



# SPEED HUMPS DISCUSSION

DS-21-123

September 21, 2021

# Background

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- On June 2, 2021, a former Councilmember requested that staff look into the effectiveness of speed humps and, the impact they would have on emergency vehicle response times, possible maintenance impacts and other factors as compared to speed bumps. Also, to determine their overall effectiveness in helping to regulate traffic speeds through residential neighborhoods.

# What is a Speed Bump?

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Speed Bumps are an aggressive traffic calming option that are generally used in places where pedestrians and cars share space closely such as a parking lot.

Here are some facts about speed bumps:

- Made of asphalt, rubber, or concrete.
- Generally slow traffic down to 2-10 mph, giving both people and cars time to react safely to each other.
- Typically, 2-4 inches high, with a width of 6-24 inches.
- Height to travel-distance ratio creates an abrupt bounce, which can shake both occupants and cargo.
- Placed at intervals to maintain speed reduction.
- Each speed bump can delay emergency vehicles by 20-30 seconds.



# What is a Speed Hump?

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Speed humps are a less aggressive traffic calming option that are recommended for roads with speed limits under 30 mph, such as near playgrounds and school zones.

Here are some facts about speed humps:

- Made of rubber or asphalt; not as harsh on vehicles.
- Generally slow traffic down to 15-20 mph, depending on the length of the speed hump.
- Typically, 3 to 3 ½ inches high, with a ramp length of 3-6 feet.
- Height to travel-distance ratio creates gentle rocking sensation when passed over at the approved speed limit.
- Placed in a series through a corridor to maintain speed reduction.
- Each speed hump can delay emergency vehicles by approximately 10 seconds.



# Summary of Findings

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While neither carry a high maintenance costs, both carry significant price tags. Speed bumps made of asphalt run \$4,500 - \$7,000 per bump, requires heavy duty equipment for installation, and will have to be destroyed if road repairs are needed. Speed humps made of rubber costs \$2,000 - \$4,000 per hump, are easily installed, and can be removed and stored if needed. Although speed humps and bumps have been proven to reduce speed, the negatives typically outweigh the benefits.

As the previous slides have shown, speed bumps/humps are expensive to install and reduce emergency response times; there are other negative factors that municipalities are facing:

- Increased noise levels
- Increased wear, tear, and damage to residential and commercial vehicles
- Increased air pollution
- Potential drainage issues
- Inability to use street sweepers and weather vehicles, such as snowplows
- Expensive to remove

Additionally, some have observed that rather than change driving behaviors, they encourage other dangerous driving behaviors, such as going “off road” to avoid the humps.

# Summary of Findings Cont.

There are many factors to consider for a municipality before deciding on traffic-calming measures. Most municipalities have strict guidelines and ordinances that must be followed by both the City and residents prior to installation of speed bumps and/or humps.

For example, in 2008, a community in Hillsborough County, Florida faced a situation in which the roads in the Carrollwood community had become unsafe for pedestrians, cyclists and other drivers because of the high speeds of certain drivers. In response, the county invested \$2 million on hundreds of speed humps, cushions and other devices. Within a short period of time, complaints poured in from residents, tourist and emergency responders. The result: Hillsborough County had to spend at least an additional \$200,000 to remove about one-third of the newly installed speed humps.

Due to controversies such as the one above many municipalities have strict guidelines in place such as New Braunfels, TX. There must be a petition signed by a certain number of citizens and the costs is split between the community and the City. Additionally, the community would have to pay to have them removed if so desired.

# Alternatives

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## **Speed Display Signs:** \$3,000

- Speed display signs are designed to slow cars down to assist in making streets safer for everyone who uses them.
- They operate on the feedback loop theory that when people are presented with information about their performance, they tend to notice and improve.
- Popular on local streets, private communities, work zones, and school zones.
- Can be used alone or in conjunction with other traffic calming devices such as speed humps.
- Signs are easy to program, usually remotely.
- Comes in a variety of sizes and styles.

## **Speed Tracker:** \$1,600

- Gathers detailed traffic statistics in real-time.
- Remote access to data via SafeSpace Cloud with robust reporting abilities.
- Highly accurate traffic data, giving the ability to verify or refute speed complaints and confirming the need for further enforcement or intervention.
- Easily attaches to any pole or stand and can be relocated to any location.
- Internal doppler radar which is FCC approved.

# Alternatives Cont.

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## **Speed Cushions:** \$2,900 - \$3,300 (three pieces)

- Series of small speed humps installed across the width of the road.
- Designed to be wide enough to slow vehicles while narrow enough for emergency vehicles to straddle.
- High visibility with highway tape embedded.
- Typically, 3" high and 3.5' long (comes in a 3-piece set)
- Custom made to ensure complete coverage across road.
- Quick and easy to install
- Excellent durability with the ability to be relocated, stored, and reused.



## **Speed Tables:** Approx. \$10,000 each

- Flat-topped speed humps.
- Designed with room for the entire wheelbase of a passenger car to rest on top.
- Allows cars to maintain higher speeds, slowing cars to around 20-25 mph.
- Typically, 3" high and 14' or 21' long.
- Custom made of interlocking units that simply snap together.
- Quick and easy to install
- Excellent durability with the ability to be relocated, stored, and reused.



# Direction

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Staff is looking for direction from City Council on how they would like us to proceed.