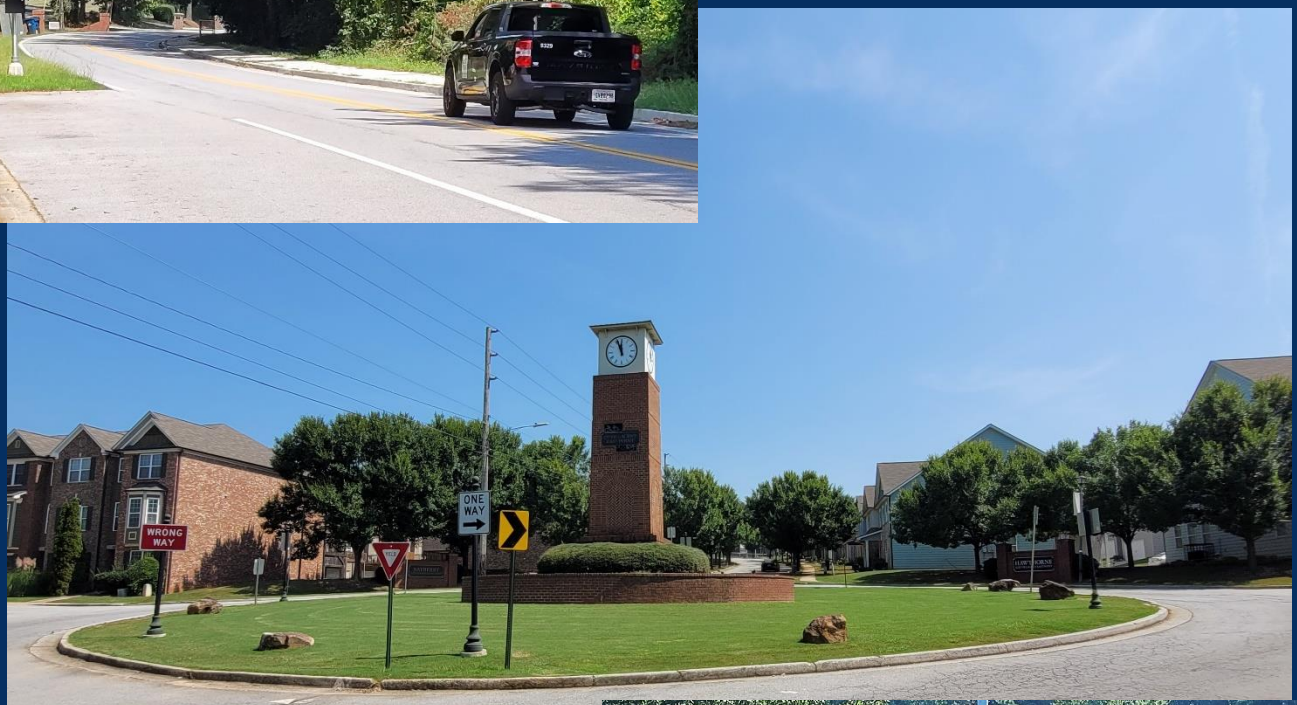
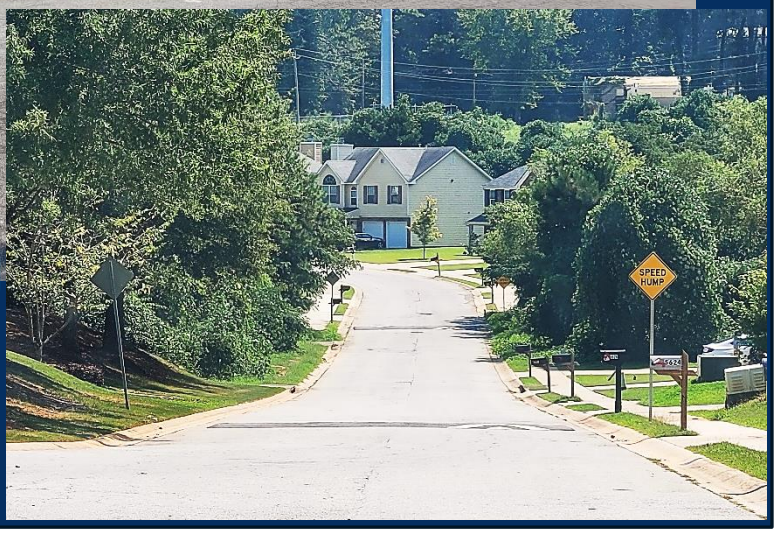


EAST POINT
GEORGIA



Public Works - Transportation Office

Traffic Calming Manual

Established 10/2023

Purpose

The purpose of the Traffic Calming Program is to improve the safety, livability, and quality of life within residential neighborhoods through the use of traffic calming tools. This program shall:

1) Define a process for evaluating and reporting traffic-related concerns within residential neighborhoods,
2) Identify problem characteristics and potential solutions,
3) Identify the costs of each solution as well as funding sources,
4) Specify the review and approval process for implementation,
5) Provide contact information for additional questions or concerns.

This manual identifies the different traffic calming measures that will be used with the City of East Point and clarifies the process for completing and submitting a traffic calming petition for review.

Goals and Objectives

The City of East Point continuously strives to promote overall safety and increase the quality of life for each resident. Vehicles traveling at excessive speeds, or commuter traffic inappropriately using residential streets as a shortcut to other collector and arterial streets, adversely affects public safety and the general qualify of life for residents.

This Program seeks to provide a combination of engineering, education, and enforcement tools to minimize these adverse effects and provide a singular process, which can be used by both City staff and residents alike, to formally address these concerns.

Each neighborhood has unique needs and concerns that must be reviewed and considered to ensure that the appropriate solution is applied. In addition to neighborhood concerns the City must recognize the needs of other users, such as the City's emergency services, which can be negatively impacted by some traffic calming solutions when trying to respond quickly to an emergency call. Final solutions must balance the needs of emergency responders against the needs of the residential community to calm traffic.

The specific objectives are:

1) Reduce excessive vehicle speeds in residential neighborhoods,
2) Reduce the volume of commuter traffic inappropriately using residential streets as a shortcut to other collector or arterial streets,
3) Promote conditions that encourage walkable neighborhoods,
4) Reduce potential for collisions,
5) Encourage citizen and neighborhood involvement.

Law Enforcement

Police presence is an important part of enforcing traffic laws on our roadway system. Motorists are more likely to violate laws with the temporary absence of police officers, but random police presence can provide significant benefits in helping to calm traffic within the area.

In many cases complaints related only to vehicle speeds can be adequately addressed solely with additional enforcement. As such, the permanent installation of a device will only be recommended when regular enforcement is deemed to be insufficient.

Traffic Calming Minimum Safety Warrants

The City of East Point Traffic Calming Safety Warrants are the minimum requirements used to determine if a roadway is safe for the implementation of a traffic calming measure. The roadway being reviewed must meet one and/or more of the below warrants to be considered for a traffic data collection study and implementation.

A. **Have a functional classification of local (residential) street** - Traffic calming measures shall only be used on streets designated Local Residential Street. Traffic calming measures will not be considered for streets which are classified as a collector road, arterial road, and other principal arterial roads. They will not normally be installed on isolated blocks along a continuous street or on relatively short cul-de-sac streets.

   The City of East Point Ordinance No. 183-022 has a list of designated truck routes. Designated truck routes are roadways that allow for truck traffic to commute without restriction.

The following streets are listed as collector, minor arterial, principal arterials, or designated as a Truck Route and are not eligible for traffic calming:

- Airport Loop Rd
- Ben Hill Dr - Welcome All Rd to Southmeadow Pkwy
- Bobby Brown Parkway
- Camp Creek Parkway (S.R. 6)
- Central Avenue
- Cleveland Avenue
- Connolly Dr (Main St to Stanton Rd)
- Delowe Stanton Connector
- East Point Street/Main St (S.R.14)
- Freedom Parkway/ Harold Sheats Pkwy
- Headland Drive
- Lakewood Ave
- Lawrence St
- Milledge Street – (Harold Sheets Pkwy ramp to Oakleigh Dr)
- N Commerce Dr
- N Desert Dr
- Nabelle Ave
- Norman Berry Drive
- Oakleigh Drive
- R.N. Martin St – (Norman Berry Dr to Norman Berry Dr/Milledge St)
- Redwine Rd – N Dessert Dr to Atlanta City Limit
- Sampler Way
- Stanton Road (City limits Atlanta to Connolly Dr)
- Stone Road
- Sylvan Road
- Toffie Terrace
- Virginia Avenue
- Washington Road
- Welcome All Rd
- Willingham Drive

A map of the City of East Point: Roadway Functional Classifications and Truck Routes can be found in the Appendix.

B. **Average Daily Traffic** - Traffic calming measures will be considered on streets where the traffic volumes in both directions (combined) are at least 500 vehicles per day and no more than 1,000 vehicles per day.

C. **Street Length** - Traffic calming measures should not be installed on street segment(s) less than 1,000 feet, or where traffic signals or stop signs exist less than 1,000 feet apart along the street segment(s). Segment(s) must have a straight alignment with more than one bend.

D. **Speed Limit** - Streets eligible for the installation of traffic calming measures shall have a speed limit of 25MPH or less and shall have an 85-percentile speed of greater than 33 MPH. The need to reduce speed substantially at speed humps would not make these devices appropriate for streets posted higher than 25MPH because of the severe speed differential such installation would create along the street. Severe differentials between the speeds of vehicles on a street are known to contribute to traffic collisions.

E. **Steepness** - The street should not have grades greater than 5%. On hilly/rolling streets, the eligible segment of the street shall meet the minimum distance requirements.

F. **Curvature** - The minimum centerline radius must be greater than 375 feet at the location of the device for 25 MPH speed limit, and a 450 radius for a segment with posted speed limit of 30 MPH.

G. **Drainage** - Traffic calming measures should generally be avoided where the drainage is an issue. Drainage and hydraulic impacts should be carefully evaluated on a case-by-case basis for such streets.

Request Process

A. "Homeowners Association" (HOA), neighborhood group, or individual (if no HOA exists) may submit a Traffic Calming Petition Form for the City to investigate speeding, cut-through traffic, or related safety problems. All petition form must be submitted to the Public Works Department, explaining the traffic concerns of the neighborhood. In order for traffic calming measures to be considered, the requested local street must meet the minimum safety standards as established in Section 1.0. The City of East Point Traffic Calming Request Application can be found here: https://www.eastpointcity.org/wp-content/uploads/2023/05/Traffic-Calming-Neighborhood-Petition-Form_05172023pdf.pdf

B. The Public Works Department will undertake a traffic study to verify the Area of Impact meets the minimum safety standards found in Section 1 of this document. If the minimum safety or operational requirements are not met, the Department will inform the applicant in writing, through email or letter, and will continue to monitor the area. If conditions are met, the Department will inform the applicant in writing, through email or letter, and the City will collection traffic volume and added to the traffic calming project list. The traffic calming project list is updated regularly.

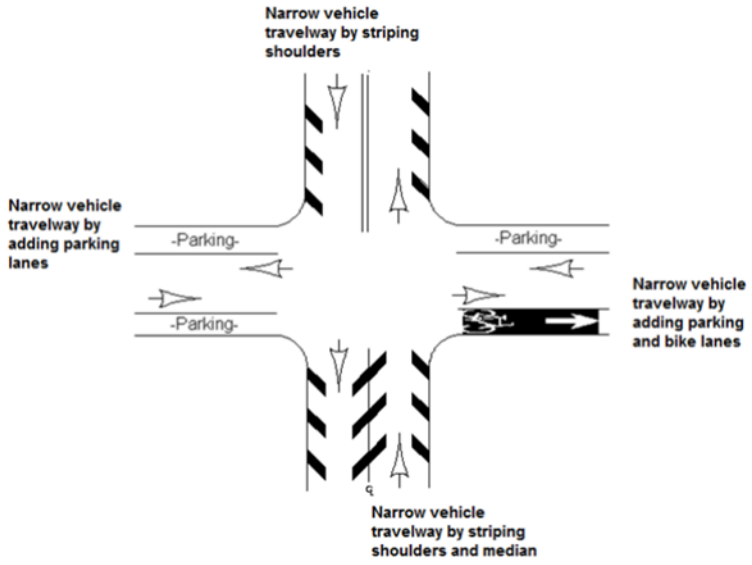
C. Public Works staff will develop a final project design for construction. Projects will be listed for final design based on petition submission and acceptance date.

Alternative Treatments for Traffic Calming (Non-intrusive)

The Non-intrusive devices offer the advantage that they do not physically constrain vehicle maneuvers and thus are less invasive. This is particularly desirable for streets that serve as major emergency and bus routes. Other desirable aspects of the nonintrusive devices are that they involve standard signs and pavement markings easily recognized by motorists and can generally be less costly overall than the vertical, horizontal and narrowing measures. However, some non-intrusive applications are not as effective because they do not physically constrain vehicles to reduce speed.

Pavement Markings

Figure: Pavement Marking Options



Description

The pavement marking options are used in various ways to narrow the vehicle travel lanes, which tends to make motorists drive slower. These include striping the shoulder and/or centerline to narrow the travel lanes or adding parking and/or bicycle lanes. The addition of parking to narrow the travel way (particularly parallel parking) can have a pronounced effect on speed, particularly on a narrow two-way street with parking on both sides where parked vehicles occupy one-half or more of the block. One option when adding parking lanes is to alternate parking along opposite sides of

the street which introduces a physical change in the straight vista of a roadway, similar to that of a chicane (discussed further on) to promote reduced speeds.

"Road diets" likewise incorporate markings to narrow and/or eliminate travel lanes although the common application (conversion of a high traffic, undivided four-lane roadway to a three-lane roadway with two through lanes and a center two-way left-turn lane) is not relevant on a typical neighborhood street, the focus of the Guide.

Note: On local streets, bicyclists are considered a normal part of the vehicle mix and do not necessarily require a marked or designated bike lane which is more appropriate on collector roads and where they connect to a network of bike lanes on streets identified in a local and/or regional Bicycle Plan.

Placement

The desired features (e.g., add bike lanes and/or parking etc.) and available pavement width as well as the allowable minimum travel way widths, dictates the type of pavement striping and its location.

Advantages

- Does not physically restrict driver maneuvers and thus will not impose speed reductions on emergency and transit vehicles.
- Involves a standard traffic control device easily recognizable by motorists.
- Can be less costly to implement than some of the other devices depending on the type and extent of application.

Disadvantages

- Restriping the pavement involves considerably more effort where significant eradication of existing pavement markings is required. Therefore, where this is the case, it is recommended that this measure is implemented in conjunction with a re-paving project.

Effectiveness

FHWA suggests a reduction between 1 and 5 mph (a reduction of 2 to 3 mph being the most common) where parallel parking is added to narrow the travel way and a reduction of ½ mph where shoulder markings are used to narrow the travel lane.

Cost

An estimated cost of $5 per linear foot of pavement marking/striping, including eradication of existing markings and maintenance of traffic, is

suggested. Special symbols such as bicycle emblem on a bike lane are approximately $300 each.

Radar Speed Feedback Signs (RSFS)

Figure: Radar Speed Feedback Sign

Description

A Radar Speed Feedback Signs (RSFS) Sign combines the regulatory speed limit sign with a radar speed feedback sign that displays the real-time speed of an approaching vehicle which tends to make motorists reduce their speed.

Placement

Signs are installed only on streets with a single through-travel lane per travel direction (e.g., a two-lane, two-way or one-lane, one-way street). Generally, one sign is placed at the beginning of the street section identified for traffic calming in each travel direction, in order to reinforce the posted speed limit for vehicles entering the section of street designated for traffic calming. At least 200 feet of visibility distance should be allowed approaching the sign and at least 100 feet between any other signs.

Advantages

- These signs can potentially be used as a portable assembly that allows for placement at alternating locations.
- Does not physically restrict driver maneuvers and thus will not impose speed reductions on emergency and transit vehicles.
- Involves a standard traffic control device easily recognizable by motorists.

Disadvantages

- Installing these signs may be impacted by the availability of a power source.

Effectiveness

Various sources indicate an average sustained reduction in operating speeds of 5 mph may be achieved.

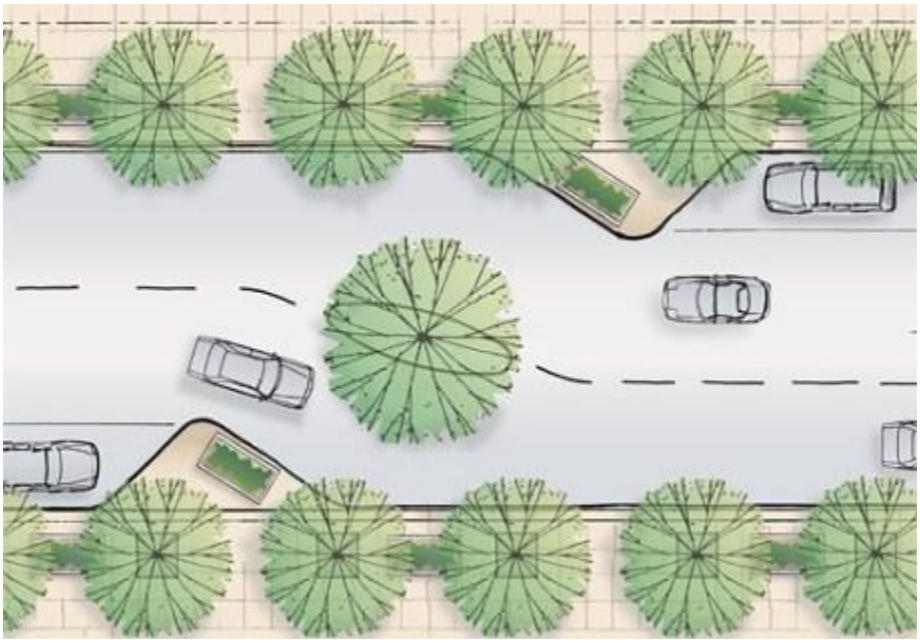
Cost

An estimated cost of $7,500 per installation is suggested, depending on whether solar or conventional power is used as well as the proximity of the power source.

Traffic Calming Measures

Chicanes

Figure: Example of Chicane Design



Description

Chicanes are a series of alternating curves or lane shifts that force a motorist to steer back and forth instead of traveling a straight path. Chicanes are

also called deviations, serpentines, reversing curves, or twists. Chicanes are adjacent to the curb on alternating sides of the street in sets of three in order to introduce an S-shape travel path on a straight section of street that compels vehicles to slow down in order to negotiate the curved section.

Placement

These devices are at mid-block with a median or other non-traversable barrier to separate travel in each direction through the chicane. Note: With no physical separation between the travel directions drivers tend to cross the centerline to make their travel path as smooth as possible through the chicane, particularly an issue when there is a vehicle approaching in the opposing lane who may be doing the same. This cross-centerline behavior is a potential safety concern and contributes to a general ineffectiveness of the device in terms of speed reduction

The spacing and travel way width between the chicanes can vary to promote a greater or lesser vehicle speed reduction. Closer spaced constructions and narrower travel way widths promote a greater reduction in speeds.

Advantages

- Provides for adding greenery and thus enhance the attractiveness of the street.

Disadvantages

- Narrows travel-way for bicyclists and creates some loss of parking.
- Presents a fixed object within the travel-way that may be struck by vehicles especially snowplows etc.

Effectiveness

FHWA indicates an average reduction in operating speeds of 3 to 9 mph.

Cost

An estimated cost for asphalt chicanes of $10,000 (for a set of three chicanes) is suggested and $16,000 for a concrete set of three. Drainage issues may be the most significant cost consideration.

Speed Hump

Figure: Example of Speed Hump

Description

A Speed Hump is a vertical device with a raised parabolic shaped area in the roadway, extending across the road at right angles to the traffic. The raised surface is higher and occurs over a shorter travel distance than for other vertical devices. Speed humps are the most commonly used traffic calming devices.

Placement

Speed humps are placed at mid-block.

Advantages

- Speed Humps are among the most recognizable traffic calming devices, which may promote a quicker response by motorists to reduce their speed.

Disadvantages

- Increases noise to nearby residents as vehicles pass over the device (particularly larger trucks)
- Impedes bicyclists.
- Impacts travel times of emergency vehicles and transit (buses)

Effectiveness
FHWA & ITE (Institute of Transportation Engineers "Traffic Engineering Handbook, Sixth Edition"–see references) indicate an average reduction in operating speeds of 5 - 8 mph.

Cost
The estimated cost for a speed hump is approximately $2,000 depending on drainage conditions and materials used.

Speed Cushion

Figure: Speed Cushion

Description
A Speed Cushions is a modified Speed Hump where openings are added to accommodate emergency or other large vehicles to utilize the openings without traversing over the raised portion to minimize speed reduction. However, the sizing of the cushions ensures that passenger vehicles cannot likewise avoid traveling over at least one set of lumps. Placement Speed cushions are placed at mid-block.

Advantages
- Allows emergency vehicles and buses to traverse the device without reducing speed by utilizing the openings provided for those particular vehicles.
- Produces less noise than speed humps for emergency or other large vehicles.

- Speed cushions are more accommodating for bicyclists than speed humps, as bicyclists can utilize the openings to traverse the device.

Disadvantages

- These devices likewise increase noise to nearby residents for passenger vehicles.
- May encourage passenger vehicles to cross into the opposing lane in an attempt to straddle the humps provided for emergency vehicles. Providing a centerline stripe approaching the speed cushions in each travel direction may discourage this.

Effectiveness

ITE & FHWA data indicate an average reduction in operating speeds of 5 - 7 mph.

Cost

The estimated cost for a speed cushion is similar to a speed hump; approximately $2,000 depending on drainage conditions and materials used.

Corner Extension

Figure: Corner Extension/Bulb-Out

Description

Curb extensions, also known as corner extensions or bulb-outs are used where there is on-street parking. They primarily serve to protect parking and enhance the safety of pedestrian crossings at an intersection by narrowing

the roadway section, which in turn shortens pedestrian crossing distance and time. They also reduce the speeds of turning vehicles thereby increasing pedestrian visibility. When placed at mid-block they are considered chokers).

Placement

At an intersection, with any number of legs and may be applied on any or all approach legs.

Advantages

- Shortens crossing distances for pedestrians, which increases safety and provides parking protection downstream with the goal of decreasing vehicle speeds as well.

Disadvantages

- Requires additional considerations for accommodation of bus routes and bicycle lanes.

Effectiveness

FHWA data indicates an increase of vehicle speeds of 1 - 3 mph; however, they can reduce the turning speeds of vehicles by 6-8 mph.

Cost

An estimated cost of $2,000 to $20,000 per corner is suggested, depending on design and site conditions where the accommodation of drainage is usually the most significant cost.

Raised Crosswalk

Figure: Raised Crosswalk at Intersection

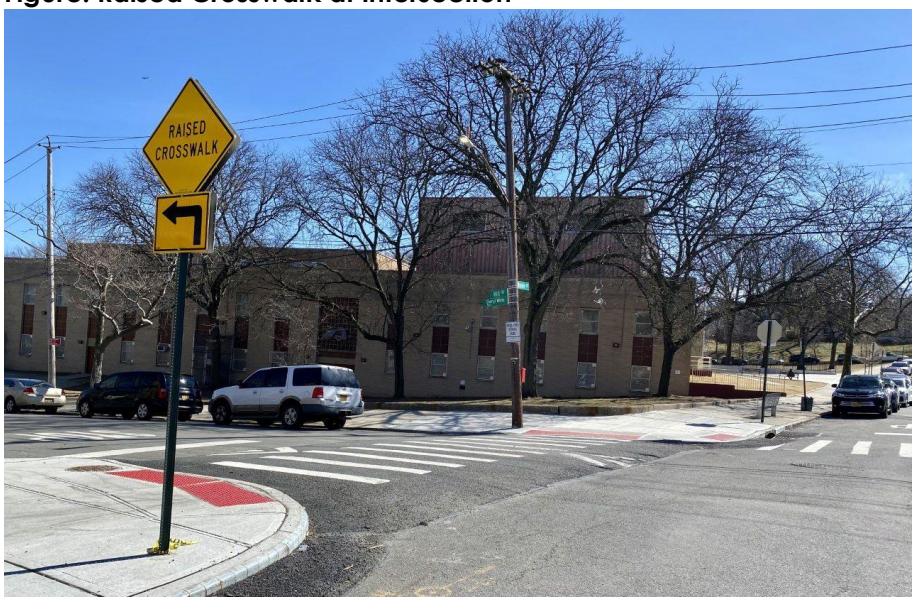


Figure: Raised Crosswalk at Mid-Block

Description

A Raised Crosswalk is identical to a speed table, except it utilizes the top, flat surface to provide a marked pedestrian crossing.

Placement

- A raised crosswalk is located at mid-block or at an intersection where there is an existing, marked crosswalk or where one is warranted. New

crosswalk locations require an engineering study and must be approved by the Public Works Department.

Advantages

- Provides improved visibility and safety for pedestrians.
- Enhances the pedestrian environment at pedestrian crossing.
- Can increase the number of motorists yielding to pedestrians crossing at the raised device.

Disadvantages

- These devices likewise increase noise to nearby residents for passenger vehicles.

Effectiveness

As their design is identical to speed tables, presumably they have similar speed reductions of 6 – 9 mph.

Cost

The estimated cost for a raised crosswalk is approximately $5,000 - $7,000, depending on drainage conditions and the type of materials used.

REFERNCES

1. ITE Traffic Calming Measures Facts Sheets
   https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/

2. VDOT Traffic Calming Guide for Neighborhood Streets
   https://www.virginiadot.org/programs/resources/traffic-calming-guide-for-neighborhood-streets.pdf

3. ITE/FHWA Traffic Calming ePrimer
   https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer

4. National Association of City Transportation Officials
   https://nacto.org/publication/urban-street-design-guide/