fire Department access roads. See attached Fire Department access gate detail (F-601-D2).

Bridges:

All bridges used for Fire Department access shall be structurally designed and certified for HS-20-44 vehicle load rating with a minimum wide of 20 feet. A permanent durable sign shall be posted at both entrances to the bridge clearly stating the weight limit in “TONS”.

Secondary Access:

A second Fire Department access road shall be provided when it is determined by the Chief, or his/her designee, that access by a single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors (i.e., 25 or more single-family dwelling units or buildings greater than 10,000 sq .ft.)

Exception: When approved by the Fire Department, an Emergency Vehicle Access (EVA) point may satisfy this requirement.

Addressing:

Building addresses shall be illuminated of sufficient size and located to be readily visible from the street and contrast with their background.

Traffic Signals and Traffic Calming Devices:

Traffic calming devices for commercial projects (i.e., speed bumps) shall be installed per Fire Department design detail requirements. See attached traffic calming device detail (F-601-D3)

Open Spaces:



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Where open space is maintained for public or private use, the developer shall provide access into these areas from the public ways. These access ways shall be a minimum of 16 feet wide to accommodate Fire Department apparatus. All open spaces, when left in their natural state, shall meet the Fire Department's weed abatement standards.