



Richardson Fire Department
300 N. Greenville Avenue, Richardson, TX 75081
972-744-5750 / fmo@cor.gov / www.cor.net/fire

Traffic Calming Devices

[updated 10/03/2023]

Application of Richardson Fire Code

Definitions:

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

TRAFFIC CALMING DEVICES. Traffic calming devices are design elements of fire apparatus access roads such as street alignment, installation of barriers, and other physical measures intended to reduce traffic and cut-through volumes, and slow vehicle speeds.

Requirements:

503.4 Obstruction of Fire Apparatus Access Roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in Section 503.2.1 and any area marked as a fire lane as described in Section 503.3 shall be maintained at all times.

503.4.1 Traffic calming devices. Traffic calming devices shall be prohibited unless approved by the fire code official.

The City of Richardson has developed the following policy, process, and specifications for traffic calming devices in fire apparatus access roads:

Policy and Process

- If a property owner wishes to install speed cushions as a traffic calming method, they shall submit in writing a request to install speed cushions with specific reasoning why the traffic control device is warranted. Such a request shall include an exhibit showing where the devices are to be installed.
- Development Services [972) 744-4240] approval is also required.
- All emergency apparatus roads, also known as fire lanes, shall meet the requirements and provisions listed in the City of Richardson Code of Ordinances: Fire Code.
- Fire Lane design shall be designed in a manner to discourage excessive speeds, "cut-thru" traffic or other hazardous conditions. If excessive speeds or other hazardous conditions have been determined, speed cushions may be approved by the City of Richardson Fire Marshal's office.
- Speed Cushions shall not be used for initial design, as original design shall be done in a manner to discourage unsafe conditions.
- The Fire Marshal's Office will notify the requester in writing as to the status of Fire Department approval for traffic calming devices.
- It shall be the property owner's responsibility to install and maintain approved speed cushions. If a Fire Lane straddles a property line, both property owners must give consent and are both responsible for maintaining the traffic control devices.
- Speed tables, raised crosswalks, and raised intersections may also be approved in high pedestrian traffic areas. These may only be installed with written permission from the City of Richardson Fire Marshal's Office.

For more information, contact the Fire Marshal's Office at (972) 744-5750 or fmo@cor.gov.

Speed Cushion Design

- A speed cushion set consists of either two (2) or three (3) individual speed cushions depending on the width of the Fire Lane.
 - If the Fire Lane is 24 feet or wider, then a set consists of three speed cushions with spacing as defined in Figure 1. Dimensions shall hold the center spacing for Fire Lanes greater than 24 feet.
 - If the Fire Lane is narrower than 24 feet, then a set consists of two speed cushions with spacing as defined in Figure 2.
- Speed Cushion Dimensions: 6' W x 7' L x 3" H
- Cushion Entrance and Exit Gradient: 1:15 Typical (1:20 Allowed)
- Cushion Side Gradient: 1:3 Max
- Material: Shall be compression-molded 100% recycled rubber and polyurethane or approved equal
 - Concrete speed cushions may be constructed if cushion dimensions, gradients, and spacing meet the requirements above.
 - Asphalt is not an allowable material
- Markings: Yellow or white reflective markings shall be embedded into the cushion material during the manufacturing process
- Advance Notification: Some advance notification of the speed reducing devices is required. This can be accomplished through signage, pavement marking, or a combination of both.
- In lieu of speed cushions, concrete speed tables, raised crosswalks, and raised intersection may also be constructed per the dimensions in the 'Permanent Construction Details' document.

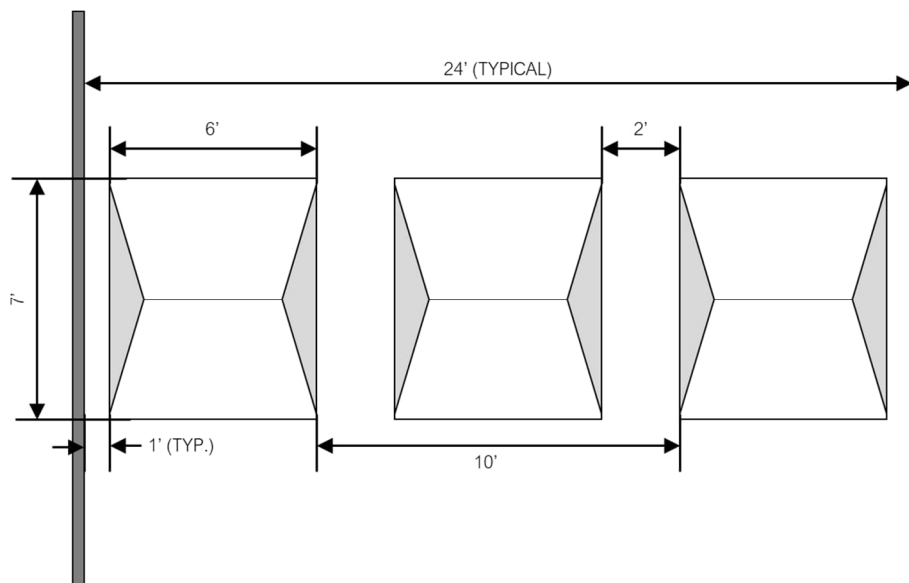


Figure 1. Speed Cushion Spacing on Fire Lanes 24 Feet or Wider

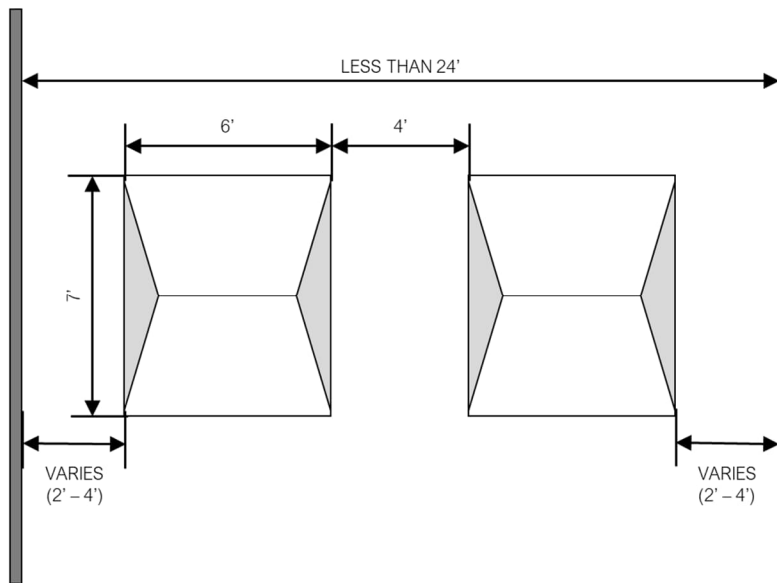
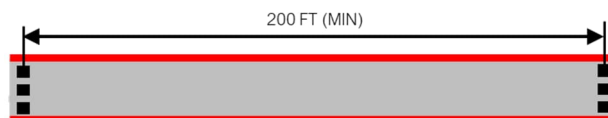
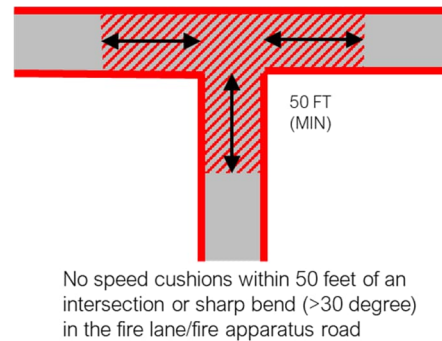
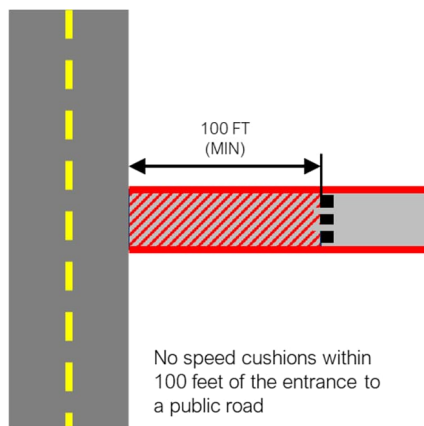


Figure 2. Speed Cushion Spacing on Fire Lanes Narrower than 24 Feet

Location and Spacing Criteria

- To be eligible for speed cushions, a Fire Lane segment with a minimum length of 200 feet without a horizontal curve with a less than 300-foot radius is required.
- No speed cushions shall be placed within 100 feet of the entrance to a public road.
- No speed cushions shall be placed within 50 feet of an intersection or a horizontal curve with a less than 300-foot radius in the Fire Lane.
- The minimum spacing between speed cushion sets is 200 feet. No more than 3 sets in a series per eligible segment.
- No speed cushions shall be placed within 10 feet of a fire hydrant.



Minimum straight length of fire lane/fire apparatus road to be eligible for speed cushions is 200 feet. The minimum spacing between speed cushion sets is 200 feet. No more than 3 sets in a series.

Speed Cushion Vendors (Quotes below as of early 2022 and may not be current.)

- Transline Inc/Centerline – cheapest quoted price of \$1,200/speed cushion set (3 piece)
- Traffic Logix – quoted price of \$3,000/speed cushion set (3 piece)
- TAPCO – sells Traffic Logix product

Cost Comparison

The following shows approximate costs (as of early 2022) to compare the cost burden of currently installed traffic calming devices (speed bumps) to the proposed standard (speed cushions).

- Speed Cushion Set (3 Cushions): At least \$1,200 + Installation
- Speed Bump: Approx. \$500 + Installation