SECTION 13

TRAFFIC CALMING DEVICES

13.1 GENERAL - FUNCTION OF SPEED HUMPS

Speed humps are traffic management devices used for lowering the speed of motor vehicles along specific street sections. Speed humps should be used only when justified by field studies.

13.2 SCOPE OF SPEED HUMP STANDARDS

This section prescribes standards and guidelines for the application of speed humps in the public right-of-way on streets classified as either "local service" or "neighborhood collector" streets. The use of speed humps on streets of other classifications is currently not allowed. Standards for 22-foot speed humps are found in Section 13.5 and Standard Drawing No.216.

13.3 LEGAL AUTHORITY

Speed humps shall be placed only by the authority of the City Engineer. The installation of an unauthorized speed hump by a private organization or individual is not permitted.

13.4 STANDARDIZATION OF APPLICATION

Through the strict adherence to standards and guidelines outlined in this standard, any given speed hump installation will be equally recognizable and require the same action on the part of the motorist, regardless of where it is encountered. Unique, “non-standard,” situations may warrant unique treatment where justifiable based on a comprehensive engineering evaluation and approval by the City Engineer.

Speed humps should only be installed for the specific purpose prescribed in this standard.

The Cedar Hills City Standard is a 22-foot speed hump, for use on both neighborhood collector streets and higher volume local service streets. A hump may also be used on a local service street that serves as a primary fire response route.

13.5 GENERALIZED STANDARDS AND GUIDELINES

The following are general standards and guidelines that apply to all speed hump applications. There may be situations which do not meet all criteria.

A. Grade - Speed humps may be installed on street sections with a grade equal to, or less than 5-percent. The installation of speed humps on street sections with a grade greater than 5-percent must be based on an engineering evaluation to assure that the installation will not create inappropriate risks to traffic safety. Speed humps may not be installed on street sections with grades greater than 8-percent, based on ITE Draft Speed Bump Guidelines.

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B. Proximity to Curve - Prior to placing speed humps along horizontal roadway curvatures, an engineering evaluation should be conducted to assure that the speed hump installation in conjunction with the design speed of the curve(s) will accommodate safe vehicle passage. In addition, speed humps and/or speed hump warning signs should be placed in such a manner as to be clearly visible by approaching motorists according to MUTCD guidelines for visibility and reaction times.

C. Street Condition - The Public Works Director should inspect all streets prior to any proposed hump construction. The Director will determine if the existing street pavement conditions are adequate to support the impact loads caused by the humps and if any pavement maintenance is required. If it is determined that improvements or maintenance is required, that work should be completed before humps are constructed.

D. Driveways - Construction of speed humps at driveway locations should be avoided where possible to reduce potential vehicle conflict.

E. Diversion Potential - Adjacent streets identified by the City Engineer as having the potential for being impacted by vehicle diversion from the street being treated with speed humps should be monitored.

F. Spacing - Speeds humps installed in a series should be spaced according to an engineering evaluation of the physical street section as well as traffic operations data. Typically, speed humps are spaced at between 300 and 600 feet apart.

G. Utilities - Speed humps should be located in such a way as to avoid conflict with underground utility access to boxes, vaults and sewers.

H. Travel Lanes - Speed humps shall not be installed on streets with more than one through travel lane per direction. Speed humps shall not be installed in exclusive left-turn or right-turn lanes. Special care should be exercised when considering speed humps on streets with continuous left-turn lanes. In all cases, speed humps shall be constructed across the entire width of the street surface.

13.6 CONSTRUCTION AND MAINTENANCE OF SPEED HUMPS

A. Construction - Speed humps may be constructed by a private contractor per the appropriate Speed Hump Detail as approved by the City Engineer.

B. Construction Tolerances - Speed humps must be constructed per the appropriate detail within a tolerance of +/- 0.5-inches in height.

C. Road/Utility Work - Any speed hump, including any associated pavement markings or signage, that is damaged by road or utility work shall be repaired to the original condition by the utility agency responsible for the damage.

D. Maintenance - Speed humps shall be maintained by the Public Works Department.

E. Monitoring - The Public Works Department will monitor speed humps as well as associated signing and markings for necessary maintenance. In addition, while under development and research, speed humps will be monitored by Public Works Department staff to observe and evaluate wear and maintenance requirements.

13.7 APPLICATION OF 22-FOOT SPEED HUMPS

Twenty-two foot speed humps are limited for use on local service streets and neighborhood collector streets only.

13.8 DESIGN OF 22-FOOT SPEED HUMPS

A. Shape - The 22-foot long vertical cross-section of the 22-foot speed hump, measured in the direction of traffic flow, shall consist of a 10-foot horizontal platform, 3-inches in height, which transitions at both ends to existing pavement levels by way of 6-foot ramps.

B. Signing and Pavement Markings - 22-foot speed humps shall be accompanied by appropriate signing and pavement markings as detailed in the City's Design Standards.

13.9 PLACEMENT OF 22-FOOT SPEED HUMPS

Where possible, 22-foot speed humps should be located at least 100 feet from the closest intersecting curb or pavement edge line. Such placement will assure all hump related pavement markings will remain outside intersections and that vehicles turning from side streets will engage humps in a perpendicular fashion.