



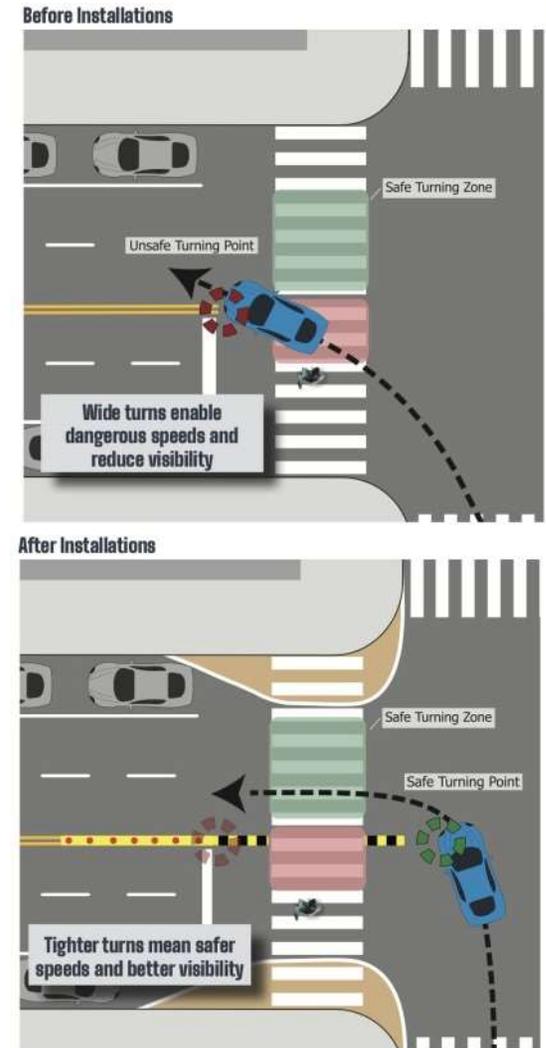
# Turn Calming

Board Transportation Committee  
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Lauren Delmare, Chief, Active Transportation Section  
Hannah Cacner, Active Transportation Planner  
Fairfax County Department of Transportation

# Background

- In March 2023, Board of Supervisors directed FCDOT to review turn-calming measures from other jurisdictions, discuss options with VDOT and provide implementation considerations to the Board Transportation Committee
- Turn calming is intended to:
  - Reduce turning speeds
  - Eliminate high-speed turns
  - Increase driver visibility of pedestrians in crosswalk
  - Typically implemented through a quick-build program
- Successful programs in several cities, including New York, Portland, San Francisco, Toronto



# Left-Turn Calming vs. Right-Turn Calming

## Left-Turn Calming

- Hardened centerline
  - With or without flexible posts
  - With or without nose extension



Chicago Department of Transportation

## Right-Turn Calming

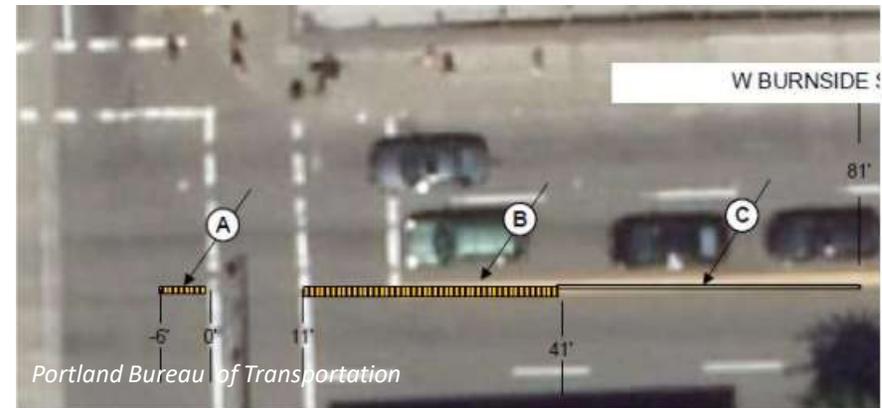
- Slow turn wedge
- Truck apron or pillow
- Pavement striping with or without flexible posts
- Leading Pedestrian Interval (LPI) with No Turn on Red



Fairfax County Trails, Sidewalks, and Bikeways Committee

# Hardened Centerlines without Flexible Posts (Portland findings)

- With nose extension:
  - 16% decrease in median turning speed
  - 90-100% decrease in drivers crossing centerline
- Without nose extension:
  - 10% decrease in median turning speed
  - 82-97% decrease in drivers crossing centerline



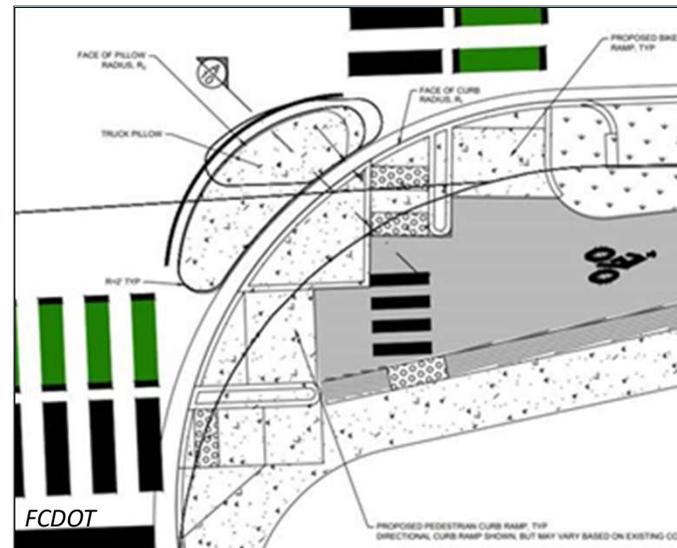
# Hardened Centerlines with Flexible Posts (Portland findings)

- Smaller study group
- With nose extension: 100% decrease in drivers crossing centerline
- Without nose extension: 97% decrease in drivers crossing centerline
- Only slightly more effective at slowing turning speeds than without flexible posts
- More expensive to install and maintain
- NYC DOT moving away from using these



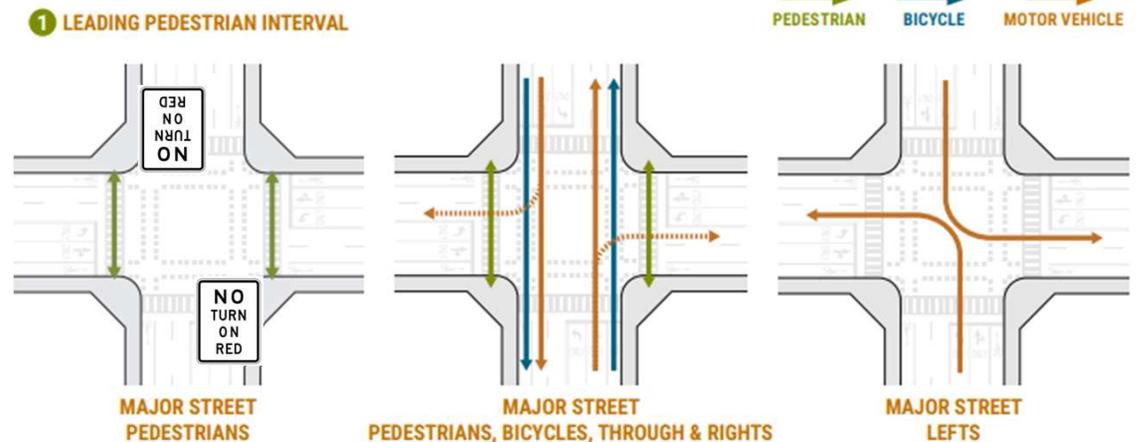
# Right-Turn Calming

- Corner Wedge
  - No metrics from Portland
  - Design must consider bike lane/path of cyclists
- Truck Pillow/Apron
  - Proposed in Sunrise Valley Dr cycle track conceptual design



## Right-Turn Calming, cont.

- Pavement striping and/or flexible posts
  - Example at left from Glen Carlyn Dr and Glen Carlyn Dr
- Leading Pedestrian Interval (LPI) paired with No Turn on Red
  - Gives pedestrians a “head start” of 3-7 seconds



Federal Highway Administration

# Snow

- Unlikely to create issues for turn calming equipment
- Turn calming programs implemented in cities with high annual snowfall
  - Calgary, AB
  - Toronto, ON
- Similar effect from “sneckdowns”



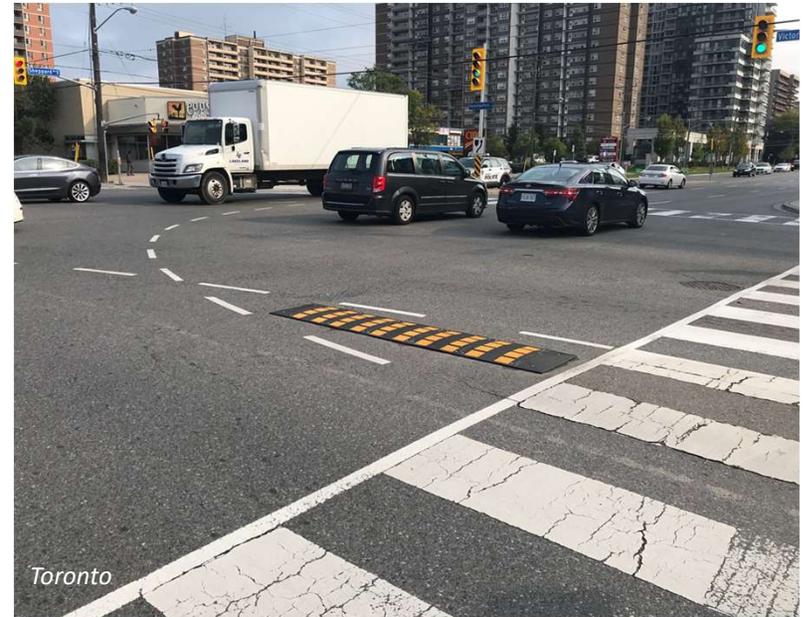
# Feedback from VDOT

- Primary concerns over maintenance
  - Maintenance costs
  - Durability of the speed bumps
- Selection criteria for roadways
- How would this work in a suburban context?
- How would this work on typical Fairfax County roadways with medians?



# Further Considerations

- Flexible posts may be unnecessary and introduce additional maintenance
  - No significant difference in turning speeds
  - Flexible posts require more frequent replacements in the long term
- Toronto demonstrates suburban program
  - Applied at signalized intersections
  - Applied on roads with range from 20 mph to 37 mph (30-50 kmph) speed limits
  - Wider bumps on roads with medians





# Feedback Requested from the Board:

- Which of these strategies are you interested in us exploring further?

Contact information:

Lauren Delmare: [Lauren.Delmare@fairfaxcounty.gov](mailto:Lauren.Delmare@fairfaxcounty.gov)