Dunwoody
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MEMORANDUM

To: Mayor and City Council

From: Michael Smith, Public Works Director

Date: December 14, 2015

Subject: **Discussion of Traffic Calming**

BACKGROUND

At Councilman Heneghan's request, staff has reviewed the history of the city's traffic calming program. In September 2009 the city council adopted a policy to establish the process and criteria for installing traffic calming measures within neighborhoods. Many elements of DeKalb County policy at the time were incorporated into the city's policy. Key elements of the city's policy include:

- Local/residential streets with speed limit below 30 mph are eligible.
- The 85th percentile speed must be 11 mph or more over the posted speed limit. The 85th percentile speed is the speed which 85% of vehicles are traveling at or below. It is a commonly used standard for evaluating speeds and for establishing posted speed limits.
- Emergency vehicle, bicycle and pedestrian access must be preserved.
- 65% of property owners in the affected area must approve installation or removal of traffic calming measures.
- Each property in the affected area is assessed $25 annually on their property tax bill.

Many local governments across the country have adopted minimum criteria for traffic calming eligibility in response to public opposition to the proliferation of traffic calming measures, concerns from the public safety community and even lawsuits.[1] By establishing minimum criteria agencies seek to target traffic calming efforts where the traffic impacts are significant enough to warrant implementation and to generate strong support from a large majority of the affected residents.

The criteria also seek to minimize the negative impacts of traffic calming which can include opposition from residents who do not support the measures, increased street maintenance costs and slower emergency vehicle response time. Based on the city's current fee assessment and replacement cost, it takes 10 homeowners about 20 years to pay for each speed hump and the humps have to be replaced each time the street is repaved. Previous studies of the impact of speed humps on emergency response time range from 2 to 10 seconds per hump.[1] These are some of the reasons that Dunwoody's policy, in addition to the criteria listed above, also states that more passive measures may be installed and evaluated for effectiveness before active measures such as speed humps are installed.

Since the program's inception the city has received requests for traffic calming on 19 streets. One of those locations, Village Creek Drive, met the 11 mph threshold and speed humps have been installed. Another location, Mill Shire Drive which already had speed

1. Institute of Transportation Engineers, *Traffic Calming: State of the Practice* (ITE/FHWA, 1999)

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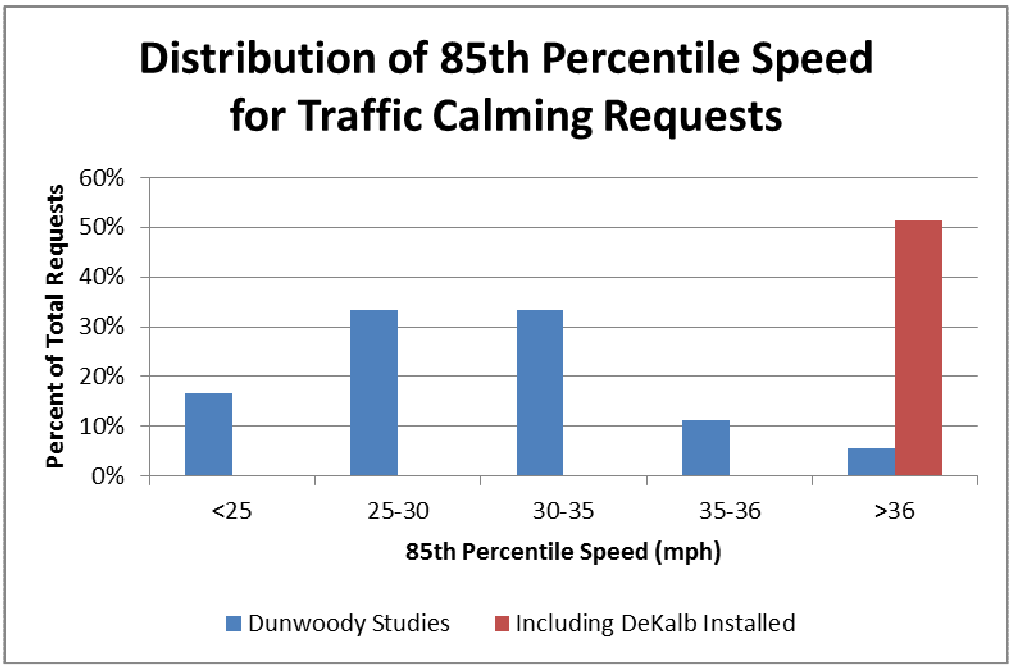
humps at the time of the request, had additional signage installed to further discourage cut through traffic. None of the remaining locations qualified for traffic calming based on the 11 mph threshold. The following figure provides a breakdown of the observed 85th percentile speeds on streets where traffic calming has been requested.



Including the streets that already had traffic calming installed prior to Dunwoody's incorporation, a little more than half of the requests for traffic calming have met the speed criteria. Staff found that Dunwoody's experience is consistent with previously published data from Cobb County, Gwinnett County and the City of Atlanta all of which have an 85th percentile speed threshold of 35 mph. Out of several hundred locations in each jurisdiction, the percentage of requests that were eligible ranged from 4% in Cobb County to just over 40% in Gwinnett County.

Radar Speed Display Signs

Radar speed display signs are one of the passive traffic calming measures that the city has installed at 14 locations within school speed zones. Comparing the speed before and after installation, staff has concluded that only two locations, Mount Vernon Road westbound and Womack westbound at Dunwoody Elementary, have had a measurable effect on speeds. The distinguishing factors at these two locations are that they are on long, slightly downhill straightaways with wider pavement and a speed limit of 35 mph.

The signs cost over $5,000 each and are more expensive to maintain than a standard street sign. If the city considers installing additional signs in the future, staff recommends limiting their installation to locations with the following characteristics:

- Posted Speed Limit of 35 mph
- Roadways with straight alignments of greater than ¼ mile
- Downhill grades of greater than 3%
- 85th percentile speed in the downhill direction that is more than 8 mph over the speed limit.

1. Institute of Transportation Engineers, *Traffic Calming: State of the Practice* (ITE/FHWA, 1999)

CITY OF DUNWOODY
PUBLIC WORKS DEPARTMENT

TRAFFIC CALMING POLICY

Article 3.6

Version: Final

Approved: September 28, 2009

Article 3.6

I. Introduction

Because of increased congestion on the City's arterial and collector road network, combined with driver's desires to find shorter travel routes, drivers frequently seek alternate travel routes. Frequently, the routes include the City's local and residential neighborhood streets. Many of these streets have experienced increases in volume and speeding that has diminished the quality of life and the safety of residents, pedestrians, bicyclist, and other motorists.

Traffic Calming as defines by the Institute of Transportation Engineers (ITE), is the use of physical and psychological devices "to reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users." The use of Traffic Calming techniques may return the quality of life and safety in a neighborhood by alerting drivers to share the road, drive with more care, drive more slowly, and, in some cases, divert to more appropriate routes.

While each neighborhood and each situation may be somewhat unique, a systematic approach is taken by the Traffic Calming Program. Thus, the same definitions and criteria, as outlined in this policy, are applied in all cases. As a part of that approach, the transportation system of the City needs to be considered as a whole. Solving a problem on one neighborhood or street should not cause another problem to appear somewhere else.

II. Minimum Requirements

In order for the installation of Traffic Calming Measures to be considered, the following criteria must be met:

1. Only streets classified as Local and/or Residential with a speed limit of 30 mph or less are eligible for the Traffic Calming Program.

2. Streets classified as Arterial, Collector, and/or Thoroughfare are Not Eligible for Traffic Calming.

3. The 85th Percentile speed as measured by a speed study must be 11 mph greater than the posted speed limit of the street.

4. The traffic study must show that the Traffic Calming techniques will not divert traffic on to other local and/or residential streets in the study area.

5. Emergency Vehicle access must be preserved

6. Pedestrian and Bicycle access must be preserved

7. The neighborhood Traffic Calming plan shall be designed using sound planning practices and engineering judgment.

III. Definitions

For purposes of this Policy, certain terms and words are defined. Where words have not been defined, but are defined in a subsequent section of this Policy, those words shall have the meaning as defined therein. The following words, terms and phrases when used in this Policy shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

AASHTO means the American Association of State Highway and Transportation Officials.

Affected area means a geographic portion of a neighborhood consisting of all property owners whose quality of life as a resident in the neighborhood, and not necessarily as a traveler through the neighborhood, is being directly impacted by the cut-through or speeding traffic problem being addressed. The affected area will include all lots from which residents must traverse the traffic calming measure. The affected area will also include all lots from which residents may have an alternate route without traffic calming measures but whose lots have driveways that access the residential street for which traffic calming measures are sought.

Department means the Public Works Department.

Eligible Petitioner means the person whose name is recorded as a property owner in the tax records maintained by the Dekalb County's tax commissioner and board of tax assessors for the address listed on the petition that falls within the affected area.

Initiator is a real property owner who has initiated a request for traffic calming measures and/or has assumed a primary role in circulating the subsequent traffic-calming petition and undertakes to serve as the City's sole contact with respect to the progress of any subsequent traffic study and traffic-calming petition.

I. T. E. Means the Institute of Transportation Engineers.

MUTCD means the Manual on Uniform Traffic Control Devices.

Real property owners' means homeowners or other real property owners as indicated in the tax records maintained by the Dekalb County tax commissioner and board of tax assessors.

Reference number means the number assigned to a completed initial interest request which meets the City's criteria for a study that will be used to determine the order in which traffic studies will be conducted.

Residential street means a street classified and defined as "residential" in the records of the City of Dunwoody Community Development Department.

Traffic-calming measures means those methods and processes, prescribed by "AASHTO" or other nationally recognized organizations, that the City may use to reduce aggressive driving behavior that impairs the quality of life of its citizens in any neighborhood in which the posted speed limit is no greater than thirty (30) miles per hour. Such measures include, but are not limited to, speed humps, bicycle lanes, center traffic islands, splitter islands, and striping and turn restriction lanes.

Traffic study means the process by which data pertinent to the flow, rate of speed and density of traffic, collected over a defined period of time, is measured and analyzed to determine its impact on the safety of citizens within a neighborhood or affected area.

IV. Traffic Calming Process

1. Homeowners' Association, neighborhood group, or individual reports can request a Traffic Calming Project for their neighborhood or street by submitting an Application Form and Petition with signatures of a minimum of 20% of the residents on the street(s) requesting Traffic Calming.

2. Public Works Department with schedule and conduct an Initial Meeting with the Neighborhood Coordinator to discuss:
   - Application Process
   - Traffic Study Process
   - Petition Requirements
   - Financial Participation
   - Potential Passive Traffic Calming Solutions

3. Public Works Department will conduct appropriate studies, as approved by City Manager, to determine the existence and extent of the problem
   - If the results of the study indicate there is no traffic problem, the neighborhood will be informed in writing
   - If the results of the study indicate there is a traffic problem, Public Works staff will develop a traffic calming report, including suggested passive and active measures.

4. Public Works staff schedules a neighborhood meeting to discuss study findings, suggested passive and active measures, definition of the affected area, anticipated costs, and the petition process

5. Public Works will prepare a preliminary design of the proposed passive and active measures and prepare the formal petitions for the Neighborhood Coordinator to distribute for signature.

6. To show awareness and consensus for the proposed traffic calming plan, the neighborhood must submit a petition to Public Works with signatures of 65% of the households approving the proposed plan (see Appendix B for example petition forms)

7. Public Works shall verify the signatures on the petition and, once verified, will develop a final project design and cost, based on the suggested passive and active measures.

8. Final design and cost for any active measures will be presented to the Mayor and City Council for funding and approval

9. The City will fund 100% of the cost-necessary for construction of any active traffic calming measures. Funding available for the construction of active traffic calming measures will be limited to the amount budgeted for Traffic Calming for that current fiscal year and allocated to neighborhoods in the order that their petition is approved by the City Council. Any neighborhoods that are approved for the construction of active traffic calming measures after the current year's budget has been expended will be funded out of future year's budgets in the order that their petition was approved by the City Council

10. Passive measures and/or any needed modifications or temporary measures may be implemented and studies for effectiveness before active measures are installed.

11. Upon City Council approval and the allocation of funds in the City budget, the traffic calming project will be implemented at the direction of the Public Works Department.

12. Each property in the affected area will be assessed a $25 fee per year on their property tax bill for maintenance of the Traffic Calming Devices, beginning the year after the devices are installed.

13. Within 6 months of project installation, Public Works staff will conduct follow-up studies to measure project effectiveness

14. In the case of resurfacing, most existing traffic calming devices will need to be removed in order for resurfacing to take place. However, existing traffic calming devices will be considered as grandfathered and will be replaced with following completion of the resurfacing project. No additional neighborhood funding or petitions will be required. However, neighborhoods need to be aware that the presence of active traffic calming measures may affect the ability of the City in obtaining Local Assistance Road Paving (LARP) funds from the State of Georgia, Department of Transportation for their street(s) which may delay the resurfacing until local funds are available in the budget.

IV. Removal of Traffic Calming Devices

If the neighborhood decides that they no longer want previously installed traffic calming devices, they must follow the same procedure to obtain 65% support by petition as listed above for installation. Active traffic calming devices should remain in place at least 12 months before removal. If devices are removed, the road must also be brought back to City standards. The City of Dunwoody reserves the right to remove speed humps for any reason.

Appendix A – Example Traffic Calming Measures

Passive Measures

The primary use of passive measures is to reduce the speed of traffic while raising awareness of the traffic problems in residential areas. These methods are less costly than active devices, as they do not affect the geometry of the roadway or require extensive construction. Passive traffic calming measures include radar trailers, re-striping, and installing signs.

General advantages of passive traffic calming measures:

- Pose no restrictions for bicycles or pedestrian traffic
- Does not affect intersection capacity or operation
- Cheaper than active traffic calming devices
- Raise awareness of drivers to speeding problems
- No impacts to transit or emergency services
- Can be done regardless of the grade of the road

General disadvantages of passive traffic calming measures:

- Not necessarily enforceable
- Not always effective over time

Radar Trailer

Description:
The City of Dunwoody is considering the operation of a number of portable radar speed meters capable of measuring vehicle speed and graphically displaying the speed of the motorist.

Primary Purpose:

Reduce vehicle speeds by raising the awareness of the driver to their speed

Advantages:
- Possible speed reduction for short intervals at the radar trailer location
- Opportunity to collect volume and speed data, dependant upon equipment

Disadvantages:
- Not an enforcement tool
- Minimal effectiveness on reducing traffic speeds over time

Narrowing lanes

Description:
Striping is used to narrow travel lanes to 10-foot widths.
Primary Purpose:

Reduce vehicle speed by creating the perception of a narrower road. Generally, speeds are lower in 10-foot wide lanes than in 12-foot wide lanes.

Advantages:

- Re-striping can include bike lanes. This reduces the vehicular lane width while also providing a safe place for bikes to travel. Striping to include bike lanes also reduces the potential for driver to drive outside the lane.
- Striping is easily modified

Disadvantages:

- Citizens do not always perceive striping to be an effective traffic calming technique

Signs and Signals

Advisory and regulatory signs and signals can assist with many problems addressed by traffic calming. Installation of any signs and signals should conform to the standards set forth in the *Manual on Uniform Traffic Control Devices* (*MUTCD*), as established by the Federal Highway Administration

Turn Movement Prohibition

Description:
Particular turning movements are prohibited by the installation of enforceable signage at an intersection. These signs can be installed to restrict certain turning movements altogether or just for certain hours (usually the peak traffic hours).

Primary Purpose:
Helps to prevent excessive volume on residential neighborhoods during peak hours
Advantages:

- Enforceable manner of preventing cut through traffic

Disadvantages:

- Turn movement prohibition applies to everyone – including residents
- Can further restrict traffic flow in already congested areas

Other Considerations:
When restricting turn movement, special care should be given to considering the overall local system to prevent moving the problem to another location.

One Way Treatment

Description:
One-way treatment involves having streets or roadways upon which vehicular traffic is allowed to travel in one direction only.
Primary Purpose:
Increase the safety of a roadway by reducing the number of conflicting movements. One-way treatment is not a traffic calming method, but can be used to manage traffic flow in an area.

Advantages:

- Increases the safety of the roadway by reducing the number of conflicting movements
- One way treatment of a roadway is enforceable

Disadvantages:

- Changing a street from a two-way operation to a one-way operation takes a lengthy implementation process
- Changing a street from a two-way operation to a one-way operation may impact emergency services or transit systems
- Changing a street from a two-way operation to a one-way operation requires the consideration of the impact on the local system. Steps should be taken to ensure that making a roadway one way will not move the problem elsewhere or create new problems.
- Works best in a system comprised of parallel roads

Other Considerations:

Emergency services and transit routes should be considered when changing from two-way operation to one-way operation. Their opinions will be solicited and weighed appropriately.

On-street Parking

Description:

On street parking provides designated parking spots on the sides of roadways.

Primary Purpose:

On-street spaces provide both additional parking and traffic calming benefits. Drivers tend to travel more slowly when driving past a lane of parked cars due to a reduction in the perceived travel way.

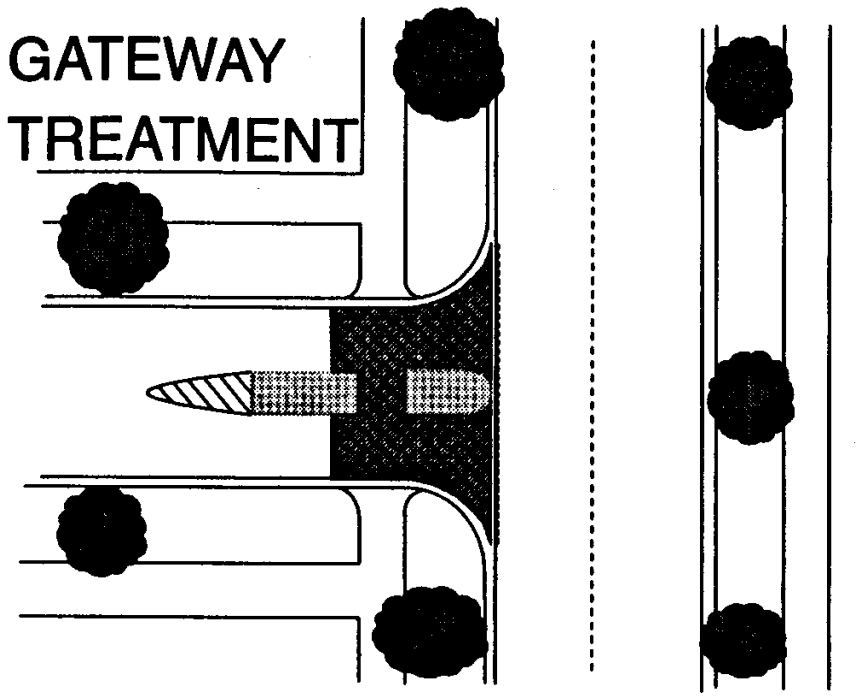
Advantages:

- May reduce the speeds of the passing traffic
- Increase pedestrian safety – on-street parking provides a greater buffer between the sidewalk and the traveling vehicular lanes

Disadvantages:

- Common perception that on-street parking is not aesthetically pleasing
- Possible difficulty seeing pedestrians crossing at mid-block locations

Other Considerations:
Parking spaces should be prohibited at least 100' from an intersection and at least 10' on both sides of a fire hydrant.



Gateway and Pavement Treatments

Description:

Gateway treatments are decorative entrances indicating transition from one area to another. Pavement treatments involve decorative pavement in the form of different colors and textures.

Primary Purpose:

Visually alert the driver that they are entering a new area, such as a residential area from an arterial road. Gateway treatments can include signs, decorative walls, arches, pillars, hedgerows, etc. Pavement treatments can include colored concrete, stamped concrete, or bricks.

Advantages:

- Versatile and easily individualized for each specific neighborhood
- Aesthetically pleasing
- Easy to implement with active traffic calming devices

Disadvantages:

- Limited utility in speed reduction

Other Considerations:
Gateway treatments should not obscure proper sight distance, therefore making the intersection less safe. Structures are not permitted in the public right-of-way.

Increased Patrolling and Target Enforcement

Description:
Police can intensify coverage for an area of concern, most commonly to enforce speed limits and stop signs.

Primary Purpose:
Increase the awareness of the traveling public of law enforcement and to encourage them to obey traffic laws.

Advantages:

- Citizens perceive as achieving results
- Decrease in traffic violations in the general area

Disadvantages:

- Police generally do not have the staff to regularly patrol most residential areas
- Time that police officers spend patrolling for traffic violators is not directly spent in reducing violent crime
- Many residential roads have insufficient geometric alignment for radar enforcement
- Increasing patrols and enforcement only reduces speeds in the general area during the period of intensified attention. Once the intensity subsides, the traffic violators typically return to their previous habits.
- Enforcement applies to all residents in violation

Other Considerations:
If heavy truck traffic is an issue, citizens can request that the road be added to the truck route prohibition list.

Neighborhood Safety and Awareness Program (Neighborhood Watch)

Description:
Teach techniques motorists, pedestrians, and parents can use to help address speeding issues, and increase awareness of their driving habits. Unique programs can be developed for specific cases, such as crime awareness or parking enforcement.

Primary Purpose:
Increase the awareness and activity of the neighborhood. Frequently, it is members of the neighborhood who are the most flagrantly violating traffic ordinances (i.e. stops signs or the speed limit).

Advantages:

- Involves the neighborhood actively and regularly in the solution
- Easily combines with other traffic calming techniques

Disadvantages:

- Citizens do not always perceive neighborhood watch programs as effective traffic calming techniques
- Program effectiveness is proportional to neighborhood association involvement

Right-of-Way Clearing

Description:
Clearing of brush or other objects in the right-of-way that obscure signs or sight distance either along roadways or at intersections can improve safety.

Primary Purpose:
Maintain minimum sight distances along roadway. Sight distances over a certain length may increase the speed of a roadway, but sight distances below the minimum adversely affect safety. Clearing the right-of-way does not assist in traffic calming, but does assist in improving safety.

Advantages:

- Potential quick turn-around on a request for the clearing of the right-of-way
- City program is already in place to trim trees and clear the right-of-way
- Improve safety of intersections and roadways by providing ample view of signs and improving sight distances

Other Considerations:
The City of Dunwoody encourages Homeowners Associations to keep the right of ways clear. Right of way clearing performed by City work crews is done without regard for existing landscaping or vegetation.

Active Measures

The primary purposes of active traffic calming devices are to reduce the speed of traffic, improve bike and pedestrian safety, and raise awareness of traffic problems in a residential area. These methods are more expensive than passive devices because they often affect the geometry of the roadway, which requires extensive construction and maintenance. Active traffic calming devices include speed humps, traffic circles, and splitters.

General advantages of active traffic calming devices:

- Effective at solving specific traffic issues, especially speeding
- Raises awareness of drivers to speeding problems

General disadvantages of active traffic calming devices:

- May pose restrictions for bicycle traffic
- May negatively impact transit or emergency services
- Higher cost than passive traffic calming measures

Standard Speed Humps

Description:
The standard speed hump is a 22-foot long, four to six inch high, and constructed of asphalt or concrete, extending the entire width of the roadway which causes vertical displacement of the vehicle. The hump consists of two 6 foot long ramps flanking a 10 foot flat section. Humps can be colored and/or textured to add aesthetic appeal.

Primary Purpose:
Reduce vehicle speeds by providing vertical displacement of the vehicle that result in a jolt if the vehicle's speed is too high.

Advantages:

- Reduces vehicle speeds – encouraging 25 mph vehicle speeds
- Pose no restrictions for bicycles
- Do not affect intersection capacity or operation

Disadvantages:

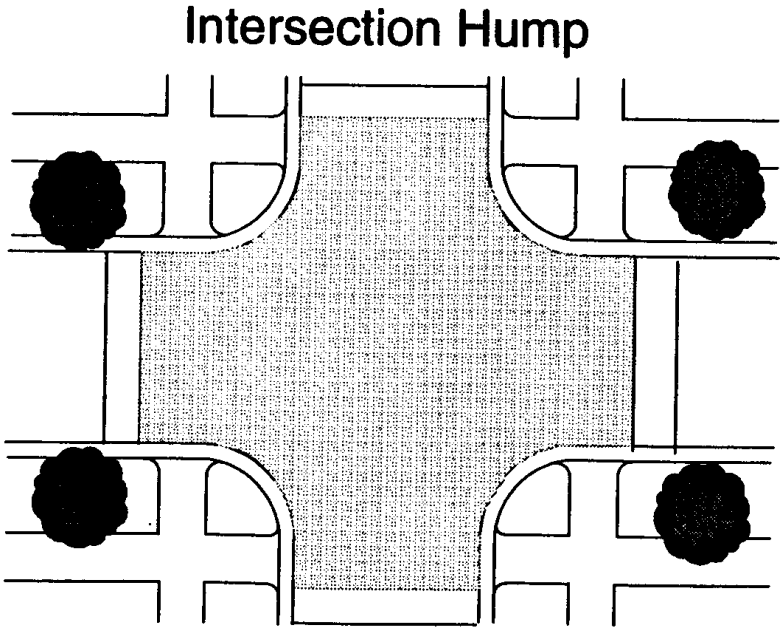
- Potentially increase traffic noise from braking and acceleration of vehicles, particularly buses and trucks

Transit Service Impacts:
22-foot speed humps create a minor impact to transit scheduling.

Emergency Services Impacts:

When speed hump designs are selected for any street, one should consider whether it is used as a primary response route. Minor impacts to response time may occur.

Other Considerations:
Speed humps should not be considered on grades of eight percent or greater.



Intersection Humps

Description:

Similar to the speed hump, the intersection hump slopes are all straight lines and are typically constructed out of concrete with a surface treatment or patterning. The top of the intersection hump is flat, and the one pictured above extends beyond the boundary of the intersection providing a spot close to the curb for pedestrians to safely cross.

Primary Purpose:

Reduce vehicle speeds at intersections by providing vertical displacement of the vehicle that results in a jolt if the vehicle's speed is too high. They may also provide a place for pedestrians to safely navigate the intersection. At an intersection where an all-way stop is unwarranted, an intersection hump forces motorists to navigate the intersection more slowly, making them more likely to yield the right-of-way to other motorists and pedestrians.

Advantages:

- Reduce vehicle speeds – encourage 25 mph vehicle speeds
- Pose no restrictions for bicycles

- Increase pedestrian safety by providing a distinct location for drivers to yield right-of-way
- Increase intersection safety by providing a distinct location for drivers to yield right-of-way to other legs of the intersection

Disadvantages:

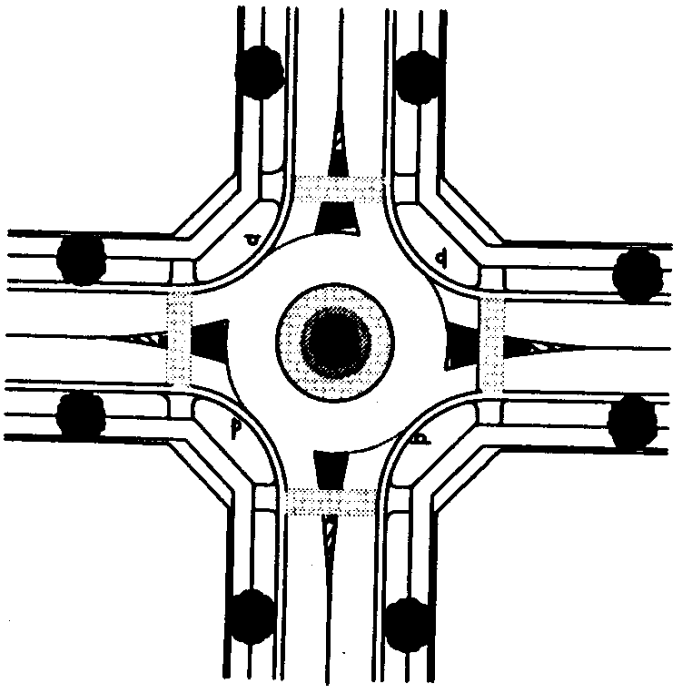
- Potentially increase traffic noise from braking and acceleration of vehicles particularly buses and trucks

Transit Service Impacts:
Intersection humps do not significantly impede transit services.

Emergency Services Impacts:
When intersection hump designs are selected for any street, one should consider whether it is used as a primary response route. Intersection humps may cause difficulty with the turning radii of large vehicles.

Other Considerations:
Intersection humps should not be considered on grades of eight percent or greater. Intersection hump may also pose challenges with surface water management.

TRAFFIC CIRCLE



Neighborhood Traffic Circles (Roundabouts)

Description:

Traffic circles or roundabouts consist of a landscaped island in the center of the intersection with appropriate signage and marking. A driver enters a traffic circle by turning right, after yielding to any traffic coming from the left. All turns from a roadway intersection that has a traffic circle are right in, right-out.

Primary Purpose:

Reduce speeds through intersections and assist drivers in proper yielding.

Advantages:

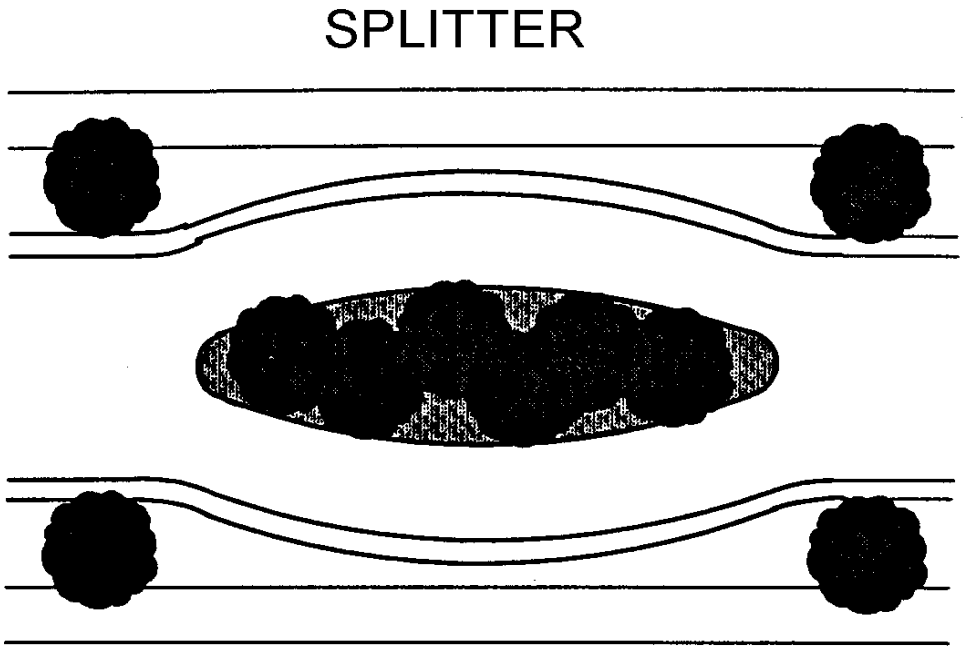
- Increase operational safety by reducing the number of conflicting movements
- Reduce speeds in the intersection
- Cannot be ignored like an intersection controlled by stop signs
- May improve intersection capacity and operation
- Accommodates intersections with a wide range of access points (i.e. three to five way intersections) and can include driveways in the intersection

Disadvantages:

- *Provides a potential obstruction for collision*
- *Maintenance costs increase over all-way stop due to increased landscaping and/or pavement*

Transit Service Impacts:
Traffic circles can be designed such that buses can navigate left turns by going the wrong way through a traffic circle. On roads with high average daily traffic that would make such maneuvers infeasible, traffic circles should be designed large enough for buses to navigate.

Emergency Services Impacts:
Traffic circles can be designed such that emergency service vehicles can navigate left turns by going the wrong way through a traffic circle. On roads with high average daily traffic that would make such maneuvers infeasible, traffic circles should be designed large enough for emergency service vehicles to navigate.



Splitters (short median)

Description:

Splitter islands divert traffic laterally, often narrowing the roadway, while providing one-way flow for short intervals. Splitters are frequently landscaped for aesthetic appeal.

Primary Purpose:
Reduce though traffic speeds.

Advantages:

- Reduce speeds on roadways through lateral deflection and roadway narrowing
- Provide areas for landscaping and improving the aesthetic value of the neighborhood
- Provide locations for safer mid-block pedestrian crossings
- Allowable on grades of eight percent or higher

Disadvantages:

- *Create obstructions for potential collision*
- *Maintenance costs increase due to increased landscaping and/or pavement*

Transit Service Impacts:
There is no significant impact to transit services.

Emergency Services Impacts:
There is no significant impact to emergency services.

Other Considerations:

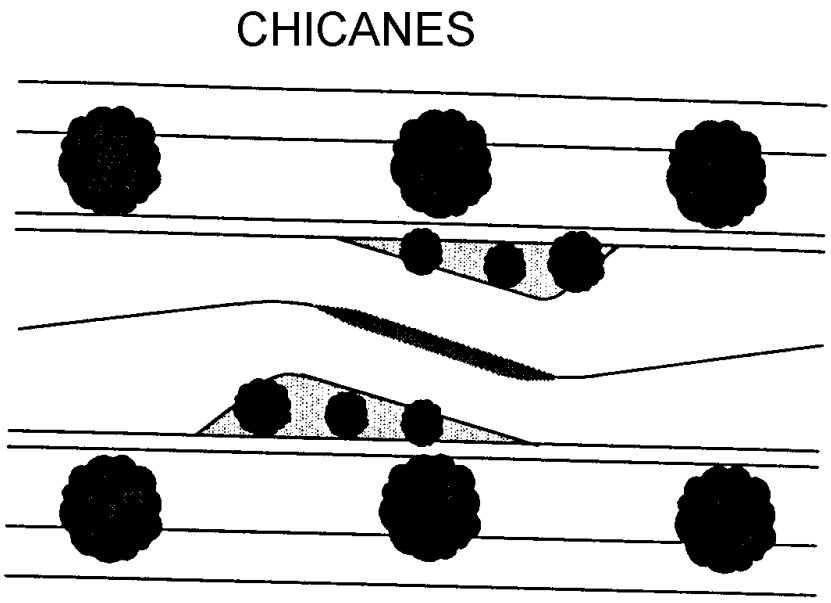
- Driveways with access directly to the splitter are not allowable. If there is hardship in the placement of splitters due to driveway locations, chicanes could be considered instead.
- Installation of a splitter island requires modifying the adjacent property. While this work can usually be done within the right of way, it impacts perceived property.
- Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs.

Chicanes (deflectors)

Description:
Chicanes change the physical characteristics of a roadway section from an existing straight alignment to a series of horizontal curves, causing horizontal displacement of the vehicle.

Primary Purpose:

Reduce vehicle speeds by providing horizontal deflection and a narrowed vehicle travel path, as well as potentially reducing sight distance that is too great for desired speed



Advantages:

- Reduce vehicle speeds with less impact on emergency service vehicles

- Pose no restrictions for bicycle
- Allowable on grades of eight percent or higher

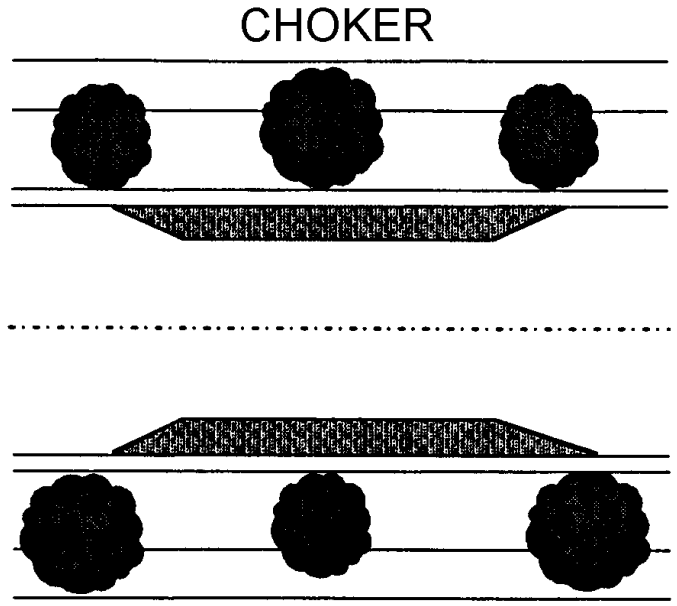
Disadvantages:

- Existing driveways can limit placement
- *Create obstructions for potential collision*
- *Maintenance costs increase due to increased landscaping and pavement*
- May pose challenges with surface water management

Transit Service Impacts:

There is no significant impact to transit services.

Emergency Services Impacts:
There is no significant impact to emergency services.
Other Considerations:
Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs.



Chokers (neck-downs)

Description:

Chokers narrow a street at an intersection or mid-block by construction of a wider sidewalk, landscape strip, or gateway treatment. Alternatively, lanes can be reduced to 10' by moving the curb lines.

Primary Purpose:

Reduce vehicle speeds by providing horizontal deflection and a narrowed vehicle travel path, as well as potentially reducing sight distance that is too great for desired speed.

Advantages:

- Reduce vehicle speeds with less impact on emergency service vehicles
- Provide shorter pedestrian crossing distances and better motorist-pedestrian visibility
- Discourage truck traffic
- Allowable on grades of eight percent or higher

Disadvantages:

- Existing driveways can limit placement
- *Create obstruction for potential collision*
- *Potentially impede bicycle safety and mobility*
- *Maintenance costs increase due to increased landscaping and pavement*
- May pose challenges with surface water management
- May result in the loss of curbside parking

Transit Service Impacts:

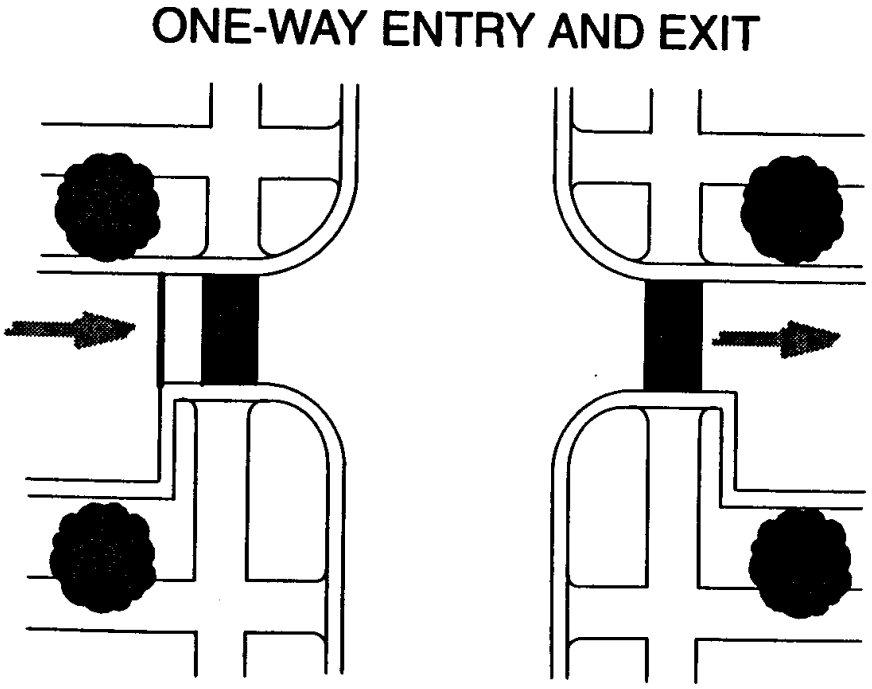
There is no significant impact to transit services.

Emergency Services Impacts:

There is no significant impact to emergency services.

Other Considerations:

Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs



Exit-only/one way entry treatment

Description:

Similar to a choker, this treatment restricts the intersection such that either entry or exit movements are allowed, but not both.

Primary Purpose:

More effectively manage traffic patterns within a neighborhood.

Advantages:

- Reduce the number of conflicting movements in that intersection
- Reduce the need for future installation of traffic signals
- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection
- Do not create dead-end streets, making routes more direct, compared to road closures
- Reduce motorist speeds
- Alternative to a one-way street designation that allows residents within the block to continue to use the street for two-way travel

Disadvantages:

- *May relocate traffic to other locations where the desired movement opportunities exist*
- *May inconvenience local residents who may be forced to drive longer, more circuitous routes to reach their destination*
- *Maintenance costs increase due to increased landscaping and/or pavement*
- *Easy to violate because they only block half the intersection*

Transit Service Impacts:

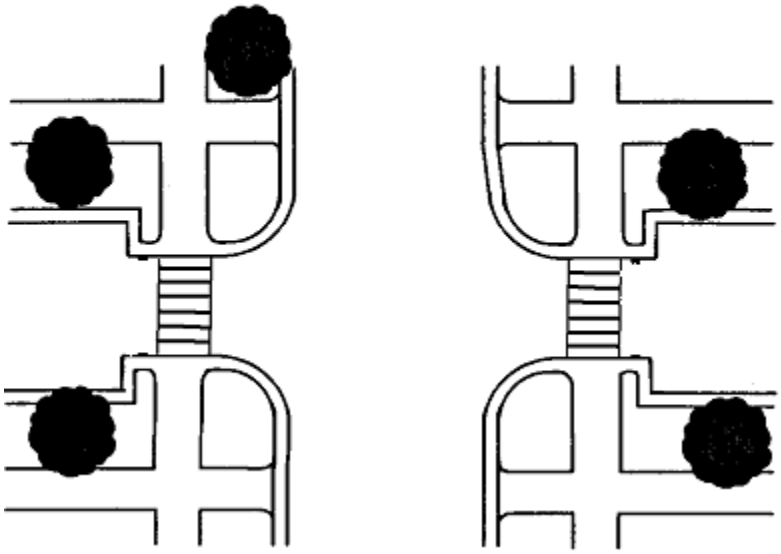
To minimize the negative effect transit routes should be planned to accommodate barriers. However, they should not be placed at any location where transit service performs a relevant turning movement.

Emergency Services Impacts:

There is no significant impact to emergency services.
Other Considerations:

These treatments should be planned considering the impact on overall traffic patterns in the area. Storm water drainage can be a significant consideration.

CURB EXTENSIONS



Curb extensions

Description:

Curb extensions narrow the roadway to make pedestrian crossing faster and safer. They can be installed either at intersections or mid-block.

Primary Purpose:

Improve pedestrian safety by reducing the street crossing distance and increasing sight distance. Curb extensions are similar to chokers (neck-downs) and chicanes, but their primary purposes differ.

Advantages:

- Reduce pedestrian crossing distance and time
- Make pedestrian crossing points more visible to drivers
- Prevent vehicles from passing other vehicles that are turning at an intersection
- Provide transition from a through lane to on street parking, dependant upon road width
- Visually enhance the street through landscaping or textured treatment

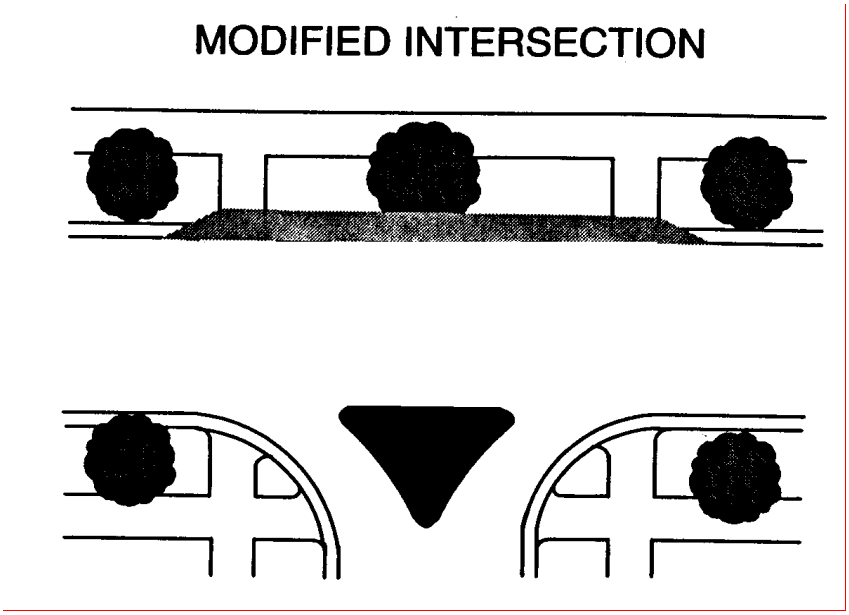
Disadvantages:

- May reduce the amount of on-street parking
- Makes accommodating full bicycle lanes difficult

Transit Service Impacts:

Enhance service by moving the curb so riders step directly between the sidewalk and bus door.

Emergency Services Impacts:
There is no significant impact to emergency services.



Modified intersections

Description:

Barriers that restrict movement may be located at problem intersections. Pictured above is a right-in, right-out intersection that restricts all left turn movements to and from the minor road. Other possibilities include increasing or decreasing the curb radii to encourage different turning speeds at the intersection.
Primary Purpose:

Control traffic flow though neighborhoods.

Advantages:

- Improve safety by reducing the number of conflicting movements in that intersection
- Reduce local street volumes
- Reduce the need for future traffic control
- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection
- Reduce the speeds at intersections

Disadvantages:

- May relocate traffic to other locations where turning opportunities exist
- May inconvenience local residents who are forced to drive longer, more circuitous routes to reach their destination
- Maintenance costs increase due to increased landscaping and/or pavement

Transit Service Impacts:

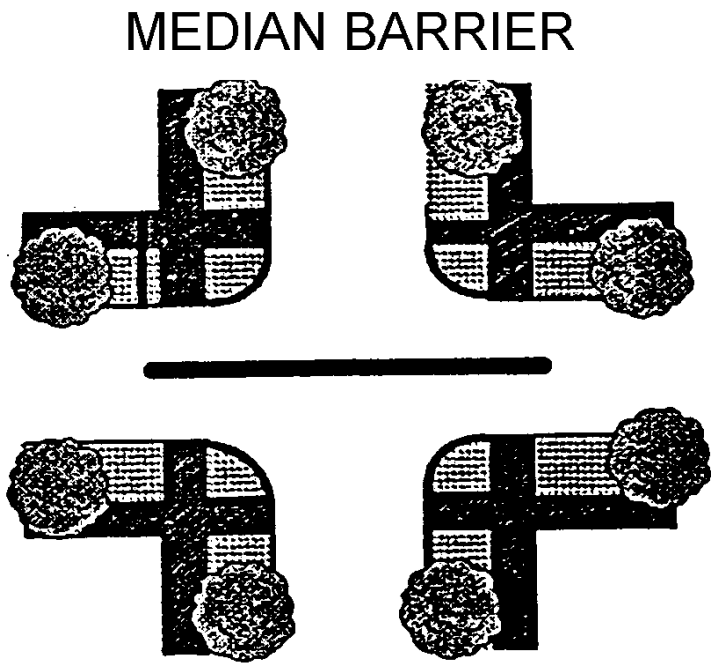
To minimize the negative effect, transit routes should be planned to accommodate modified intersections. They should not be placed at any location where transit service performs a relevant turning movement.

Emergency Services Impacts:

Even though these barriers would restrict turns for emergency vehicles, they can be designed and installed to provide for emergency access. If desired, the modification can be constructed with breakaway posts and striping, which would allow emergency services while strongly discouraging the target movements.

Other Considerations:

Striping is easily violated.



Median Barriers

Description:

Provide a physical barrier on the major street at an intersection that can effectively eliminate left turns from the major street onto the minor street as well as eliminate minor street straight-through

traffic and left turn traffic across the major street. Median barriers usually consist of a concrete curbed island with a decorative landscaping and/or surface treatment.

Primary Purpose:

Restrict traffic flow

Advantages:

- Improve safety by reducing the number of conflicting movements in that intersection
- Reduce local street volumes
- Negate the need for future traffic signals
- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection

Disadvantages:

- May relocate traffic to other locations where left-turn opportunities exist
- May inconvenience local residents who may be forced to drive longer, more circuitous routes to reach their destination
- Maintenance costs increase due to increased landscaping and/or pavement

Transit Service Impacts:

To minimize the negative effect, transit routes should be planned to accommodate median barriers. They should not be placed at any location where transit service performs a relevant turning movement.

Emergency Services Impacts:

Even though median barriers would restrict turns for emergency vehicles, they can be designed and installed to provide for emergency access. If desired, the median can be constructed with breakaway posts and striping or roll back/mountable curbing, which would allow emergency services while strongly discouraging left turns.

Other Considerations:

A full median with no breaks can also be used to prohibit all left turns.

Appendix B – Sample Petition Letter and Forms

A sample petitions form follows. The petition form includes multiple signatures and could be carried around by volunteers, mailed/distributed to each household or kept in a central location. Neighborhoods have had success with multiple distribution methods, and Public Works staff is available to offer advice and suggestions.

All petitions submitted must have certain features. Most importantly, the property owner(s) must clearly indicate they are in favor of traffic calming devices on the neighborhood streets. The street address of the property should be indicated, along with printed name(s) of the owner. Please note that all listed property owners must sign the petition or a 'no' vote will be recorded for the property.

Submitted petitions should include a cover letter from the HOA Board, neighborhood president, or other responsible party attesting that all signatures are correct and valid to the best of their knowledge. The letter should also specify that the petition supports the type of and number of traffic calming devices proposed by Transportation staff as the suggested solutions.

City of Dunwoody
Traffic Calming Program
Date

Street Name	
TRAFFIC CALMING MEASURES: *Speed Tables*	
NUMBER OF LOTS IN AFFECTED AREA	
STREETS IN AFFECTED AREA: *Names of Streets*	
EXPIRATION DATE	
ANNUAL MAINTENANCE COST PER PROPERTY OWNER	

PETITION PROCESS ON THE OTHER SIDE

CITY OF DUNWOODY
TRAFFIC CALMING
TRAFFIC CALMING PETITION AND COVER LETTER

The objective of the City of Dunwoody Traffic Calming Program is to provide property owners a means of addressing speeding related problems in their communities. This petition provides that the opportunity for the attached area, determined to be the "affected area". The City's program provides a process by which traffic calming measures such as speed tables, bike lanes, center traffic islands, splitter islands, and striping can be implemented on the City-maintained neighborhood roads. Engineering studies must support the desired results and **65%** or more of the affected property owners must favor the installation.

THE PETITION PROCESS

To have Speed Tables or a combination of other active traffic calming measures installed in a City of Dunwoody neighborhood, a completed petition must be submitted to the City of Dunwoody Public Works. All affected property owners in the subdivision should be contacted by the stakeholder(s) or liaison and given an opportunity to sign this petition indicating a **yes** or **no** response to traffic calming. Unless the property is undergoing a change of ownership (documentation needed), a wife's or husband's signature alone will not be acceptable if that person is not the legal homeowner. If **both** husband and wife are joint legal owners, **both** signatures are required (a **Mr. & Mrs.** signature is not acceptable; owners must sign individually). **ALL PROPERTY OWNERS OF RECORD MUST SIGN THE PETITION.** This also applies to owners of undeveloped lots. Rental tenants are not an acceptable substitute for the legal homeowner. All valid signatures must be on the official traffic calming final petition form. Any other deviations will be an invalid part of the final petition certification process. Witness signatures are required to verify property owners' signatures. The determining percentage will be calculated based on individual lots where owners sign affirmatively, divided by the total number of lots in the **Affected Area.** Homeowners representing **65%** or more of the affected properties must vote in favor of traffic calming measures before petitions can be presented to the Board of Commissioners. **For subdivisions not completely built out,** a minimum of **80%** of the total units must be occupied before a petition for the installation of speed tables will be considered.

Removal of Previously Installed Traffic Calming Measures can proceed if the City is presented a petition requesting removal. At least **65%** of the property owners must vote in favor of removal. Rules governing the signing of the petition and procedure for calculating approval percentages are the same as those used in the installation approval process. Such a petition for removal will only be considered after a period of at least **one year** after installation.

Completed petitions must be signed, witnessed, and returned to this office where signatures will be verified using tax records and land lot maps. Petitioners will have **90 days** from the date of the announced proposal to submit the petition; otherwise the proposal will be automatically rejected. Petitions meeting verification and qualification requirements will be presented to the Board of Commissioners. A public hearing will be announced and the Board of Commissioners will approve or disapprove all qualifying petitions at that time.

ADDITIONAL INFORMATION

The installation of traffic calming measures will not be considered final until the measures are inspected by Traffic Calming for compliance with design specifications. Annual maintenance charges will be added to the property tax bills at the end of the year in which the measures are installed. Each platted lot in the affected area, whether developed or not, will be subject to the assessed charges. A yes or no vote can NOT be changed, removed, or altered after the petition has been received or stamped by the City Traffic Calming.

INFORMATION CONTAINED ON THIS PETITION MAY BE SUBJECT TO DISCLOSURE IN ACCORDANCE WITH THE OPEN RECORDS LAW, O.C.G.A. CODE SECTION 50-18-70.

RETURN COMPLETED PETITIONS TO:	City of Dunwoody Public Works Department 41 Perimeter Center E. Suite 250 Dunwoody, GA 30356

ALL PETITIONS MUST BE SUBMITTED ON OFFICAL PREPRINTED FORMS

COVER SHEET ON THE OTHER SIDE Revised 09-17-09

STREET NAME

CITY OF DUNWOODY TRAFFIC CALMING PETITION **PAGE ____ OF ____**

The undersigned property owners understand the purpose of this petition and hereby accept or reject, as indicated herein, the proposal being presented. It is further understood that an acceptance of **65%** or more of property owners in the affected area on this petition, indicated by the number of **"yes"** votes, signifies approval for the City of Dunwoody to implement a proposed measure. This approval and selection of a particular measure allows the City to assess annual maintenance charges for the installed measure(s) to all property designated to be in the **"Affected Area"** upon the approval of this petition by the **Board of Commissioners.**

Street Name _____ Subdivision Name _____

1.

No ____ Yes ____

Print Name (Last, First) _____ Print Name (Last, First) _____

Home Address _____ Daytime Telephone Number _____

Signature _____ Signature _____

Witness _____

2.

No ____ Yes ____

Print Name (Last, First) _____ Print Name (Last, First) _____

Home Address _____ Daytime Telephone Number _____

Signature _____ Signature _____

Witness _____

3.

No ____ Yes ____

Print Name (Last, First) _____ Print Name (Last, First) _____

Home Address _____ Daytime Telephone Number _____

Signature _____ Signature _____

Witness _____

4.

No ____ Yes ____

Print Name (Last, First) _____ Print Name (Last, First) _____

Home Address _____ Daytime Telephone Number _____

Signature _____ Signature _____

Witness _____

ALL PETITIONS MUST BE SUBMITTED ON OFFICAL PREPRINTED FORMS

DESIGN ON OTHER SIDE