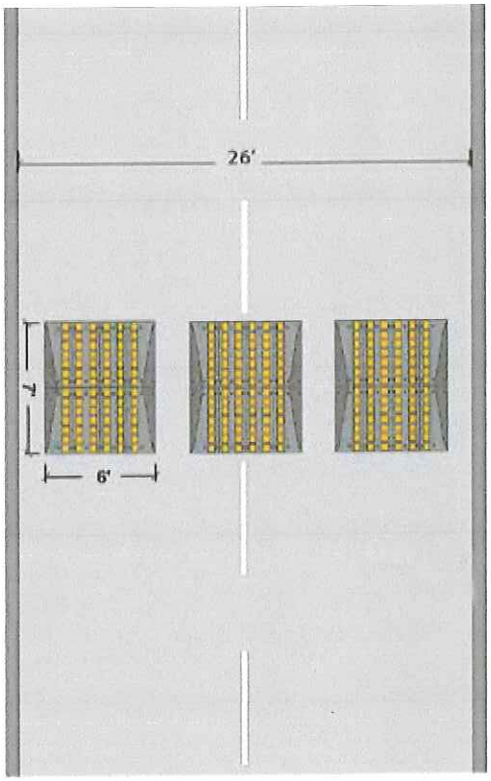
Temporary Traffic Devices

SPEED HUMPS	SPEED TABLES
Slows down cars on residential streets	Flat-topped speed humps for more gradual speed reduction

SPEED CUSHIONS

Speed cushions are an innovative traffic calming device installed across the width of the road. Designed as small speed humps, speed cushions compel residential vehicles to reduce their speed in order to drive over them. Emergency response vehicles, however, can straddle the cushions, due to their wider axle, thereby driving over the cushions without significantly affecting response time. In addition, speed cushions are more affordable than speed humps or tables since they require less material.



Dimensions: 3" x 6' x 7'

Units: MSH03 - 4 units
LSH03 - 2 units
RSH03 - 2 units

Traffic Logix® rubber speed cushions address a serious problem which cities often face when contemplating traffic calming - how to slow residential traffic without impeding emergency response vehicles.

The split speed hump design of the Traffic Logix ®rubber speed cushions is emergency response friendly, allowing fire engines and ambulances to straddle the cushions so that response times are not affected.

Speed Cushion shown with optional arrow markings indicating direction of traffic flow. Taping is available in white or yellow striping or arrows.

Traffic Safety Solutions

TRAFFIC LOGIX

The Traffic Logix's Speed Cushion Specifications

1. General description:

Speed Cushions of various dimensions are constructed using interlocking modules (US patent US 7,591,605 B2). The standard foot print dimensions of each module are 18" by 42".
The weight of the various modules is between 50 and 80 lbs.
Each unit is bolted to a paved road surface using six lag bolts 3/8" dia. through a plastic shield installed in the paved road.

The Traffic Logix proprietary two directional tongue and grove interlocking system provides additional connection between the modules and increases stability of the speed cushion.

2. Dimensions of the modules:
(US Patent # 7,591,605)

- width 18" (+/- 1/16")
- length 42" (+/- 1/8")
- thickness 3" (+/- 1/8")

3. Dimensions of the Speed Cushions:
(width and length of speed cushion are adjustable)

- width from 36" up, by 18" increments
- length from 84" up, by 42" increments
- height of the cushion 3"

4. Standard dimensions of the Speed Cushions:

- width 72" (6 feet)
- length 84" (7 feet)
- height of the cushion 3"

5. Entrance and exit gradient: 1:15

6. Side gradient: 1:3

7. Material: Compression molded 100% recycled synthetic and natural rubber composite

8. Physical properties:

- tensile strength: minimum 500 psi (ASTM D412)
- shore hardness: minimum 70A (ASTM D2240)
- specific gravity 1.1 (ASTM C642)

9. Marking: rubber modules are available in black or black with yellow reflective tape or black with white reflective tape

10. Installation method:

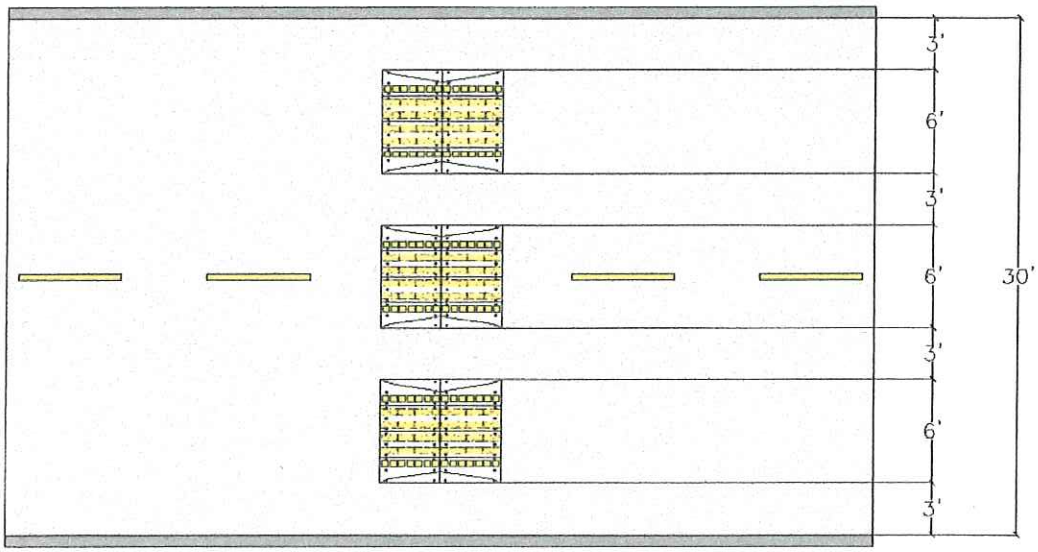
- each module is affixed to the pavement with six zinc plated steel lag bolts 3/8" x 4", plastic polypropylene shields and 3/8" zinc plated steel washers supplied with the modules
- 9/16" diameter holes are drilled through the holes in the modules into a paved road.
- the plastic shields are installed in the mounting holes with the provided shield installation tool
- the lag bolts are inserted into mounting holes and tightened
  (do not over tighten the bolts)

11. Installation tools:

- chalk line, measuring tape, heavy duty hummer drill, 9/16" dia. by 10" long carbide tip drill bits, installation tool for plastic shields, 11/16" drive socket with a power tool, portable blower, utility knife, crow bars
- the plastic shield installation tool is supplied for the initial
  installation job only
- additional bolts, shields, washers, and installation tools can be purchased from Traffic Logix

12. Warranty:

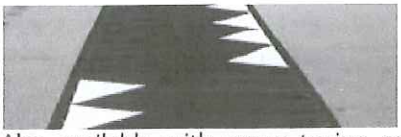
A two (2) year warranty is provided on all Speed Cushion components installed as per the manufacturer's installation instructions.



Speed Cushion Layout

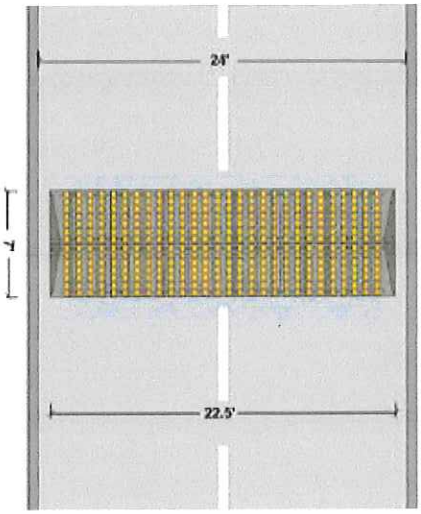
SPEED HUMP

Speed humps are raised traffic calming devices that range in height from 3 to 4 inches. They are parabolic in shape and are placed across the road to slow traffic. Speed humps are the most popular physical traffic calming measure in the United States today. A speed hump will typically slow traffic in a more gradual manner than speed bumps, although less so than speed tables.



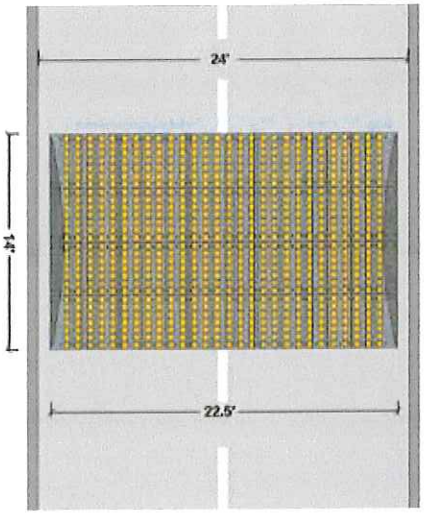
Also available with arrow taping or white striping

* Traffic Logix® interlocking units can be used for any road width in increments of 18".



Dimensions: 3" x 7' x any width*
width shown is 22.5'

Units: MSH03 - 26 units
LSH03 - 2 units
RSH03 - 2 units



Dimensions: 4" x 14' x any width*
width above is 22.5"

Units: MSH03 - 26 units
MSH34 - 26 units
LSH03 - 2 units
RSH03 - 2 units
LSH34 - 2 units
RSH34 - 2 units

14' Hump Profile

Traffic Safety Solutions

TRAFFIC LOGIX

SPEED CUSHION SUGGESTED QUANTITY AND GAP SPACING

These speed cushion quantity suggestions and their respective spacing gaps shown in nominal dimensions, reduce hazardous water damming, allow for drainage and permits an unobstructed path for Emergency Response Vehicles. A trained traffic control specialist, planner or designer should always be consulted or retained for more precise cushion quantities, gaps and cushion placement.

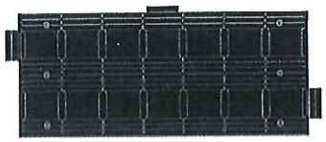
ROAD WIDTH Feet	CUSHION QUANTITY	CURB GAP Inches	CUSHION Inches	GAP Inches	CUSHION Inches	GAP Inches	CUSHION Inches	GAP Inches	CUSHION Inches	GAP Inches	CUSHION Inches	CURB GAP Inches
18	2	18	72	36	72							18
20	2	24	72	48	72							24
22	3	12	72	12	72	12	72					12
24	3	12	72	24	72	24	72					12
26	3	12	72	36	72	36	72					12
* 26	3	18	72	30	72	30	72					18
28	3	24	72	36	72	36	72					24
30	4	12	72	16	72	16	72	16	72			12
32	4	12	72	24	72	24	72	24	72			12
34	4	15	72	30	72	30	72	30	72			15
36	4	18	72	36	72	36	72	36	72			18
38	5	12	72	18	72	18	72	18	72	18	72	12
40	5	12	72	24	72	24	72	24	72	24	72	12
42	5	18	72	27	72	27	72	27	72	27	72	18
44	5	28	72	28	72	28	72	28	72	28	72	28
46	5	32	72	32	72	32	72	32	72	32	72	32

* Alternate

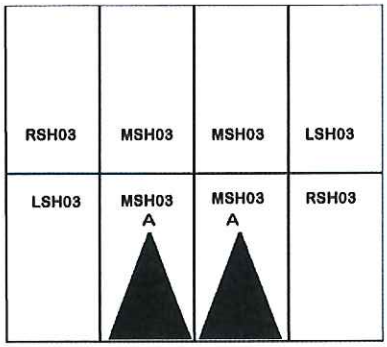
Traffic Logix Corp 3 Harriett Lane Spring Valley, NY 10977 Phone: 866.915.6449 www.trafficlogix.com

Modules - Speed Humps, Speed Cushions and Speed Tables

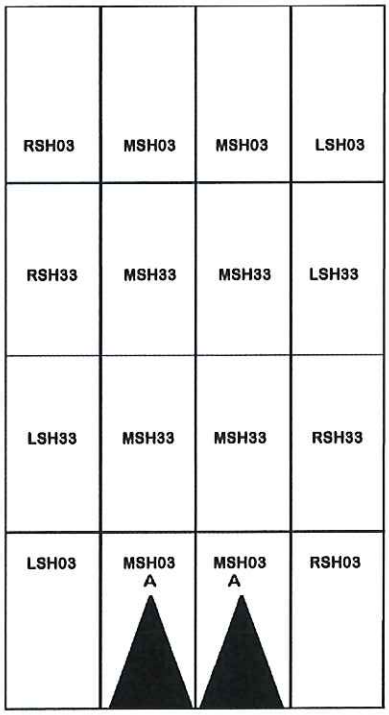
Speed Humps, Cushions and/or Tables of various dimensions may be constructed utilizing directional tongue and grove 18" x 42" interlocking rubber modules. This interlocking system provides additional connection between the modules and increases stability of the installed product. Each unit is bolted to the road with fusion coated rust resistant lag bolts through a special plastic shield.

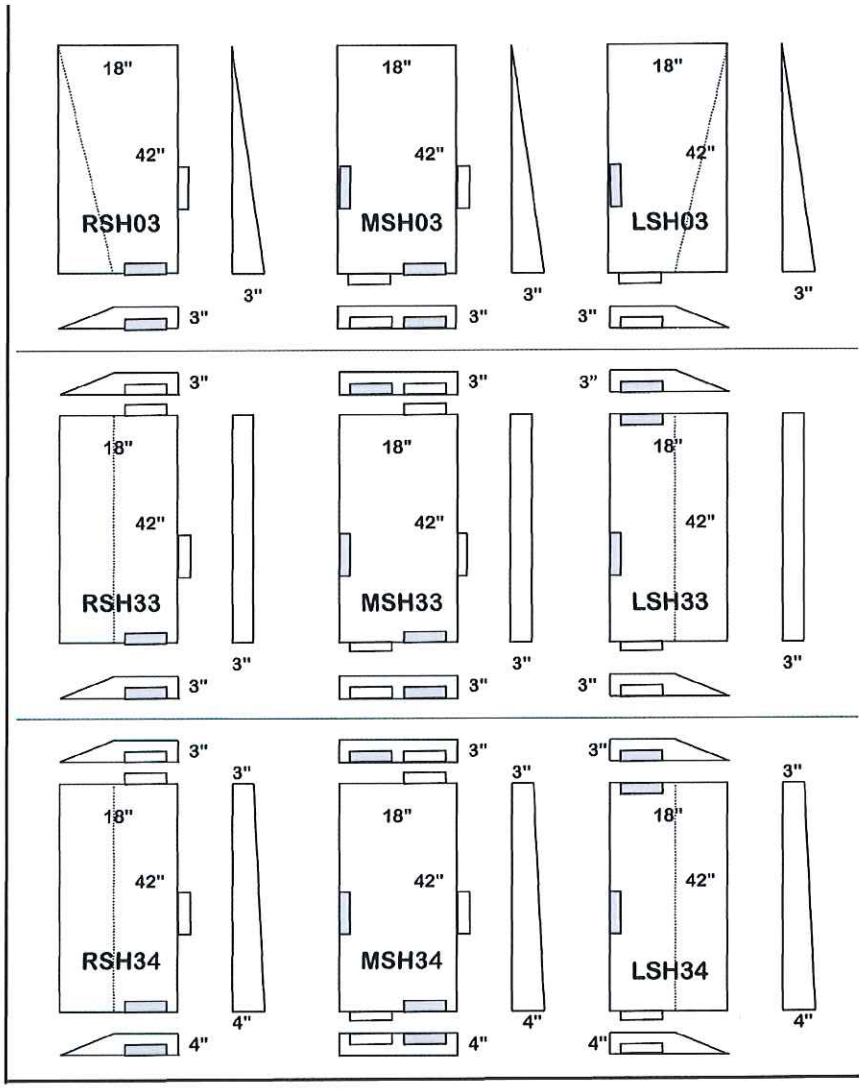


6' W x 7' L x 3" H Speed Cushion

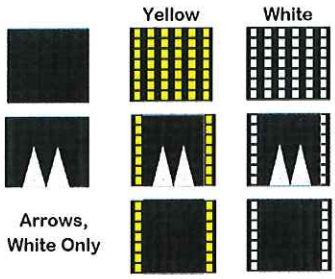


6' W x 14' L x 3" H Speed Cushion

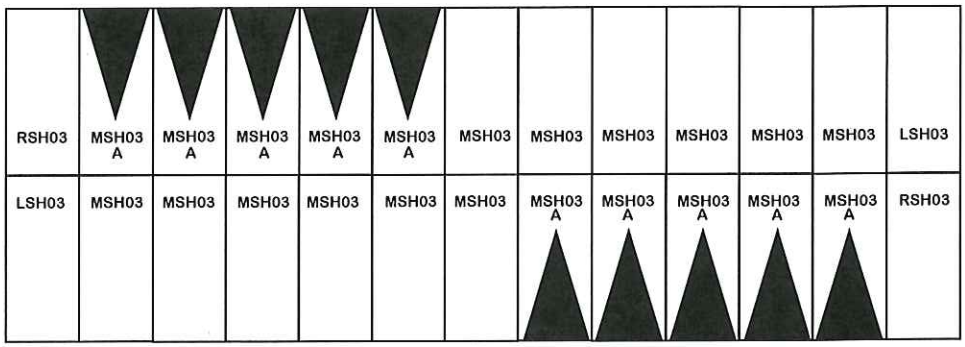




Speed Cushion, Humps or Tables are available with or without a variety of reflective markings



19.5' W x 7' L x 3" H Speed Hump w/Arrow Chevrons



Speed Cushions

General Description: Speed Cushions of various dimensions may be constructed utilizing directional tongue and grove 18" x 42" interlocking rubber modules. This two directional tongue and grove interlocking module system provides additional connection between the modules and increases stability of the installed speed cushion. Each unit is bolted to the road using six fusion coated rust resistant lag bolts through a plastic shield installed in the pavement. Epoxy adhesive not required for normal installation, but is available for special applications.

Interlocking tongue and groove module

Standard Speed Cushion

SPECIFICATIONS

Dimensions of the tongue and groove modules:
Width: 18" (+/- 1/16")
Length: 42" (+/- 1/8")
Thickness: 3" (+/- 1/8")

Dimensions of the Speed Cushions are changeable by
Width: 18" increments
Length: 42" increments

Standard Dimensions of Speed Cushions
6'x7'x3" • 8 modules
6'x10.5'x3" (Flat surface 72"x42") •12 modules
6'x14'x3" (Flat surface 72"x84") •16 modules
6'x21'x3" (Flat surface 72"x126") • 20 modules

Entrance and exit gradient: 1:15 (7%)
Side gradient: 1:3 (35%)

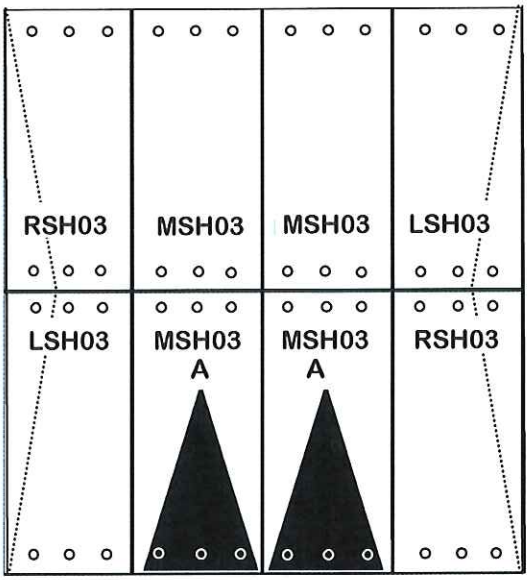
Physical properties:

Material: Compression molded 100% recycled synthetic and natural rubber composite

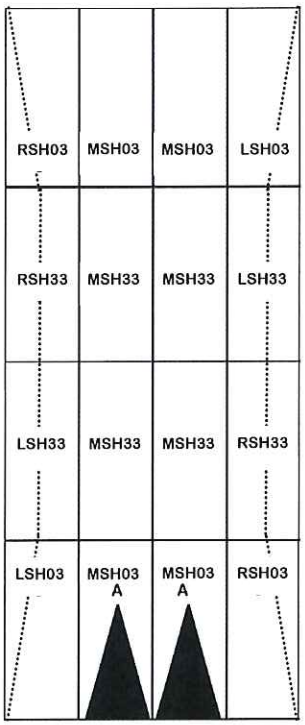
Tensile strength: minimum 500 psi
Shore hardness: minimum 70A
Specific gravity: 1.1

Markings: Rubber tongue and groove modules are available in all black, black with yellow or white reflective square markings, or with white reflective arrow chevrons. **As shown, two reflective arrow chevrons.** All markings are embedded into the rubber during the manufacturing process.

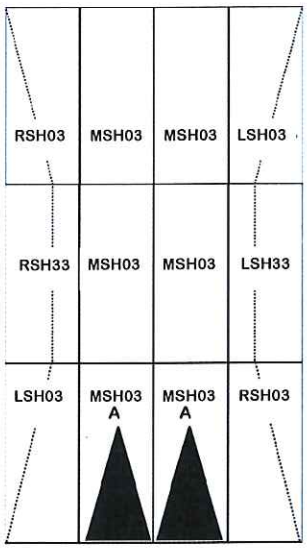
6' W x 7' L x 3" H



6' W x 14' L x 3" H



6' W x 10.5 L x 3" H



6' W x 21' L x 3" H
Not Shown

COMPONENTS (INTERLOCKING SPEED HUMP/TABLE/CUSHIONS)

	COMPONENT		PRODUCT #	LENGTH (in)	WIDTH (in)	HEIGHT (in)	WEIGHT (lb.)
MIDDLE UNITS	1		MSH03	42	18	0 - 3	50
	2		MSH33	42	18	3	75
	3		MSH34	42	18	3-4	88
LEFT END CAP UNITS	4		LSH03	42	18	0 - 3	48
	5		LSH33	42	18	3	68
	6		LSH34	42	18	3 - 4	75
RIGHT END CAP UNITS	7		RSH03	42	18	0 - 3	48
	8		RSH33	42	18	3	68
	9		RSH34	42	18	3 - 4	75

INTERLOCKING SOLUTION OVERVIEW

The Traffic Logix® patented interlocking system consists of modular rubber units with molded reflective tape. These components can be assembled to create a variety of traffic calming solutions including speed humps, speed tables, speed cushions, traffic islands and street narrowing. The modular system presents unlimited possibilities for different configurations and can be installed on asphalt or concrete and as permanent or temporary solutions. Our sought after SafePace® series of radar speed signs offer another alternative to calm streets by alerting drivers to their speeds. Our traffic calming solutions are ideal for residential roads, private communities, industrial and corporate settings, and school and work zones.

MADE OF RECYCLED RUBBER

- Environmentally friendly
- Lightweight - easy to transport and install
- Extremely durable
- Will never fade or crack like asphalt
- Uniform and consistent profile
- Aesthetic appearance, residential appeal

MOLDED REFLECTIVE TAPE

- Highly visible
- Molded tape has a much longer lifespan than paint
- Available in a variety of colors and patterns

SIMPLE INSTALLATION (see page 9)

- Save labor costs
- Avoid street closures
- No heavy equipment, only basic tools are required
- Can be removed, stored and relocated

MODULAR INTERLOCKING DESIGN (see page 7)

- Unique patented design
- Expandable to any size roadway
- Interlocking feature adds extra stability
- Allows for custom solution design
- Conforms to ITE standards

2.11 Installation of Temporary Traffic Calming Devices

2.11.a The applicant's consultant develops a plan for the temporary and permanent traffic flow modification(s)/street closure(s).

2.11.b **If the jurisdiction falls within unincorporated Miami-Dade County,** then the applicant submits construction plans to PWD, Traffic Engineering Division, for approval of the temporary traffic flow modification(s)/street closure(s), including all signs and markings.

2.11.c **If the jurisdiction falls within a municipality,** then the applicant submits construction plans to the municipality for approval of the temporary traffic flow modification(s)/street closure(s) including all signs and markings.

2.11.d Municipality forwards plans to PWD, Traffic Engineering Division, for traffic engineering review and approval.

2.11.e Applicant engages a contractor to install temporary traffic control devices, which will be allowed only for a 90-day trial period.

2.11.f At the expiration of the 90-day trial period, the applicant shall remove the temporary traffic calming devices, unless the Director of the Public Works Department grants an extension, or constructs permanent devices.

2.12 Conduct Post-implementation Study to Assess if the Impact of Implemented Devices are Acceptable

Once the temporary traffic calming devices are implemented, they need to be evaluated prior to the installation of the permanent traffic calming devices.

2.12.a Applicant requests traffic consultant to collect traffic data after the traffic pattern has been established over a period of thirty (30) days and shall be completed **within the remaining sixty (60) days.**

2.12.b Traffic consultant analyzes the data and submits reports either to PWD or the municipality, whichever has jurisdiction.

2.13 Post-impact Analysis Results

If the study reveals that the impact of the temporary traffic control devices are unacceptable, then the consultant shall **go back to Step 2.3** to **identify more restrictive traffic calming alternatives.**

If it is determined that the temporary traffic control devices are ineffective, then the request for permanent installation shall be denied and the **applicant shall direct the contractor to remove the temporary traffic control devices at the expiration of the 90-day trial**

APPENDIX IV

REPORT ON SPEED HUMPS

Memorandum MIAMI-DADE COUNTY

Date: December 14, 2006

RTC
Agenda Item No. 7(J)

To: Honorable Chairman Carlos A. Gimenez
and Members, Regional Transportation Committee

From: George M. Burgess
County Manager

Subject: Speed Tables/Humps Report

This memorandum is in response to a request by Commissioner Gimenez for a report on the pros and cons of speed humps. A speed hump is a traffic calming tool designed to slow traffic or control the volume of through traffic. It is a raised area in the pavement surface extending transversely across the roadway. Speed humps normally have a minimum height of 3 to 4 inches and a travel length between 12 feet to 22 feet. In some cases, the speed hump may raise the roadway surface to the height of the adjacent curb for a short distance.

Advantages of Speed Humps

The main advantage of speed humps is speed reduction. Reductions in cut-through traffic are also a major benefit of these devices. Based on a report done by the Center for Transportation Research and Education, Iowa State University, a number of studies have evaluated differences in speeds at a location before and after a speed hump was installed. Review of the various studies indicate that the magnitude of speed reduction depends on a number of factors, including the design and spacing where the speed difference was collected in relationship to the traffic calming device, the surrounding environment, and vehicle mix. Speeds between humps have been observed to be reduced between 20 and 25 percent on average.

Studies also indicate that traffic volumes are reduced on average by 18 percent depending on alternative routes available. Additionally, collisions have been reduced on average by 13 percent on streets where installations have occurred.

Disadvantages of Speed Bumps

Among disadvantages attributed to speed humps are the potential lawsuits brought against several jurisdictions as a result of speed hump installations. Also, although speed humps are effective in reducing traffic speed, they also reduce the speed of emergency vehicles and delay response times substantially. The amount of delay that is incurred depends on the type of emergency vehicle and the desired operating speed. This can be as much as 10 seconds per device. In a study done in the USA, it was calculated that more deaths would arise from delayed arrival of ambulances than lives could be saved by any possible accident reduction. Several studies have evaluated the impact of speed humps on emergency response times. In general, there is an approximate delay of between 3 and 5 seconds per speed hump for fire trucks and up to 10 seconds for an ambulance with a patient. In addition, traversing speed humps provides major discomfort to ambulance passengers and emergency personnel.

Speed humps have also been documented to cause accidents and injuries. Experimental devices placed on a street to protect children at local schools in Portland, Maine, resulted in an increase in crashes of 35 percent. Bicyclists and motorcyclists are more prone to be physically impacted. If bicyclists hit a speed hump too quickly while still within the speed limit, they may be

/

Honorable Chairman Carlos A. Gimenez
And Members, Regional Transportation Committee
Page 2

launched into the air losing total control of their bicycle. Drivers have also been observed to be distracted by the humps, therefore, ignoring other hazards such as children. Therefore, speed humps may be a potential safety hazard.

Other disadvantages are:

- Increase in air pollution and fuel usage as traffic travels in a lower gear using significantly more fuel per mile.
- Increases in vehicle wear and tear because speed humps frequently cause damage to vehicles even at normal speed levels.
- An increase in roadway maintenance costs because the road surface before and after a hump tends to develop potholes after a few years.
- Accidental automobile air bag deployment

Recommendation

A reduction in vehicle speed and volume may be accomplished either by horizontal controls, such as traffic circles or vertical controls such as the speed humps or tables.

Our current policy favors horizontal control over vertical control since they are safer and can provide comfortable maneuvering for people with disabilities and those transported on emergency vehicles. As such, our current policy on the vertical controls, as described in Attachment A, is limited to those low volume local residential streets where there is no intersecting street within a distance of 750 feet, and where the speed is determined to be at least 10 MPH over the posted speed limit.

Assistant County Manager

11/1/06
Date

2

C:\Documents and Settings\lgomezt\Local Settings\Temporary Internet Files\OLKA6\Speed Tables-Humps Memo (Final).doc

ATTACHMENT A

POLICY ON SPEED HUMPS

PURPOSE:

The purpose of this policy is to provide guidelines for the installation of speed humps along local residential streets within Miami-Dade County.

POLICY:

Miami-Dade County has the sole discretion, subject to all applicable laws, to approve, modify, remove, continue or deny speed hump(s) request regardless of any support or lack thereof via the petition process. The approval or denial issued by the Director of PWD for a speed hump(s) is final. Speed humps will be considered on a case-by-case basis, only on local residential streets which meet the following criteria.

CRITERION:

- The street must strictly be a local residential road, specifically excluding arterial or collector roadways.
- The street shall not have more than one traffic lane in each direction.
- The street must be at least 750 feet long with no intersecting roadways in between.
- Traffic volumes on the street must range between 750 and 1500 vehicles per day.
- The street is posted at or has a speed limit of 30 MPH or less.
- The traffic engineering study has determined that the 85th percentile speed on the street is at least 10 MPH over the speed limit.
- The speed humps will not be considered within 250 feet of a traffic signal, within 50 feet of an intersection, in front of a driveway, within an intersection or adjacent to fire hydrants.
- The speed humps will not be considered in or on the approach to a horizontal or a vertical curve where visibility of the hump is restricted.
- The street should not be located along an emergency response route, transit route, school bus route or truck route, and must be approved by the respective agencies for the installation of speed humps.
- Installation of these devices shall not cause the traffic to divert to other neighborhood streets.
- 100% of the residents/property owners immediately adjacent to the proposed speed humps (one vote per residence) and two-thirds of the residents/property owners of the block(s) shall concur with the installation of the speed humps.

APPLICATION PROCEDURE:

- Individual residents, neighborhood associations or the entity having municipal jurisdiction over the area may initiate the request for a speed hump installation. The applicant must submit a request, in writing, to the Chief of the Traffic Engineering Division, Miami-Dade Public Works Department, 111 NW 1 Street, Suite 1510, Miami, Florida, 33128-1970.

3

C:\Documents and Settings\lgomezt\Local Settings\Temporary Internet Files\OLKA6\Speed Tables-Humps Memo (Final).doc

- After a request for speed humps is received, the Traffic Engineering Division will conduct an initial study to determine if the street meets the aforementioned criteria for the installation of said devices, or if other alternative measures may be taken to resolve the residents' traffic concerns.
- If the above criteria are not met, the street will not be considered for speed hump installation and the applicant(s) will be notified of the denial.
- If after the initial study it is determined that the street qualifies for speed hump installation, a petition packet consisting of the speed hump petition will be mailed to the applicant(s). The project applicant(s) will be responsible for circulating the petition in the applicable area.
- Once the approved petition is received, the applicant will be notified of the PWD's recommendations.
- If approval is granted, the Traffic Engineering Division will seek approval for allocation of PTP funding from the District Commissioner.
- Upon approval, PWD will initiate the design and subsequently proceed with the installation of the permanent traffic calming devices.
- The initial installation will be allowed for a six-month trial period. The final determination on the retention/removal of the hump(s) will be made at the expiration of the trial period.

SPEED HUMP REMOVAL:

The process for speed hump removal is as follows:

- Individual residents, neighborhood associations or the entity having municipal jurisdiction over the area if not satisfied with the devices may initiate the request for speed hump removal.
- The applicant must submit a request in writing to the Chief of the Traffic Engineering Division, Miami-Dade Public Works Department, 111 NW 1st Street, Suite 1510, Miami, Florida, 33128-1970.
- The application must accompany a petition signed by 100% of the residents/property owners immediately adjacent to the existing speed hump(s) (one vote per residence) and two-thirds of the property owners of the block(s) in favor of the removal of the speed hump.
- In case the PWD determines that an unforeseen problem exists as a result of the humps, the devices may be redesigned or removed by the County. In such a case, the County will bear the full cost of the speed hump removal.
- If the device is installed by a municpal jurisdiction, then such entity will be responsible for the removal of such device(s) upon approval from PWD at no cost to the County.

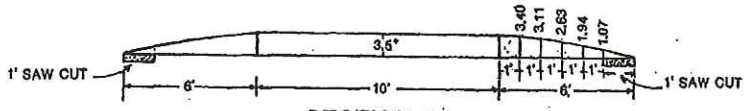
DESIGN:

The following design is adopted by PWD as the County's Standard for Speed Hump(s).

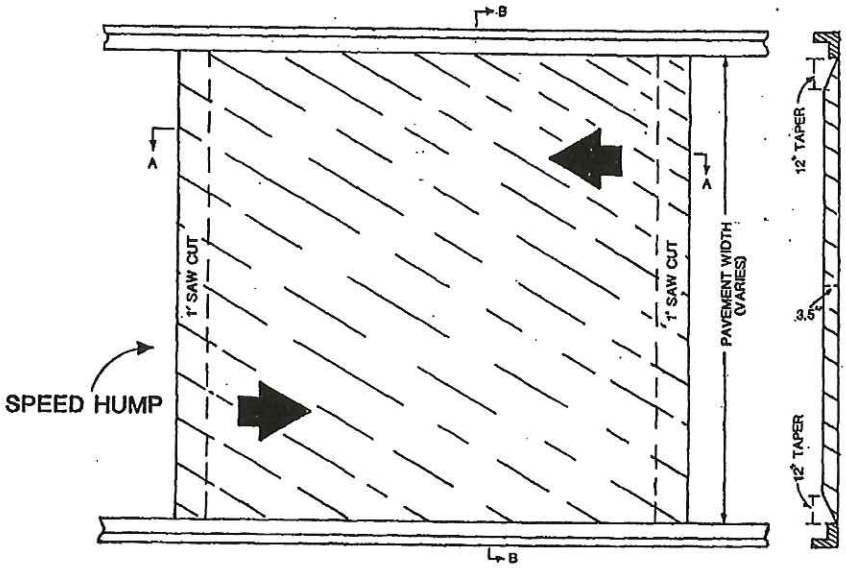
4

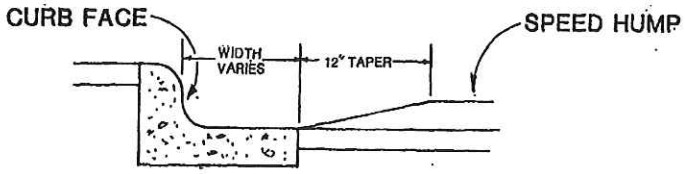
C:\Documents and Settings\lgomezt\Local Settings\Temporary Internet Files\OLKA6\Speed Tables-Humps Memo (Final).doc

FLAT-TOPPED SPEED HUMP DESIGN



SECTION AA



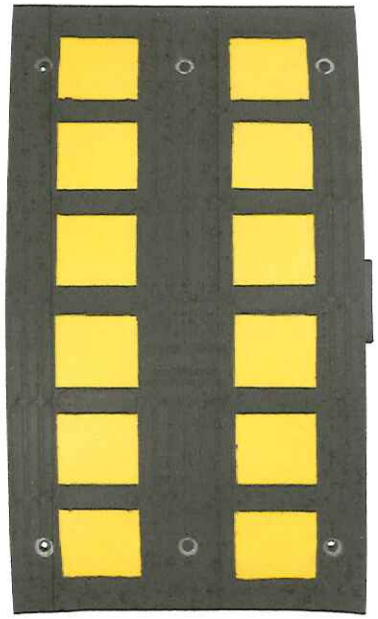


SPEED HUMP TAPER AT CURB

5

C:\Documents and Settings\lgomezt\Local Settings\Temporary Internet Files\OLKA6\Speed Tables-Humps Memo (Final).doc

Heavy Duty Rubber Speed Hump Middle Section



Item #:
SHHDSECTIONL

$95.95 each

In Stock - **SHIPS IMMEDIATELY**

Choose Included Hardware:

5" Lag & Anchor - Concrete or Asphalt

Quantity

1

Add to Cart

Calculate Shipping

Rated *5/5* stars - based on 1 review.

Volume Pricing:

Read our real, 3rd-party verified customer reviews

Quantity 1-4	Quantity 5-9	Quantity 10+
$95.95 each	$87.95 each	$82.45 each

Quick Facts:

- Middle Section weighs 36 lbs
- 2.1" Tall x 35.5" Across x 19.5 " Wide
- Six (6) fasteners per middle section (included)

Product Details

Description | Installation | Video | Reviews (1) | Speed Hump C...

Rubber speed humps slow traffic to 15-20 mph and are ideal for parks, school zones, hospitals, and retirement communities. The modular units lock together, creating a uniform surface fit to the road's width. Also legal for authorized use on public roads. LEED approved – made from solid 100 recycled tries. Reflective yellow stripes for high-visibility at night and in bad weather. Pre-drilled bolt holes for easy installation and removal. Six fasteners are included and comes with a choice of 4 mounting hardware options. Meets Safety Standards: ITE; FHWA

Similar Products

The #1 Seller of Traffic Safety Products in America

800-270-1755
Live Customer Support

argest Inventory. Fastest Shipping.

6' x 7' Speed Cushion with White Chevron Striping

Item #:
SC 6X7

$1075.00 each

In Stock - **SHIPS IMMEDIATELY**

Quantity
1

Add to Cart

Calculate Shipping

Volume Pricing:

Quantity 1-4	Quantity 5-9	Quantity 10+
$1075.00 each	$990.00 each	$925.00 each

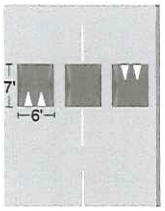
Workwear

'raffic Safety Stor 9.8 / 10
582 customer reviews

Fast ship good service to many emails thou don't need one everyday that the order has shipped just one is fine

RESELLERRATINGS.com

Read our real, 3rd-party verified customer reviews



Product Details

Description

An alternative to speed humps, these fully recyclable rubber speed tables slow non-commercial vehicles but allow wide-axle vehicles to straddle the sides. A great option for fire routes, postal offices, hospitals or any road frequented by emergency vehicles. Also legal for authorized use on public roads. LEED approved – made from 100% post-consumer tires, the most durable rubber.
White chevron stripes direct traffic flow while providing high-visibility at night or in bad weather. Includes 4 options for mounting hardware and molded-in recessed bolt holes.
Meets Safety Standards: ITE; FHWA

From The Blog

04.23.15
San Antonio Upgrades with Innovative Cycle Tracks (http://www.trafficsafetystore.com/blog/san-antonio-zebras-cycle-tracks?

From Twitter

TrafSafetyStore () Who did the lettering? **https://t.co/PO3q61L7uy (https://t.co/PO3q61L7uy)**

TrafSafetyStore () Making Flow Molded **#TrafficCones (http://search.twitter.com/search?q=%23TrafficCones) https://t.co/Zt6Ed4wUKT (https://t.co/Zt6Ed4wUKT)**

Keep In Touch

Sign up for occasional free updates on promotions and special offers.

Enter Email **Subscribe**