CITY OF WILTON MANORS

TRAFFIC CALMING MANAGEMENT MANUAL

January, 2012

CITY OF WILTON MANORS
MAYOR AND COMMISSION

Scott Newton
Mayor

Chris Caputo
Vice Mayor

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Leigh Ann Henderson

TRAFFIC CALMING TEAM MEMBERS:

Emergency Management/Utilities Director

City Planner

Chief of Police

Fire Marshal

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Introduction

As Broward County continues to grow, major roadways and intersections are sometimes unable to accommodate the additional traffic. As a consequence, backed-up traffic is often a daily occurrence, especially during morning and evening rush hours. Frustrated drivers resort to the use of local residential streets to bypass congested roadways or overloaded intersections. Drivers cutting through residential neighborhoods frequently ignore residential speed limits creating a danger to children, walkers, joggers, bicyclists, pets and wildlife. Street design itself is also a factor – long, unimpeded stretches of roadway accommodate faster vehicle speeds. This situation encourages motorists to use "short-cuts" through residential neighborhoods, even during non-peak traffic hours. Residents have become justifiably concerned about the "safety" and "livability" of their neighborhoods.

To address the issues of speeding and *cut-through* traffic, municipalities across the country are turning to *"traffic management"*. Traffic management is simply the modification of a roadway to make it less efficient at transporting large numbers of cars that travel at higher than residential area speeds. It is seen as a long-term way to redirect traffic to more efficient thoroughfares and, in the process, restore a sense of livability and safety to neighborhoods that have become high-speed commuter speedways. Roadway modifications as outlined in this manual may include *speed humps, roundabouts, chicanes,* modified intersections, *diagonal diverters,* or others, or a combination of two or more treatments. Specific applications will depend upon circumstances.

To develop solutions to traffic-related problems in Wilton Manors, the City assembled the Traffic Management Team. Team membership includes representatives from the Police Department, Fire Department, Public Services Department, and our traffic engineering consultant.

When a problem area is identified, Team members conduct a traffic management study, researching the area's street layout, traffic patterns, existing traffic control devices, school bus and mass transit stops, history of accidents, traffic violations, and other factors that may affect a proposed solution. This information is then reviewed by the Team and one or more traffic management solutions may be proposed. Potential solutions, if any, are then presented to the neighborhood for consideration.

This manual contains all the information you need to request a traffic management study for your neighborhood. Please complete the enclosed application, attach the required petition, and submit the application package to the following location:

City of Wilton Manors
Emergency Management/Utilities Department
ATTENTION: Traffic Management Team
2020 Wilton Drive
Wilton Manors, Florida 33305

Throughout the manual there are specific words that are *highlighted in italics.* The purpose of this is to introduce the reader to terms they may not be familiar with.

GOAL, OBJECTIVES AND POLICIES

GOAL

It is the City of Wilton Manors' goal to establish procedures and techniques that will promote neighborhood livability by *mitigating* the negative impacts of vehicle operation on residential streets.

OBJECTIVES

1. To promote safe and pleasant conditions for residents, pedestrians, bicyclists and motorists on local streets.
2. To reduce cut-through traffic on local streets.
3. To reduce speeding on local streets.
4. To preserve and enhance pedestrian and bicycle access to neighborhood destinations.
5. To create a positive community atmosphere and provide an opportunity for neighborhoods to interact by encouraging citizen involvement in the neighborhood planning process.
6. To provide a process that will address neighborhood traffic requests that balance the needs of the neighborhood with that of the entire community.

POLICIES

1. Regional collectors and arterials are not normally subject to this type of treatment, i.e., closures, diverters, speed humps.
2. The streets indicated on the City of Wilton Manors Trafficways Plan are not eligible for a neighborhood traffic plan.
3. Minor regional collector and local collector roadways may be subject to this type of treatment, provided that it would not diminish roadway functions.
4. Cut-through traffic should be routed back to the collectors and arterial roadways.

5. A certain amount of traffic will be distributed throughout the neighborhood as a result of a neighborhood traffic plan. Acceptable limits will be defined on a case-by-case basis.
6. Emergency vehicle access must be preserved.
7. Bicyclist and pedestrian access must be accommodated.
8. The City of Wilton Manors may employ a variety of *traffic calming devices* to achieve a neighborhood traffic plan. If implemented, such devices shall be planned and designed in conformance with sound engineering judgment and planning practices.
9. To implement a neighborhood traffic plan, certain procedures will be followed in accordance with applicable codes, related policies and within the limits of available resources. At a minimum, the procedures provide for:
    - submittal of application
    - evaluation of proposal by staff
    - citizen participation in plan development and evaluation
    - methods of temporarily testing/evaluating neighborhood traffic plan (when needed)
    - traffic counts and speed of vehicles to be considered for evaluation
    - data to be collected during the most appropriate traffic period(s), as determined on a case-by-case basis
    - speed humps to be designed to maintain posted speed limits
    - communication of any test results and specific findings to area residents and affected neighborhood organizations before installation of permanent traffic calming devices
    - review of proposed traffic calming devices by the Planning & Zoning Board
    - the City Commission to vacate public property to fund traffic calming efforts
    - the City Commission to approve installation of permanent traffic calming device(s)
    - implementation based on a two-thirds approval of neighborhood residents, based on participation at public meetings and/or written notification, with one vote per address.

NEW CHALLENGES TO THE ROADWAY SYSTEMS WITHIN BROWARD COUNTY

The roadway system within Broward County is durable and has adapted itself to several decades of growth and change. Along with this come some challenges that now need to be addressed.

BICYCLISTS AND PEDESTRIANS:

Although the existing ***Broward County Land Development Code*** addresses pedestrian and bicyclist safety the previous Land Development Code did not. Therefore, all neighborhood traffic management plans should take this into consideration.

CUT-THROUGH TRAFFIC:

As the region grows and arterial streets become congested, alternate routes are sought, creating cut-through traffic that has neither its origin nor its destination within the neighborhood. The connected street layout invites the misuse of local streets.

SPEEDING:

Many motorists, both neighborhood residents, as well as those cutting through, often exceed the posted speed limit on local streets. While some speeding is by irresponsible drivers, the majority is done by normally responsible drivers who find themselves "invited" to speed by the road's design features, such as wide pavement, straight sections of road and absence of vegetation. Danger to pedestrians, bicyclists and particularly the young and elderly, increases due to excessive speed. In addition to safety issues, speeding vehicles degrade the quality of the street for all other users and can impart a general feeling that things are "not right" in the neighborhood.

SECURITY:

High volumes of traffic and excessive speeds are a threat to neighborhood security. When traffic is overwhelming, residents retreat into their homes, essentially abandoning the street to vehicles and whoever else wants to claim it. The abandonment of the street to vehicular traffic lends an air of insecurity and danger. Reducing traffic volumes and speeds through traffic calming measures is a powerful way for residents to start reclaiming their streets.

AESTHETICS:

Wide expanses of pavement devoted solely to the moving of traffic are taking over our communities in the name of "traffic flow". Traffic calming provides the opportunity to use streets not only for moving cars but also as an aesthetically pleasing focal point for the community. Landscaping, *street furniture,* and even public art incorporated into traffic calming devices can provide the best opportunities for restoring livability to local streets.

TRAFFIC CALMING
AN APPROACH TO RECLAIMING LOCAL STREETS

Unheard of a few years ago, tr affic calming devices are being applied throughout the country. These techniques of traffic calming offer ways to help restore neighborhood streets.

TRAFFIC CALMING MEASURES:

Traffic calming measures, while sim ple in concep t, are a com plete change in direction from conventional traffic planning of the past three decades. In conventional traffic planning, m oving the most possible traffic at the highest affordable speed on collectors and arterials is the highest priority. When this system begins to fail, neighborhoods are impacted. Traffic calm ing gives a new balance between traffic service and im portant neighborhood values, such as safety, walking and bicycling.

TRAFFIC CALMING DEVICES:

Traffic calming devices are m ainly physical m easures that reduce the negative effects of m otor vehicle use, alter driver behavior, and im prove conditions for non-motorized street users. There is an extensive "m enu" of traffic calm ing devices, which m ay include a com bination of the following actions:

NARROW STREETS - Narrowing streets lowers the speed that m ost drivers find reasonable and comfortable. Narrowing is done through reducing the pavem ent width, adding parking to the street, or adding a m edian. At intersections , narrowing is com plemented by tight corner *radii.* The perception of narrowing, which can be as e ffective as actual narrowing, is gained with landscaping along the curb, overhead tree canopy and buildings constructed close to the street.

DEFLECTION PATHS - *Deflecting* the vehicle path causes the driver to reduce speed and be more attentive to the task of driving. Deflection is done through changing the route of the automobile. Some measures apply at mid-block locations, while others are most appropriate for intersections.

SINGLE LANE USAGE - *Single lane usage* is an effective way to slow traffic and raise the attention level of drivers. This can be accomplished by reducing lane width to one lane, for two-way travel. Single lane usage can be introduced by selecting short sections of roadway either at mid-block locations or intersections.

DIVERTING TRAVEL ROUTES - Diverting the driver's route increases travel time and encourages the driver to use another route. Traffic diverters, street closures, one-way streets, median closures and turning movement restrictions are primary examples of diversion.

CHANGES TO PAVEMENT SURFACE - Changing the pavement surface demands attention from drivers, and reduces the speed for comfortable driving. Speed humps, paver-blocks, and special pavement materials are among the most frequent approaches to changing the pavement surface.

TRAFFIC CONTROL DEVICES - Traffic control devices, where warranted, can be used to regulate traffic patterns. Traffic control devices include signs, markings and signals. Not all traffic control devices can be applied for traffic calming measures.

ENFORCEMENT - Intensified enforcement of traffic regulations can calm traffic, generally, by reminding drivers of posted speed limits and by enforcing the observance of STOP signs. Police officers are the usual source of intensified enforcement, but neighborhood volunteers can also be very effective in assisting in an enforcement effort.

NEIGHBORHOOD TRAFFIC MANAGEMENT CRITERIA

1. TRAFFIC VOLUMES:

The following Neighborhood Traffic Volume Thresholds (for local streets only) are general guidelines. Traffic volumes can vary significantly depending on the number of traffic generators served by the facility.

Traffic Flow	Environment
Below 500 vehicles/day	Low Traffic Volumes
501 – 1,000 vehicles/day	Low to Moderate Traffic Volumes
1,001 – 1,500 vehicles/day	Moderate to High Traffic Volumes
Over 1,500 vehicles/day	High Traffic Volumes

2. TRAFFIC SPEED:

Neighborhood Street Speeding Determination – 15% of vehicles traveling above the posted speed limit

0	to	5	mph above the speed limit	Minimal Concern Measures may not be necessary.
6	to	10	mph above the speed limit	Moderate Concern Measures should be considered to solve the problem.
11	or	Over	mph above the speed limit	Excessive Concern Measures should be taken to solve the problem.

3. TRAFFIC CRASHES:

Crash reports and local knowledge will be used to evaluate and identify problem locations, but will not be used as required criteria. Corrective measures should minimize crashes.

4. TRAFFIC DIVERSION:

Physical traffic modification measures, such as diagonal diverters, should not be approved where they are likely to divert more than 10% of the existing daily trips to any one adjacent residential street. Nor should they be approved where they are likely to increase the total amount of traffic to more than 1,500 daily trips on local residential streets and 3,000 daily trips on collector streets.

5. CUT-THROUGH TRAFFIC:

If the cut-through traffic increases volumes above the moderate level then corrective measures may be appropriate. An origin and destination study is the best method to establish whether there is a cut-through traffic problem, as high traffic volumes may be largely the result of neighborhood generated traffic. Cut-through traffic volumes, in excess of approximately 30% of the total traffic volume established by an origin and destination survey, may warrant action.

6. COMMERCIAL TRUCK TRAFFIC:

These criteria apply only to through commercial truck traffic. They are not applicable to vehicles conducting business in the area.

Local Street	**1%**
Collector Street (except those on the Trafficways Plan)	**4%**

Above these thresholds, corrective measures should be taken.

7. CONSISTENCY WITH TRAFFIC CIRCULATION ELEMENTS:

It should be recognized that the neighborhood traffic problem might be caused by a non-functional arterial network. Solutions may require changes to the City and/or County adopted traffic circulation elements.

In rare cases, physical traffic modifications may be proposed on collector roads, whose function is usually described as "providing access and traffic circulation for the predominant land use within neighborhoods, commercial and industrial areas".

If collectors are found to be carrying a high volume of cut-through traffic, physical traffic modifications may be appropriate provided that collectors' traffic circulation role for the predominant land use is maintained.

8. CONSISTENCY WITH CITY AND MPO SHORT-RANGE AND LONG-RANGE TRANSPORTATION PLANS AND PROGRAMS:

Every effort will be made to ensure that any proposed physical traffic modifications will be consistent with City and County short and long range transportation plans and programs. However, this may require recommendations to change the priority of previously adopted plans

and programs in order to more rapidly improve the efficiency of the arterial network near the affected neighborhood.

9. LAND USE COMPATIBILITY / ZONING:

Every effort will be made to ensure any physical traffic modifications are consistent with land use/zoning. The land use within neighborhoods, commercial and industrial areas will be reviewed carefully, and the determining factor for the classification of the road will be the predominant land use.

10. CRIME:

Principles will be employed through ***Crime Prevention Through Environmental Design (CPTED)*** to neighborhood and residential streets when recommending physical traffic modification. Appropriate crime data analysis and recommendations on how to improve public safety, reduce crime and fear of crime issues may also be conducted.

TECHNIQUES

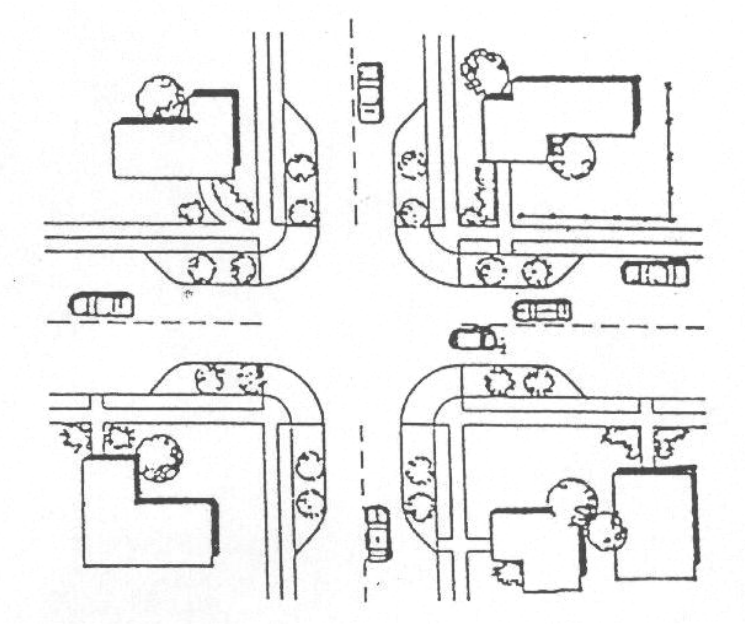
Traffic calming techniques generally fall under two categories; physical and psychological. In general, wider roads encourage higher automobile speeds. It is therefore natural that many traffic calming techniques are designed to physically change the width of the street. Techniques such as *neckdowns,* roundabouts, and medians all decrease road width.

PHYSICAL - If motorists can see far into the distance, their speed may increase. The interruption of sight lines through changes in the road's direction, or breaking the road into smaller visual units using techniques such as chicanes and roundabouts, may cause the drivers to slow down. It also means that when motorists widen their field of vision they become much more aware of pedestrians and bicyclists. Changes in the road design force traffic to travel at a slower, more even pace.

PSYCHOLOGICAL - Traffic calming may also be achieved by changing the psychological feel of the street. Streets using different surface types, vertical landscaping or narrowed lanes create the appropriate space for a relaxed, pedestrian-friendly atmosphere. These psychological changes give motorists cues that they are no longer on a major roadway, but are in a different environment that is shared with non-motorized traffic.

NECKDOWNS

Definition:
Physical reduction of road width at intersections or mid-block. Neckdowns differ from *chokers* in that they are attached to the curb and do not maintain an "at grade" bike lane lateral to the neckdown.



Temporary:
Can be tried on a temporary basis.

Best Used:
- Where speed and/or volume make pedestrian safety a concern.
- In conjunction with other physical mitigation tools.

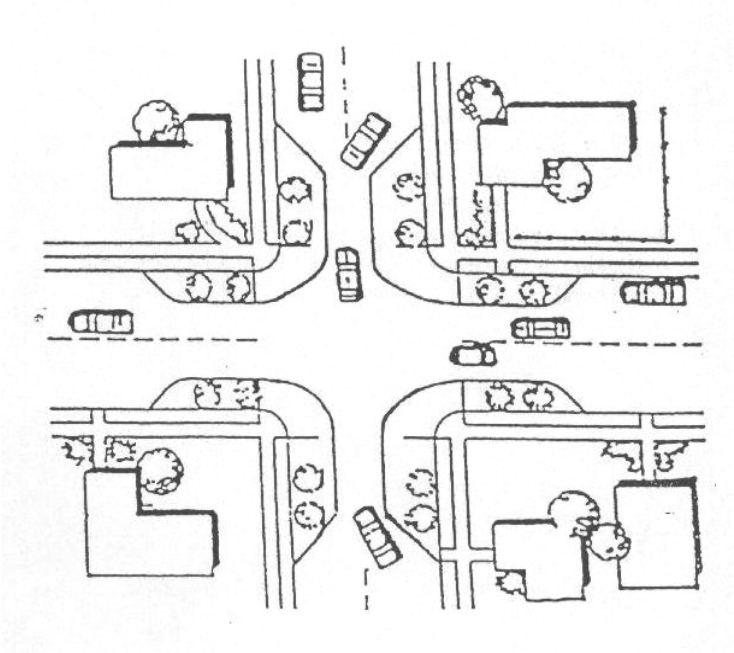
Don't Use If:
- The street is an established bike route.

Street Types:
Appropriate for most street types.

Benefits:
- Reduce road surface and crossing distance.
- Can add aesthetically if landscaped.

Negatives:
- Can be bad for cyclists, if not designed to accommodate them.
- Unless the neckdown significantly reduces road width (i.e., not just eliminates parking spaces or bike lanes), neckdowns do not affect speed.

NECKDOWNS
(SINGLE LANE USAGE)



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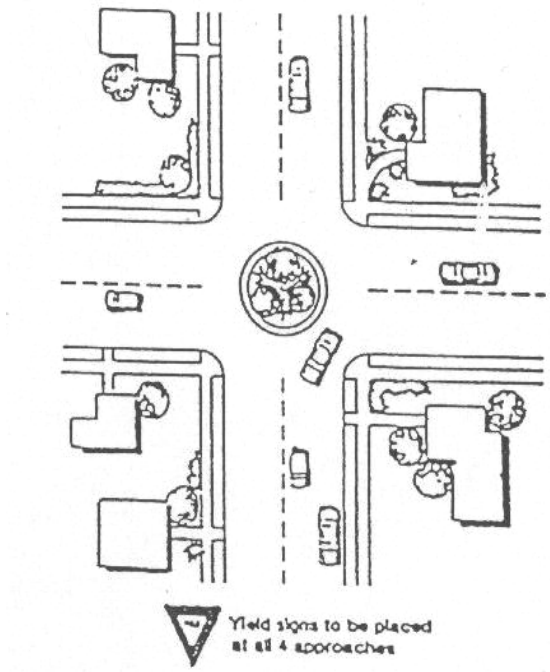
TRAFFIC CIRCLES

Definition:
Traffic circles are raised circular areas (like medians) placed in an existing intersection. Drivers travel in a counter-clockwise direction around the circle. Traditional circles are "yield upon entry", meaning that cars in the circle have the right of way and cars entering the circle must wait to do so until the path is clear. When a traffic circle is placed in an intersection, no automobile can travel in a straight line.



Temporary:
Can be tried on a temporary basis, using essentially "portable" materials. The traffic circle should be made permanent or removed within 12 months.

Best Used If:
- Insufficient gaps for cross street traffic to traverse or access the higher volume street.
- A speed problem exists.

Don't Use If:
- Creation of gaps is the primary motivation for pursuing mitigation.

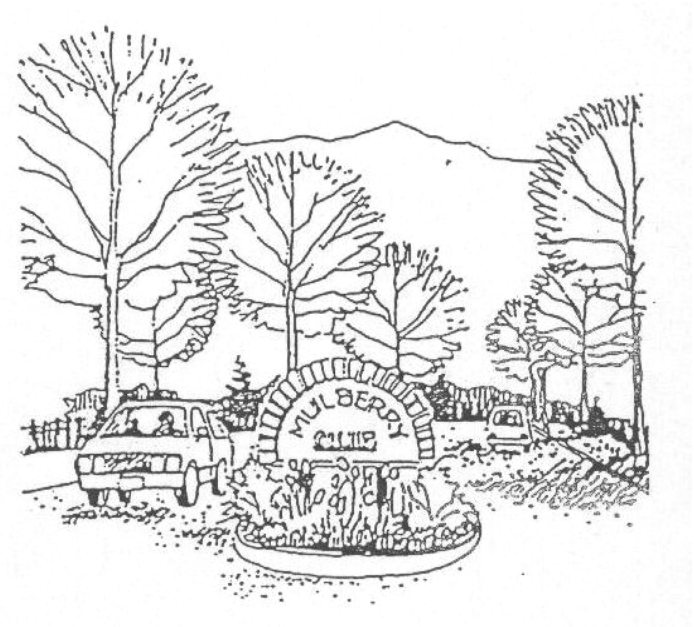
Street Types:
Traffic circles can be used on high and low volume streets.

Benefits:
- Re-prioritizes traffic for local residents.
- Cross traffic may become a mitigation tool in itself.

Negatives:
- May make pedestrian crossing more confusing at the intersection.

NEIGHBORHOOD IDENTIFICATION ISLAND, SIGN OR OBELISK

Definition:
An island in the center of a street that includes a monument or *obelisk* identifying a neighborhood and marks the entrance to the neighborhood *or* a sign, banner or other structure that helps to communicate a sense of neighborhood identity.



Temporary:
Can be temporary but removal unlikely.

Best Used If:
- Neighborhood boundary definition is desired.

Don't Use If:
- Insufficient lighting conditions exist.

Street Types:
Collector street or local street neighborhood entrance off of collectors or arterials.

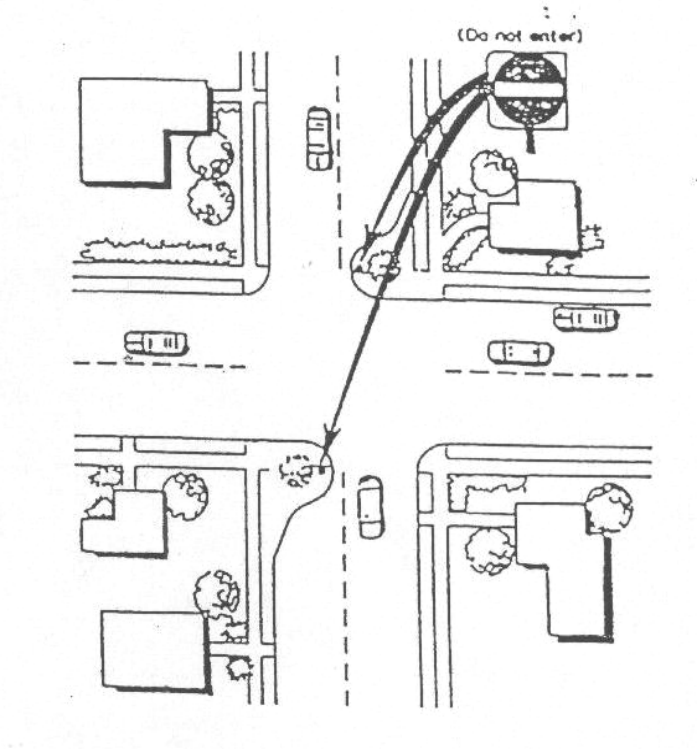
Benefits:
- Alerts drivers that a change in their driving behavior is being requested.
- Helps give neighborhood more of a sense of identity.
- Allows neighborhoods creativity and participation in design.

Negatives:
- None identified.

Maintenance:
Depends on the type of installation.

SEMI-DIVERTERS

Definition:
Physical blockage of one direction of traffic at one point on an otherwise two-way street. The open lane of traffic is signed "ONE WAY"; that is, traffic from the blocked lane is not allowed to go around the barrier through the open lane.



Temporary:
Semi-diverters can be tried on a temporary basis.

Best Used If:
- Neighborhood has cut-through traffic, and there is an appropriate alternative route for blocked cut-through traffic.

Don't Use If:
- No cut-through traffic.
- No good alternate route for diverted traffic.

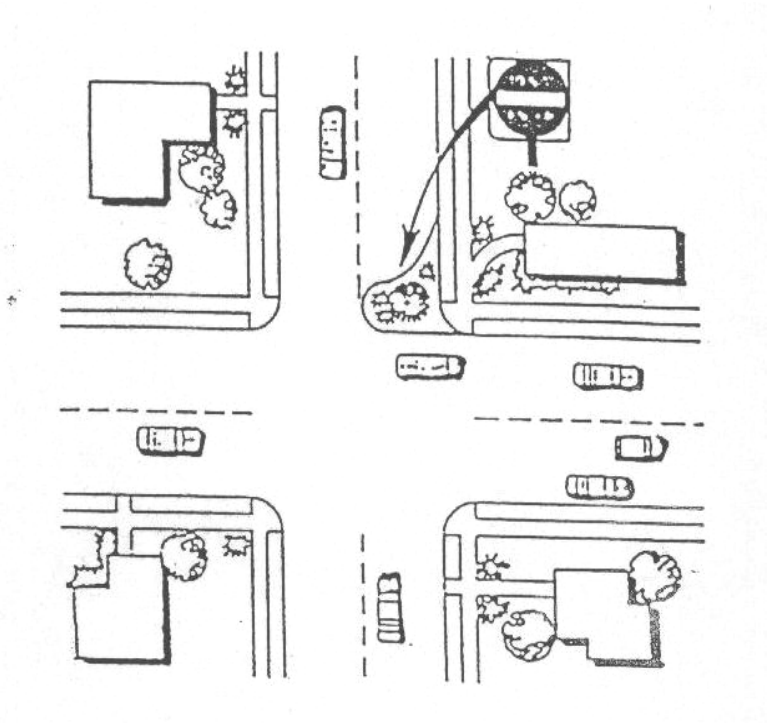
Street Types:
Better on low volume streets.

Benefits:
- Does not present a significant obstacle to emergency vehicles.
- Good for limiting one-way cut-through traffic.
- Can be designed to provide two-way access for bicycles.

Negatives:
- Compliance with semi-diverters is not 100%.
- May increase trip length for some residents.

TURN PROHIBITIONS

Definition:
Physical barriers or signs ("NO RIGHT TURN", "NO LEFT TURN", "DO NOT ENTER") that prohibit a particular turning movement.



Temporary:
Can be installed experimentally or used during limited hours, such as rush hours or school hours.

Best Used If:
- Significant cut-through traffic.
- Need to eliminate two way conflicts.

Don't Use If:
- Neighborhood is unwilling to limit its own access.
- No appropriate alternative facility.

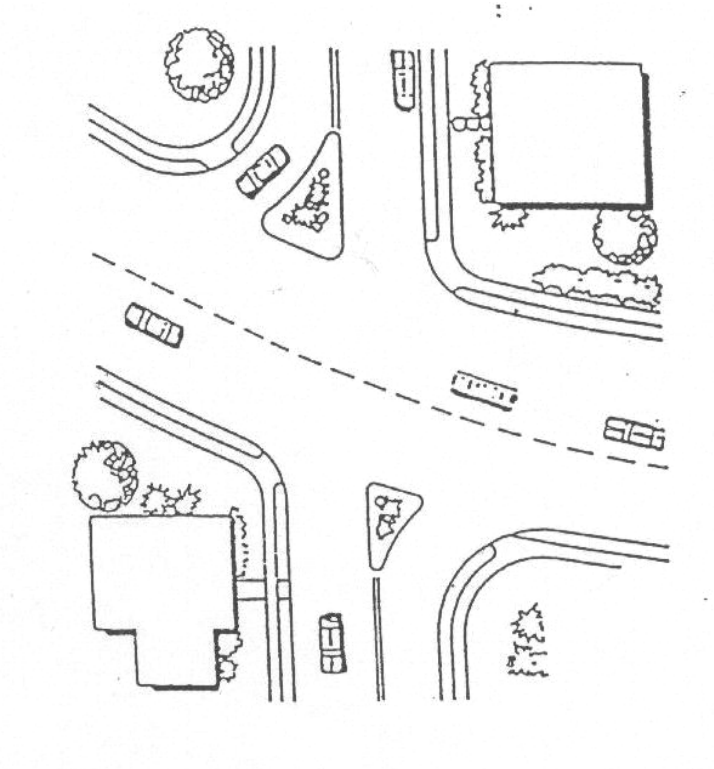
Street Types:
Local streets or major, paired arterials.

Benefits:
- Reduces cut-through traffic in neighborhoods.

Negatives:
- May increase trip length due to revised trip patterns.

CHANNELIZATION

Definition:
Channelizations are traffic islands installed to prevent or ensure certain turning movements at an intersection.



Temporary:
May be tried on a temporary basis for 6-12 months.

Best For:
- Cut-through traffic.

Don't Use If:
- Emergency response access is unacceptably hampered.

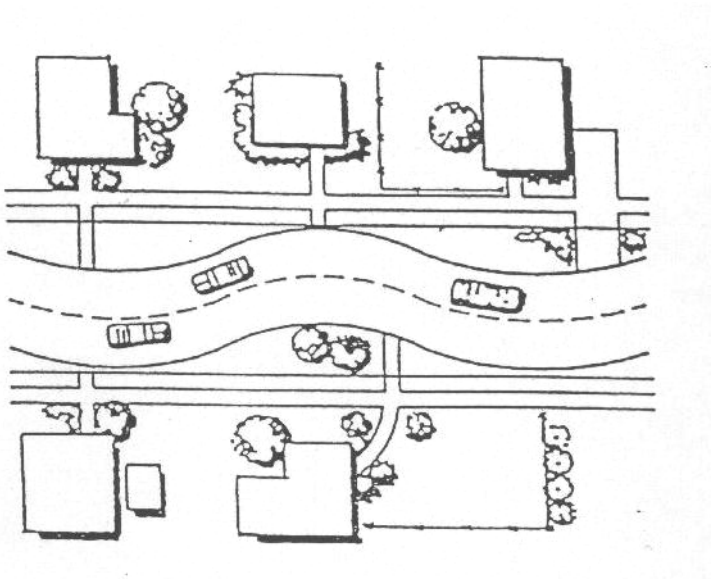
Street Types:
Primarily used to direct traffic off of local streets.

Benefits:
- Changes driving patterns.
- May significantly reduce cut-through traffic.

Negatives:
- May increase trip length for some drivers.

CHICANES

Definition:
Deviations redraw the path of travel so that the street is not straight (by the installation of offset curb extensions).



Temporary:
May be tried on a temporary basis for 6-12 months.

Best Used For:
- Excessive speed on straight street.
- Adequate right-of-way exists to alter curb line.

Don't Use If:
- Roadway is already narrow.

Street Types:
Any street with adequate right-of-way.

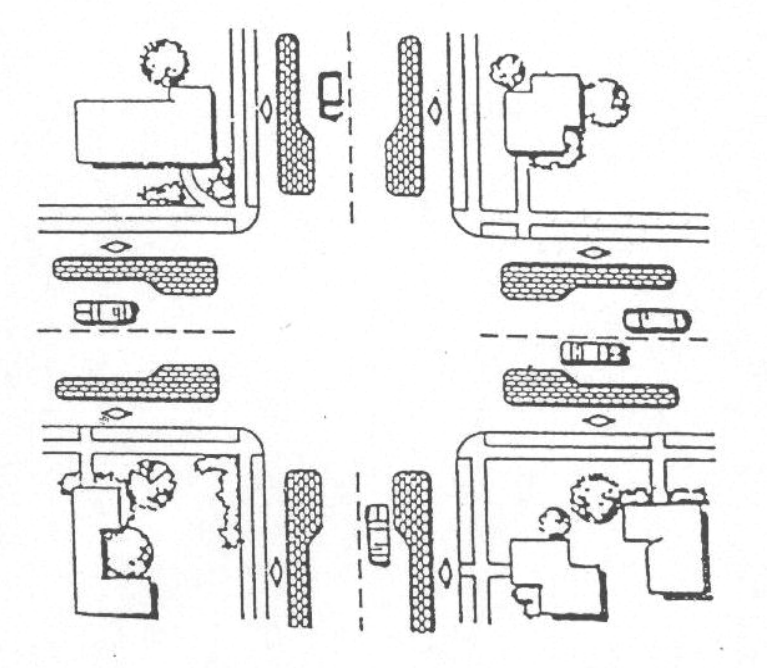
Benefits:
- Accepted by public as speed control devices.
- Aesthetically pleasing.
- Reduce speed without significantly impacting emergency response.

Negatives:
- Expensive

Maintenance:
Landscape maintenance will constitute an ongoing expense.

CHOKERS
(TRAVEL BOTH WAYS)

Definition:
Large lambchop-shaped islands installed at the intersection to reduce speed. Two lanes of travel are maintained, but lanes are narrow. Bike lanes are maintained outside of the choker, on both sides.



Temporary:
Chokers can be tried on a temporary basis for 6-12 months.

Best For:
- Neighborhoods that desire significant slowing at an intersection.
- Pedestrian safety concern at the intersection.
- Bike safety concern at the intersection.

Don't Use If:
-

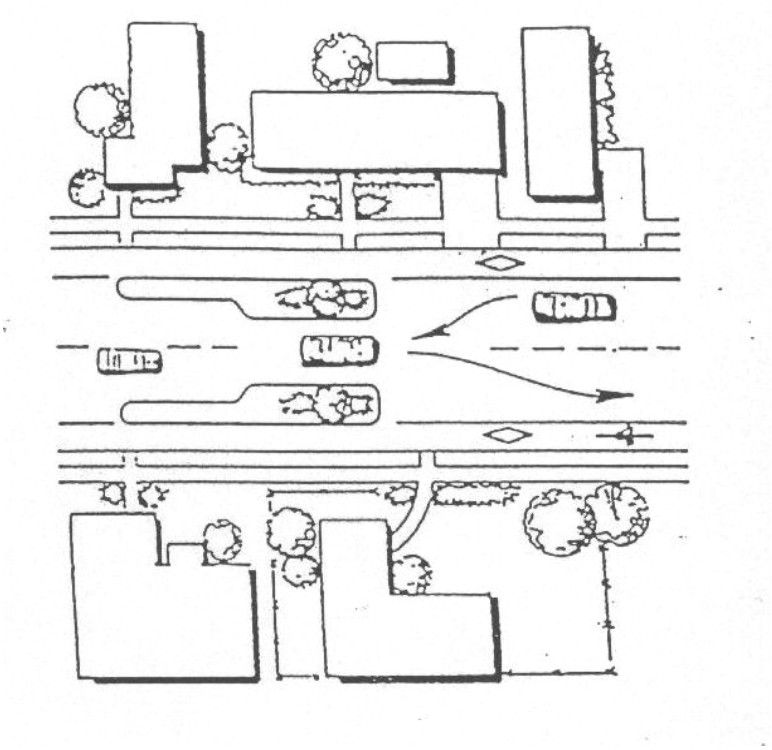
Street Types:
Chokers will work best on low to medium volume neighborhood streets.

Benefits:
- Straight access for bikes.
- Crossing distance is reduced for pedestrians.
- Traffic is slowed at the intersection, possibly reducing accidents.

Negatives:
- None identified.

SINGLE LANE USAGE

Definition:
Large lambchop-shaped islands placed mid-block on either side of a street to reduce street width to one lane. Cars may travel in either direction, but must queue and take turns. Bike lanes are maintained on the outer sides of the islands.



Temporary:
Single lanes can be tried on a temporary basis for 6-12 months.

Best Used For:
- Low volume neighborhood streets with speed and/or cut-through traffic problems.

Don't Use If:
- High volume location.

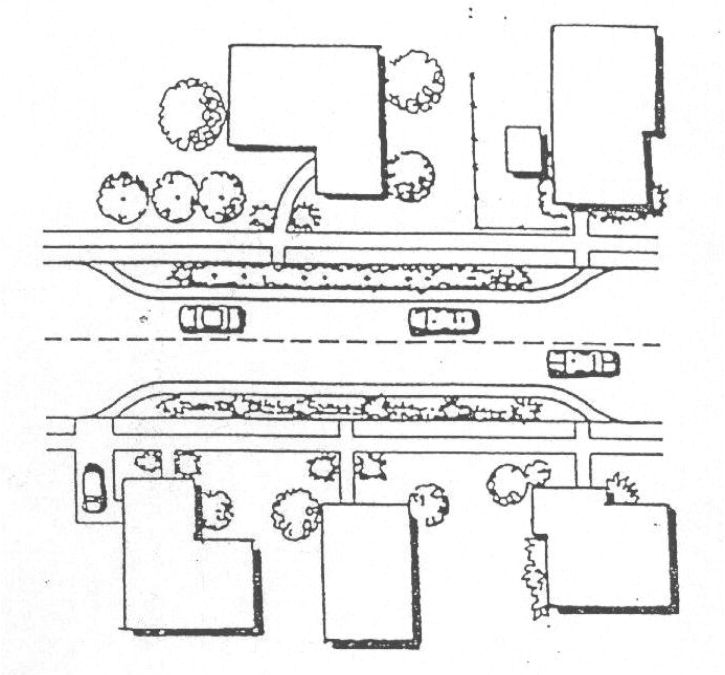
Street Types:
Single lanes will work best on low volume neighborhood streets.

Benefits:
- Straight access for bikes.
- Crossing distance is reduced for pedestrians.
- Likely to reduce cut-through traffic and speed.

Negatives:
- Expensive if drainage issues are involved.

LANE NARROWING

Definition:
A lane physically narrowed to nine to eleven feet, expanding sidewalks and landscaping areas, adding medians and on-street parking.



Temporary:
Can be tried on a temporary basis.

Best Used For:
* Excessive speeds due primarily to street width.

Don't Use If:
* No possibility of eliminating on-street parking.
* Inadequate right-of-way to do safe, effective treatment.

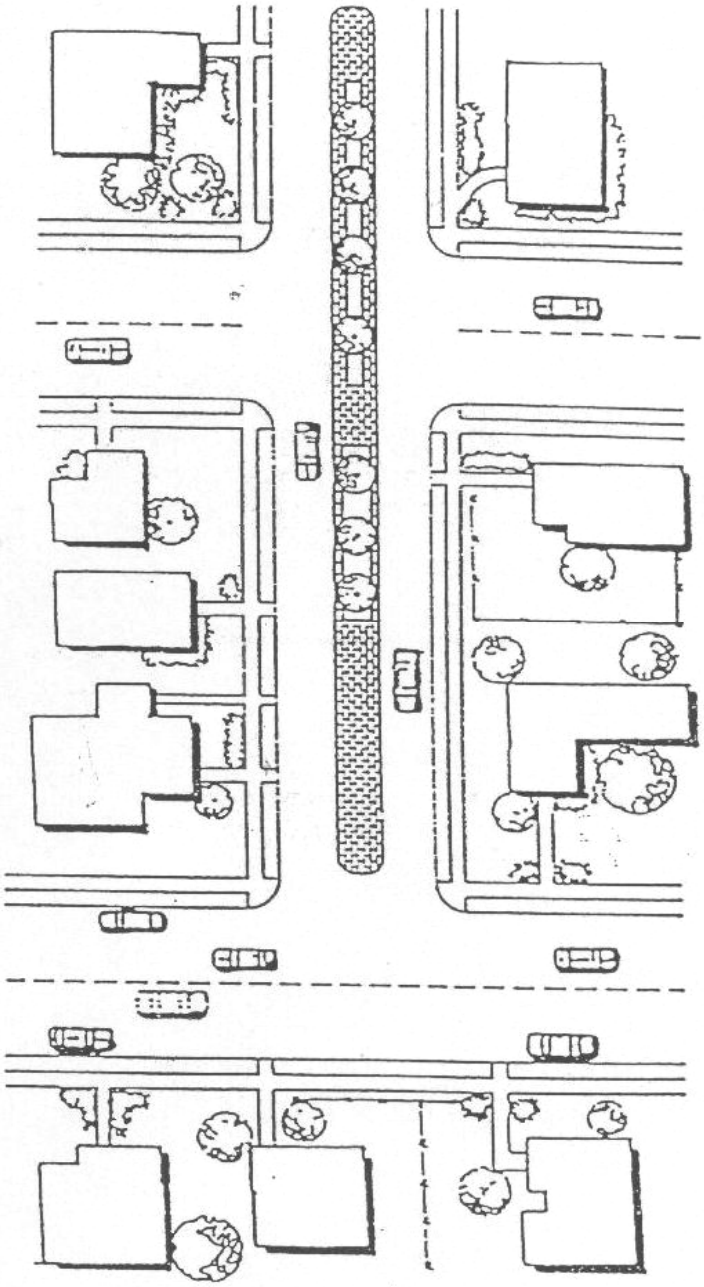
Street Types:
Appropriate for most street types.

Benefits:
* Good for pedestrians due to shorter crossing distance.
* Slows traffic without seriously affecting emergency vehicle response time.

Negatives:
* Can be dangerous for bikes.

Maintenance:
Landscape maintenance.
(May need to involve neighborhood participation.)

TRAFFIC MEDIAN



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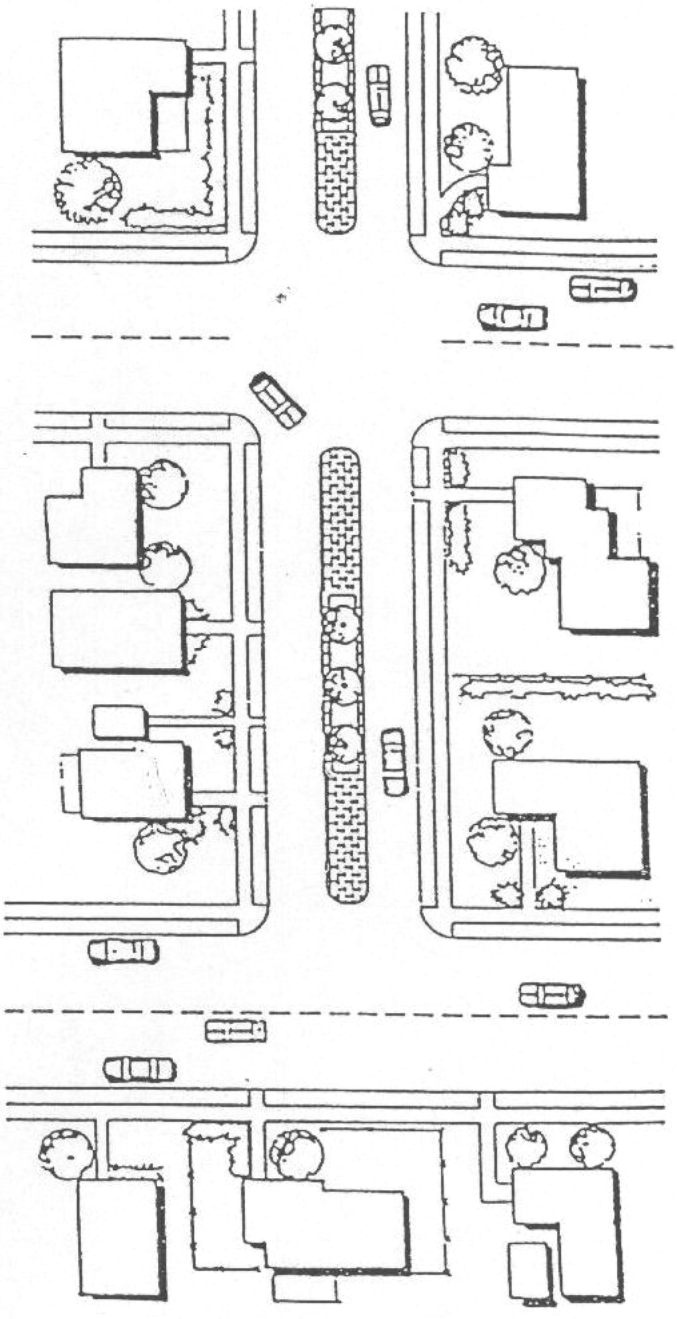
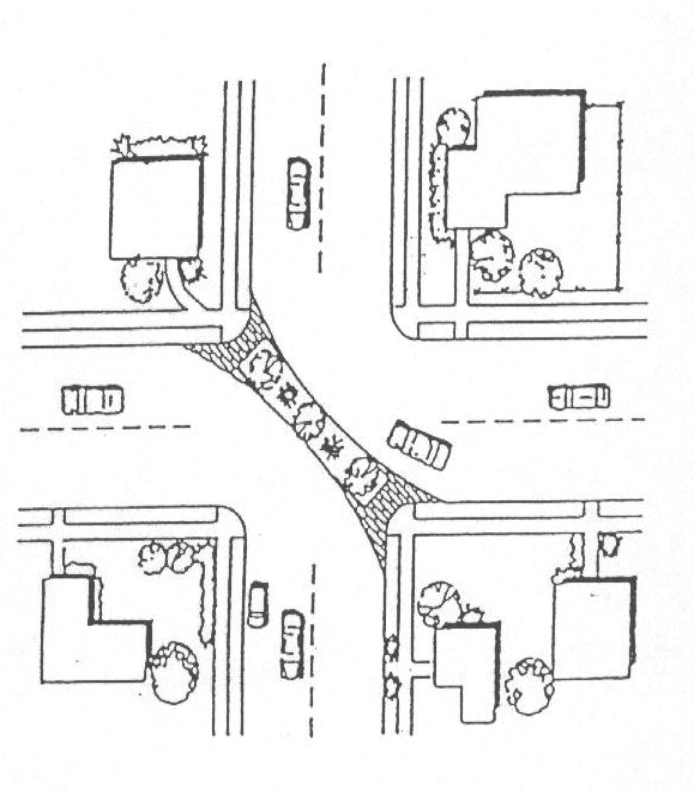


DIAGONAL DIVERTERS

Definition:
A barrier placed diagonally across a four legged intersection, interrupting traffic flow across the intersection. These barriers can be used to create a maze-like effect in a neighborhood.



Temporary:
Can be tried on a temporary basis for 6-12 months.

Best Used If:
- Cut-through traffic is the primary problem for the neighborhood.

Don't Use If:
- No reasonable alternate routes available for emergency response vehicles.

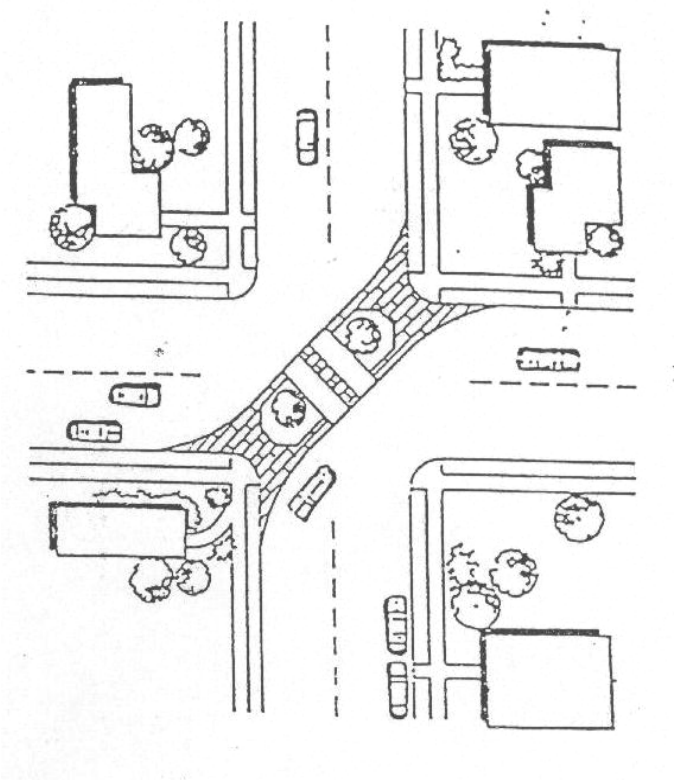
Street Types:
Neighborhood (local) streets.

Benefits:
- Practically eliminates cut-through traffic.
- Maintains continuous routing opportunities (unless a cul-de-sac or street closure).

Negatives:
- People can turn at higher speeds because there is no opposing traffic.
- May reduce emergency routing opportunities.
- May increase trip length for some residents.

TRAVERSABLE DIVERTERS

Definition:
A barrier placed across any portion of a street that is traversable for bike, pedestrians, roller blades, and emergency vehicles, but not for other motor vehicles.



Temporary:
May be tried on a temporary basis for 6-12 months.

Best Used For:
- Cut-through traffic on a street that should be low volume.

Don't Use If:
- No appropriate facility for diverted traffic.

Street Types:
Low volume streets with cut-through traffic.

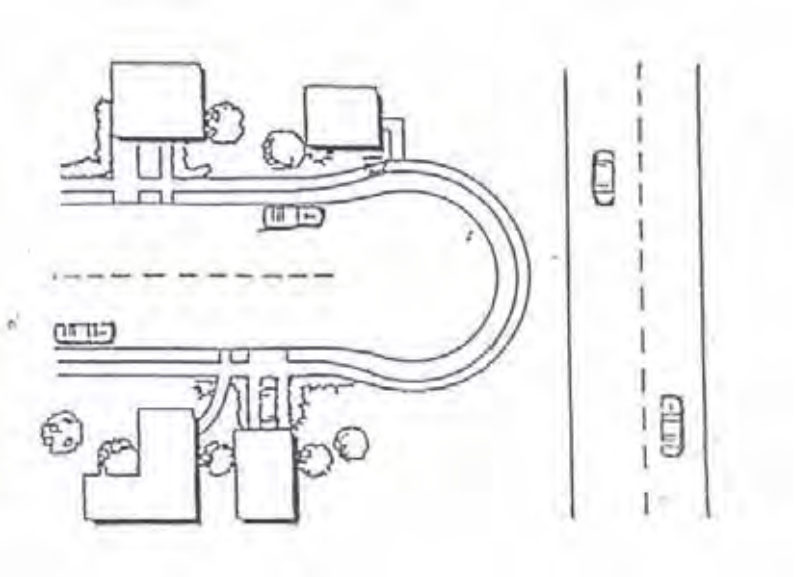
Benefits:
- Reduces cut-through traffic.

Negatives:
- If not enforced regularly, parked cars may block access.
- Depending on design, may be subject to violation by unauthorized vehicles.
- Altered traffic patterns may increase trip length.

Maintenance:
Landscaping.

STREET CLOSURE
(CUL-DE-SAC)

Definition:
Streets closed to motor vehicles using planters, bollards, or barriers, etc. Pedestrian and bike access maintained.



Temporary:
Can be installed on a temporary basis.

Best Used If:
- Other mitigation devices, i.e., speed humps or diverters, would be inadequate.

Don't Use If:
- Residents of immediate and adjacent neighborhoods will not support restricted access.
- Cannot substantially, adversely impact emergency vehicle response time.
- Conversion of street from public to private requires legal action; may need to grant easements for utilities, municipal services, etc.

Street Types:
Low volume streets where alternative access to homes can be provided (i.e., by other local streets) and a clearly more desirable and feasible route exists.

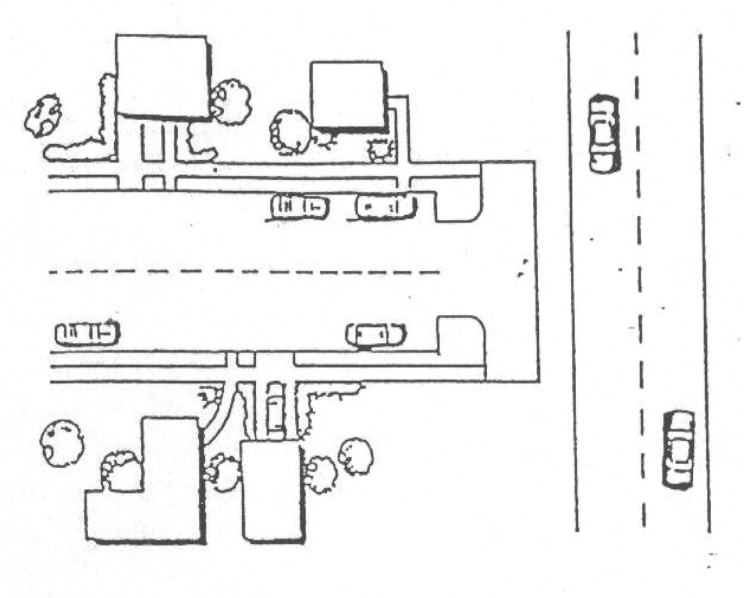
Benefits:
- Eliminates cut-through traffic.

Negatives:
- May be perceived as an inconvenience by some neighbors and an unwarranted restriction by the general public.

Maintenance:
Landscaping.

STREET CLOSURE
(HAMMER-HEAD)

Definition:
Streets closed to motor vehicles using planters, bollards, or barriers, etc. Pedestrian and bike access maintained.



Temporary:
May be installed on a temporary basis.

Best Used If:
- Other mitigation devices, i.e., speed humps or diverters, would be inadequate.

Don't Use If:
- Residents of immediate and adjacent neighborhoods will not support restricted access.
- Cannot substantially, adversely impact emergency vehicle response time.
- Conversion of street from public to private requires legal action; may need to grant easements for utilities, municipal services, etc.

Street Types:
Low volume streets where alternative access to homes can be provided (i.e., by other local streets), and a clearly more desirable and feasible route exists.

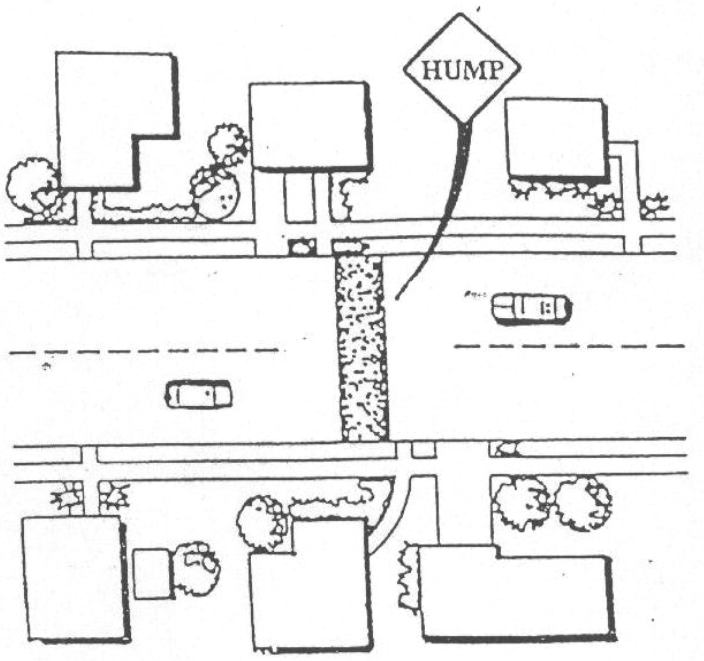
Benefits:
- Eliminates cut-through traffic.

Negatives:
- May be perceived as an inconvenience by some neighbors and an unwarranted restriction by the general public.

Maintenance:
Landscaping.

SPEED HUMPS

Definition:
Speed humps are raised pavement in the street. The height of the speed hump determines how fast it can be navigated without causing discomfort to the driver or damage to the vehicle. Discomfort increases as speed over the limit increases.



Temporary:
Speed humps are impractical to install on a temporary basis.

Best Used If:
- The street has a documented speeding problem.
- "Soft" approaches have proven ineffective.

Don't Use If:
- Steep grades exist on the roadway.

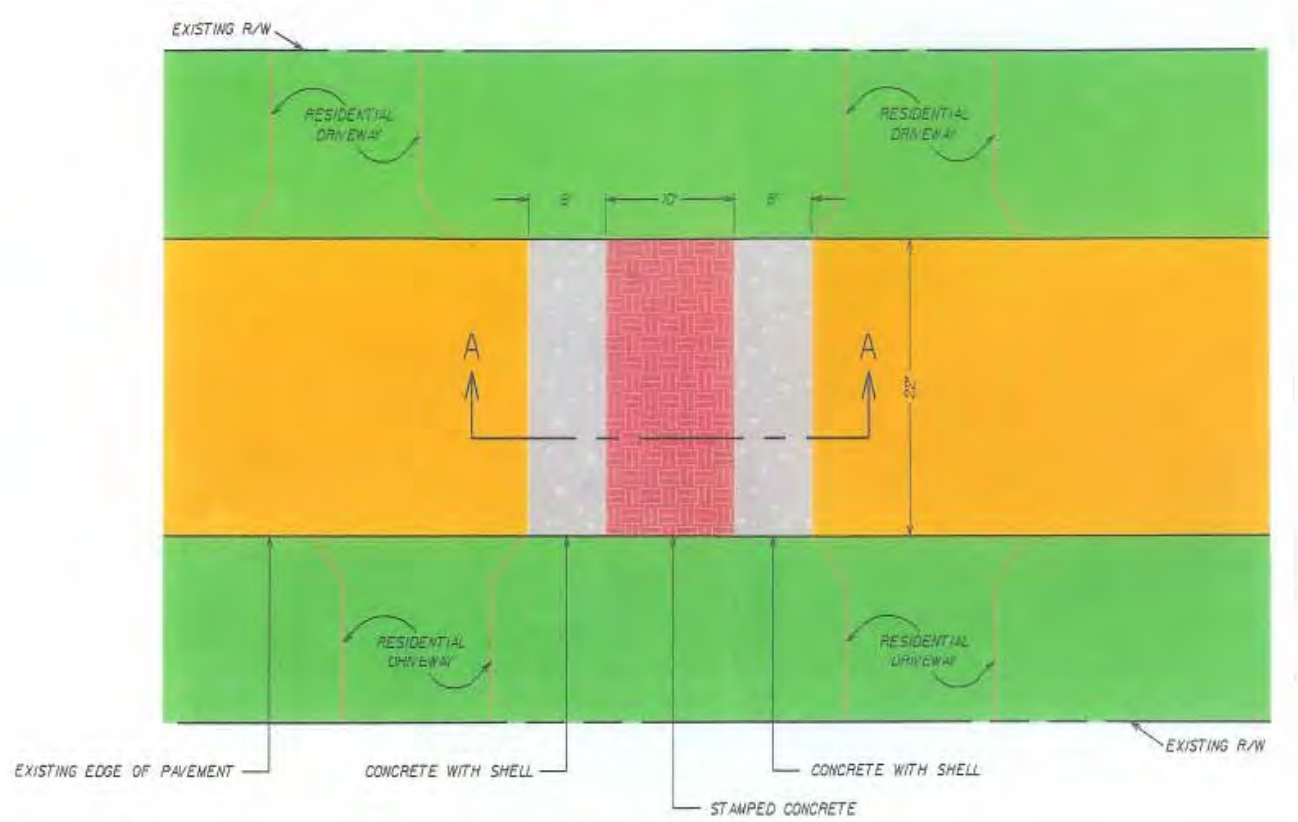
Street Types:
Speed humps are generally considered a local street tool.

Benefits:
- Slows traffic. Few drivers travel over speed humps with excessive speed more than once.
- "Self enforcing."
- Relatively inexpensive.

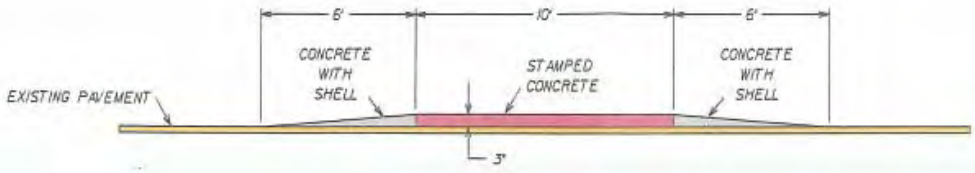
Negatives:
- Can increase noise and air pollution by the hump (however, less negative impact than a stop sign).

Maintenance:
Well constructed humps should maintain their shape for several years, however the striping associated with them must be maintained.

SPEED HUMPS DESIGN

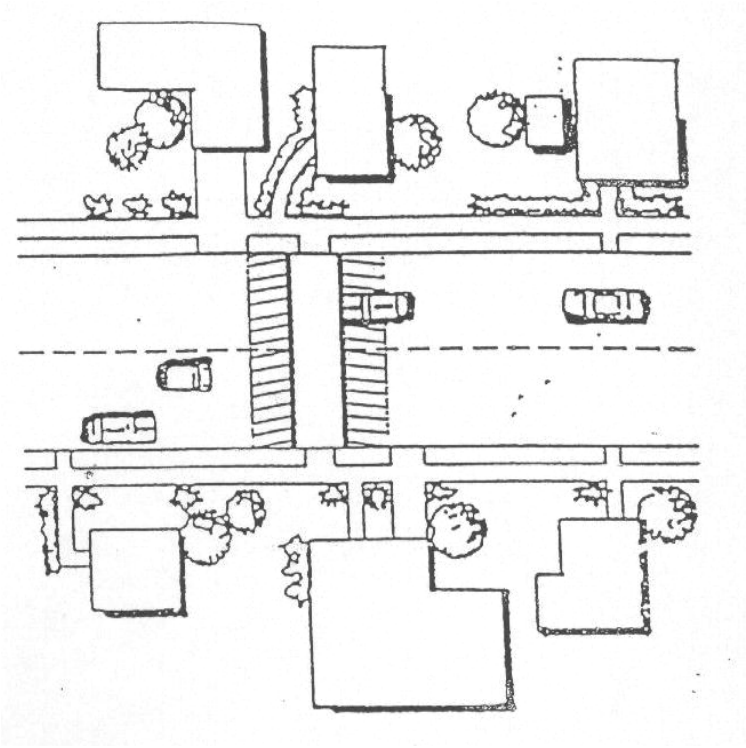


TYPICAL SPEED TREATMENT



RAISED CROSSWALKS

Definition:
A speed hump designed as a pedestrian crossing.



Temporary:
No.

Best Used For:
- High volume of pedestrians.
- Vehicle speed is a concern.

Don't Use If:
-

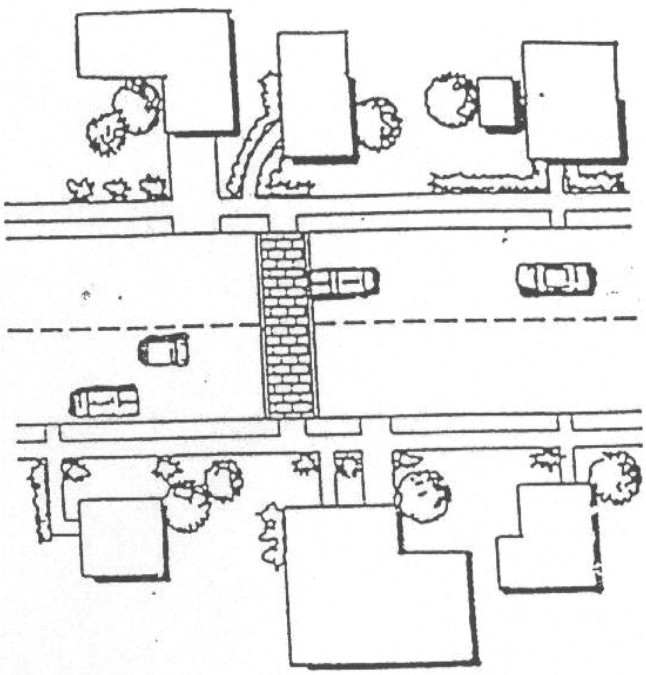
Street Types:
Can be used on medium and low volume streets.

Benefits:
- Effective speed control at the installation.
- Excellent pedestrian amenity.

Negatives:
- Negative impact on emergency vehicles if on primary emergency vehicle routes.

TEXTURED CROSSWALKS

Definition:
A crosswalk with textured material in the center, i.e., pavers, stamped concrete, etc.



Temporary:
No.

Best Used For:
- High volume of pedestrians.
- Vehicle speed is a concern.

Don't Use If:
-

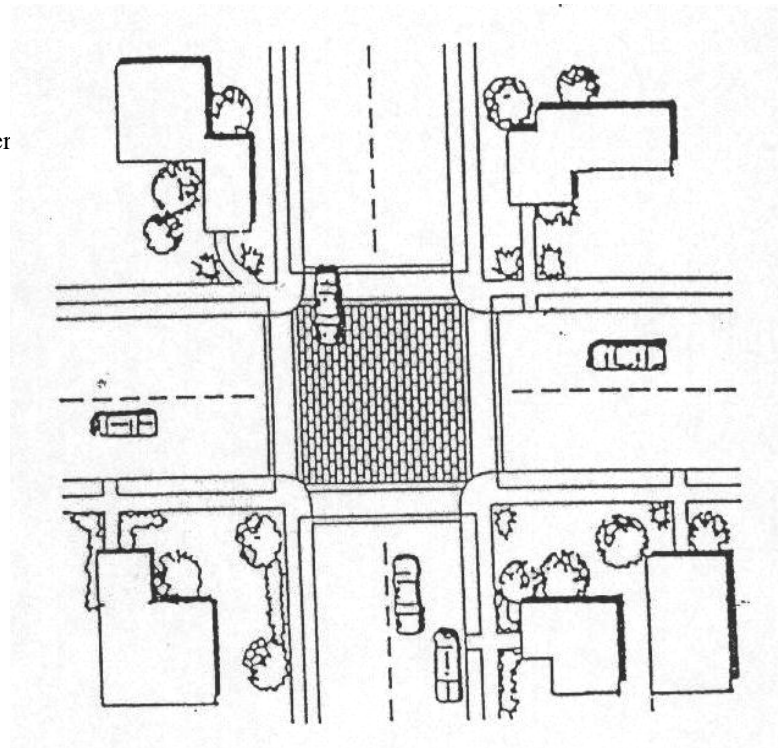
Street Types:
Can be used on medium and low volume streets.

Benefits:
- Effective speed control at both mid-block and intersection crossings.
- Excellent pedestrian amenity.

Negatives:
- Noise will increase at these crossings due to the texturing.

RAISED INTERSECTIONS

Definition:
A raised plateau of roadway where roads intersect. The plateau is generally about 3" higher than the surrounding streets.



Temporary:
No.

Best Used For:
- High pedestrian volumes with significant safety concerns.
- Significant, excessive vehicle speeds.

Don't Use If:
- Critical emergency vehicle route.

Street Types:
Can be used on high or low volume streets.

Benefits:
- Effective speed reduction; easier on emergency vehicles than speed humps.
- Aesthetically pleasing, if well designed.
- Excellent pedestrian safety treatment.

Negatives:
- Expensive.
- Not as good as a flat street for emergency vehicles.

EDUCATION

Definition:
Activities that change people's minds. Reading informative text, meetings and workshops with city staff, interaction with neighbors, signing campaign, enforcement activities, neighborhood speed watch, school programs, parent outreach, etc.

Temporary:
Education efforts can be flexible in duration.

Best Used For:
- A traffic problem that involves human behavior.

Don't Use If:
- Education has already been seriously attempted, with no significant results.

Street Types:
Education can be applied in almost any situation.

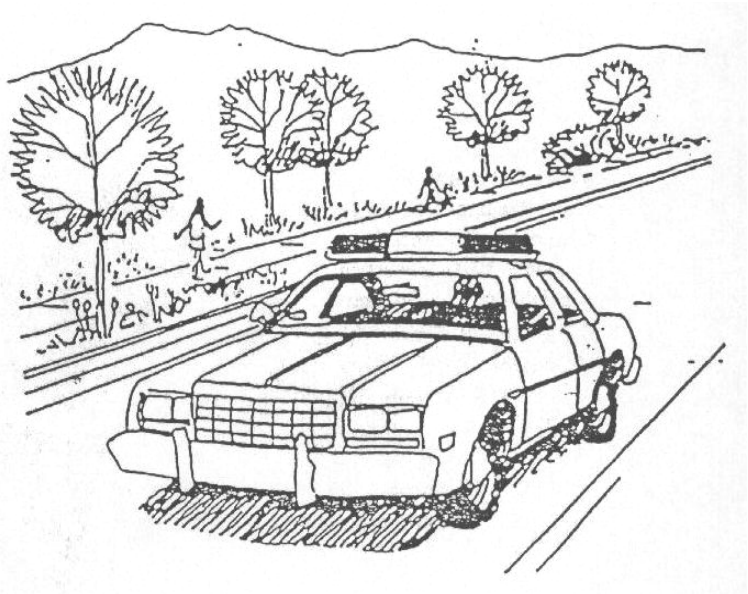
Benefits:
- Can be very effective, is relatively inexpensive, involves and empowers citizens, works well with other mitigation tools.

Negatives:
- May be difficult to measure effectiveness.
- Can be expensive.
- May take time to be effective.
- May wear off over time.

ENFORCEMENT

Definition:
Random monitoring of speeding and other violations by police.

Police officers can come out to a neighborhood for short periods of time to issue tickets. Additionally, police officers can "take a neighborhood under their wing", and monitor traffic on a regular basis.



Temporary:
Enforcement is always temporary.

Best Used If:
- Excessive speed on a street *and* there is an urgent need for quick action.
- Neighborhood is undertaking a Speed Watch program, is using the radar trailer or has newly installed mitigation measures.
- Neighborhood is in design phase and needs interim assistance.

Don't Use For:
- Locations where it is physically impossible to pull vehicles over without creating a hazard.

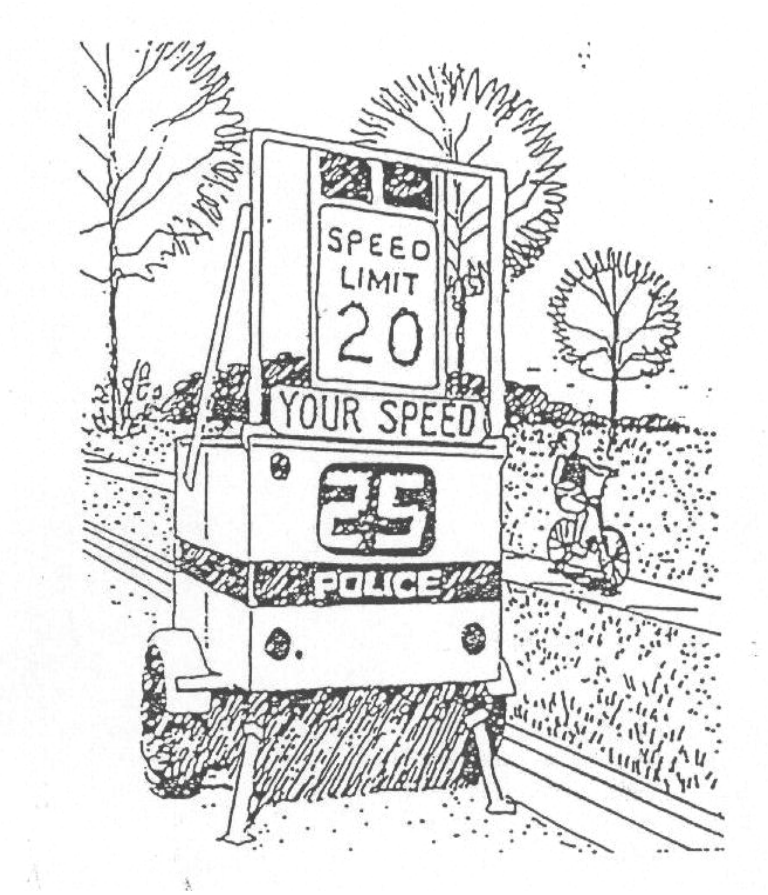
Street Types:
Enforcement can be performed on any street. Logistics make some locations problematic or ineffective. Mitigation can be initiated.

Benefits:
- Temporary good public relations tool.
- Serves to inform the public that speeding is an undesirable behavior for which there are consequences.

Negatives:
- Effect is not permanent.
- Enforcement is an expensive tool (currently, total cost recovery for enforcement does not exist).

RADAR SPEED MONITORING TRAILER

Definition:
Mobile radar display advises motorist of their speed.



Temporary:
In place for several hours or days in a given location.

Best Used If:
- Excessive speed occurring.

Don't Use If:
- Very remote location.
- Extremely heavy traffic volumes.

Street Types:
Acceptable for use of high or low volume, preferably two lane roadways.

Benefits:
- An educational tool.
- Useful especially in school and construction zones where spot speed reduction is important.
- Very good public relations tool.

Negatives:
- Requires periodic enforcement.
- Effective for limited duration.
- Units are moved frequently, which requires manpower.

BASIC MITIGATION THEORY CONSIDERATIONS

- In the past, streets have been designed wide and straight, perhaps because cars were bigger. Today, however, these wide streets encourage speeding.

- It is therefore natural that many traffic calming devices are designed to narrow the road. Neckdowns, roundabouts, and medians all decrease road width.

- It is very important for neighborhoods to identify where mitigation is most needed. For effective traffic mitigation, traffic calming devices need to be placed approximately every 150-800 feet (for example: a roundabout at the intersection with a speed hump mid-block on either side.) If mitigation techniques are used too sparsely, traffic may slow close to the installation, but the overall speed may not decrease.

- Some mitigation techniques may affect noise, air quality, congestion, fuel consumption and many other factors in either a positive or negative way.

- Emergency vehicle response time must be considered during the design and installation of traffic calming devices.

PRE-APPLICATION REQUIREMENTS

CONFERENCE:

1. City staff will meet with the resident(s) to discuss the types of traffic problems they are experiencing, along with the policies of the Traffic Management Team. This meeting will be the result of either citizen com plaints, a request from the neighborhood association, or a Commissioner's request.

2. City staff and the resident(s) will identify the petition area.

3. City staff will explain traf fic calming techniques and the procedure f or requesting a review; including the petition process (copies will be provided).

4. Upon completion of the application and after obtaining the required number of signatures, the resident(s) will return all material to City staff.

Time frame: The City w ill attempt to presen t traffic calming projects to the Planning & Zoning Board within six months of receipt of application, subject to budgetary restraints.

PROCEDURES

1. PRE-APPLICATION REQUIREMENTS:

City staff will meet with the resident(s) to discuss the types of traffic problems they are experiencing. This will result from either citizen complaints, a request from the neighborhood association, or a Commissioner's request.

2. RECEIPT OF APPLICATION:

City staff receives the application form and the petition with signatures from at least 67 percent of the affected resident(s) and/or businesses required.

3. PRELIMINARY ANALYSIS:

City staff identifies study area, collects preliminary data and completes traffic analysis. To assist in evaluating the severity of the problem (s), staff will refer to the "Neighborhood Traffic Management Criteria". (see page 9)

4. NEIGHBORHOOD WORKSHOP:

City staff will schedule a neighborhood "workshop" meeting, to identify the problems, review results of preliminary studies, as well as educate the community.

Citizen participation is an essential ingredient in the development and implementation of a successful neighborhood traffic plan. Neighborhood residents offer insight into the nature and extent of traffic and safety problems; they are most directly affected by the problems and potential mitigating measures, and they are frequently the source of innovative solutions. The following are two levels of community involvement:

1. Participatory programs involving community leaders and interested citizens.

2. Outreach programs attempting to communicate with the silent citizens, normally the vast majority of residents.

Implementation of an effective traffic management program, which incorporates resident participation, will provide many benefits to the community, including effective transportation control, community safety and an enhanced quality of life.

5. DEVELOPMENT OF A NEIGHBORHOOD TRAFFIC PLAN:

City staff, along with neighborhood representatives, will evaluate the problem (s) and develop a neighborhood traffic plan utilizing one or more traffic calming techniques. The process will incorporate the following steps:

Step 1 Problem Assessment

Step 2 Plan Development
Step 3 Plan Presentation and Resident Approval
Step 4 Plan Implementation
Step 5 Plan Evaluation and Modification

Landscaping treatments included in this plan will be considered based upon neighborhood participation in the installation and maintenance of same.

6. PRESENTATION OF THE NEIGHBORHOOD TRAFFIC PLAN TO THE COMMUNITY:

Education and public awareness are important factors when dealing with traffic and safety. City staff will schedule a meeting with the neighborhood representatives to present to the residents the recommended traffic calming devices. Based on the location and type of traffic calming device approved, the resident(s) may be required to submit a subsequent petition. City staff and community representatives may then decide to develop further techniques for alternative solutions. (return to step 4).

7. PLANNING & ZONING BOARD PRESENTATION:

Traffic calming plan will be presented by City staff and neighborhood representatives to Planning & Zoning Board for review and recommendation to City Commission.

8. CITY COMMISSION PRESENTATION:

Based on the recommendation of the Planning & Zoning Board, City staff and with neighborhood consensus, staff will prepare a report and recommendation for City Commission action.

9. BUDGETING PROCESS:

A timeframe will be developed for budgeting and implementing the recommended traffic calming devices.

10. PROJECT DESIGN AND IMPLEMENTATION:

With favorable action by the community on the plan, City staff will initiate the design and implementation process for the proposed traffic calming devices. Specific techniques may be installed as a “test site”, while others will be installed permanently. "Test sites" will be monitored and evaluated for effectiveness. After a period of evaluation, measurable objectives and performance measures will be established on a case by case basis.

11. EVALUATION:

Immediately following the installation of the project City staff will begin an evaluation of the project's effectiveness. This evaluation includes, but is not limited to, field observations, traffic counts, speed studies and other data collection (as needed). If the project has not met the objectives during the evaluation period, staff will notify the community's representatives. City staff and community representatives may then decide to make modifications to the current plan. These modifications may include the implementation of additional or different techniques (return to step 4 or 5).

APPLICATION FORMS

Traffic Management Team (TMT) projects can be requested by neighborhood associations or individual resident(s), in the absence of a recognized association.

The person(s) requesting a neighbor hood traffic plan will be responsible for the circulation of petitions and completion of the application form. Before the TMT will review a request, at least 67 percent of the residents and/or businesses within the petition area must sign the petition form.

CITY OF WILTON MANORS
TRAFFIC CALMING
PROJECT APPLICATION FORM

CONTACT NAME:_____ TODAY'S DATE: _____

NEIGHBORHOOD:_____

WORK PHONE: _____ HOME PHONE: _____
LOCAL ADDRESS: _____ FAX NUMBER: _____

WHICH NEIGHBORHOOD STREET(S) ARE OF CONCERN:

_____
_____
_____
_____

WHAT TRAFFIC CONCERNS HAVE BEEN OBSERVED:

_____
_____
_____
_____

NUMBER OF HOMES/BUSINESSES WITHIN THE AFFECTED AREA: _____

STREETS THAT COMPRISE THE AFFECTED AREA:

_____
_____
_____

THE PETITION FORM MUST ACCOMPANY THIS APPLICATION. PRIOR TO REVIEWING THE AREA FOR A NEI GHBORHOOD TRAFFIC PROJECT YOU MUST RECEIVE A MINIMUM OF 67 __ PERCENT OF THE RESIDENT(S)/BUSINESS SIGNATURES.

RETURN COMPLETED APPLICATION WITH ALL ORIGINAL PETITION FORMS TO:

CITY OF WILTON MANORS
EMERGENCY MANAGEMENT/UTILITIES DEPARTMENT
ATTENTION: TRAFFIC MANAGEMENT TEAM
2020 WILTON DRIVE
WILTON MANORS, FL 33305

FOR OFFICE USE ONLY

REVIEWED BY: _____

PROJECT NUMBER-_____

DATE RECEIVED: _____

DATE OF PRE-APPLICATION CONFERENCE: _____

DATE PRELIMINARY ANALYSIS COMPLETED: _____

IDENTIFIED PROBLEMS: _____ EXIST _____ PERCEIVED

DATE OF FIRST NEIGHBORHOOD WORKSHOP: _____

TRAFFIC TEAM: _____ YES _____ NO

DATE OF PROJECT PRESENTATION TO NEIGHBORHOOD: _____

CONSENSUS REACHED: _____ YES _____ NO

DATE OF PROJECT PRESENTATION TO PLANNING & ZONING BOARD: _____

APPROVED: _____ YES _____ NO

DATE OF PROJECT PRESENTATION TO CITY COMMISSION: _____

APPROVED: _____ YES _____ NO

DATE OF PROJECT IMPLEMENTATION: _____

DATE PROJECT EVALUATED: _____

SUCCESSFUL: _____ YES _____ NO

TYPE OF CALMING DEVICES INSTALLED:

COMMENTS:

WILTON MANORS
TRAFFIC MANAGEMENT TEAM
PETITION FORM

We, the undersigned, as residents and/or businesses of the _____ _____ neighborhood, hereby request a neighborhood traffic plan be developed for our area. Our major concerns are as follows:

_____

_____

_____

The roadways most severely affected are as follows:

_____

_____

_____

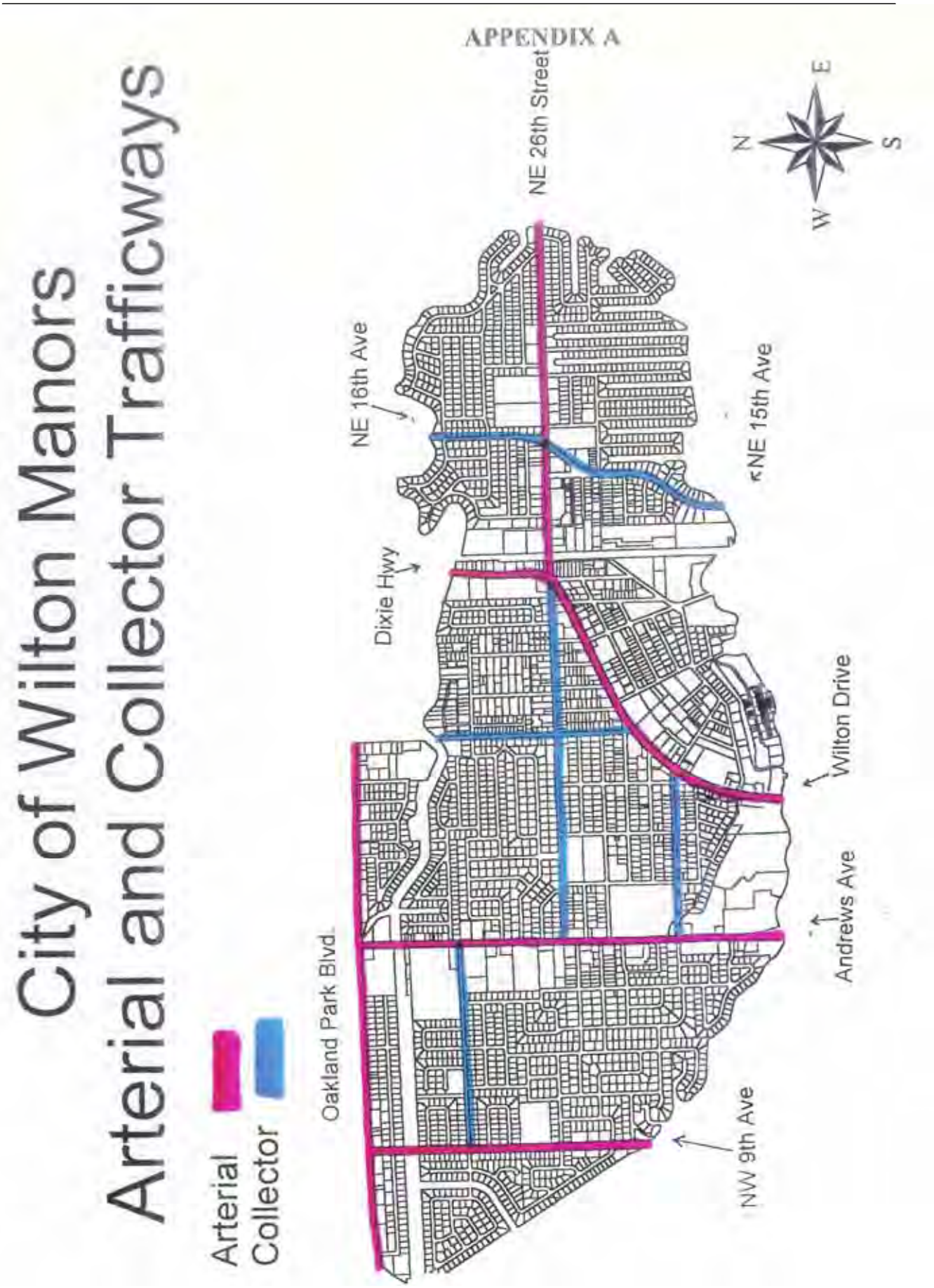
Please list **all** addresses in the petition area. One signature per household or business.

DATE	NAME (PLEASE PRINT)	ADDRESS	SIGNATURE

DATE	NAME (PLEASE PRINT)	ADDRESS	SIGNATURE

APPENDIX A

City of Wilton Manors
Arterial and Collector Trafficways



APPENDIX B
SAMPLE LETTER

Dear _____:

Subject: Traffic Calming Request

Attached for your use are the Traffic Management project application and petition forms. Please review and complete the information sections appropriate for your neighborhood. If necessary, you may attach additional information to completely describe the problems your neighborhood is experiencing.

Upon receipt of the information, a subcommittee will begin the neighborhood assessment process. After the neighborhood assessment is completed, a meeting will be scheduled with your neighborhood association to discuss issues and strategies and to answer questions.

Thank you for your interest in making your neighborhood a better place to live. Please contact me at 390-2129 if I can be of further assistance.

Sincerely,

cc: Traffic Management Team

GLOSSARY

ARTERIALS - A major highway primarily for through traffic, usually on a continuous route.

CHANNELIZATION - Traffic islands to prevent or ensure turning movements.

CHICANE - Deviations in the path traveled, so that the street is not straight.

CHOKER - Physical barrier at an intersection or mid-block reducing pavement width.

COLLECTORS - Routes that collect and distribute traffic between local roads or arterial roads and serve to promote a balance between land access and mobility needs.

CPTED - Crime Prevention through Environmental Design

CUT-THROUGH - Vehicles which neither have their origin nor their destination in the area.

DEFLECTING PATHS - The offset of a vehicle's path from a straight line.

(DIAGONAL) DIVERTER - A barrier placed across the road width to prevent through travel.

LAND DEVELOPMENT CODE - Article IX of the Broward County Code of Ordinances governing the issuance of development permits and outlining land development regulations within Broward County, Florida.

MITIGATING - To make or become less severe.

MPO - Metropolitan Planning Organization

NECKDOWN - Physical reduction of road width at intersections or mid-block.

OBELISK - A tall, four-sided shaft of stone, usually tapering, and monolithic.

RADII - Corner curves.

ROUNDABOUT - A raised circular area (similar to a median) placed in an existing intersection which forces vehicles to travel in a non-straight line and where vehicles must yield upon entry.

SINGLE LANE USAGE - Physical reduction of road width to one lane.

SPEED HUMP - A raised section across a roadway designed to permit safe speed and deter excessive speed generally located on a residential roadway.

STREET FURNITURE - Those items installed along a roadway such as: park benches, street lights, trash cans, newspaper stands, etc.

TRAFFIC CALMING DEVICES - A "toolbox" of devices that may be employed to reduce vehicular speed and/or volume on residential streets, i.e., speed humps, roundabouts, etc.

TRAFFIC CIRCLE - Raised circular area placed in an existing intersection.

TRAFFIC FLOW - The characteristics of traffic on a street, i.e., volume, classification and speed.

TRAFFIC MANAGEMENT– All of the techniques utilized by Traffic Engineers, Planners and Government Officials to promote efficient and safe operation of roadways.

TRAFFICWAYS PLAN - The official plan of the arterial and collector roadway network for Wilton Manors which reserves rights-of-way.