

Speed Cushion

Spec Update – Info Session

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Neighbourhood Traffic Calming (NTC)

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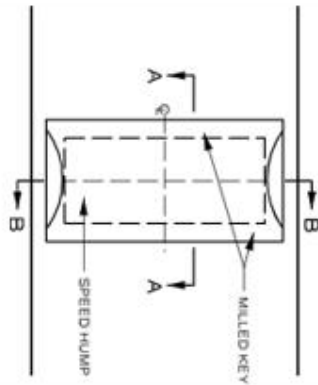
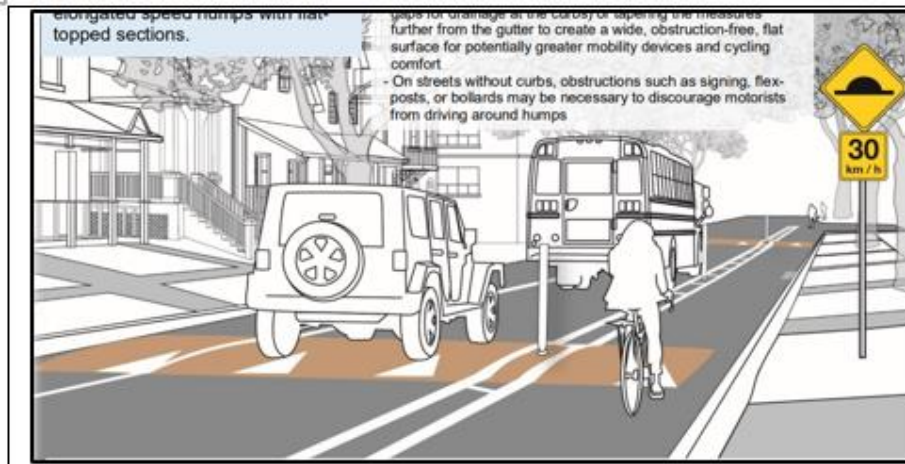


Definition

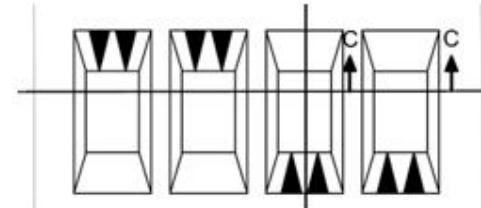
Speed Cushions

- Vertical deflection measure
- Raised areas, like speed humps, but not covering the entire width of the road
- Designed to allow larger vehicle to 'straddle' the cushions

What It Looks Like



Speed Hump



Speed Cushion

Why Install ?

Improve Safety

- Address vehicle speeding concern
- Make streets safer for all road users

Less impact on large vehicles (Ideal on Key emergency route, transit route)

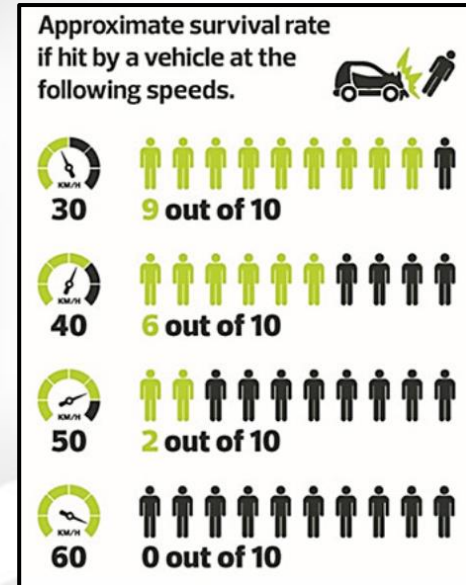
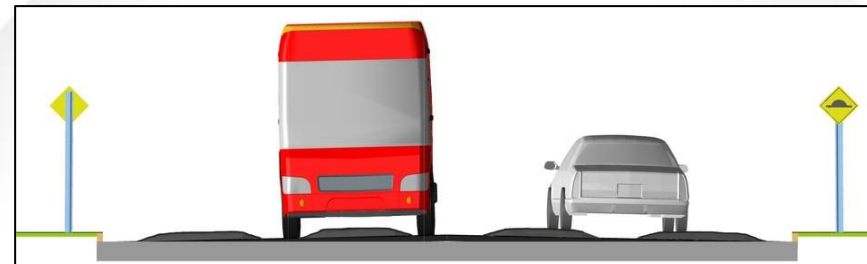
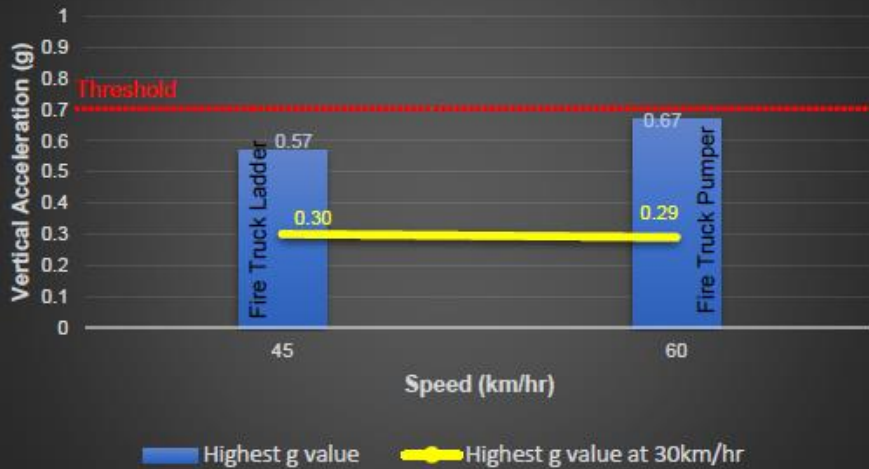


Image Source: CARSP.CA

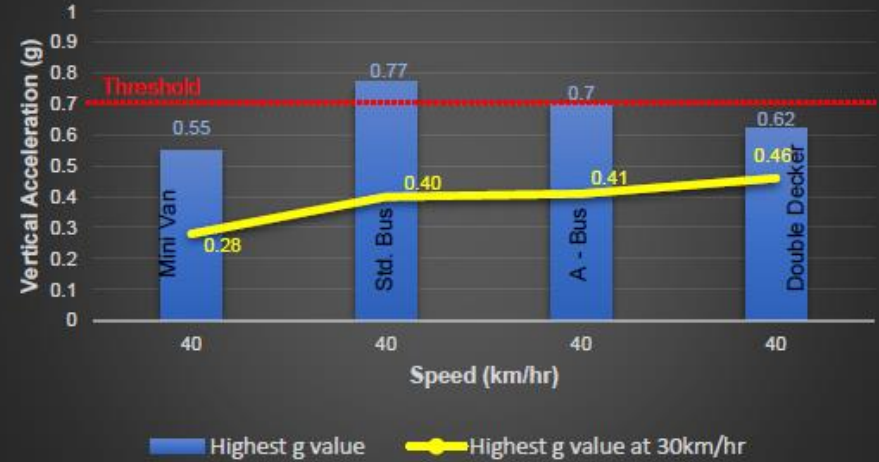


Impact of Vertical Deflection

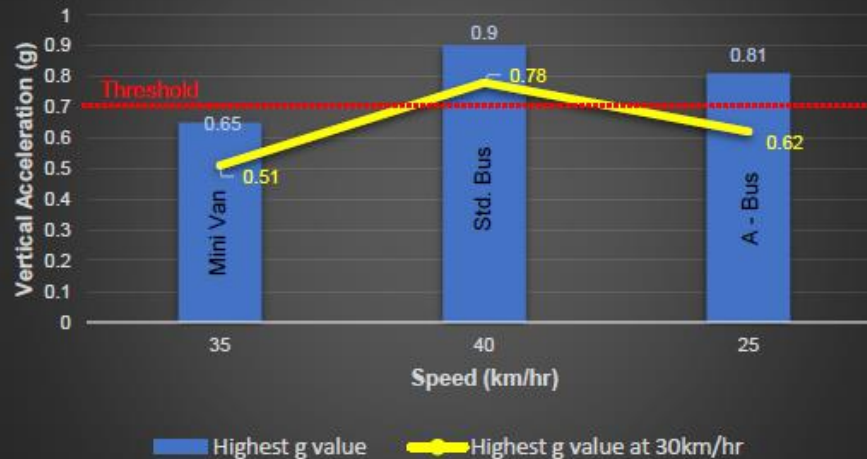
Speed Cushions



Speed Tables



Speed Humps



Ottawa Streets

- Knudson Dr - 2016
- Belcourt - 2022
- Bayswater - 2023
- Craig Henry - 2023
- Halton Terrace -2023
- Bilberry - 2024
- Southmore - 2024
- Macfarlane - 2024
- Sherwood-2025
- Haig-2025
- More locations:
conceptual design



Who Recommends

Implemented through:

- Neighbourhood Traffic Calming (NTC) program
- New Active Transportation Program
- Development Review
- Temporary Traffic Calming (TTC) Program (2019 policy)
- RSAP /Integrated Projects (2019 policy)

City Spec-Speed Cushion

More and more cushions being built and recommended in the City

- No City spec yet
- Have been using different resources
- City spec need

One stop shop (reference):

- Shape
- Gaps
- Height
- Consistency



What we heard

Shape and size:

- Flat topped is preferred . Sinusoidal is complex
 - To construct
 - To measure for acceptance
- Height 80-90 mm (tolerance of 10mm is tight)
- Key grinding of entire footprint rather than perimeter

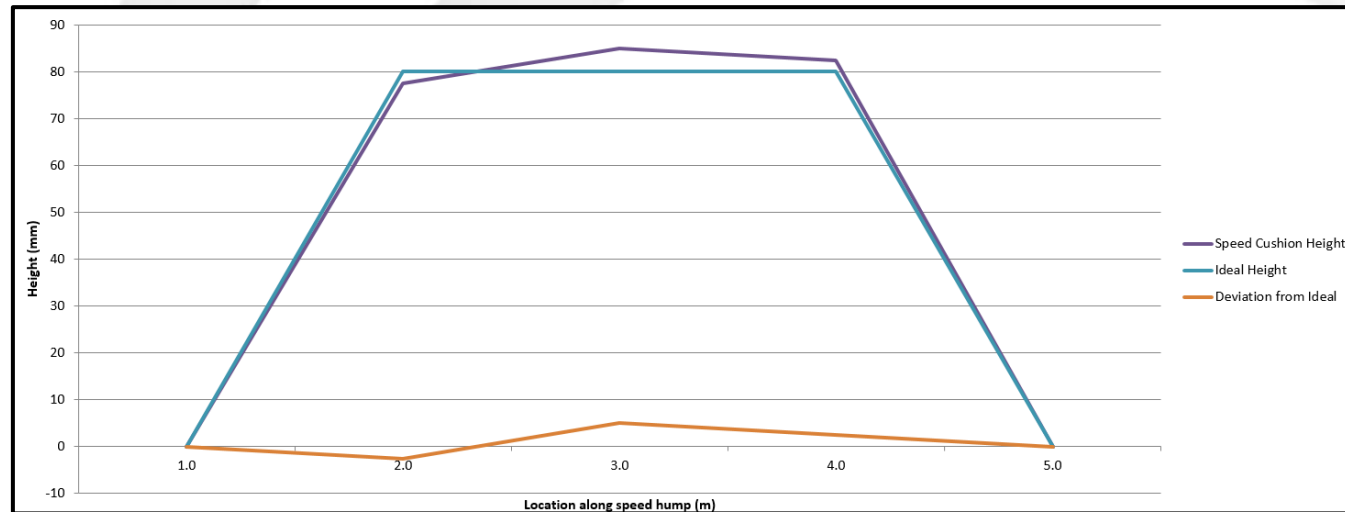
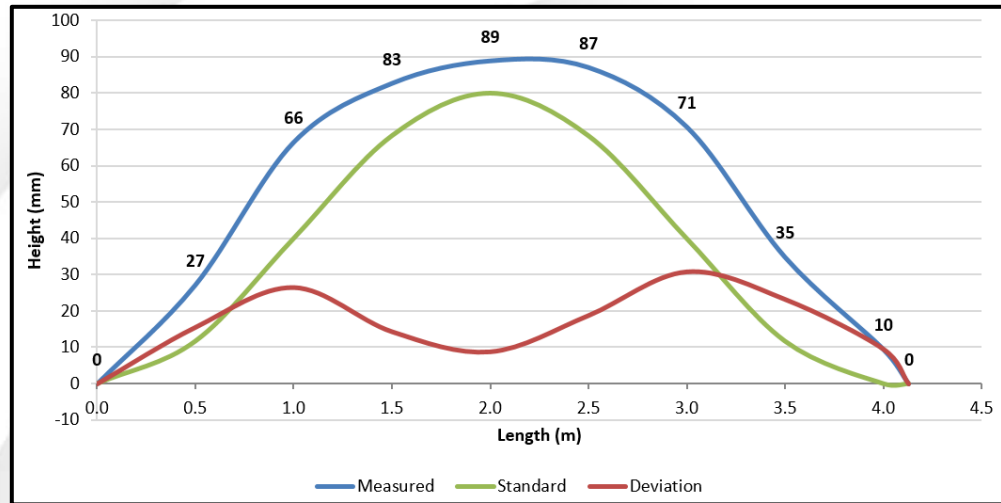


- Use a real time method to measure for compliance

Shapes/Profile

Profile Review

- Sinusoidal
 - Complex to construct
 - Complex to measure
- Flat Topped



Speed review (Monitoring)

Profile Review

- Belcourt (sinusoidal)
 - Operating speed was reduced by 8% to 24%
 - Compliance increased by 17% to 25%
- Halton Terrace (Flat Topped)
 - Operating speed was reduced by 8% to 22%
 - Compliance increased by 25% to 53%

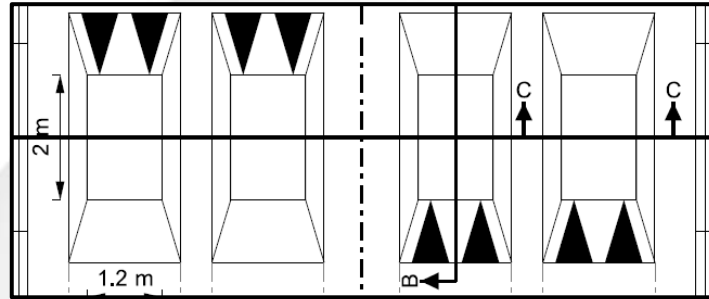
Notes:

-No consideration was given to capture the data exactly at a same distance from speed cushions at these two locations

-Halton Terrace – may not reflect accurate data – pavement marking signage was not completed

Current Spec

- Proposed spec shows 4 cushions i.e. for the road width 10.5 to 11.5 m



- Varies based on curb-to-curb width – indicated in the note of spec
- Using the information (spacing, gap etc), the designer can recommend appropriate number of cushions
- Monitor/feedback to develop individual spec for 2, 3, and 5 cushions in the future.

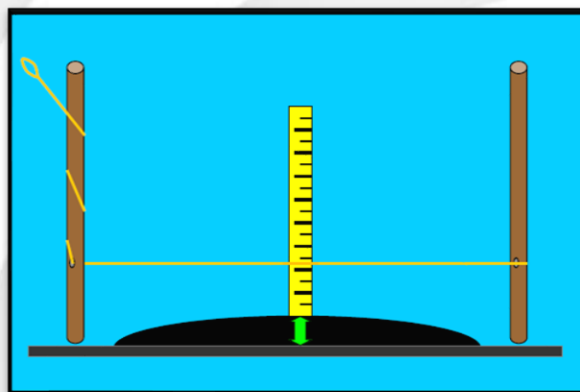
Ideas to Improve – Learning Process

- Speed cushion profile template – verify speed cushion dimensions and profile are accurate

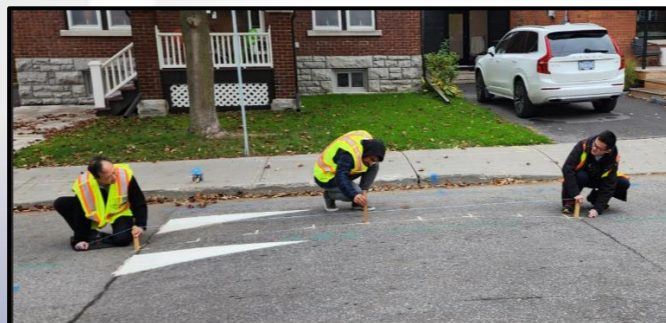


Incorrect profile can reduce effectiveness or create other unintentional issues (damage, comfort)

- Opportunity to **Update Spec** (continuous process..)



- Provide feedback



Key Messages

- Vertical measure - alternative to speed humps especially on transit route and/or key emergency route
- Intent of introducing spec is to help to achieve consistent design
- Spec for 2, 3 and 5 cushions – future consideration
- Feedback from designers/contractors is always helpful

