

CITY OF SAN DIEGO  
MEMORANDUM

DATE: June 21, 2002  
TO: S. Gail Goldberg, Planning Director  
FROM: Jeff Bowman, Fire Chief  
SUBJECT: Street Design Manual

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Fire and Life Safety Services staff has reviewed the first draft of the Street Design Manual dated May 2002. The following issues were identified as areas of concern for Fire Operations which will have an impact on Emergency Services response times and which conflict with current Department policies.

The California Fire Code, adopted by the City of San Diego's Municipal Code, identifies a minimum of 20 feet of unobstructed roadway for fire apparatus. The proposed Street Design Manual allows double loading (parking on both sides of a street) on a 30-foot wide street. This will restrict unobstructed roadway to 14 feet to 18 feet depending on the dimension utilized to calculate the width for a parallel parking space. Additional roadway requirements are found in San Diego Fire and Life Safety Services (SDF&LSS) Fire and Hazard Prevention Services Policy A-00-1 (attached) which requires access roadways, when adjacent to a fire hydrant, to be a minimum of 26 feet in width for 20 feet in either direction from the hydrant.

The California Fire Code, however, does authorize the Fire Chief to modify the unobstructed roadway width requirements when buildings are provided with an approved automatic sprinkler system. In addition, sprinkler systems may provide some equivalencies for other fire and building code requirements.

Fire and Hazard Prevention's policy established 8 feet as the standard width of a parallel parking space and was consistent with the current requirement in the Land Development Code (San Diego Municipal Code) Chapter 14, Article 2, Division 5: Parking Regulations. To accommodate traffic calming in the existing Street Design Manual, Fire and Hazard Prevention relaxed the 8-foot parking width standard to 7 feet, but required streets to be a minimum width of 34 feet in order to maintain an unobstructed roadway width of 20'. The proposed Street Design Manual does not address nor identify a consistent width requirement for parallel parking. Depending on the type of street, parking width can be calculated to be as low as 6 feet wide for low-volume residential local streets.

The width of streets has additional importance to Emergency Services due to the 75,000 medical responses which San Diego Fire and Life Safety Services handles annually. Any delay in response has a potential negative effect on the successful outcome to a victim. For example, should an ambulance or first responder paramedic, through the street design, be delayed during a response to a potential victim of sudden cardiac arrest, the patient survivability is reduced by ten percent for each minute of delay in receiving advanced life support.

Also addressed in the draft Street Design Manual were traffic calming measures and bypass zones. For SDF&LSS, this results in longer response times for emergency units to arrive at the scene of an incident. Driving over landscaped areas or performing "T" turns to make a corner is not acceptable to SDF&LSS. Rolled curbs, as approved for the Island Avenue project, are acceptable which allow for the minimum 30 feet inside turn radius for emergency vehicles.

Additional issues identified in the Draft Street Design Manual are the following:

- Traffic circles may prevent fire apparatus from being able to negotiate this feature causing the apparatus to utilize alternate routes which increase response times.
- Diagonal diverters may cause routing delays for emergency responders.
- Road humps and speedtables increase response times into areas and can cause damage to the suspension of the apparatus.

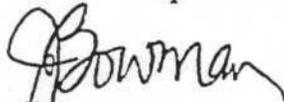
The following recommendations are made to provide for fire and life safety.

- Enhanced cul-de-sacs with a center landscape feature shall have rolled curbs, if necessary to provide turning radius, on both the inside and outside curb to allow large vehicles to make the turn without backing or repositioning the vehicle. Emergency apparatus require a 30-foot inside turning radius.
- Traffic calming designs and center medians that reduce roadway width to less than 10 feet shall have low profile landscaping installed to prevent this from becoming a vehicle hazard.
- Any new traffic calming measures shall be reviewed by New Construction Fire Plan Check of the Development Services Department and be approved prior to implementation.
- All new construction and redevelopment, when proposed on any public street with roadway width of less than 34 feet (double-loaded) and 28 feet (single-loaded), will require a sprinkler system. It is also highly recommended that all exterior construction be of a one-hour rating and that the roof system be installed using noncombustible materials.

The points that have been raised by this memo are not new to the Street Design Project Team. City-wide, the Fire Department is able to maintain its goal of a six-minute response time average. With new projects falling under the proposed Street Design Manual with reduced street widths, traffic calming and restricted access, response times will increase without additional staffed fire stations. The increased life safety risks from fire-related emergencies can be addressed through the installation of sprinkler systems and non-combustible exterior construction along with non-combustible roofs. The life safety risks to individuals related to medical emergencies can be addressed through maintaining 20 feet of unobstructed roadway for ambulance and emergency vehicles or through additional staffed fire stations.

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If you have any questions, please contact Deputy Chief Terrance Finch at (619) 533-4407. Additionally, Fire Prevention Inspector Bob Medan reviews New Construction fire access issues within Development Services and can be reached at (619) 446-5444.



Jeff Bowman  
Fire Chief

TFF/cm

Attachment

cc: ✓ Samir Hajjiri, Senior Traffic Engineer, Planning Department  
Augie Ghio, Acting Assistant Chief  
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