



**Kyle Fire Department:
Fire Marshal's Office**



**FIRE DEPARTMENT ACCESS AND FIRE LANE
REQUIREMENTS**

Goal: Provide a standard of guidance for dimensions, fire lane access and special considerations to promote life safety of public and emergency responders through unobstructed emergency response based on fire department apparatus capacity and methodological approach to response within ESD #5, Kyle Fire Department service area.

Scope: Contractors, architects, business owners, stakeholders, HOA's, any vested individuals or groups that construct or maintain streets and property to be kept clear of obstructions as well as the general public on local interpretations and practices that are in compliance with the adopted Fire Code.

Intent: Clarify aspects that are vague or non-specific regarding selected issues of the Fire Code.

**Note: The requirements of this code shall not be construed as altering existing code, law or regulations, which may require fire protection features not covered or alluded to, nor shall they waive any requirements set by code, law or regulation. The reader is cautioned that information in this guide may or may not apply to their specific situation, and that Kyle Fire Department reserves final authority to determine compliance.*

General Notes:

- Prior to construction, the design of fire lanes and access features shall be submitted to the Fire Marshal's Office for review and shall meet Kyle Fire Department and the City of Kyle's most current adopted code.
- Maintenance of fire lanes, including the prevention of access by vehicles, equipment, etc., will be enforced during construction. It is the responsibility of the General Contractor or other responsible parties to maintain fire department access roads.
- During Construction, all fire lanes servicing the project shall be installed and permanently marked as per most recent adopted code prior to construction past slab elevation.



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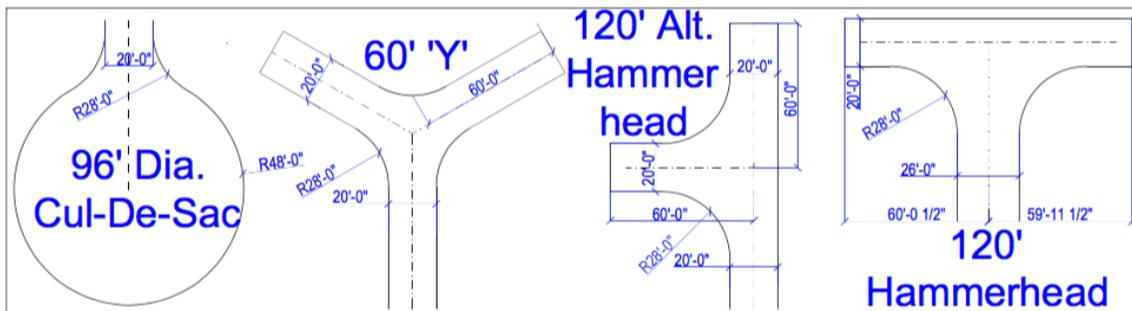
- Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established for any area marked as a *fire lane* shall be maintained at all times.
- Fire code officials are authorized to require additional access roads based on the potential for impairment through congestion, terrain, climatic conditions or other factors that could limit access.
- Modifications of existing fire lanes require a request through the Fire Marshal's Office.

Roadway Dimensions

Access roadways shall consist of roadways, public and private streets, fire lanes, parking lot lanes or any combination thereof or other emergency response access not mentioned.

1. Access roadways shall have a minimum of 14 feet of unobstructed vertical clearance and 20 feet of unobstructed width, exclusive of shoulders.
2. The construction of the roadway shall be capable of supporting the imposed loads of fire apparatus (80,000 pounds). Fire Department access roads shall be constructed of concrete, asphalt or other approved surface.
3. Dead end Fire Department access roadways shall be provided with approved provisions for fire department apparatus turn-around as specified in the following table:

LENGTH	WIDTH	TURN AROUND REQUIRED
0-150 feet	20 feet	NONE REQUIRED
151-500 feet	20 feet	96' DIAMETER CUL-DE-SAC 120' HAMMERHEAD
501-750 feet	20 feet	96' DIAMETER CUL-DE-SAC 120' HAMMERHEAD
OVER 750 feet		SPECIAL APPROVAL REQUIRED





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- Access roadways shall comply with a minimum of 20 feet unobstructed width for the entirety of the access roadway. Where there is no parking on either side of the roadway the unobstructed width shall maintain a minimum of 20 feet unobstructed width. Where there is parking on one side of the roadway, the width shall be a minimum of 26 feet to maintain 20 feet of unobstructed roadway. Where there is parking on both sides of the roadway the width shall be a minimum of 32 feet to maintain the 20 feet of unobstructed width.

TABLE 1 - LOCAL/RESIDENTIAL STREET CROSS-SECTION WIDTH STANDARDS

Street Operation Type	Offset to Property Line	Parkway		Curb	Roadway			Curb	Parkway		Offset to Property Line	Total Right-of- Way	Total Face-to-Face Width
		Sidewalk	Landscape Area		Parking Lane	Travel Lanes	Parking Lane		Landscape Area	Sidewalk			
Two-Way Parking Both Sides	1'	5'	4'	0.5'	7'	9'-9'	7'	0.5'	4'	5'	1'	53' min.	32'
Two-Way Parking One Side	1'	5'	4'	0.5'	7'	9'-10'	---	0.5'	4'	5'	1'	47' min.	26'
Two-Way No Parking	1'	5'	4'	0.5'	---	10'-10'	---	0.5'	4'	5'	1'	41' min.	20'
One-Way Parking Both Sides	1'	5'	4'	0.5'	7'	12'	7'	0.5'	4'	5'	1'	47' min.	26'
One-Way Parking One Side	1'	5'	4'	0.5'	7'	13'	---	0.5'	4'	5'	1'	41' min.	20'
One-Way No Parking	1'	5'	4'	0.5'	---	14'	---	0.5'	4'	5'	1'	35' min.	14'

*Note: The *fire code official* shall have the authority to require an increase in the minimum access widths and vertical clearances where they are inadequate for fire or rescue operations.

- The required turning radius of a fire apparatus access road shall have an inside turning radius of not less than 28 feet and an outside turning radius of not less than 48 feet, measured from the same center point.

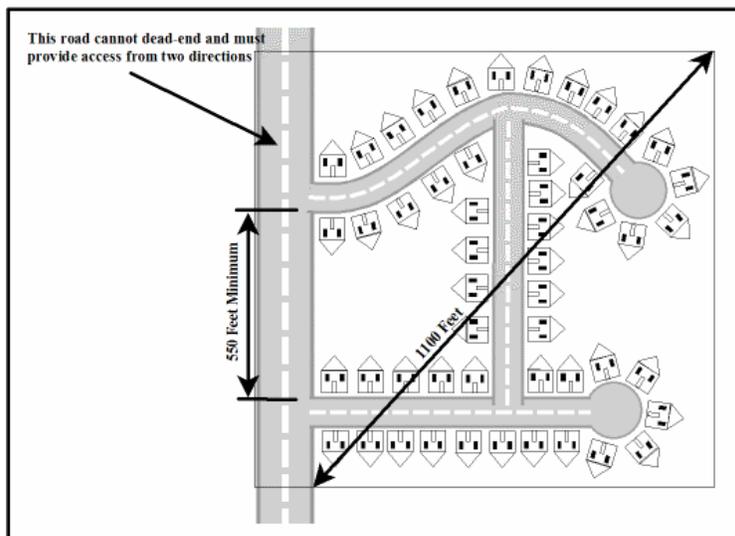


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Access Roads and Fire Department Distances

1. Buildings constructed more than 150 feet from a public way shall be accessible to Fire Department apparatus by an access roadway with a concrete, asphalt or other approved surface so as to provide an all-weather driving surface of not less than 20 feet of unobstructed width.
2. Fire lanes shall be located so that access to all points of the building served is a maximum of 150' and shall be measured by an approved route around the exterior of the building or facility following the path of a fire apparatus or fire hose. If topographical conditions exist that would make it impossible for hose lines to be advanced to a certain portion of a building from a required access way, an additional access way will be required to accommodate access to that particular portion of the building. This distance can be increased to 250' for buildings fully equipped with an approved automatic fire suppression system.
3. Two or More Access Roads:
 - a. Where two 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 property or area served, measured in a straight line between accesses.





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- b. Single-Family residential projects consisting of more than 30 dwelling units shall be equipped throughout with two separate means of fire apparatus access or be equipped throughout with an approved automatic sprinkler system.
- c. Multi-Family residential projects consisting of more than 200 dwelling units shall be equipped throughout with two separate means of fire apparatus access.
- d. Buildings more than 30 feet in height shall have fire apparatus access roads constructed for use by aerial apparatus with an unobstructed driving surface width of not less than 26 feet and comply with International Fire Code D105.

Markings

1. Where required for fire lanes, curbs shall be painted red with the words "NO PARKING FIRE LANE" or "FIRE LANE-NO PARKING" in four inch (4") white letters at twenty-five (25) feet intervals on the vertical face of the curb.
2. Where required, signs shall read "NO PARKING FIRE LANE" or "FIRE LANE-NO PARKING" and shall be twelve inches (12") wide and eighteen inches (18") high. Signs shall be painted on a white background with letters and borders in red, using not less than two inch (2") lettering. Signs shall be permanently affixed to a stationary post and the bottom of the sign shall be six feet, six inches (6'-6") above finished grade. Signs may be installed on permanent buildings or walls as approved by the *fire code official*.

Speed Lumps/Tables

There are two types of advanced warning devices used to alert motorists of upcoming speed lumps/tables: street signs and pavement markings. Both street signs and pavement markings shall be provided for speed lumps and tables. The signing includes a 30-inch sign stating "SPEED LUMP" in four-inch (4") letters and a second line with an advisory speed of 15 MPH. Signage for a speed table includes a 30-inch sign stating "SPEED TABLE" in four-inch (4") letters and a second line with an advisory speed of 20 MPH.

Pavement markings for speed lumps shall include diamond striping on the center lump(s) and chevron markings on the side lumps. A reflective pavement marker will indicate the middle of the center lump(s) to assist fire truck drivers to center their vehicle over the lump. Pavement markings for speed tables shall include twelve-inch (12") wide stripes, forming a chevron, extending six feet (6') from the approach edge of the speed table to the apex of the table and centered in each travel lane.



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Other Traffic Calming Features

1. Traffic calming devices such as bottlenecks, curves and roundabouts, which are designed to slow traffic, may be utilized subject to approval by the fire code official.
2. At no time will traffic-calming devices be allowed to restrict the minimum width or turn radius within a fire department access route.

Gate Access

1. Gates that are installed across fire apparatus access roads shall have a minimum of 20 feet unobstructed width. One-way divided gates shall have a minimum of 12 feet unobstructed width.
2. Gate designs may incorporate one or two gate sections to meet the required minimum width. Manually operated gates shall be secured with a Knox-Lock or chain and Knox-Lock.
3. Electrically Operated Gates:
 - a. Electric gates shall be equipped with an automatic means of opening the gate for emergency access by fire department personnel. The location and type of emergency device(s) shall be approved by the fire code official and may include Knox-Key switches, key pad emergency access code or other approved device.

Knox Key Boxes

The fire code official requires access to all secured areas and buildings. Key boxes or key switches must be supplied on all commercial structures and access gates. Information on Knox system ordering can be found at www.knoxbox.com.

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