

City of New Rochelle



New Rochelle **Residential Speed Hump Program** **Manual**

Administered by:

**New Rochelle Department of Public Works
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New Rochelle, NY 10801
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Revised May 1, 2017

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I. Purpose of the Program

The New Rochelle Residential Speed Hump Program Manual has been established to address certain neighborhood traffic concerns of the residents of New Rochelle. This program was developed based on the experiences of numerous communities throughout the United States as well as documented studies of Speed Humps by the Institute of Transportation Engineers, the New York State Department of Transportation and other organizations and agencies.

The purpose of this program is to reduce the speed and volume of traffic traveling on residential streets. Although it is realized that each situation is unique, the policies and procedures outlined in this document are to be applied uniformly to ensure that the City's resources are used appropriately. In some cases, other traffic calming or engineering measures may be more or equally effective in improving safety on a particular street.

II. Definitions

Major Roads – Arterial highways and collector roads.

Arterial Highways – Streets that typically emphasize a high level of traffic mobility and accommodate higher levels of traffic and serve longer distance trips (ex: North Avenue, Webster Avenue).

Collector Roads – Roadways that link the local street system with arterial highways. Typically balance traffic mobility and property access. (ex: Baraud Road, Stratton Road, Second Street, Elm Street).

Local Roads and Streets – Roadways that provide access to the transportation network from developed land uses.

Midblock – Any location between intersections.

85th percentile speed – The speed at which 85% of vehicles travel at or below, normally considered a comfortable speed at which to travel based on the design of the road.

III. Speed humps

A. Description:

- Rounded raised areas of pavement typically 12 to 14 feet in length for permanent applications and stretch across the width of the street.
- Sometimes placed in a series (typically spaced 300 to 600 feet apart)
- Different from speed bumps which are not as long and are usually used only in parking lots.



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B. Applications:

- Residential streets.
- Not typically used on major roads, bus routes, or primary emergency response routes.
- Midblock placement, not at an intersection.
- Not used on grades steeper than 8 percent.

C. Design/Installation Considerations:

- Speed humps are 14 feet wide for permanent applications and 7 feet wide for temporary applications.
- Speed humps are 3 - 3 ½ inches high.
- Edges tapered near curbs to allow gap for drainage.
- Advance warning and advisory speed signage required.
- Pavement markings are required on speed humps.

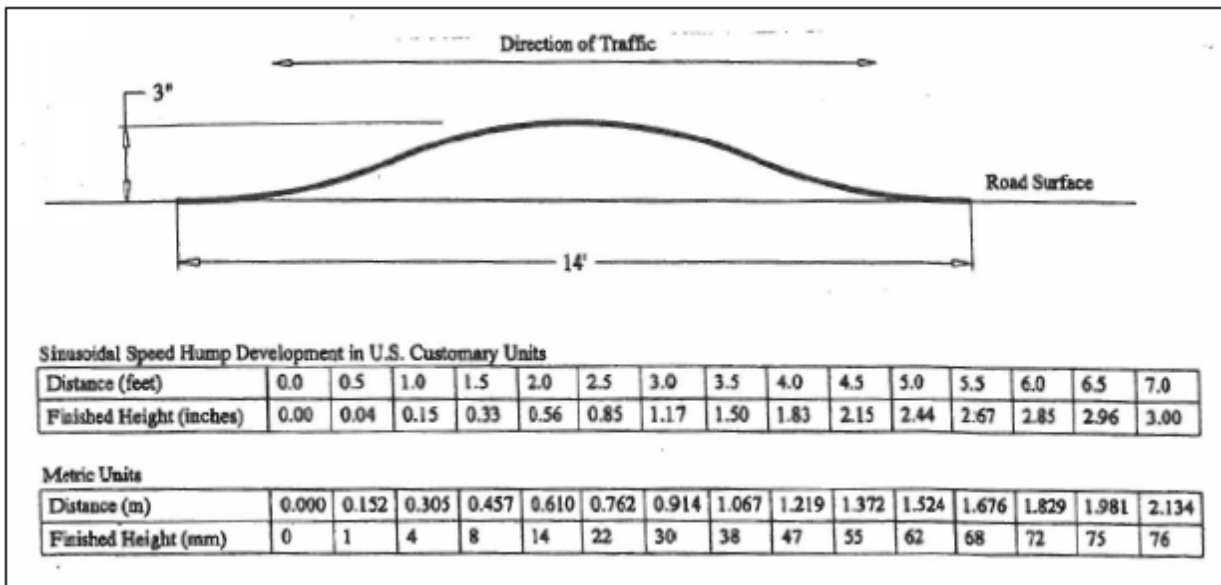


Figure A. Permanent Asphalt Sinusoidal Speed Hump (side view)



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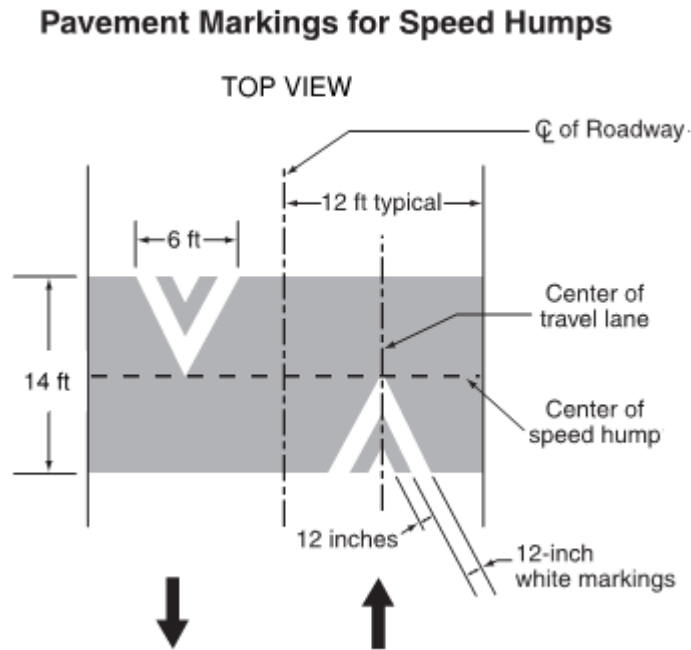


Figure B. Speed Hump Striping (overhead view)

D. Operational Considerations:

- Speeds between humps have been observed to be reduced between 20 and 25 percent on average.
- Speeds typically increase approximately 0.5 mph midway between humps for each 100 feet of separation.
- Studies indicate that traffic volumes have been reduced on average by 18 percent depending on alternative routes available.
- Studies indicate that collisions have been reduced on average by 13 percent on treated streets (not adjusted for traffic diversion).
- Possible increase in traffic noise from braking and acceleration of vehicles, particularly buses and trucks.
- Emergency Response Issues:
 - Concern over jarring of emergency rescue vehicles.
 - Approximate delay of between 3 and 5 seconds per speed hump for fire trucks and up to 10 seconds for ambulance with patient.



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E. Speed Hump Eligibility Criteria:

In order for a roadway to be eligible for speed humps it must meet the following criteria:

- Must be a residential street, not a collector or arterial road;
- Must not be designated as an Emergency Response Route;
- The land use fronting street is zoned for residential use;
- Installation of speed humps would not divert significant amounts of traffic to other residential streets;
- Installation of speed humps does not provide an unreasonable liability or public hazard due to existing roadway conditions that cannot be changed;
- Roadway conditions (horizontal and vertical curvature, roadway width and roadway surface) must be acceptable.

F. Temporary Speed Humps:

The application process respects the opinions of neighborhood residents. Project areas will be ranked and those obtaining the highest ranking will be placed at the top of the list for temporary speed humps. To aid in providing consensus for the project, the City will only allow for the installation of permanent asphalt speed humps after temporary, removable, speed humps have been installed on the street for a time period of approximately three months. Temporary speed humps will not be installed or allowed to remain in place during winter months to avoid damage due to snow plowing.



Figure C. Temporary Speed Hump



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IV. Application Process

The following is the list of application process steps which describes the application process in greater detail:

1. Resident, Neighborhood Association or interested party contacts the Department of Public Works (DPW) to request a speed hump. **Use form in Appendix A.**
2. Upon receipt of the request, DPW will consult with the Fire and Police Departments to determine if the roadway is eligible for speed humps based on the eligibility criteria cited above. The study area limits will be determined based on the request (approximately 300 feet on either side of the requested speed humps). DPW will notify the requestor by mail or e-mail within 30 days.
3. If the roadway can accommodate speed humps, the requestor will be asked to send the *INITIAL PETITION REQUESTING SPEED HUMP STUDY*. **Use form in Appendix B.** The petition must be signed by 50% of the residents within the study area. The purpose of the petition is to make the area residents aware of the project and establish citizen participation through the design process.
4. Upon receipt of the signed petition, a traffic study of the project area will be conducted, including vehicle speed and volume, collision history, location of pedestrian and bicycle generators and facilities, and location of schools and housing. See Appendix C for rating criteria. At the conclusion of the study, a rating score will be determined and used to place the project on a priority list.
5. Temporary speed humps will be installed by DPW in priority order based on the priority list and based on availability of resources. They will remain in place for a trial period of approximately three months. Winter and summer months may be excluded due to weather concerns and atypical traffic conditions.
6. Following removal of the temporary speed humps, residents will be surveyed again to confirm that support remains for the project. The requestor will be asked to send the *FINAL PETITION REQUESTING PERMANENT SPEED HUMP CONSTRUCTION*. **Use form in Appendix D.**
7. Upon receipt of the Final Petition confirming support by at least 75 percent of residents in the study area, DPW will commence with construction of the permanent speed humps. Installation will require hiring a contractor using standard procurement procedures which may take several months. Construction is also weather dependent.
8. The effectiveness of the installed permanent speed humps will be evaluated for a minimum of one year. After a period of one year, if residents want to remove one or more permanent asphalt speed humps, they must submit a petition with at least 85 percent of the neighborhood. If approved, residents must pay to remove the humps. Payment for the removal of the speed hump must be made by the neighborhood.



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Appendices

- A. REQUEST FOR SPEED HUMP INVESTIGATION**
- B. INITIAL PETITION REQUESTING SPEED HUMP STUDY**
- C. NEIGHBORHOOD PROJECT RANKING SYSTEM**
- D. FINAL PETITION REQUESTING PERMANENT SPEED HUMP CONSTRUCTION**



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Appendix A

REQUEST FOR SPEED HUMP INVESTIGATION

Please fill out this form in its entirety. The responses you provide will allow the City to allocate the proper resources to review your request and evaluate the area appropriately. Please attach additional sheets or sketches to clarify your point as necessary.

Please locate the streets to be included for speed hump(s). Also include the limits of the area along those streets.

Please describe the traffic issues that need to be addressed (speeding, traffic volume, etc.) the time of day the issues are most prevalent and who is affected (pedestrians, other drivers, homeowners).

Contact Name: _____

Address: _____

Daytime Phone: _____

E-mail: _____

Return this form to:

City of New Rochelle
Department of Public Works
515 North Avenue
New Rochelle, NY 10801



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Appendix C

TABLE 1 NEIGHBORHOOD PROJECT RANKING SYSTEM		
Criteria	Points	Basis for Point Assignment
Speed	0 to 30	Extent by which 85% speeds exceed posted speed limit; 2 points assigned for every 1 mph.
Volume	0 to 25	Average daily traffic volumes (1 point assigned for every 120 vehicles above the 500 vehicle threshold.)
Accidents	0 to 10	1 point for every accident reported within past 3 years
Elementary or Middle Schools	0 to 10	5 points assigned for each school crossing on the project street.
Pedestrian Generators	0 to 15	5 points assigned for each public facility (such as parks, community centers, and high schools) or commercial use that generates a significant number of pedestrians.
Pedestrian Facility	0 to 10	5 points assigned if there is no continuous sidewalk on one side of the street; 10 points if missing on both sides.
City Bikeway	5	Project supports City transportation goals related to bicycle use.
Housing Density	0 to 10	Low Density (2 points) Medium Density (5 points) High Density (10 points)
Total points Possible	115	

Table 1 – Project Ranking System, shows the range of points for each criterion. The sum of points acquired for each criterion will determine the priority of the Speed Hump Project.



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Appendix D

FINAL PETITION REQUESTING PERMANENT SPEED HUMP CONSTRUCTION

Description of Street(s) _____

Primary Contact Name: _____ Daytime Phone: _____

“As evidenced by my signature, I support the construction of permanent speed hump(s) for the above referenced study area. I understand that 75 percent of the residents of this area must support this request for the permanent installation to proceed.” Only 1 resident can sign per household or apartment unit.

Table with 3 columns: Street Address, Signature/ Name Printed, Phone/Email. Multiple rows for data entry.