CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Date: February 11, 2013

To: The Honorable City Council
c/o City Clerk, Room 395
Attention: Honorable Bill Rosendahl, Chair, Transportation Committee

From: Jaime de la Vega, General Manager
Department of Transportation

Subject: **SPEED HUMP POLICY/IMPACTS ON EMERGENCY VEHICLE RESPONSE TIMES**

SUMMARY

The Los Angeles Department of Transportation (LADOT) recommends that the Council and Mayor ban the installation of new and replacement of existing speed humps in order to eliminate negative impacts on emergency response times.

RECOMMENDATION

That the Council, subject to concurrence by the Mayor:

1. ADOPT a ban on the installation of new speed humps and on the replacement of existing speed humps.

2. DIRECT the Los Angeles Department of Transportation and all other cities agencies to comply with the ban.

ALTERNATIVE

The Council has the option of prioritizing neighborhood traffic management over delays to emergency response times. If the Council wants to adopt such a policy, LADOT recommends the following policies:

That the Council, subject to concurrence by the Mayor:

1. DIRECT the Los Angeles Department of Transportation to only accept requests for the installation or removal of speed humps if the project is financially supported by city budget appropriations or private interests that can fund all costs, including public outreach, project coordination, traffic studies, engineering design, construction, inspections, and administrative services.

2. DIRECT the Los Angeles Department of Transportation to ensure that the location and conceptual plan for a speed hump installation be reviewed and accepted by Los Angeles Fire Department prior to project initiation.

3. AUTHORIZE the General Manager of the Los Angeles Department of Transportation to develop and administer guidelines for the installation and removal of speed humps based on traffic safety considerations, industry practices and input from emergency response agencies.

DISCUSSION

LADOT has reviewed the available research related to the impact of traffic speed humps on the travel times of emergency response vehicles. LADOT also reviewed the department's records and policies, and met with senior management from the Los Angeles Fire Department (LAFD).

Emergency response times and neighborhood speeding both are important policy issues that the city should seek to address. Speed humps are highly effective at reducing vehicle speeds and addressing neighborhood concerns over speeding, but also pose the unintended consequence of compromising emergency response times and the stability of sensitive on-board equipment. This report recommends prioritizing emergency response times as a citywide policy, therefore new speed humps should not be installed and existing speed humps should not be replaced when removed as part of street resurfacing or reconstruction work.

Speed Hump Characteristics

A speed hump is a geometric pavement design feature that is installed across the width of one or more traffic lanes to reduce vehicle speed and traffic volume. It has the appearance of a rounded mound with a measurement of 2-5/8 to 3 inches in height and 12 to 22 feet in length. Speed humps are usually spaced at distances of 300 to 600 feet apart.

A driver must slow down when passing over a speed hump to avoid potential damage to the vehicle or feeling the discomfort from a jolt. Research has shown that vehicle speeds can be significantly reduced when traversing speed humps. Lower speeds reduce the probability of fatal and serious injury car crashes. Although many residents welcome speed humps, others complain of the aesthetics, inconvenience, vehicle wear and tear, and increased noise level as cars pass each hump throughout the day.

Emergency Response Times

Comprehensive studies[1] published by cities and transportation organizations around the world indicate that emergency service vehicles can be delayed by speed humps. Delays typically range from two to 10 seconds per speed hump. The time of delay varies depending on the vehicle type, weight, horsepower, wheel-base, onboard equipment, and driver discretion. In live test cases, the greatest delays were experienced by emergency vehicles with long wheel-bases and stiff suspensions, and vehicles with sensitive equipment on board. Smaller and lighter vehicles are generally less affected by speed humps.

In Los Angeles, emergency vehicles with activated sirens already reduce speeds at signalized intersections and stop signs while in route to and from an incident. Speed reduction is a safety precaution to avoid potential conflicts with other motorists and pedestrians. If an emergency responder encounters one or two speed humps along the way, travel time impacts may be relatively minor and considered to be within acceptable limits. However, a series of speed humps could disrupt moderate cruising speeds and measurably extend the overall travel time. For example, accelerations and decelerations over 4 or more speed humps on a stretch of roadway can delay travel time in one direction by more than a minute. Time delays can be further compounded by inclement weather and heavy traffic conditions.

Because future incidents and the exact route used by LAFD cannot be predicted, it is impossible to quantify the exact emergency response delay related to the presence of speed humps.

Public Health and Safety

The American Heart Association reports that sudden cardiac arrest is a leading cause of death in the United States. It is estimated that 95% of cardiac arrest victims die before they reach the hospital. Statistics show that the survivability of sudden cardiac arrest directly correlates to the timeliness of medical intervention.

The National Trauma Institute ranks trauma as the leading cause of death among persons ages 1 to 44 and the third cause of death across all age groups. According to

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[1] Institute of Transportation Engineers (various reports from online library). Retrieved from http://www.ite.org/traffic/search.asp?whichpage=14&pagesize=10&terms=&keywords=

Jaeger, R. (2009), Traffic Calming – Speed Humps Effect on Emergency Response Times.

Robertson, T. (October 2000), Speed Hump Impacts on Emergency Response Times Eugene Fire and Emergency Medical Services

the Center for Disease Control, severely injured patients who receive care at a Level I trauma center rather than a non-trauma center have a 25% greater chance of survival. The ability to reach the right level of care as fast as possible is critical to receiving necessary treatment.

The survival rates from cardiac arrest and severe trauma diminish for every minute that passes without appropriate medical intervention. Similarly, safety threats and damage caused by fire can expand rapidly if emergency response is delayed. The proliferation of speed humps throughout the City may have already contributed to a cumulative slowing effect on emergency response time goals.

BACKGROUND

The Transportation Committee requested a report back on the issue of speed humps and potential impacts on emergency response times on January 23, 2013.

On October 20, 1993, LADOT submitted a report to Mayor Richard Riordan recommending the implementation of a citywide speed hump program to reduce traffic speeds in select residential areas (Attachment). The report identified relevant traffic studies, funding considerations, Los Angeles Police Department and LAFD concerns, legal issues, and street maintenance impacts.

Council adopted the program in 1994 and over the next 15 years more than 3,700 speed humps were constructed at roughly 1,450 requested locations. The program was special funded by annual budget appropriations that ranged from $330,000 to $1.1 million. In 2009, the program was discontinued as a result of permanent budget reductions in the city's Fiscal Year 2008-09 Adopted Budget. The lack of funding support led to the elimination of dedicated staff and related contractual services.

FISCAL IMPACT

LADOT's recommendation to ban the installation of new speed humps has no financial impacts. However, if Council prefers the proposed alternative, speed hump projects must be financially supported by city budget appropriations or private interests that can fully fund all costs.

Attachment

c: Brian Cummings, Fire Chief