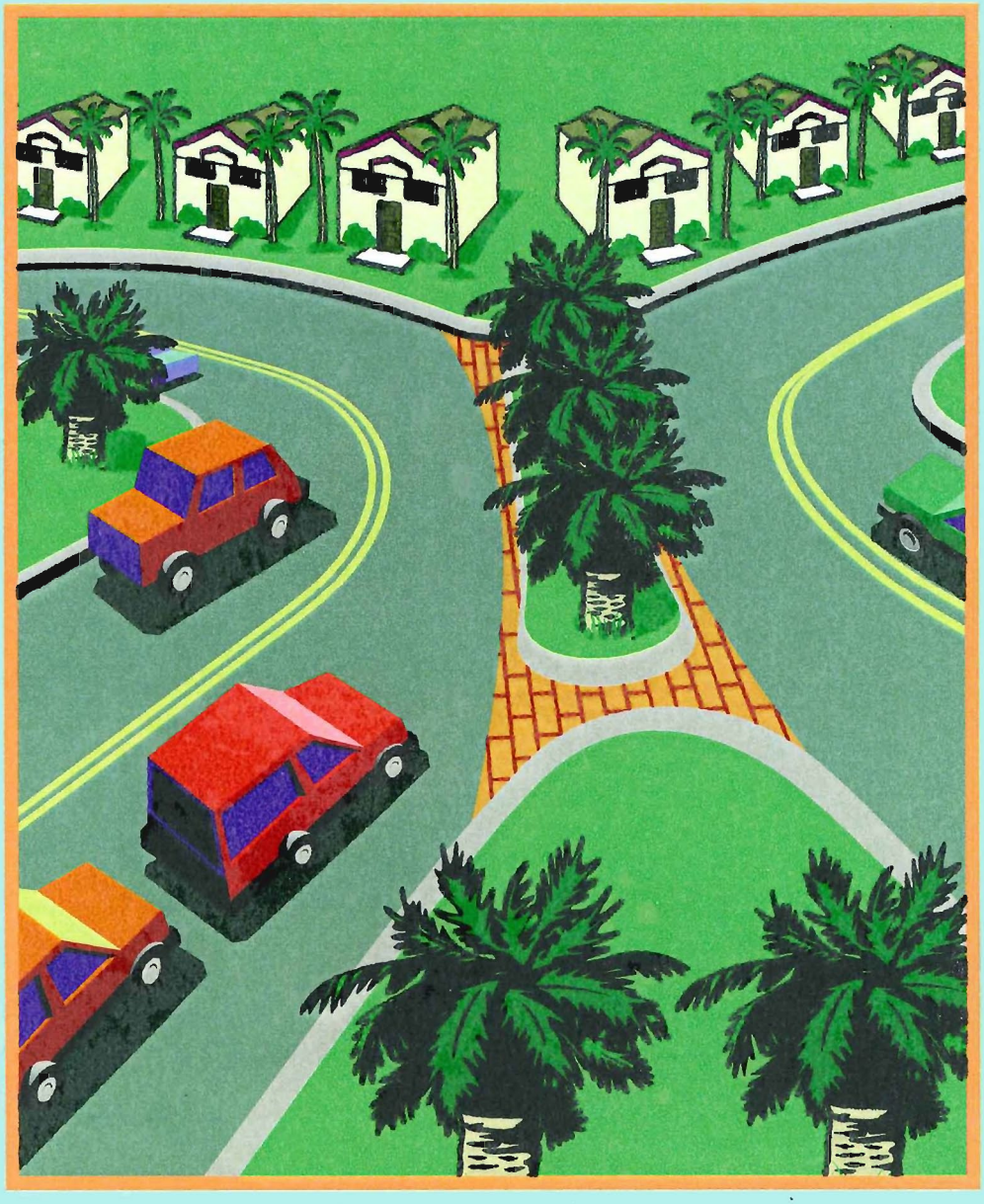
METRO-DADE

Street Closure/Traffic Flow Modification Study



July 1996

Prepared for:

Dade County Public Works Department

and

Metropolitan Planning Organization

Prepared by:

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HARRIS

EXECUTIVE SUMMARY

Metro-Dade County Commissioner Maurice A. Ferré's office suggested that the County conduct a symposium to address issues related to street closures/barricades. The Public Works Department and Metropolitan Planning Organization obtained the professional engineering services of Frederic R. Harris, Inc. to conduct a Street Closure/Traffic Flow Modification Study. The primary objectives of the study were to:

- Evaluate and recommend traffic control alternatives to street closures;
- Develop a uniform set of guidelines or warrants to be followed by local municipalities, the County and the State for implementing neighborhood and localized area traffic control; and
- Develop a standardized set of procedures to be followed by local applicants desiring enhanced neighborhood traffic control.

A Steering Committee was assembled and periodically convened to meet with the Consultant to provide input throughout the study process. The Steering Committee consisted of representatives from the Florida Department of Transportation, Metro-Dade County and local municipalities; some of whom had previous experiences with citizen requests for street closures. The draft report was developed as a series of Technical Memorandums that were reviewed by the steering committee and later compiled to form the final report.

In recent years, traffic on local streets in various areas of Dade County has received widespread attention; neighborhood residents have increasingly requested street closures to improve their quality of life and safety. While the grid network of streets in Metro-Dade County often encourages traffic from congested arterial streets to overflow onto residential streets, citizens' desires for street closures escalate for the following reasons:

- Over-capacity of arterial streets,
- Changing traffic patterns,
- Cut-through traffic,
- Excessive speed on residential streets,
- Safety concerns,
- Accidents,
- Traffic noise, and
- Fear of crime.

When evaluating a street closure request, government agencies are faced with traffic engineering considerations such as:

- Do volume, cut-through, speed, accident or crime problems actually exist to warrant closures?
- Will diverted traffic adversely impact other streets (and create additional requests or additional capacity improvements)?
- How will proposed improvements affect emergency vehicle access?
- What other less restrictive measures are available to address residents' concerns?

Increasingly, these agencies are also faced with both legal and financial implications. For instance:

- Who will pay for and maintain the requested installations?
- What are the legal issues that may complicate a traffic mitigation policy?

The public and institutional issues identified in this study must be understood when addressing requests for local street closures or any other neighborhood traffic flow modification.

The Steering Committee developed standardized procedures and guidelines for use by the public, local officials, or other private sector interests requesting traffic flow modifications that may affect local neighborhood as well as other roadway traffic patterns. The intent of these procedures is to provide Metro-Dade County and municipalities a uniform approach to facilitate government action in response to requests to restrict local traffic access via street closures, other physical modifications or traffic calming alternatives. These proposed procedures are also intended to ensure that such issues are given appropriate study and timely response and that the full range of traffic and community impacts are considered.

LOCAL EXPERIENCE

Current Metro-Dade County's means for implementing street closures include any combination from the following:

1. Creation of a Special Taxing District,
2. Reverting the Right-of-Way to the adjacent property owners,
3. Within a municipality, citizens petition the municipality, and
4. In Unincorporated Dade County, citizens submit requests to the Public Works Department.

Municipalities were not always sure as to what their requirements and obligations were in terms of before-and-after traffic studies for street closure requests. After reviewing existing Metro-Dade County correspondence files with several municipalities, Frederic R. Harris, Inc. developed a questionnaire for the purpose of contacting all municipal agencies within the County, advising them of the Street Closure Study, and requesting input concerning neighborhood traffic control issues. The survey was conducted primarily via mail, although several personal interviews were conducted with various State, County and local officials as well as local neighborhood associations, street closure activists and other professional engineers.

The main topics covered in the survey included:

- The status of existing or pending street closures;
- Typical traffic control measures requested by citizens;
- Identification of typical residential traffic problems;
- Funding methods; and
- Perception of street closure performance.

THE ISSUES

The survey results revealed that elected officials must increasingly address a number of traffic, socio-economic, legal and political issues. Their decision to implement residential street closures as a result of both private and public requests further reveals that:

- The problem, "to close or not to close," is common to many local governments;
- Complex issues such as the relation of traffic intrusion versus crime are unique to every neighborhood and often critically debated;
- Creative engineering and planning solutions are needed to respond to public and political sentiment;
- Traffic engineers must include the impacts of proposed traffic control measures on a macro-level, since implementing one solution may magnify other problems;
- A typical residents' solution to traffic problems often involves installing "Stop" signs and barricading roads;
- Alternative traffic calming techniques should be investigated prior to implementing street closure design;
- A formal process or procedure to identify existing traffic problems, explore a full range of solutions, and evaluate potential impacts is often non-existent within most local government agencies.

Frederic R. Harris, Inc., using the survey results with the support of a literature search and review of Dade County files, identified the following institutional and public concerns.

Institutional Concerns

The survey results identified a number of issues as typical concerns or complaints by both municipal officials and local neighborhood representatives regarding the benefits and consequences of street closures. The following are those common macroscopic issues public officials are faced with when addressing street closure requests:

- Diverted traffic volumes resulting in degraded Levels of Service (LOS) on adjoining neighborhood streets,
- Diverted traffic volumes resulting in degraded LOS on the adjoining arterial or collector roadway system,
- Degradation of emergency services' access and response times, and
- Degradation of other services such as school buses, public transit, mail delivery and trash collection.

Typically, these issues are identified *after* a particular street closure has been implemented and not during the planning or proposal stage.

Public Concerns

The general public is more concerned about those microscopic problems that they perceive adversely affect the neighborhoods' quality of life. These problems may include:

- Excessive vehicle speeds within residential neighborhoods,
- Cut-through traffic or traffic intrusion,
- Safety of pedestrians and bicyclists,
- Perception of increasing crime and drug sales,
- High truck traffic as a result of traffic intrusion,
- Increased noise as a result of high traffic volumes,
- Decreased emergency services' response time,
- Perceived increase (or decrease) in property valuation as a result of street closures.

Much of the debate about street closures balances the perceived benefits against the negative consequences above.

THE TRAFFIC CALMING ALTERNATIVE

Traffic calming involves implementing strategic physical changes to streets to reduce vehicle speeds and to decrease the non-local driver's intrusion into residential neighborhoods. The traffic calming devices recommended by this study should be designed and located to discourage cut-through routing or speeding by increasing travel time on local neighborhood streets thus keeping through traffic on arterial roads. A strategic plan utilizing combinations of these devices supported by all affected parties will be effective. Some of the more common physical techniques currently being utilized to calm local residential streets are shown on Page vi.

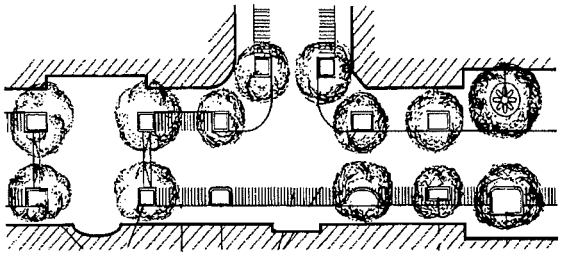
Levels of Traffic Calming

Several category levels exist to distinguish the least restrictive (passive) traffic calming measures from those that are most restrictive (active). It should be noted that among each of the categories there are many design variations for each device. The least restrictive measures to address a traffic problem should be employed first, followed by more active and physical traffic calming devices. This incremental approach would allow a cost effective opportunity to identify the real traffic problem, if any, and effectively evaluate the impacts of more restrictive measures.

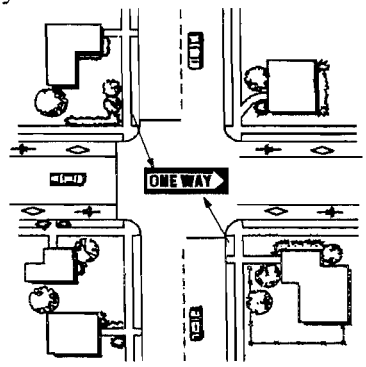
Any street closure or traffic flow modification within Metro-Dade County and its municipalities should be limited to residential local streets and residential collector streets. Prior research has found that a residential street begins to lose its livability when traffic exceeds approximately 1500 vehicles per day (vpd) or 150 vehicles per hour (vph). Similarly, the thresholds for a residential collector are approximately 3000 vpd or 300 vph. These values are guidelines recommended for use by engineers as part of the evaluation process.

Traffic Calming Alternatives

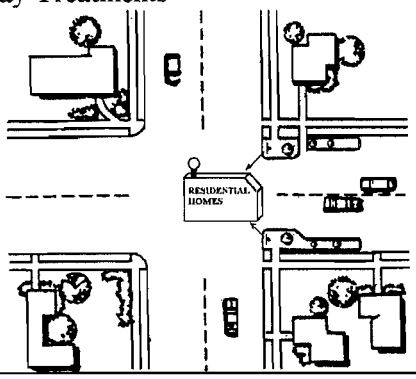
Border Landscaping



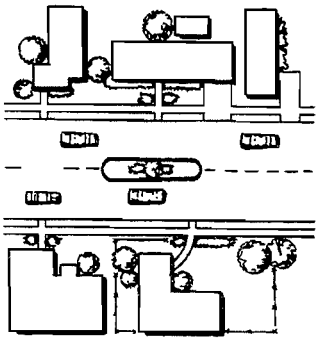
One-Way Streets



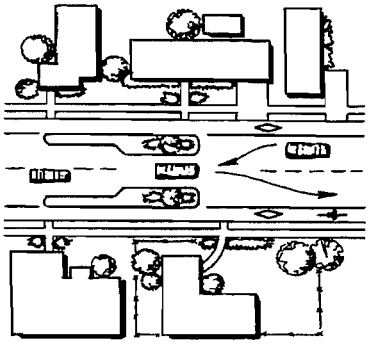
Gateway Treatments



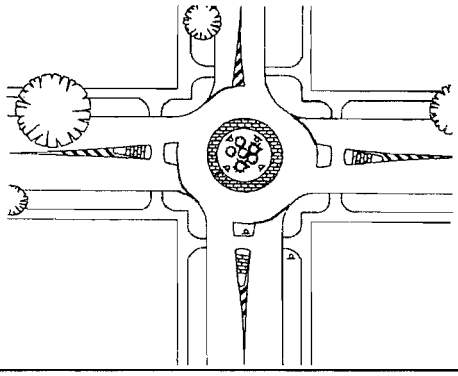
Raised Islands/Medians



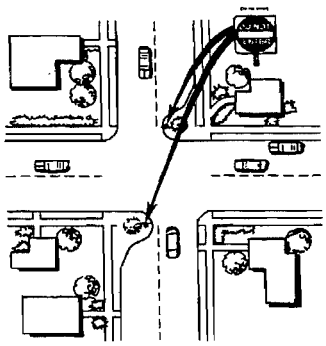
Slow Point (Neckdown)



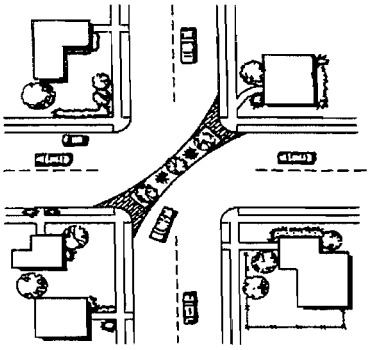
Roundabouts



Semi-Diverter



Diagonal Diverter



When evaluating the traffic and livability impacts of traffic calming alternatives, the evaluator must analyze the effectiveness of the recommended alternatives according to the following criteria:

- Speeds,
- Cut-Through Traffic,
- Level of Service - Within Neighborhood,
- Level of Service - Neighborhood Periphery,
- Accidents and Safety,
- Neighborhood Cohesiveness,
- Emergency Service Access - Fire/Medical,
- Right-of-Way Requirements,
- Environment (Noise, Air pollution),
- Comfort Level and Livability.

Neighborhood Management Programs

Several cities in the United States are currently utilizing many of these devices as part of a formal Neighborhood Management Program that addresses citizens' traffic concerns. The report summarizes these programs for the following cities:

- Naples, Florida (Collier County);
- Bellevue, Washington;
- Laguna Hills, California;
- Boulder, Colorado; and
- Gainesville, Florida.

THE PROCESS

The process of responding to a citizen request or proposal for a street closure or traffic flow modification in Metro-Dade County will include the following elements:

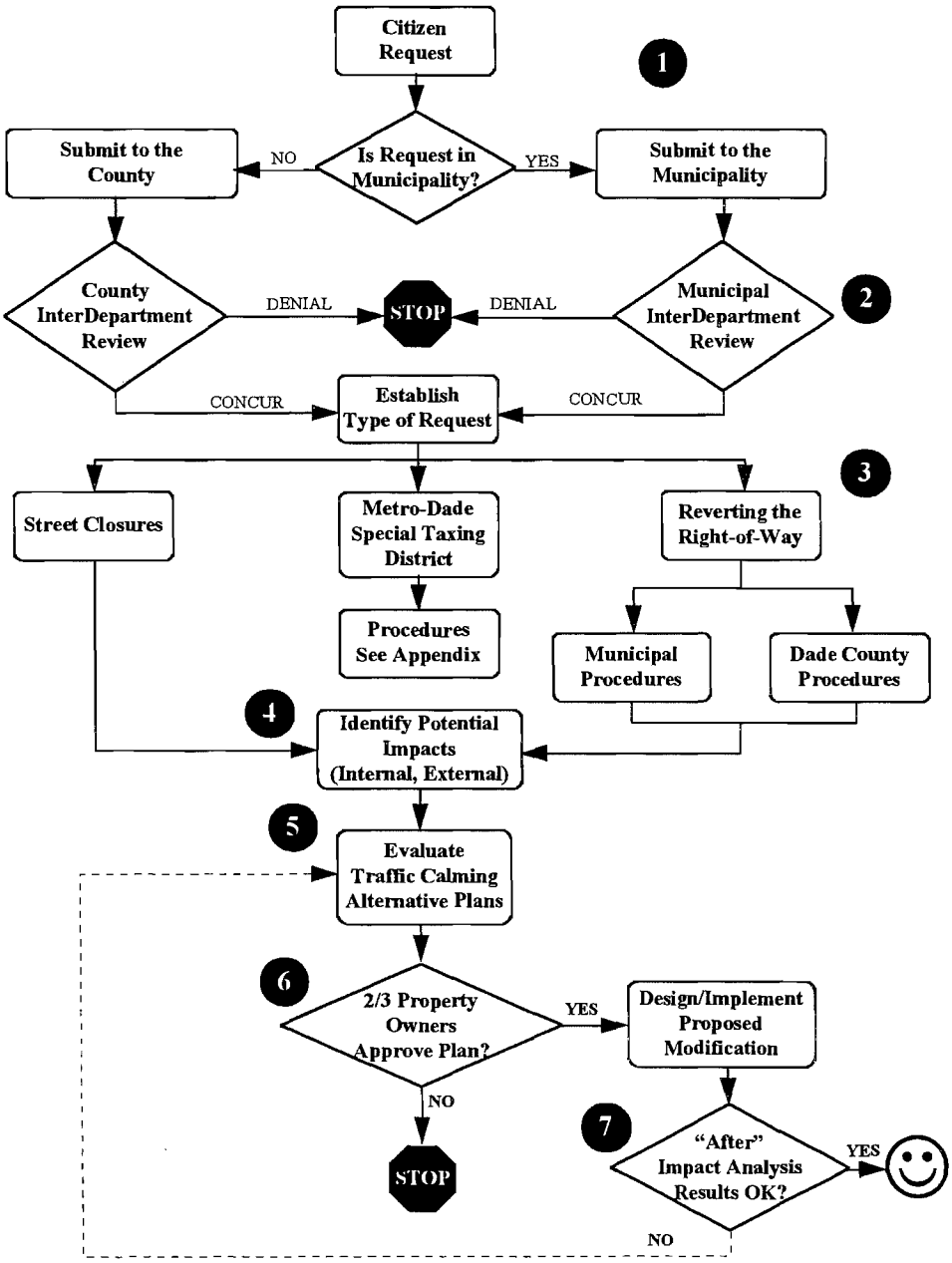
1. Receive citizen request or proposal;
2. Preliminary review by the appropriate government agency (County or Municipality);
3. Establish the type of request by defining the traffic problem or other perceived problems.
4. Identify the potential traffic impacts associated with the request by a before-study to determine expected impacts.
5. Identify alternative traffic calming and traffic control solutions.
6. Obtain petitions from a majority of all affected property owners prior to implementing traffic calming alternatives.
7. Perform an after-study to evaluate impacts of implemented alternative solutions.

The requirements of the process are as follows:

- Interdepartmental reviews within jurisdictional agencies,
- Concurrence of 2/3 of the property owners,
- Non-traditional analyses of impacts on emergency services,
- Traffic data requirements on a case-by-case basis, and
- Incremental approach via traffic calming alternatives to street closure.

A flow chart outlining the application process is shown on Page viii. It is recommended that the procedures and devices described herein initially be tested for a trial period and the process fine tuned prior to the County's adoption of a formal policy.

Application Process



CONCLUSIONS

The procedures recommended in this report address traffic issues in an incremental fashion with the least restrictive measures applicable to a particular situation tested first, then monitored and supplemented, modified or replaced with more stringent measures if necessary. When non-traffic issues enter into the decision process, the procedures weigh both the traffic and non-traffic implications of a street closure or traffic flow modification. Although each citizen request will be unique, the process described herein will apply equally to any residential traffic control situation and provide government officials an objective tool to address neighborhood traffic control issues. There are alternatives available and recommended in the report that can resolve neighborhood traffic concerns. Street closures should not be a political issue but rather a transportation engineering/planning problem which strives to determine the best overall solution for the residential neighborhoods and the roadway network.

1. INTRODUCTION

In recent years, traffic concerns on streets in various neighborhoods of Metropolitan Dade County, Florida has received widespread attention as residents have increasingly requested street closures to improve the quality of life and safety by reducing cut-through traffic, speeding and crime. In response to these requests, the Cities of Miami, North Miami, North Miami Beach, South Miami, Miami Springs, Miami Shores, and Coral Gables have implemented a series of street closures for neighborhoods within their municipal jurisdictions. However, certain adverse impacts as a result of these municipal street closures have affected the conditions of adjacent roadway systems for which Dade County and the Florida Department of Transportation are responsible.

Residents' desire for street closure escalate due to the following factors:

1) Over capacity of arterial streets,
2) Changing traffic patterns as a result of growth and increased development,
3) Cut-through traffic in communities with multiple access points,
4) Excessive speed on residential streets,
5) Safety concerns,
6) Accidents,
7) Traffic noise,
8) Fear of crime.

Some of the above factors represent actual problems; others may be perceptions. For instance, diverted traffic may require additional storage for left and right turn lanes or require the modification of existing traffic signal phasing or timings; a requirement that could affect other signals within Dade County's coordinated traffic signal system. Negative impacts on essential public services such as police, fire/rescue, public transportation, school bus routing, trash pick-up, etc. may include longer response times, fire hydrant unavailability, and schedule disruption. Consequently, the detrimental impacts of street closure has become an issue when planning traffic control measures to address citizens' concerns with local neighborhood traffic.

The grid network of streets in Dade County can encourage commuter traffic from congested arterial streets to overflow onto residential streets in an attempt to minimize travel time. The straight alignment of these local streets can accommodate speeds higher than posted limits.

As a result of an influx of requests for street closures from local municipalities, County officials were forced to require that cities provide the County with "Before and After" studies assessing the impact of requested closures. Citizens in turn have taken the issue of street closures to elected officials, specifically, Commissioner Maurice A. Ferre, who suggested that the County conduct a symposium to address the street closure issue. Subsequently, this study was authorized to evaluate existing County

practices and develop new procedures for addressing proposed street closures within unincorporated Metro-Dade County and municipalities.

The concerns that create requests for street closures can often be addressed by alternative traffic control measures or traffic calming techniques; methods that discourage cut-through traffic and speeding while maintaining public access to all streets within a neighborhood. Communities around the United States and internationally have attempted to address residential traffic control dilemmas to improve and safeguard the quality of life in neighborhoods. This study, through literature research, will identify the concerns of local residents as well as municipal and governmental entities while examining how other cities and municipalities have successfully handled traffic intrusion, excessive amounts of traffic, and speeding concerns, and how some of these techniques could be used in Dade County.

Both passive and active techniques have been implemented in the attempt to control or "calm" neighborhood traffic. Signing and pavement markings are *passive* techniques that have been used to make the driver aware of the surrounding residential area. Physical features such as speed humps, traffic chokers and diverters play an *active* role to force the driver to behave or travel in a specified manner. The advantages and disadvantages resulting from the implementation of such measures will be investigated and documented. This resultant effort will lead to the development of a formal policy and procedure in the form of a Neighborhood Traffic Management or Mitigation Program (NTMP); a program that considers alternatives to street closures while examining those factors that encourage restrictive traffic control measures such as street closures.

The decision to close a public street to through traffic is an important and controversial public policy decision. Most often adjacent residents are in favor of such a street closure or modification of traffic flow, however neighbors on parallel streets whom experience increased traffic and motorists outside the immediate area often oppose the restricted access of the public facility. The following important issues require consideration:

- Do (volume, speed, accident, crime) problems actually exist to warrant street closures?
- Will diverted traffic adversely impact other streets (and create additional requests)?
- How will proposed improvements affect emergency vehicle access?
- What other less restrictive measures are available to address residents' concerns?
- Who will pay for and maintain the requested installations?

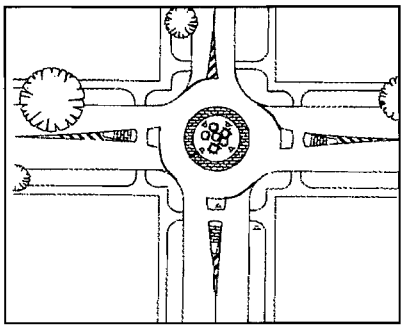
The above questions must be answered before addressing requests for street closure or traffic calming modifications.

This study will present a standardized set of sequential procedures and guidelines for use by the public, local officials, or other private sector interests in considering any request for traffic flow modifications that may affect local neighborhood as well as other roadway traffic patterns. The intent of these procedures is to provide Metropolitan Dade County and municipalities a pragmatic and

uniform approach to facilitate government action in response to requests to restrict local traffic access via street closures, other physical modifications or traffic calming alternatives. These proposed procedures are also intended to ensure that such issues are given appropriate study and timely response and that the full range of traffic and community impacts are considered.

The recommended guidelines will address traffic issues in an incremental fashion with the least restrictive measures applicable to a particular situation tested first, then monitored and supplemented, modified or replaced with more stringent measures if ineffective. When non-traffic issues enter into the decision process, the procedures weigh fully both the traffic and non-traffic implications of a street closure or traffic flow modification. Although each citizen request will be unique, a process described herein shall apply equally to any residential traffic control situation. This process should be regarded as a minimum. An applicant who has followed the process is not guaranteed a street closure or traffic flow modification. Some other action or combination of actions may be found to be preferable to street closure or it may be found that no action is recommended.

2. COMMONLY USED TRAFFIC CALMING DEVICES



Traffic calming involves implementing strategic physical changes to streets to reduce vehicle speeds and to decrease the propensity of the non-local driver's intrusion into residential neighborhoods. Traffic calming devices are designed and located to increase travel time on local neighborhood streets, thereby keeping through traffic on arterial roads. Some of the more common physical techniques currently being utilized to calm local residential streets include:

- Traffic Circles
- Roundabouts
- Traffic Diverters
- Street Closures
- Speed Humps
- Speed Bumps
- Chokers

Brief descriptions of the most common traffic calming devices and their advantages and disadvantages follows. Reference is also made to different municipalities that have utilized these traffic calming techniques.

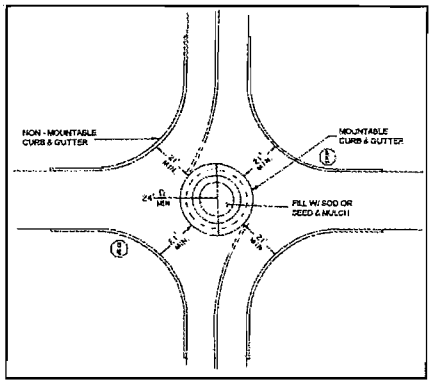
Traffic Circles and Roundabouts

> *A raised island, which is usually landscaped and located at the intersection of two streets for the purpose of reducing speeds and accidents without diverting traffic onto adjacent streets. The three main differences of modern roundabouts that distinguish them from traffic circles are: yield-at-entry, deflection and flare. Subsequently, the modern roundabout has become the preferred alternative of intersection control for agencies seeking a traffic calming solution to speeding and accidents at particular intersections.*

Horizontal alignment changes using traffic circles were pioneered in the United States in **Seattle, Washington** with the use of traffic circles. Since 1978, Seattle has constructed more than 800 traffic circles. The deflection in the circles prohibits vehicles from traveling more than 18 to 20 mph. *Deflection* is forcing the path of a vehicle to deflect around the central island, thus reducing the speed of entering vehicles.

Most left-turning cars will make a 270-degree turn around the circle. Some circles were constructed with a mountable curb and a 4 foot concrete ring to accommodate trucks. The 85th percentile speeds decreased from an average of 40 mph to approximately 20-22 mph on those roadways with traffic circles. Circles have also been highly effective in reducing the collision rates at problem intersections and mid-block areas.

The **City of Gainesville, Florida** conducted its own research on mini-traffic circles, utilizing some of the experience gained in Seattle. While the traffic volume of the roadways did not change, the 85th percentile speed decreased an average of 4.7%.



The **Florida Department of Transportation** is conducting a study on roundabouts. When completed, this study will provide guidelines for the design and implementation of this particular traffic calming device.

Traffic Diverters and Street Closures

The **City of Gainesville, Florida's** use of traffic diverters and street closures for residential traffic control, beginning in 1984, yielded the following conclusions:

> *A diagonal diverter is a barrier placed diagonally across an intersection to convert the intersection into two unconnected streets, each making a sharp turn. Traffic diverters will work for traffic control and be safe when properly signed and marked. Police enforcement with the installation of these diverters is initially necessary and the initial scheme must be considered an experiment, allowing for modifications. As in any neighborhood change in traffic control devices, citizen support is essential.*

In some communities, traffic volumes in older residential areas have become so problematic that streets have been converted to dead-ends or cul-de-sacs (street closures) to prevent cut-through traffic. A cul-de-sac is a complete barrier of a street at an intersection or mid-block that leaves the block open to local traffic at one end while preventing through traffic movement.

In 1987, **Montgomery County, Maryland** implemented a six-month trial protection plan in one neighborhood, consisting of designating two "Entrance Only" and two "Exit Only" locations. Cut-through traffic subsequently decreased by over 50%. Arguments in favor of the plan included:

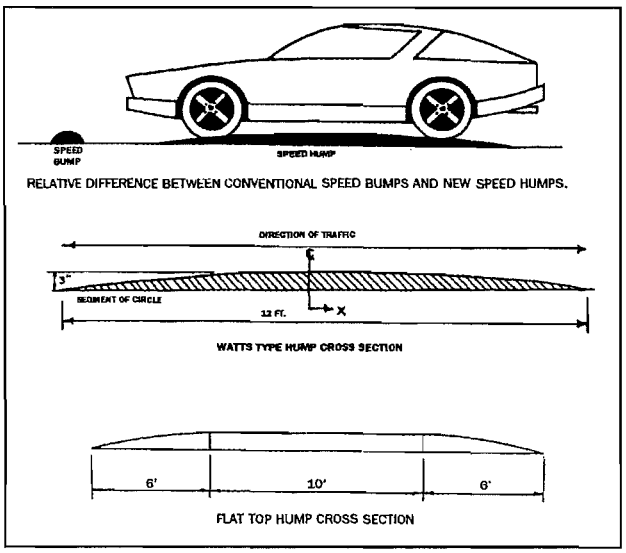
- preserving the integrity of the neighborhood,
- improving safety,
- re-routing commuter cut-through traffic.

Arguments against the plan included:

- taxpayer expense used to create public streets not open to travel,
- street restrictions exacerbating traffic congestion on nearby streets,
- unnecessary inconvenience.

Speed Humps

Vertical changes to roadway geometry offer guaranteed speed reduction. Speed humps were developed in England and control speed by adjusting the height and spacing of the hump. Normally, they have a height of less than 5 inches and must be long enough for both front and rear wheels of a car to be on the hump simultaneously.



Vertical roadway alignment modification has also been used to control speed in **Howard County, Maryland.** Speed humps (12 ft by 3 in) along Baltimore Avenue reduced the 85th percentile speed of 38 mph to 27-29 mph between humps and 15 mph at each hump.

The **City of College Park, Maryland** recently completed construction of four raised pedestrian crossings, with cross sections similar to a flat speed hump, as part of a road rehabilitation project.

Speed Bumps

Speed bumps, in contrast to humps, have a height of less than 5 inches but are typically less than 3 feet in length.

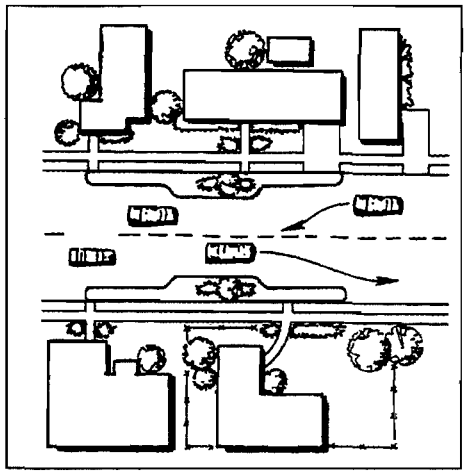
San Jose, California conducted a study of a shorter variety of speed bumps in 1975. That study supported the facts that speed bumps:

- were not effective in reducing speeds,
- hazardous to some vehicles (motorcycles, emergency vehicles),
- impossible to design for all vehicles, and
- caused noise in residential neighborhoods.

Metro-Dade County, Florida Public Works Department policy currently does not permit speed humps or speed bumps on local roads.

Other Neighborhood Roadway Treatments

Semi-diverters, neck-downs, chokers, forced-turn channelization, median barriers, pedestrian ("Woonerf") streets, one-way streets, signing, pavement markings and signalization are traffic control devices employed for traffic calming within residential neighborhoods. While active measures are largely self enforcing by the nature of their physical construction, passive controls such as signing and pavement marking are most effective where compliance can be expected to be high and enforcement is possible.



In response to citizen complaints, **Arlington County, Virginia** developed the following standards for the use of devices to control real and perceived speeding problems:

1. Traffic control devices not effective at controlling speed but appropriate for streets where citizens perceive speeding (e.g., *signing and pavement markings*).

2. Traffic control devices effective at controlling speed on streets with moderate or excessive speeding (e.g., *signing, diverters, nubs, circles*).

3. Experimental speed control devices appropriate only for streets with excessive speeding (*speed humps, Woonerf streets*).

4. Environmental strategy (e.g., *trees*).

5. Traffic control devices not effective in controlling speed (e.g., *pavement markings, rumble strips, non-standard signs*).

Anne Arundel County, Maryland constructed small curb bulbs (peninsular projections into the roadway) at intersections to slow traffic on narrow roadways.

The **Dallas/Fort Worth, Texas** area utilizes a point system used to rate the severity of problems in neighborhoods. The threshold values and corresponding point values for Accident History, Traffic Volumes, and Traffic Speeds criteria are listed in Table 1. These threshold values were originally developed by the City of Seattle, Washington for their Neighborhood Traffic Management (NTM) program.

Neighborhoods with excessive cut-through traffic were examined along with the areas surrounding the neighborhoods. Traffic diverters, restricted median openings, or street closure barriers were often recommended as alternative traffic mitigation strategies, depending on the land uses. In the event a neighborhood desires closing a street as an alternative, the results of a "before" traffic study are

compared to threshold values listed above. A location must accumulate at least three (3) points to be favorably recommended for closure.

Of course, there are both advantages and disadvantages to the implementation of any traffic control device. While the desired traffic control objectives may be achieved, factors such as noise, emergency access, and costs need to be considered in any Traffic Management Program. Table 2 summarizes literature findings concerning the characteristics and potential of some traffic control techniques described above.

This matrix could be expanded to include negative effects on bicyclists or geographic-specific disadvantages. Essentially, the main drawbacks to the use of active neighborhood traffic controls include:

- cost,
- the possible negative impact on emergency and service vehicles,
- the negative response of motorists or local residents that are inconvenienced by their introduction.

The advantages of passive control devices lies in the fact that they can be in force during selected periods of the day and they do not block emergency or service vehicles. However, compliance will be low and the devices will be ineffective if there is little enforcement of the law and drivers resent the limits on their travel. For example, if "STOP" signs are used to try to reduce major traffic flow or speeding in a neighborhood, numerous violations may be expected if there is no corresponding enforcement. This was found in before-and-after speed studies in the **City of Troy, Michigan** where "STOP" signs were not effective in controlling speeds. Compliance with these signs is not only poor, but over a period of years the compliance degrades to the point where motorists behave as if the sign were not present at all.

Table 1. Dallas/Ft. Worth Rating Criteria for Local Neighborhood Traffic

POINTS	CRITERIA
	Accident History (Recorded Correctable Accident Rate based on past three years)
1	.5 - .875 Accidents annually
2	.876 - 1.250 Accidents annually
3	1.251 - 1.625 Accidents annually
4	1.626 - 2.000 Accidents annually
5	2.001 - 2.375 Accidents annually
6	2.376 - 2.750 Accidents annually
1/2	If "non-correctable" intersection accidents exceed an average of 2 per year over the last three years.
1/2	If accidents on a mid-block section of street exceed 2 per year over the last three years, average
	Traffic Volumes (Weekday Average)
1/2	500 - 900 vehicles per day
1	901 - 1300 vehicles per day
1-1/2	1301 - 1700 vehicles per day
2	1701 - 2100 vehicles per day
2-1/2	2101 - 2500 vehicles per day
3	2501 - 2900 vehicles per day
	Traffic Speeds (85th % Speed)
1/2	31 - 34 miles per hour
1	34.1 - 37 miles per hour
1-1/2	37.1 - 40 miles per hour
2	40.1 - 43 miles per hour
2-1/2	43.1 - 46 miles per hour
3	46.1 - 49 miles per hour

Source: Van Winkle & Wiersig, "Neighborhood Traffic Management in the Dallas/Fort Worth Area"

Table 2. Summary: Devices Characteristics and Potential

Device	Traffic Reduction	Speed Reduction	Noise & Pollution	Safety	Access Restrictions	Emergency Access	Maintenance Problems	Level of Violation	Cost
Speed Humps	Possible	Limited	Increase	Improved	None	Minor Problems	None	Low	Low
Pinch Points	Possible	Limited	No Change	Improved	None	No Problems	Vandalism	None	Moderate
Shift in Pavement	Possible	Likely	No Change	Improved	None	Minor Problems	None	None	Moderate
Pavement narrowing	Possible	Likely	No Change	Improved	None	Minor Problems	None	None	Moderate
Pavement material	No	Minor	No Change	Unclear	None	No Problems	None	None	Moderate
Shared Space (Woonerf)	Yes	Likely	Decrease	Improved	Some	Minor Problems	Vandalism	Low	High
				Other Devices Mentioned					
Rumbling Strips	Unlikely	Limited	Increase	Unclear	None	Minor Problems	None	Low	Low
Stop Signs	Unlikely	None	Increase	Improved	None	No Problems	None	Potentially High	Low
Street Closure	Yes	Yes	Decrease	Improved	Yes	Some Constraints	None	Low	Moderate
Traffic Circle	Possible	Likely	No Change	Unclear	None	No Problems	None	Low	Moderate
Traffic diverters-barriers	Yes	Likely	Decrease	Improved	Yes	Minor Problems	Vandalism	Low	Moderate
Entrance Treatment	Possible	Limited	No Change	Improved	Some	Minor Problems	Vandalism	None	Moderate
Force Turn	Yes	Possible	Decrease	Improved	Some	Minor Problems	None	Potentially High	Low

Source: Ben-Joseph, "Residential Street Standards and Traffic Control"

3. NATIONAL EXAMPLES OF TRAFFIC MITIGATION PROGRAMS

In the United States, many communities are beginning to advocate the reduction of cut-through traffic and speeding within residential neighborhoods. A few of those communities that have formally dealt with the problems associated with neighborhood traffic are listed below along with a summary of their traffic management programs and their effectiveness in satisfying citizens' concerns. As quoted by Elizer & Lalani ("Facing Up to a Street Closure Epidemic", ITE Journal, October 1994):

> *Without a comprehensive, formal policy outlining the necessary traffic engineering criteria to evaluate a petition request for the closure or modification of traffic flow, efforts to effect such closures without a documented need and solid consensus among area residents can and will lead to divisive neighborhood debates; debates requiring vast amounts of staff time and heated "no-win" hearings in front of elected officials.*

Naples, Florida

As population and tourism continue to swell in Collier County, major roadways and intersections become congested and cause frustrated motorists to use local streets to bypass congested area. Motorists cutting through residential streets often ignore posted speed limits while residents who live on these streets are concerned about the safety and livability of their neighborhoods.

The Program

The Naples Metropolitan Planning Organization staff in conjunction with the Traffic Calming Task Force created the Collier County Neighborhood Traffic Management Program (NTMP) to provide a process for identifying and addressing problems related to speeding motorists, excessive traffic volumes, and safety on local residential streets. Residents are encouraged to help develop and evaluate various requirements, benefits and trade-offs associated with NTMP projects within their neighborhood.

A NTMP project involves strategic changes to streets in order to reduce vehicle speeds and to decrease the cars' dominance in the neighborhood. Traffic calming devices are designed and located to keep through traffic on major roads by making travel times on local streets greater than travel times on adjacent arterial streets.

The Goal, Objectives and Policy

It is the goal of the Collier County NTMP to establish procedures and techniques that will promote neighborhood livability by mitigating the negative impacts of automobile traffic on residential neighborhoods. By following a list of objectives encouraging "safe and pleasant" conditions for local users of residential streets by reducing total vehicular traffic and average speeds on local streets, the NTMP has developed a policy to process neighborhood traffic management requests. Although a

variety of traffic calming devices may be employed to meet the NTMP's objective, emergency vehicle access should be preserved in all cases.

Procedures

To initiate the NTMP process, a resident simply calls or meets with County staff to discuss a neighborhood traffic problem. The resident is then given information regarding the NTMP, including the petition process that requires more than 50% of signatures within an area identified by County staff and the resident. Receipt of the necessary signatures and application materials starts an NTMP project. The following procedures are then performed:

- Preliminary Traffic Analysis by County Staff
- Neighborhood Workshop to Discuss Preliminary Traffic Analysis Results
- Development of Suitable NTMP Project using Traffic Calming Techniques
- Neighborhood Workshop Presenting NTMP Project to Neighborhood
- County Commission Presentation by County Staff
- Project Design and Implementation by County Staff
- Monitoring by County Staff Following Project Implementation

It is important to note that throughout the NTMP process, County staff continuously works with residents within neighborhoods to identify the types and severity of traffic problems, as well as those traffic calming solutions which are cost effective for these problems.

Techniques

The traffic calming techniques that may be utilized as part of the program include the following physical and psychological devices:

Physical Modifications

Roadway Striping, Traffic Calming Signs, One-Way Streets, Textured Pavements, Speed Humps, Raised Crosswalks, Intersection Humps, Angled Slow Points, Roadway Alignment Deviations, Lane Narrowing, Turn Diverters, Roundabouts, Traversable Barriers, Mid-block Medians, Diagonal Road Closures, Partial/Full Street Closure, Cul-De-Sacs

Psychological Modifications

Driver Education, Gateway Treatment, Landscaping, Radar Speed Monitoring Trailer, Police Enforcement

Through the use of a combination of these various traffic calming measures, the Collier County NTMP is able to provide a balanced relationship between the multiple uses and needs of residential streets and the neighborhoods they encompass.

Funding

Collier County staff is primarily responsible for the analysis, development and implementation of a NTMP project. Upon approval of staff recommendations by the County Commission, County staff will schedule the design and implementation of neighborhood traffic control measures within budgetary constraints. Immediately following the installation of the project, County staff will begin evaluation of the project, including field observations, traffic counts, speed studies and other data collection deemed necessary.

City of Bellevue, Washington

Along with a growing population, this bedroom community of Seattle has found that the increase in travel demands on the arterial street system has overflowed into neighborhood streets; as non-local traffic uses local streets to bypass congestion and limited parking.

Objectives

The City's Neighborhood Traffic Control Program (NTCP) began in 1985 and has evolved into an effective program that stresses the following:

- Education
- Engineering
- Enforcement
- Community Involvement

As residents targeted local agencies for help in relieving non-local traffic within their neighborhoods, the program initially focused on the public's favorite remedy: use physical devices such as speed humps and traffic circles to control traffic. The NTCP was implemented as a government-sanctioned, systematic process to remedy neighborhood traffic concerns.

The Program

The NTCP has since evolved into a two-year program divided into the following two phases:

> **Phase I** involves educational programs and passive and less restrictive traffic control measures for the first year. The educational programs consist of:

- Neighborhood Traffic Safety Campaign
  Distribution of an informational brochure describing techniques citizens can use to help address speeding issues.

- Neighborhood Speed Watch Program
  Involves training citizens to use a radar unit. Recorded vehicle speeds are sent through the Department of Motor Vehicles to encourage the owner to drive safely and observe the neighborhood speed limit.

- Speed Watch
  Developed in California, this program consists of a portable, unmanned trailer equipped with a radar detector that displays actual vehicle speeds to encourage compliance.

Phase II involves the implementation of physical measures, if needed, during the second year.

Techniques

Passive traffic control measures may include signing, pavement markings, police enforcement and landscaping. The physical traffic control measures may include curb (alignment) deviations, diverters, medians, speed humps, traffic circles and street closures.

Participation in the program is initiated by a Citizen Action Request Form. The effectiveness of implemented Phase I techniques are reviewed during a 6-9 month period for a particular location. If ineffective, Phase II devices are constructed after a majority support from area residents is verified. Before and after studies coupled with neighborhood feedback determines the permanency of the implemented physical devices.

Funding

The City's NTCP is budgeted approximately $100,000 annually to implement Phase I and Phase II measures. In addition, the City of Bellevue employs two full-time staff dedicating 75 percent of their time to the development, management and implementation of the program.

City of Boulder, Colorado

Boulder, Colorado has viewed traffic in residential areas from the context of a common concern for the quality of life in the neighborhood. The implementation of the Woonerf, or pedestrian-friendly, street concept has enhanced the street environment. Careful planning and participation by local residents was vital for the development of the Neighborhood Traffic Mitigation Program (NTMP).

The Program

The NTMP was developed in response to increasing resident demand for the City to do something about speeding traffic. A working group of neighborhood residents, city staff and bicycling, pedestrian and business interests was formed to educate themselves about the myriad ways to reduce the negative impacts of traffic on neighborhood streets. Recommendations were made to the community and City Council on the guidelines for the program. A formal policy was then developed to address NTMP goals and objectives related to neighborhood traffic problems.

Goals & Objectives

The following NTMP goals and objectives for the City of Boulder, Colorado as contained in the City's "Neighborhood Development Tools" publication are summarized below:

1. Improve neighborhood livability by encouraging adherence to the speed limit.
2. Increase access, safety and comfort for alternative transportation users on neighborhood streets.
3. Encourage citizen involvement in solutions to neighborhood traffic problems.
4. Appropriately channel public resources by prioritizing traffic mitigation requests according to documentable criteria.
5. Effectively address the dual, and frequently conflicting, public safety interests of traffic mitigation and emergency response.
6. Change the transportation mores in the City of Boulder through education, respectful communication, participation, planning and design, to more accurately reflect overall City transportation and environmental policies and values.

By changing drivers' attitudes and by redesigning streets, the above objectives will promote safe driving on neighborhood streets, smooth the flow of traffic, increase overall livability, and allow more room for alternate travel mode users. The step-by-step process utilized by the NTMP to calm neighborhood traffic includes:

- Information Gathering,
- Ranking Project Requests,
- Project Design,
- Funding Development,
- Project Implementation,
- Project Evaluation.

In general, the NTMP focuses on neighborhood issues generally caused by speeding and volume and applies those traffic control techniques best suited for a particular problem.

Techniques

The following lists those common active and passive traffic calming devices utilized for speed and volume control:

> Traffic Circles, Channelization, Stop signs, One-Way Streets, Speed Humps, Barriers, Diverters, Street Closures, Turn Prohibitions, Public Education, Photographic Radar, Chokers, Raised Crosswalks, Medians, Traffic Signals, Traditional Enforcement, and Realigned Intersections.

These traffic mitigation tools, used alone or in combination, are intended to reduce speeds, volumes, and accidents while increasing safety for pedestrians and/or cyclists. It should be noted that concerns about specific dangerous intersections, overall transportation planning, or noise mitigation are not addressed through the NTMP.

Policies

The following policies provide the framework for Boulder's Neighborhood Traffic Mitigation Program.

1. Arterials are the most desirable facilities for through traffic. Feasible opportunities for re-routing traffic from one street to a *higher classification street* will be explored.

2. Traffic may be re-routed from one street to another *of equal classification* as a result of a neighborhood traffic mitigation project, if the end result is a more equal distribution of the traffic burden. If re-routed traffic speeds excessively, those streets will be mitigated.

3. Re-routing of traffic onto a lower classification street from a higher classification street as a result of a mitigation project is unacceptable. Any increase of more than 10% will require a reevaluation of the original project.

4. Neighborhood livability should be given precedence over marginal motor vehicle efficiencies.

5. Reasonable emergency vehicle access should be preserved.

6. Any two lane, residential street may be considered for traffic mitigation through this program. Principal arterials will not be considered for mitigation through the NTMP.

7. NTMP projects should encourage and enhance bicycle, pedestrian and transit access to neighborhood destinations, while maintaining reasonable automobile access.

8. Implementation of the NTMP will be in accordance with the procedures set forward in this document, in keeping with sound engineering practices and within the limits of available resources.

9. NTMP projects should be compatible with overall City transportation goals and objectives, as set forth in the Transportation Master Plan.

10. The NTMP is not designed to address dangerous intersections, mitigate noise from arterials, redesign the overall transportation/street classification system or effect a modal shift.

Funding

The City has developed a ranking process which prioritizes need based on quantifiable problems such as speed and insufficient gaps between cars, by which neighborhood problems are evaluated. High need neighborhoods are given a one-year commitment from Transportation Staff for intensive staff assistance to develop a traffic mitigation proposal. The City provides Neighborhood Traffic Mitigation funding on an annual basis to assist in the design and construction of residential traffic control measures.

In general, the City of Boulder's NTMP asks a neighborhood to contribute around half of the cost of a physical mitigation, including the design as well as construction costs. However, if the neighborhood funds a larger percentage, or even all, of the project costs, construction becomes more assured particularly if the design meets City guidelines including emergency response requirements. Some neighborhood associations have hired traffic planners and landscape architects to help them create more livable streets.

Once projects meet the approval of both the neighborhood and City staff, the proposals will be ranked for funding priority based on the "Funding Ranking Formula" and presented to the Transportation Advisory Board. This formula includes an assessment of the anticipated impacts of the project by the neighborhood, adjacent neighborhoods, City staff and affected interest groups. Regardless of size, all projects must be compatible with the City's overall Transportation Master Plan guidelines before being considered for NTM funding. Tying a mitigation redesign into a major reconstruction, utility or improvement project could open a window of opportunity to save considerable money while improving the project's priority and funding ranking.

City of Gainesville, Florida

The arrival of 900 permanent residents each day in the State of Florida is a prominent factor that causes traffic to increase at a rate faster than existing roadway networks can accommodate. The resultant increase in traffic congestion and delay frequently forces motorists to seek alternative routes to decrease their travel times and reduce their delays. These routes often winding their way through residential neighborhoods. The City of Gainesville has developed a process to methodically study this problem, develop optimum solutions for a particular area and implement these solutions.

Goals & Objectives

The objective of this process is to reduce non-local traffic on residential neighborhood streets and return this traffic to the collectors and arterials that are designed to handle high volumes of traffic. The basic goal of residential traffic controls is to restore acceptable levels of traffic to residential streets. The more specific goals are as follows:

- Reduction in Total Vehicular Traffic,
- Reduction in Average Speed of Traffic,
- Reduction in Nuisance Factors such as Noise and Air Pollution,
- Greater Protection for Bicyclists and Pedestrians,
- Overall Increase in Safety,
- Greater Cohesiveness of the Residential Area.

The City defines residential traffic control as "the partial or complete blocking or any associated alteration to any public roadway under the jurisdiction of the City of Gainesville to prevent, retard, or otherwise alter the behavior of vehicular travel through any particular portion of that roadway".

Criteria

The following criteria are the basis for establishing any type of residential traffic controls within the City of Gainesville's jurisdiction:

- Recommendation from the City Manager based on a study evaluating the degree of an existing public safety hazard,
- Traffic engineering design information,
- Maintenance of adequate ingress/egress for emergency/service vehicles,
- Overall effect on the neighborhood from re-distributed traffic,
- Conformance of (proposed) residential traffic controls with sound engineering practices.

It should be noted that the City Commission's guidelines define local-low volume residential streets as those neighborhood roads having volumes of less than 400 vehicles per day (vpd), while local-high volume roads range between 400 - 1000 vpd. When traffic volumes exceed 1000 vpd, the street is

operating as a collector and residential traffic controls may be a viable solution to return the street to local traffic conditions.

Techniques

Residential traffic control measures include, but are not limited to:

- Street diverters,
- One-way streets,
- Cul-de-sacs/Dead-end streets, and
- Partial or total street closures.

If a street closing is to be considered and approved the process is initiated by provision of a Street Closing Request to the City Commission by citizens, the City Manager, the Planning Board or a member of the Commission itself. The City Commission will initially refer the request to the City Manager for a study and a recommendation. Based upon the City Manager's recommendation, the City Commission may then:

1. Authorize a traffic study and refer the proposed street closing to the Public Works Department;
2. Instruct the City Manager to include the study in the next fiscal year's work program; or
3. Deny the request.

Prior to a final City Commission Action on the street closure request, the Public Works Committee will review the traffic study and City Manager's recommendation to determine if all criteria are met. If so, a Public Hearing is organized to solicit citizen input and discuss possible alternatives to street closure. The Public Works Committee will then formulate its final recommendations to the City Commission and contact affected citizens/businesses informing them of their recommendations and the date when the City Commission will vote on the request.

Funding

Municipal funds are utilized for Gainesville's Residential Traffic Control Program. Once approved by the City Commission, the City's Traffic Engineering Department performs the necessary preliminary residential traffic control study for a particular neighborhood or citizen request. The Traffic Engineering Department also is responsible for mail-outs informing all residents and businesses within the study area of a Public Hearing to discuss its study findings as well as to the final City Commission action to discuss a course of action as recommended by the Operations Committee. Upon approval, the Traffic Engineering Department then installs the recommended traffic control solutions and performs an "after" study at the end of a six month trial period to determine if the original problem has been alleviated. This process continues at the expense of the City until a solution has achieved satisfactory results and can be made permanent.

City of Laguna Hills, California

The City of Laguna Hills, California has developed a "Residential Traffic Management Policy" to address residential concerns related to traffic conditions on residential streets. The City Traffic Commission was formed to enforce all policy and procedures related to these traffic concerns.

Objectives

The primary goal of the City's policy is to keep through traffic on arterial streets by improving arterial traffic flow. Measures that simply shift traffic from one local street to another are undesirable and the use of physical devices to effect shifts in traffic patterns will only be considered after a careful environmental and traffic impact assessment.

The policy provides an incremental approach to resolve those concerns related to speeding, excessive volumes or cut-through traffic on residential streets. This approach includes:

- An Evaluation of the Problem
- Data Collection Effort
- Action & Enforcement Alternatives
- Consideration of Physical Devices

While a single contact by a resident may initiate a formal evaluation of a particular concern, the City Traffic Engineer will address all those routine traffic control matters directly; i.e., those issues not related to speeds or volumes.

Procedure

The initiation of a traffic safety concern for a particular residential street will begin a 60 day evaluation and data collection period in which the City Traffic Engineer prepares a staff report explaining the issue to the Traffic Commission. If the issue of concern can be documented by data collection as being a traffic safety issue, then an incremental approach will be recommended to alleviate the issue. Data collection efforts will typically include:

- Field Review
- Confirmation of Street Classification
- Review of Accident History
- Traffic Counts
- Spot Speed Study.

The staff report presented to the Traffic Commission will be presented at the City Council meeting within 30 days for any action or approvals deemed necessary.

Policy Addressing Speeding & Volume Issues

Data collection and evaluations of traffic speed on residential streets in the City of Laguna Hills has revealed that the 85th percentile traffic speed is 34 mph; 9 mph greater than the posted speed limit of

25 mph. While this speed is undesirable, "it is the apparent speed that the majority of residents feel comfortable and safe". Although it appears that this prevailing speed has not resulted in reduced traffic safety, the City's policy outlines an incremental approach to speed control as follows:

1. Traffic Law Enforcement,
2. Regulatory/Warning Signs & Pavement Markings,
3. Physical Controls.

Items 1 and 2 will be evaluated for their effectiveness in periods of not less than 90 days and the results presented to the Traffic Commission.

Traffic volume concerns typically relate to the total volume of traffic on a residential street or the volume of cut-through traffic. The City considers 1,500 or fewer vehicles per day (vpd) as "low volume" and 3,000 vpd or greater, "high volume", conceding that moderate to high volume residential streets have been designed to act as collector streets. Since cut-through traffic volumes vary greatly, they are evaluated on a case-by-case basis in an effort to determine whether or not this traffic can be re-distributed to other non-residential streets.

Physical Devices

Only after the incremental installation of traditional traffic control measures, and an evaluation reveals that other traffic controls have failed to address the documented traffic issue, will the City consider the utilization of physical controls to address the identified traffic safety issue. Physical devices may include:

- barricades
- chokers
- cul-de-sacs
- speed humps/bumps
- medians
- diverters

In addition to volume, speed, and geometric criteria for considering physical devices, at least two thirds of affected residents must support the implementation of the physical device and both Police and Fire Departments must approve the location of all devices as they relate to vehicle response time.

Funding

Municipal funds are utilized to implement the City's Residential Traffic Management Policy. The Police Department is advised of potential enforcement issues, as resources permit. The City Traffic Engineer is responsible for performing all data collection and evaluation efforts. Signing and pavement markings installed by City forces will typically follow traffic law enforcement. Only after those appropriate traffic controls have failed, and an environmental assessment has been performed, will the City consider the installation of physical controls and use of City Public Works funds to address an identified traffic safety issue.

4. LOCAL EXPERIENCE

Current Metro-Dade County application procedures for the implementation of street closures require:

1. Creation of a Special Taxing District,
2. Reverting the R/W to the Adjacent Property Owners,
3. Within a Municipality, Citizens Petition the Municipality, and
4. In unincorporated Dade County, citizens submit requests to the Public Works Department.

The Public Works Department requires that municipalities comply with the before and after traffic study requirement to assess the traffic operation impacts resulting from any street closures. County staff evaluates these studies and make final recommendations to the municipality. As part of these standard requirements, the entities requesting the closure must also fund the traffic studies in addition to all roadway improvements required due to roadway closure, including:

- Roadway widening,
- Traffic signal installation,
- Signing, and
- Pavement markings.

Alternates to a roadway closure, such as turn restrictions and/or one-way street designations are also considered to resolve traffic intrusion concerns. These types of improvements are installed by the County at no cost to those citizens requesting the closure.

In the City of North Miami, street closures and manned gates in the neighborhoods of Keystone Point and Sans Souci were installed with the creation of Special Taxing Districts for these two neighborhoods. However, the Cities of Miami, North Miami Beach, South Miami, and Miami Springs, and the Village of Miami Shores have installed temporary and permanent barricades at their own expense. Traffic impact studies were conducted by the City of Coral Gables that supported the installation of temporary and permanent barricades within this municipality. These barricades were paid for by the residents of the neighborhood and many allow passage of emergency vehicles through the use of siren-activated gates.

The Village of Miami Shores and the City of North Miami also enlisted traffic engineering consultants to conduct street closure traffic impact studies for the municipalities. These study findings were approved by Metro-Dade County, discussed at public hearings and were recommended for approval by the citizenry and municipal government. The temporary installations in these municipalities have since become permanent. In the City of Miami, the City Commissioners ordered barricades for certain residential streets against the recommendation of their own Public Works, Fire and Police Departments. Concerns about increased emergency response time as a result of street closures were expressed at the Commission meetings.

The City of Coral Gables City Commission recently approved 28 streets for a 90 day temporary closure, fifteen (15) of which were approved for permanent closure by the Florida Department of Transportation and Metro-Dade County. "Post-barricade" studies were conducted to assess the impacts of the permanent structures. A *Street Closure Policy* developed by the City of Coral Gables is outlined below:

- All closures shall be in compliance with the City's standards in regards to engineering features and landscaping. Designs must be approved by the Public Works Engineering Division.
- A permanent closure will not be permitted until a 90 day test period has lapsed (if required by the County). The cost of test closures will be borne by the applicant.
- A closure will not be permitted if the right of way is not sufficient to provide a safe turnaround per the City's design standards.
- A closure will only be permitted for minor residential streets within the City.
- If a closure is proposed at the City limits, the adjoining municipality shall be notified.
- If closure is proposed abutting a road owned by another jurisdiction, permission must be obtained from said jurisdiction.
- All associated costs of street closures must be paid for by the applicant.
- The applicant will be responsible for the maintenance of the closure area.
- In the event a traffic study is needed or any additional engineering is required, the associated costs must be paid for by the applicant.
- Property owners within a minimum radius of 300 feet shall be notified.
- All street closures are subject to review and approval by the Metro-Dade Public Works Department.

The City of North Miami Beach has also developed a procedure for dealing with street closure requests. Essentially, all requests are handled by the City's Community Development Department (CDD). The CDD first determines the number of property owners that would be affected by a particular closure, then requires the applicant to provide a signed petition, by at least 50% of these owners, favoring the closure. Once a "resolution of support" is approved by the City Council, the CDD will:

1. Obtain comments from affected City, County and State Agencies,
2. Obtain County approval,
3. Design temporary and permanent closures,
4. Prepare a preliminary Project Resolution for presentation to the City Council.

Following a public hearing for approval of a Final Resolution and City Council approval, the City Manager is instructed to Award the Bid, complete the project and levy the calculated assessment to the applicant's affiliated community. The City of North Miami Beach has fully complied with Metro-Dade requirements of before and after studies.

Appendix A contains the local street closure policies and procedures for Dade County and the municipalities listed below:

- Metro-Dade County, Special Taxing District
- Metro-Dade County, Reverting the Right-of-Way
- Metro-Dade County, Existing Street Closure Policy
- City of Coral Gables
- City of North Miami Beach

5. STREET CLOSURE SURVEY

After reviewing existing Metro-Dade County Public Works' correspondence files, Frederic R. Harris, Inc. developed a questionnaire in cooperation with Metro-Dade County Public Works with the purpose of contacting all municipal agencies within the County. This questionnaire advised them of the Street Closure Study, and requested input concerning neighborhood traffic control issues and perspectives. A copy of this interview questionnaire is included in Appendix B.

The questionnaire consisted of sixteen questions relating to the street closure issue currently facing local officials and their constituency throughout the County. Specifically, the main topics covered included:

- The status of existing or pending street closures;
- Typical traffic control measures requested by citizens;
- Identification of typical residential traffic problems;
- Funding methods; and
- Perception of street closure performance.

One of the questions asked whether any legal hurdles had to be overcome to institute certain neighborhood traffic control measures and the final question solicited general comments concerning the growing movement to close streets around neighborhood boundaries.

The survey was primarily conducted through a mail distribution of the aforementioned questionnaire to all twenty-five (25) towns and cities within Metro-Dade County. The questionnaire, containing a stamped self-return envelope, was primarily sent to the Public Works Directors or City Managers and selected Police and Fire Department Chiefs. A total of seventeen (17) questionnaires, representing fourteen (14) of the County's municipalities were answered and returned for a 56% response rate. Two (2) questionnaires were answered by municipal departments, such as Fire, Rescue or Police. One (1) questionnaire was returned by Metro-Dade Fire Rescue. A list of those contacted and those responding to the questionnaire is included in Appendix C.

In addition to the written questionnaire, several personal interviews were conducted with Metro-Dade officials, Florida Department of Transportation (District 6) officials, local neighborhood associations, street closure activists and other professional engineers. The results of this Street Closure Survey are included in Appendix D.

The survey results reveal that elected officials must increasingly address a number of traffic, socio-economic, legal and political issues. The decision to implement residential street closures as a result of both private and public requests further reveals that:

- The problem, "to close or not to close" is common to many local governments;
- Complex issues such as the relation of traffic intrusion versus crime are unique to every neighborhood, and often critically debated;
- Creative engineering and planning solutions are needed to appease public and political sentiment;
- Traffic studies need to evaluate the impacts of proposed traffic control measures on a macro-level, since implementing one solution may magnify other problems;
- A typical residents' solution to traffic problems often involves installing "STOP" signs, barricading roads or calling the Police;
- Alternative traffic calming techniques should be investigated prior to implementing street closures design;
- A formal process or procedure to identify existing traffic problems, explore a full range of solutions, and evaluate potential impacts is often non-existent within local government agencies.

This study develops the tools to allow governments to effectively address citizens' traffic operations concerns within their neighborhoods.

6. THE ISSUES

Institutional Concerns

The survey results and correspondence research identified a number of issues as typical concerns or complaints by both municipal officials and local neighborhood representatives regarding the benefits and consequences of street closures. Listed below are those common macroscopic issues public officials are faced with when addressing street closure requests:

- Diverted Traffic Volumes resulting in degraded Levels of Service (LOS) on Adjoining Neighborhood Streets,
- Diverted Traffic Volumes resulting in degraded LOS on the adjoining Intersections and Arterial or Collector Roadway System,
- Degradation of Emergency Services' Access and Response Times,
- Degradation of Other Services such as School Buses, Public Transit, Mail Delivery and Trash Collection,
- Evacuation in case of natural disaster such as hurricanes, and
- Motorists' right to accessibility.

Many times these issues are identified *after* a particular street closure has been implemented; either by affected neighborhood residents or other municipal agencies.

Private Concerns

The general public is more concerned about those microscopic problems that they perceive to adversely affect the neighborhoods' quality of life. These problems may include:

- Excessive Vehicle Speeds within Residential Neighborhoods,
- Cut-through Traffic or Traffic Intrusion,
- Safety of Pedestrians and Bicyclists,
- Perception of Increasing Crime,
- High Truck Traffic Intrusion,
- Increased Noise as a result of High Traffic Volumes,
- Decreased Emergency Services' Response Time,
- Perceived Increase (or Decrease) in Property Valuation,
- Right to Personal Safety, and
- Degradation in Quality of Life.

Unfortunately, the negative consequences listed above of street closures that are implemented to address one or a number of these specific problems are often overlooked. The matrix illustrated in Figure 1 summarizes these issues. Those potential traffic calming alternatives identified earlier were then evaluated as to their applicability to these issues and their ability to effectively address them.

Figure 1
Residential Traffic Control
Traffic Calming Alternatives Effectiveness Matrix*

OBJECTIVE	Level of Control	Passive I				Passive II			Neutral III				Neutral IV						Active V		
	Issues	Education	Speed Watch	Law Enforcement	Border Landscaping	Movement Restrictions	One-Way Streets	Multi-Way Stop	Textured Paving	Gateway Treatments	Raised Islands/Medians	Speed Humps	Raised Crosswalk	Two-Lane Slow Point	Single-Lane Slow Point	Shared Ped/Veh Zone	Chokers	Mini-Traffic Circles	Roundabouts	Semi-Diverter	Diagonal Diverter	Street Closure
	TRAFFIC																				
▼	Excessive Speed	○	◒	◒	○	○	○	○	○	○	◒	◒	◒	●	●	●	●	●	●	●	●	●
▼	Traffic Intrusion	-	○	-	?	○	◒	?	-	○	◒	◒	○	○	○	○	○	○	○	●	●	●
▼	Traffic Volumes (LOS)	-	-	-	?	○	◒	?	?	○	●	○	○	○	○	○	○	◒	●	x	x	x
▲	Access Management	-	-	-	-	◒	○	?	-	?	◒	-	-	-	-	?	◒	-	-	x	x	x
▲	Pedestrian Safety	○	○	○	?	○	○	○	-	-	●	○	◒	◒	◒	●	-	○	○	○	○	○
▼	Truck Traffic	-	○	◒	-	○	◒	?	-	○	◒	○	○	○	○	○	○	○	○	◒	◒	●
	NON-TRAFFIC																					
▲	Emerg. Services Response	-	-	-	-	-	-	-	-	-	x	x	x	?	x	?	?	-	-	x	x	x
▼	Crime	◒	?	●	?	-	-	-	-	○	-	-	-	-	-	○	-	-	-	-	?	?
▲	Other Services**	-	-	-	-	x	?	-	-	-	x	-	-	-	-	?	-	-	-	?	x	x
▲	Property Values	-	-	-	○	-	?	-	○	◒	-	?	-	-	-	○	-	?	?	?	?	?
▼	Environmental Impacts	-	?	?	○	○	○	x	?	?	○	x	x	○	○	○	○	○	○	○	◒	◒

*Based on Literature Research and Survey

** Busing, Delivery and Trash

Key

- ● Highly Effective
- ◒ Moderately Effective
- ○ Somewhat Effective
- x Negative Effects
- \- No effect
- ? Impact Unclear
- ▲ Increase/Improve
- ▼ Decrease/Reduce
- LOS Level of Service

7. THE TRAFFIC CALMING ALTERNATIVE

There are numerous traffic mitigation devices available for use in residential areas to address local traffic issues such as speeding, traffic intrusion and safety. The devices which entail the least physical control of traffic are considered to be "passive" while those which impose greater physical control are termed "active." These varying degrees or levels of physical control are illustrated in Figure 1 by different levels of shading; the clear shading indicating the most passive techniques and the dark shading indicating the most active techniques.

Traffic calming involves implementing both passive and physical changes to streets to reduce vehicle speeds and to decrease the propensity for intrusions into residential neighborhoods by non-local drivers. The traffic calming alternatives that will be presented are designed and located to discourage cut-through routing or speeding, increase travel time on local neighborhood streets and keep through traffic on arterial roads. Some of the more common physical techniques currently being successfully utilized by many public agencies to calm local residential streets include:

- Speed Humps,
- Chokers,
- Traffic Circles
- Roundabouts,
- Traffic Diverters, and
- Street Closures.

A neighborhood that desires to address specific traffic control problems would most likely find that a strategic plan that utilizes these devices in combination with each other, and supported by all affected parties, has the best chance for success.

Levels of Traffic Calming

Several category levels to distinguish those least restrictive (passive) traffic control measures from those that are most restrictive (active). It should be noted that among each of the categories to be defined, there could be many design variations unique to each device. Ideally, the least restrictive measures to address a traffic problem would be employed first, followed by more active and physical traffic calming devices. This incremental approach would allow a cost effective opportunity to identify the real traffic problem, if any, and better evaluate the impacts of more restrictive measures.

The following categories of traffic calming alternatives are not recommended as stand alone solutions to a given traffic problem; rather they are most effective if used in combination with each other:

Level I

- **Education**
- **Neighborhood "Speed Watch" Program**
- **Law Enforcement**
- **Border Landscaping Treatment**

Level II

- **Movement Restrictions**
- **One-Way Streets**
- **Multi-Way Stop Signs**

Level III

- **Textured Paving**
- **Gateway Treatments**
- **Raised Islands/Medians**
- **Speed Humps**
- **Raised Crosswalks**

Level IV

- **Two-Lane Slow Point**
- **Single-Lane Slow Point**
- **Shared Pedestrian/Vehicle Zone**
- **Chokers**
- **Mini-Traffic Circles**
- **Roundabouts**

Level V

- **Semi-Diverter**
- **Diagonal Diverter**
- **Street Closure**

These varying degrees or levels of physical control are illustrated in Table 3 by the same levels of shading shown in Figure 1; the clear shading indicating the most passive techniques and the dark shading indicating the most active techniques. Appendix E expands upon the suggested traffic calming measures by focusing on the design objectives and references for each specific alternative.

Table 3. Comparison of Traffic Calming Alternatives

Alternative	Advantages	Disadvantages	Cost	MOE's
Education *Includes Brochures, Public Advertisements, and Neighborhood Workshops*	Increases public awareness of traffic problems involving human behavior. Involves & empowers community. Works best if used with other traffic control alternatives.	May be difficult to measure effectiveness. Takes time to be effective.	Low	Neighborhood participation.
Neighborhood "Speed Watch" Program *Process by which citizens become actively involved in monitoring and identifying speeders.*	Can increase general awareness of neighborhood speeding. Involves & empowers community. Can include mobile radar display unit for public relations.	May not be effective on non-local traffic. Long-term effectiveness questionable. Requires periodic enforcement.	Low	Decrease in 85th percentile speed
Law Enforcement *Police officials can monitor traffic on a periodic basis.*	Increases safety perceptions in residential areas. Increases public relations. May decrease speed offenders.	May be a temporary solution to residential speeding without a permanent program. "Halo effect" wears off when enforcement stops.	Low	Decrease in 85th percentile speed. Increase in speeding citations.
Border Landscaping *Trees, arbors, shrubs, etc.*	Side friction may reduce vehicle speeds. Improves local street appearance for residents. Increases drivers perception of a narrower street.	Minimal effect on vehicular speeds and volumes. Long-term effects may be negligible. May require irrigation and regular maintenance. Sight Distance problems.	Moderate	Neighborhood Cohesion. Aesthetics

Device	Advantages	Disadvantages	Cost	MOE's
Movement Restrictions *No Left/Right Turns, or No Trucks signing and/or pavement markings. Can be initiated by time-of-day at signal intersections.*	Increases driver awareness of special circumstances. May reduce traffic intrusion.	Requires enforcement. Diverted traffic may increase volumes on adjacent streets.	Low	Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections.
One-Way Streets Used as part of a neighborhood traffic mitigation plan to create street discontinuities.	Restricts those movements with the most number of conflicts. Maintains emergency vehicle access. Can discourage traffic intrusion & speeding if used in combination with other one-way streets.	Increases travel distance of residents. Difficult to enforce. Can increase vehicle speeds within one-way section. Diverted traffic may increase volumes on adjacent streets.	Low	Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections.
Multi-Way Stop Signs *Used to improve the safety of an intersection by assigning vehicular right-of-way.*	Possible volume reduction due to driver inconvenience. High compliance at higher volume, four-way stop locations.	May increase speeds between locations. Mixed safety results and low level of compliance at un-warranted locations. Increases motorist delay, air pollution, fuel consumption and noise from stopping and starting vehicles.	Low	Reduction in traffic accidents. Environment. Stopped/Average Vehicle Delays. Average Daily Traffic (ADT).
Textured Paving *Examples include brick, cobblestone, or concrete pavers.*	Differentiates between arterial and local streets. Can be used as crosswalks or in conjunction w/ gateway treatments. Alerts driver to change in land use.	Negligible effect on vehicular speeds or volumes. Maintenance required.	Moderate	Neighborhood cohesion. (Aesthetics)

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Device	Advantages	Disadvantages	Cost	MOE's
Gateway Treatments *Typically, a landscaped island in the center of a street or heavily landscaped monuments at street corners marking the entrance to a neighborhood.*	Alerts drivers of change to local street from higher street classifications. May reduce entry speeds. Gives sense of neighborhood identity.	May require additional maintenance of landscaping, lighting or sprinkler system	Moderate	Neighborhood cohesion (Aesthetics)
Raised Islands/Medians *May include channelization islands at intersections or mid-block median closures.*	Provides refuge for pedestrians. Effective in channelizing traffic or forcing traffic movements. May significantly reduce traffic intrusion.	Will only create a limited reduction in vehicle speeds. Could increase emergency vehicle response times. Traffic diversion.	High	Decrease in cut-through traffic, ADT. LOS in neighborhood. LOS at peripheral signalized intersections. Emergency service access.
Speed Humps *A pavement undulation, 12 feet long and 3 to 4 inches high.*	Reduces vehicle speed in the vicinity and between humps when installed in series. May reduce traffic volumes by causing diversion.	Not a standard traffic control device as defined by MUTCD. May create additional noise. Could increase emergency vehicle response times. Must be used in series for maximum effectiveness.	Low	Decrease in 85th percentile speed. Emergency service response time. Environment. Average Daily Traffic.
Raised Crosswalks *Could be provided at intersections or mid-block.*	Slows vehicle at installation. Reduces pedestrian/vehicle conflicts. Highlights intersection area.	May increase difficulty of making a turn. Improper drainage considerations could adversely affect intersection conditions. Could increase emerg. vehicle response times.	Low	Decrease in 85th percentile speed. Reduction in traffic accidents. Emergency service response time. Environment.

Device	Advantages	Disadvantages	Cost	MOE's
Two-Lane Slow Point (Neckdown) *A physical roadway modification that narrows the residential travel lane to nine feet while expanding sidewalk landscaping.*	Minor inconvenience to drivers. Regulates parking and serves to protect parked vehicles. Reduces pedestrian crossing distances. Slows vehicles without affecting emergency vehicle response times.	May not be effective in diverting thru traffic. Can be hazardous for bicyclists. Could require increased maintenance of landscaped area. Improper drainage could adversely affect intersection conditions.	High	Decrease in 85th percentile speed. Emergency service response time.
Single-Lane Slow Point (Neckdown) *A physical roadway modification that constricts two local travel lane to one, 15 foot lane, while expanding sidewalk landscaping.*	Reduces vehicle speed by provding a visual obstruction and narrowing the thru way. Minimal inconvenience to local traffic. Reduces pedestrian crossing distance. May reduce traffic intrusion.	Could require increased maintenance of landscaped area. Could increase vehicular conflicts, accident potential. Confrontation between opposing drivers arriving simultaneously. Could increase emergency vehicle response times. Improper drainage could adversely affect conditions.	High	Decrease in 85th percentile speed. Emergency service response time. Average Daily Traffic.
Shared Ped/Veh Zone *Sidewalk curbs are eliminated, streets are "broken" by planters, benches and landscaping so that drivers are aware that the car does not have priority.*	Provides a low speed environment. Improves amenity without restricting access. Provides flexibility for on-street parking. May significantly reduce traffic intrusion.	High cost unless part of the original design. Diverted traffic may increase volumes on adjacent streets. May increase pedestrian/ vehicle conflicts.	High	Decrease in 85th percentile speed. Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections. Neighborhood cohesion.

Device	Advantages	Disadvantages	Cost	MOE's
Chokers *These are physical reductions of road widths, or neckdowns, installed at intersections to reduce speed.*	Reduces pedestrian crossing distances. Slows vehicles without affecting emergency vehicle response times.	May not be effective in diverting thru traffic. Could require increased maintenance of landscaped area. Improper drainage considerations could adversely effect intersection conditions.	Moderate	Decrease in 85th percentile speed.
Mini-Traffic Circles *Circular traffic island located in the center of a local intersection with a "Stop" condition at two or more legs.*	Reduces vehicle speeds. Cheaper to maintain than traffic signals. Effective at multi-leg intersections. Provides equal access to all vehicles. Reduces accidents by limiting the number of conflict points.	May be restrictive for larger vehicles.	Low	Decrease in 85th percentile speed. Reduction in traffic accidents. LOS in neighborhood.
Roundabouts *Entry is by gap acceptance through a yield condition at all legs.*	Reduces vehicle speeds. Cheaper to maintain than traffic signals. Effective at multi-leg intersections. Provides equal access to all vehicles. Reduces accidents by limiting the number of conflict points.	May be restrictive for larger vehicles. May require increased landscaping maintenance. May require right-of-way easements.	High	Decrease in 85th percentile speed. Reduction in traffic accidents. R/W requirements. LOS in neighborhood.

Device	Advantages	Disadvantages	Cost	MOE's
Semi-Diverter *A physical, landscaped barrier placed at an intersection to eliminate one direction of traffic flow.*	Eliminates traffic intrusion while maintaining emergency vehicle access. Reduces pedestrian/vehicle conflicts.	Will decrease access to properties. Diverted traffic may adversely affect arterial and other local streets. May require increased landscaping maintenance.	Moderate	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in neighborhood. Before/After ADT's.
Diagonal Diverter *A landscaped barrier placed diagonally across a 4-legged intersection to divert traffic flow.*	Eliminates traffic intrusion while maintaining pedestrian access. Reduces pedestrian/vehicle conflicts. Can be designed to traversable for emergency vehicle access.	Will decrease access to properties. May inhibit emergency vehicles' access and response time. Diverted traffic may adversely affect arterial and other local streets. May require increased landscaping maintenance.	High	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in Neighborhood. Emergency service access, response. Neighborhood cohesion. Before/After ADT's.
Street Closure *Street access restricted to motor vehicles using landscaping, bollards, gates, etc.*	Eliminates vehicular traffic intrusion.	May significantly reduce emergency vehicle access and response time. Reduces access to properties for residents. May adversely impact adjacent neighborhoods' and arterial streets' traffic operations. Requires legal action by jurisdictional authorities. May require increased landscaping maintenance. May be perceived as an unwarranted restriction by general public.	High	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in Neighborhood. Emergency service access, response. Neighborhood cohesion. Before/After ADT's.

8. MEASURES OF EFFECTIVENESS

There may be several different classifications of roadways within a neighborhood corresponding to different roadway capacities and functional characteristics. For the purpose of this study, the local roadways for which the aforementioned physical traffic calming devices can be utilized are separated into two categories:

1. Residential local streets, and
2. Residential collectors.

No other classifications of County or State roadways should employ Level III, Level IV or Level V traffic calming devices, since some of these devices can be considered experimental; not standardized devices. The daily traffic volume requirements defining these categories are indicated below:

Residential Local Street

A Residential Local Street provides access for residents to their homes. Even though the street could operationally carry up to 8,000 vehicles-per-day (vpd) this is not a desired condition, particularly for those residents who live along the street. The capacity threshold for a low volume, Residential Local Street should be 1,500 vpd (Spitz, Salem. "How Much is Too Much (Traffic)", ITE Journal, Institute of Transportation Engineers, May 1982. pp 44-45.). This limit for neighborhood traffic has been used in various neighborhood traffic management programs. Accordingly, a residential roadway begins to lose its "livability" as daily traffic volumes exceed this threshold. Livability is a conceptual term which describes quality of life; traffic should not create a virtual barrier between two sides of a residential street.

Residential Collector

A Residential Collector provides a link between the local street and a collector roadway and serves as a main roadway within the neighborhood. High volumes on a Residential Collector is attained at the threshold of 3,000 vpd (Spitz, Salem. "How Much is Too Much (Traffic)", ITE Journal, Institute of Transportation Engineers, May 1982. pp 44-45.).

Since a volume-to-capacity analysis for a residential area cannot evaluate conditions based on quantitative operational capacity alone, qualitative issues such as livability and neighborhood cohesiveness also need to be considered. Traffic volume thresholds rather than operational capacities should be used when considering the effects of cut-through traffic on residential roadways. Table 4 shows the weekday and directional peak hour traffic thresholds for these classifications.

Table 4. Residential Traffic Thresholds

Classification	Daily Threshold	Peak Hour Threshold
Residential local street	1,500 vpd	150 vph
Residential collector	3,000 vpd	300 vph

vpd = vehicles per day
vph = vehicles per hour

These residential local street and residential collector thresholds define those limits when a residential street begins to lose it livability.

When evaluating the traffic impacts and livability impacts of traffic calming alternatives, the evaluator must analyze the effectiveness of the implemented alternatives according to the following criteria:

- Speeds,
- Cut-Through Traffic,
- Level of Service - Within Neighborhood,
- Level of Service - Neighborhood Periphery,
- Accidents and Safety,
- Neighborhood Cohesiveness,
- Emergency Service Access - Fire/Medical,
- Right-of-Way Requirements,
- Environment (Noise, Air pollution), and
- Comfort Level or Livability.

Typically, a before and after analysis is required to effectively compare positive and negative impacts to the above measures of effectiveness (MOE's). Table 3 also identifies those MOE's that should be evaluated for the consideration of each traffic calming alternative.

Speeds

Speed is determined by conducting a study to determine the 85th percentile speed (the speed at which the cumulative 85% of vehicles are traveling). Regardless if the 85th percentile speed is above the posted speed limit, this is the speed at which motorists feel comfortable. If a traffic calming alternative is installed with the intention of reducing speed, it should be an attempt to reduce the 85th percentile speed to a more compatible limit for the area.

Cut-Through Traffic

Cut-through traffic are vehicles which utilize a neighborhood roadway system as an alternate route to the arterial roadway system. Each proposed alternative should be evaluated to its effectiveness in discouraging cut-through traffic.

Level of Service - Within Neighborhood

An installed traffic calming alternative will most probably have some impact on traffic level of service (LOS). LOS is operationally categorized as a letter grade from A (best) to F (worst) and is based on volume-to-capacity thresholds as proposed in this document. A proposed alternative must be analyzed to determine if a positive or negative impact on LOS will be realized. In addition, adjacent roadways in the neighborhood should be analyzed as some of the traffic calming alternatives may redirect traffic to other areas of the neighborhood leading to an impact on the level of service.

Level of Service - Neighborhood Periphery

The LOS of roadways adjacent to the neighborhood or on the periphery of the neighborhood must be analyzed for impact due to diverted traffic from a traffic calming alternative. Special attention should be paid to intersecting roadways on the State Highway System and whether there would be a degradation of LOS.

Accidents

A proposed traffic calming alternative should be assessed to the impact (increase or decrease) it will have on traffic accidents and pedestrian/vehicular conflicts.

Neighborhood Cohesiveness

Neighborhood cohesiveness relates to the physical characteristics and boundaries which define a neighborhood. Each proposed traffic calming alternative should be assessed to whether it could potentially break up or bring together sections of the neighborhood. This will be dependent on the amount of physical roadway modification associated with the chosen traffic calming alternative.

Emergency Service Access

Emergency vehicle access (which includes fire and medical) may be affected depending upon the actual amount of physical roadway modification as a result of a traffic calming alternative installation. Obstructing emergency vehicle access could lead to increases in response time to an emergency call. Each proposed alternative should be evaluated to ascertain the extent that emergency vehicle access and response times will be reduced. In addition to emergency vehicle access, fire hydrant accessibility on both sides of a traffic calming installation is an important consideration when evaluating a

proposed alternative. Location of a fire hydrant may significantly increase response time and become very critical in providing fire fighting services.

Right-of-Way Requirements

Additional right-of-way or space may be required to properly install some of the traffic calming alternatives. Conversely, available right-of-way may constrain or limit the type of chosen alternative. Right-of-way acquisition would also incur additional cost over the actual construction of an alternative. Each proposed alternative should be evaluated to determine installation space requirements if there would need to be an acquisition of additional space.

Since cul-de-sacs (turn-arounds) are required where streets closures are installed, the required right-of-way may be critical in determining its feasibility. If a cul-de-sac designed to the appropriate standards cannot be provided within the existing right-of-way, or right-of-way cannot be acquired to construct it, then the request for street closure should be denied.

9. COUNTY OBJECTIVES

Consistent with State law, it is the desire of Dade County to maintain the integrity of the regional roadway network and not allow the temporary or permanent closure of any public street to vehicular traffic. Requests for closure or modification of traffic flow on a public street will be considered, however, when based on a formal application meeting the criteria outlined herein.

The County's objective and corresponding procedures will be to:

- Address the issues thoroughly with participation by all affected parties whether directly or indirectly affected.

- Allow local governments to prudently regulate traffic on streets under their jurisdiction by utilizing a variety of proven passive and active traffic calming measures; measures which enable streets to remain fully or partially open to traffic. The failure of alternative traffic calming measures may result in the closure or vacation of a public street.

- Preserve emergency vehicle access and hydrant accessibility for all residents, customers of local businesses, and other services.

- Recognize that every local neighborhood is unique, and it is therefore desired to adopt and implement a policy that allows for a flexible process to be used when addressing petition requests for residential traffic control.

- Encourage cooperation and coordination among the Florida Department of Transportation, Dade County, Municipalities and private citizens in the planning and implementation of neighborhood traffic calming measures to avoid having residential traffic management actions by one jurisdiction impact another jurisdiction.

- Preserve the quality of life, safety and physical environment in residential neighborhood by reducing traffic intrusion, speeding, and excessive traffic volumes.

- Address residential traffic problems in the most effective manner feasible while:

    - Minimizing traffic control.
    - Minimizing public expenditures for capital improvements and maintenance.
    - Minimizing enforcement required.
    - Minimizing disruption to essential public service.

10. THE PROCESS

The process needed to achieve the outlined objectives is modeled after the City of San Buenaventura, California's *"Policy Relative to Closure or Modification of Traffic Flow on Public Streets"* and from input received from the Street Closure Steering Committee.

The process of responding to a citizen request or proposal for a street closure or traffic flow modification will contain the following elements:

1. Receive Citizen Request or Proposal;
2. Preliminary Review by the appropriate government agency (County or Municipality);
3. Establish the type of request by defining the traffic problem (e.g., speeding, traffic intrusion, traffic, crime, etc.) and solution process (i.e., street closure, reverting of right-of-way, or special taxing district).
4. Identify the potential impacts associated with the proposal by means of a "before" traffic analysis to determine expected impacts of the proposed closure or traffic flow modification.
5. Identify alternative traffic calming and traffic control solutions. As a general rule, these solutions will give preference to actions which entail the least cost, disruption, etc., before selecting costlier, more disruptive solutions.
6. Obtain petitions from a majority of all affected property owners prior to implementing a series of traffic calming alternatives.
7. Perform "after" study to determine impacts of implemented alternative solutions and reevaluate if the study results are unacceptable.

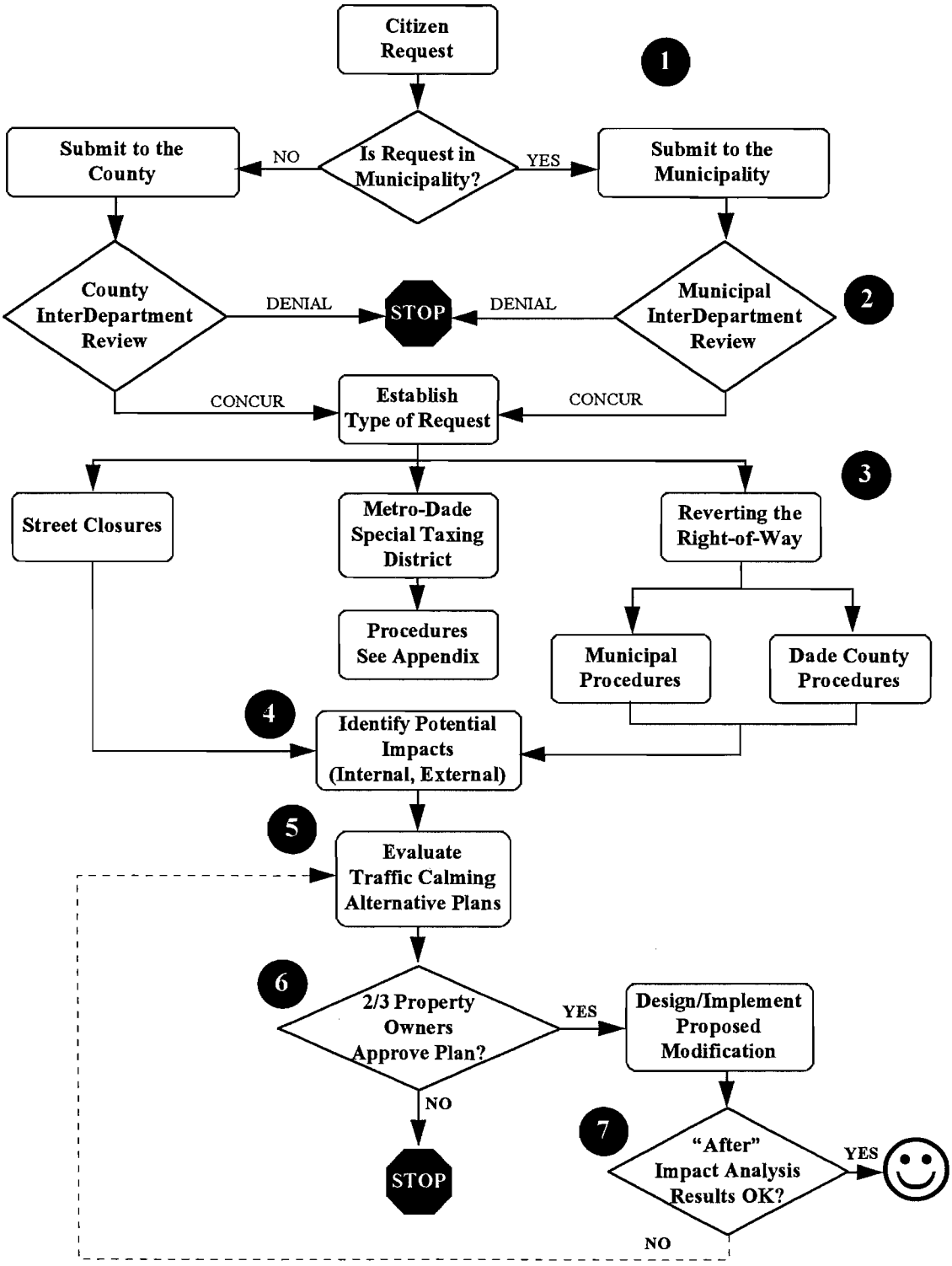
In addition to addressing existing neighborhood traffic problems, this process could serve as a resource for planning new neighborhoods, thereby avoiding future neighborhood traffic problems. Figure 2 represents a flow chart outlining the application process.

1. Consider Citizen Request for Street Closure or Traffic Flow Modification

A citizen request for the closure or modification of traffic flow on public streets, including reopening previously closed streets, will be considered by the County on a case-by-case basis for those streets meeting the following criteria:

- The street should be classified as a local residential street or local collector, shall be primarily residential in nature and shall not be a State roadway.
- A preliminary review by the appropriate agencies has provided sufficient evidence of no major public safety or traffic concerns regarding the proposed street closure or adverse traffic flow modification.
- The changes in traffic flow will not result in unreasonable liability exposure for the County.

Figure 2
Application Procedure for Street Closure or Traffic Flow Modification



The following procedures should be followed for submitting an application for a street closure or traffic flow modification:

1.a An official representative of an established Homeowner's Association or neighborhood group may submit a completed "Street Closure or Traffic Flow Modification" Application provided in Appendix F.

1.a.1 The application must include a statement that persons signing the application acknowledge that it is the County's policy that they may be required to participate in all costs directly associated with street closure or traffic flow modifications.

1.a.2 Drawings showing the proposed street closure or traffic flow modifications is required and must be submitted with the application.

1.b If the request affects local streets within Unincorporated Dade County, then the applicant must submit the application to the Director of Public Works at the following address:

- 111 NW 1st Street
  Stephen P. Clark Center,
  Suite 1610
  Miami, Florida 33128-1970

1.c If the request affects local streets within a chartered municipality, then the applicant must submit the application to the City Manager of the municipality where the closure or traffic flow modification is proposed.

2. Coordinate Interdepartmental Review

The following process will be used to review all applications associated with a proposed street closure or traffic flow modification:

2.a If the request for closure or traffic flow modification falls within Unincorporated Dade County, the Public Works Department's Traffic Engineering Section will coordinate a review of the application with the following agencies and departments:

- Metro-Dade Fire & Rescue,
- Affected Municipal Fire Department,
- Metro-Dade Police Department,
- Affected Municipal Police Department,

- Dade County Public Schools,
- Metro-Dade Transit Agency,
- District VI office of the Florida Department of Transportation, and
- Any other agency affected by closure.

2.b If the request affects local streets within a chartered municipality, the City Manager's designated representative will request review of the application from the following agencies or departments:

- Municipal Fire Department,
- Metro-Dade Fire Department,
- Municipal Police Department,
- Metro-Dade Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- Florida Department of Transportation (District VI),
- Dade County Public Works Department, Traffic Engineering, and
- Any other agency affected by closure.

These reviews should be relevant to the agency reviewing the proposed closure or traffic flow modification. The scope of the traffic review should be determined on a case-by-case basis by the Metro-Dade Public Works Department.

2.c If engineering judgment can, with minimal analysis:

2.c.1 Determine that the request for closure or traffic flow modification affects an isolated location; and

2.c.2 Determine impacts on services or traffic operations to be insignificant;

then final determination concerning the approval of the application for street closure or traffic flow modification can be made immediately. However, the approval will be contingent upon approval by two-thirds of the property owners.

2.d For Unincorporated Dade County applications, Public Works will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and extenuating circumstances do not meet all the criteria outlined in this process and in State law, the application for closure or traffic flow

modification will be denied and the applicant notified by the County's Public Works Director.

2.e If the request affects local streets within a chartered municipality, the City Manager's designated representative will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and attenuating circumstances do not meet all the criteria outlined in this process and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the City Manager of the respective municipality.

2.f If all agencies and departments concur, proceed to the next step.

3. Evaluate Criteria Establishing Specific Type of Request

If the request is for:

4.a Street closure or other modification that would impact traffic flow, proceed to Step 4;

4.b A Special Taxing District, see the Special Taxing District Procedures listed in Appendix A;

4.c Reverting public right-of-way to adjacent property owners, then:

4.c.1 For Unincorporated Dade County, follow the Dade County Procedures listed in Appendix A.

4.c.2 For municipalities, follow municipal procedures.

Each type of request has a specific set of procedures and guidelines for the applicant to follow; with those for street closures or traffic flow modifications being described herein.

The affected area as determined by the County Public Works Department will include, but not be limited to, those properties where normal travel routes to and from the affected area are to be altered by the street closure or traffic flow modification, and/or properties which are significantly impacted by traffic that is to be diverted. The internal and external study area boundaries will be established on a case-by-case basis. It will also by necessary to establish the type of problem (i.e., speed, traffic intrusion, traffic accidents, crime, etc.). This could be accomplished through the review of the application.

4. Identify Potential Impacts of Street Closure or Traffic Flow Modification

A professional traffic engineering consultant should be engaged by the applicant to perform a detailed traffic study. This study must show that the closure or modification will not create unreasonable traffic impacts on the subject street or on streets which may be impacted by diverted traffic.

The following study elements may be required by the Dade County Public Works Department, depending on the type, complexity and requirements of the area in question, on a case-by-case basis:

4.a Drawings showing the exact location of the proposed street closure or traffic flow modifications, critical intersection geometrics and the boundary of the area affected. This boundary will be determined by the Traffic Engineering Section of the Dade County Public Works Department.

4.b An origin-destination (O/D) study that identifies the percentage of cut-through versus neighborhood traffic, if the reason for the request is traffic intrusion. A sampling of the peak hours in the AM and PM periods will be considered an adequate sampling.

4.c A review of accident history for the prior three (3) years to identify any significant collision trends at locations identified with safety concerns, if the reasons for the request are safety related such as a high number of accidents. This data could be obtained from the County or affected Municipality.

4.d Spot speed studies for an application that indicates speeding as a typical neighborhood traffic control problem. A speeding problem can be verified when the 85th percentile speed of all vehicles is at least 10 mph greater than the posted speed limit. An initial survey of 100 vehicles will be considered an adequate sampling.

4.e Crime statistics for the study area, to be obtained from the jurisdictional law enforcement agency, for a period of one (1) year. An interpretation from a law enforcement agency will be required to determine how the crime in the study area compares to overall crime statistics in that area.

4.f An internal analysis of expected diverted traffic on critical intersections, if any, within the study area. This will require:

4.f.1 24 hour counts on those streets that are proposed to be closed or modified;

4.f.2 24 hour counts on those streets that may be impacted by proposed closures or traffic flow modifications;

4.f.3 Future traffic volumes on a *Residential Collector* may not exceed 3,000 vehicles per day (300 vph during the peak hours) if a complete street closure is implemented. These threshold values define those limits when a residential collector begins to lose its livability and are for analysis purposes only. They do not guarantee that a closure will be approved.

4.f.4 Future traffic volumes for a closure of a *Residential Local Street* may not exceed 1,500 vehicle per day (150 vph during the peak hours). These threshold values define those limits when a local residential street begins to lose its livability and are for analysis purposes only. They do not guarantee that a closure will be approved.

4.f.5 Peak hour turning movement counts and a level of service (LOS) analysis at critical locations that will be affected by re-distributed traffic. Overall intersection LOS must not exceed LOS "D" or if operating at LOS "E" must not degrade to LOS "F". Also:

4.f.5.1 The same criteria applies for an individual intersection approach or lane group within the critical intersection approach.

4.f.5.2 If intersection or approach or lane group is already at LOS "F", then diverted traffic volumes must not be more than 5% of the existing traffic volumes without diversion.

4.f.6 A schematic diagram for both AM and PM peak hours showing existing and re-distributed traffic and Average Daily Traffic (ADT's).

4.g An external analysis of expected diverted traffic on critical intersections, if any, adjacent to and surrounding the affected area. Particular attention shall be directed to the impacts on the State highway system and County roadways, including:

4.g.1 Queuing analysis and storage requirements at existing signalized intersections;

4.g.2 Peak hour turning movement counts (TMC's) and LOS analysis at critical signalized and unsignalized existing intersections. A

schematic diagram showing the results of the TMC analyses for critical locations. Overall intersection LOS must not exceed LOS "D" or if operating at LOS "E" must not degrade to LOS "F". Also:

4.g.2.1 The same criteria applies for an individual intersection approach or lane group within the critical intersection approach.

4.g.2.2 If intersection or approach or lane group is already at LOS "F", then diverted traffic volumes must not be more than 5% of the existing traffic volumes without diversion.

4.g.3 Phasing modification requirements at existing signalized intersections; and

4.g.4 Existing street closures or traffic flow modifications within the study area.

4.h A detailed evaluation of the impacts of street closure or traffic flow modifications on emergency vehicle response times and hydrant accessibility, as well as the impacts on other services such as mail delivery, school bus routing, transit service, trash pick-up and other services.

The specific case will dictate which of the above items will be required, depending on the complexity and requirements of the study area in question. Any traffic study performed for a requested street closure or traffic flow modification should be compiled by the applicant's traffic consultant in a form of a formal report, signed and sealed by a Florida registered professional engineer.

5. Evaluate Traffic Calming Alternatives to Street Closures

It is necessary to adopt an area-wide, systematic approach to the development of alternative solutions to street closures. This approach would include:

- Problem Identification & Needs Assessment
- Generating Alternative Traffic Calming Plans
- Plan Selection
- Design, Implementation & Evaluation

This approach must work within the overall framework of the existing roadway classification system and encourage community participation.

Several category levels (I through V) to distinguish those least restrictive (passive) traffic control measures from those that are most restrictive (active) have previously been defined. Ideally, the least restrictive measures to address a traffic problem would be employed first, followed by more active and physical traffic calming devices. This incremental approach would allow a cost effective opportunity to identify the real traffic problem, if any, and better evaluate the impacts of more restrictive measures.

With the above staged approach in mind and a handful of traffic calming alternatives available for use on local Dade County roads, a typical request for a street closure or traffic flow modification might proceed accordingly:

5.a The Applicant's traffic consultant will identify traffic problems as a result of his analysis above and assess the community's needs.

5.b The consultant will generate staged alternative traffic calming plans, including design plans for temporary and permanent traffic calming measures, for approval by Metro-Dade County Public Works Department. These plans should:

5.b.1 Implement the lowest level (Level I through Level III) traffic control measures on a temporary basis; measures that, in the consultant's opinion, will satisfy the applicant's concerns.

5.b.2 Allow traffic to stabilize and reevaluate traffic patters after six (6) months.

5.b.3 If Stage 1 impacts are unacceptable, then proceed to Stage 2 and reevaluate more restrictive traffic calming alternatives.

5.b.4 If Stage 1 impacts are acceptable, the applicant engages a licensed contractor to implement permanent traffic control measures upon acquiring necessary approvals of construction plans and required permits.

Those previously described measures of effectiveness (MOE's) must be analyzed when evaluating the traffic impacts and livability impacts of a traffic calming alternative plan. A sample evaluation of a traffic calming alternative plan has been provided in Appendix G.

6. Obtain Property Owner Approval to Implement Proposed Modification

The traffic calming flow alternatives derived as a result of the above steps must be supported by a minimum of two-thirds (67 percent) of the total number of citizens directly affected by the proposed

changes in traffic flow, as determined by the County. The citizens (one per household) should include all property owners, tenants, and business owners within the affected area who might be significantly affected by the proposed traffic flow modifications or street closure. Applicants submitting petitions for closure or traffic flow modifications must attempt to contact all affected parties.

The following requirements shall be met:

6.a At a minimum, 90 percent of all citizens within the traffic study area should be contacted or made aware of the petition as a prerequisite for acceptance by the County. The petition requirement will be satisfied by signatures from two thirds of those contacted indicating support for the street closure or traffic flow modifications.

6.b All persons signing a petition requesting a street closure or traffic flow modification will acknowledge that they will be required to participate in all costs directly associated with the street closure or traffic flow modification.

6.c Any petition not complying with these requirements will not be accepted for consideration.

A sample "Traffic Calming Plan" petition is included in Appendix H.

7. Evaluate Impacts as a Result of Implemented Traffic Calming Alternatives

Once an application for street closure or traffic flow modification contains all of the required information and all of the matters described above have been completed, the Dade County Public Works Department will initiate and complete the environmental and traffic review process within 90 days from the end of the 6 month traffic stabilization period as follows:

7.a A public workshop organized by the applicant's traffic consultant will be held to which affected property owners, tenants, and business owners will be invited to participate. The purpose of the workshop will be an attempt to determine the alternative that has the greatest community support. The public workshop should include participation by Municipal, Metro-Dade County and State transportation officials.

7.b Depending on the complexity of the proposed closure or traffic flow modification, the Public Works director may direct the Citizens Transportation Advisory Committee (CTAC) and Transportation Planning Technical Advisory Committee (TPTAC) to provide input prior to final recommendations by the County Public Works Department.

7.b.1 If, as a result of the CTAC and TPTAC technical reviews, both committees recommend against the proposed traffic calming alternatives, that action will be final and the County Public Works Director will notify all affected property owners.

7.b.2 If a street closure is recommended as a calming device, then a temporary barricade will only be allowed for a trial period of 90 days. After the traffic pattern has been established over a period of 30 days, traffic data collection may begin and should be completed within the remaining 60 days and the temporary barricade must immediately be removed when the 90 day trial period expires.

7.b.3 If after the study does not show any adverse impacts and the requested plan is recommended for implementation, the Metro-Dade County Public Works Director may allow the citizens' licensed contractor, upon obtaining the necessary plan approvals and permits, to establish a permanent period of street closure or traffic flow modifications in accordance with the recommendations provided by the County's Traffic Engineering Section.

Metro-Dade County has the sole discretion, subject to all applicable laws, to approve, modify, continue or deny any street closure or traffic flow modification request regardless of any support or lack thereof via the petition process. The County Public Works Director's approval or denial of a street closure or traffic flow modification request will be final.

11. FUNDING

Due to the wide range of activities that pertain to neighborhood traffic calming measures and their impacts on residential areas, a comprehensive listing of public funding sources for these activities is beyond the scope of this study. Some of the activities that have been described throughout this and previous Technical Memorandums include:

- Organization of Public Forums;
- "Before" Studies to Identify Potential Impacts;
- Planning & Design of Traffic Calming Alternative Plans;
- "After" Studies to Evaluate Real Impacts; and
- Construction of Temporary and/or Permanent Traffic Calming Devices.

It is anticipated that the applicant requesting a street closure or traffic flow modification will be required to participate in the funding of most activities described above. Applicants representing a Neighborhood Homeowner's Association or Municipality may have available funds for these activities from Association dues, Special Assessments, or in the case of a municipality, City funds. Unincorporated Dade County applicants may need to solicit funding from those property owners affected by the street closure or traffic flow modification.

It is conceivable that the Dade County Public Works Department will participate in the Planning, Design and Implementation of a Neighborhood Traffic Calming Plan. For example, the physical construction of signing, speed humps or semi-diverters may be coordinated with an ongoing Maintenance Program or roadway improvement projects. The County may be limited by available staff and budgeted funds allocated to its Traffic Engineering Division to perform any design functions.

As the procedures and guidelines contained in this Technical Memorandum evolve into a formal Neighborhood Traffic Management Program, federal funding could become available for those traffic calming plans that might affect the State Highway System. Subsequently, federal financial assistance for these local projects may be available through the Florida Department of Transportation. One such example of potential FHWA funding is possible through the following program:

- Federal-Aid Urban Systems. This program covers traffic improvements on Federal Aid System (FAU System) streets and streets leading to the FAU System. Federal share is 80%.

Since these funds are typically used for traditional transportation and traffic related improvements, not neighborhood traffic management projects, competition with the MPO's Transportation Plan could make it difficult to utilize Federal money for non-traditional traffic calming alternatives.

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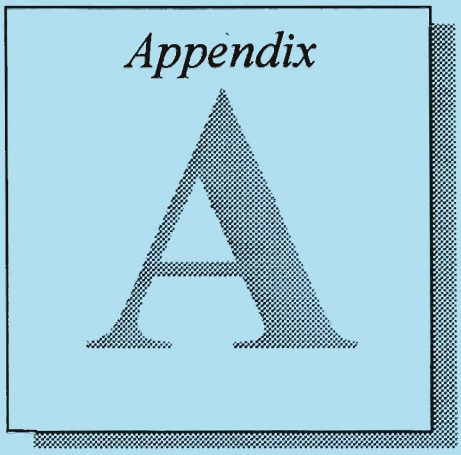


Local Street Closure Policies

County

STREET CLOSURES

Requirements:

The Public Works Department has established standard requirements for street closures which require those individuals--and/or entities requesting the closure--to provide the department with a comprehensive traffic study. The study is to include the following:

- Traffic counts before and after the placement of the temporary barricades on the streets to be closed, as well as on the streets which are anticipated to be influenced by the roadway closures.

- Level of service at impacted intersections for existing as well as proposed conditions. Level of service must be maintained at existing level at impacted locations by roadway improvements if necessary.

- Details of roadway improvements, signals, signs, and pavement markings, if needed, at locations which will be impacted by the roadway closure.

- Detailed drawings of end treatments as to how the permanent closures are to be accomplished--either by constructing a turn-around or a cul-de-sac.

- Impact of street closures on emergency services, such as Police and Fire departments, impact of the street closures on fire hydrants, and to determine if any of them need relocation.

- Detailed drawings of the structures to be used for permanent closures. Provisions must be made to emergency vehicles to gain access through these closures.

- All roadway improvements required due to roadway closure--including but not limited to roadway widening, traffic signal installation, signs and pavement markings--are to be constructed and paid for by the applicants.

- Alternates to a roadway closure, such as turn restrictions and/or one-way designations, should also be considered to resolve traffic intrusion concerns.

Coral Gables DRAFT

POLICY FOR STREET CLOSURES

ALL REQUESTS SHALL BE REFERED TO THE STREET AND ALLEY VACATION COMMITTEE AND THE FOLLOWING SHALL APPLY:

- All closures shall be in compliance with the City's standards in regards to engineering features and landscaping. Design must be approved by Public Work's Engineering Division.

- A permanent closure will not be permitted until a 90 day test period has lapsed (if required by the County). The cost of test closure will be borne by the applicant.

- A closure will not be permitted if the right of way is not sufficient to provide a safe turn-around per the City's design standards.

- A closure will only be permitted for minor residential streets within the City.

- If a closure is proposed at the City limits the adjoining municipality shall be notified.

- If closure is proposed abutting a road owned by another jurisdiction, permission must be obtained from said jurisdiction.

- All associated costs of street closure must be paid for by the applicant.

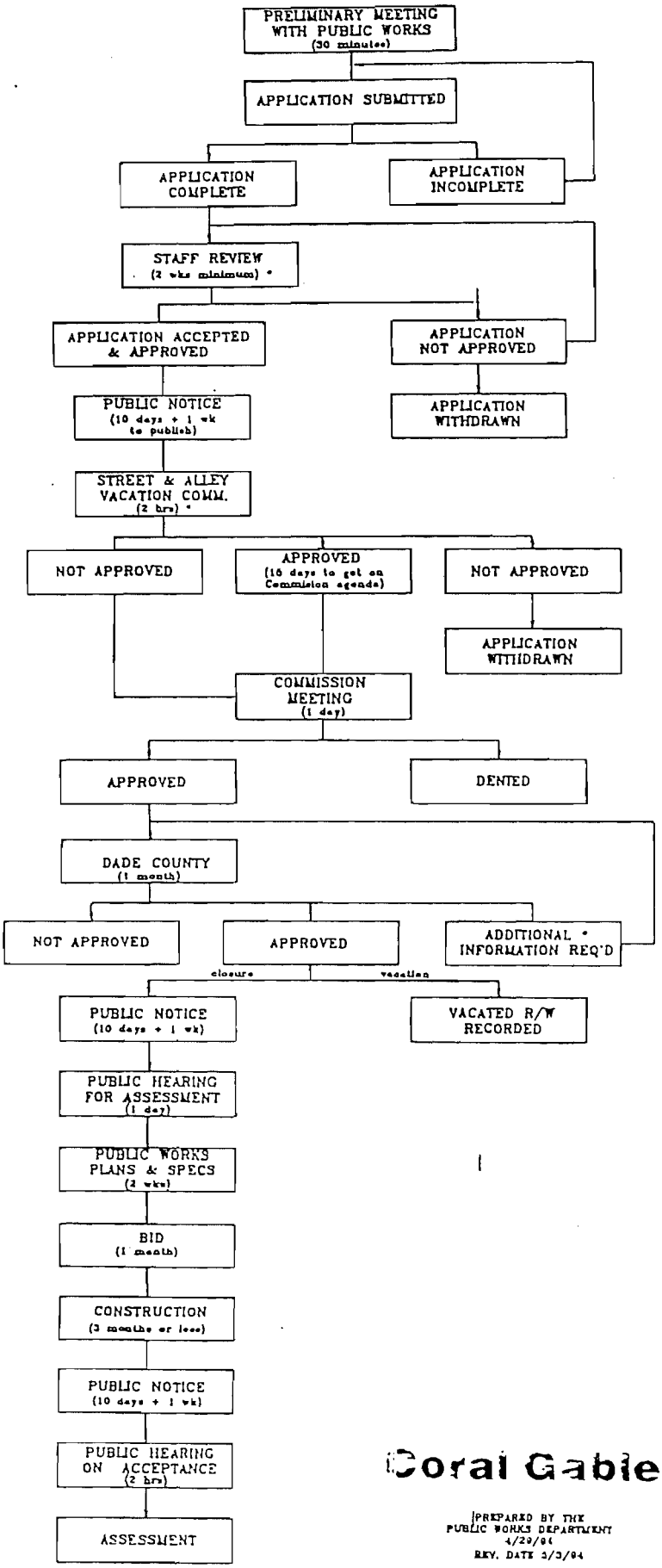
- The applicant will be responsible for the maintenance of closure area.

- In the event a traffic study is needed or any additional engineering is required, the associated costs must be paid for by the applicant.

- Property owners within a minimum radius of 300 feet shall be notified

- All street closures are subject to review and approval by Metro Dade Public Works Department.

V ATION COMMITTEE APPLICATION EDURE



NOTE:
* - IF TRAFFIC, CRIME OR OTHER STUDY IS REQUIRED, AN ADDITIONAL 3 WEEKS MIN. WILL BE REQUIRED.

Coral Gables

PREPARED BY THE
PUBLIC WORKS DEPARTMENT
4/29/94
REV. DATE 5/3/94

C I T Y O F N O R T H M I A M I B E A C H

INTER-OFFICE MEMORANDUM

file: 510.002

TO: MAJOR STEPHAN DEMBINSKY

FROM: KEVEN R. KLOPP, ASSISTANT CITY PLANNER

DATE: NOVEMBER 7, 1995

==========

RE: STREET CLOSINGS IN CARL BYOIR

==========

The following is provided per Mike Roberto's request:

The process I see as having the most potential to succeed in implementing traffic management in Carl Byoir:

1 An ad hoc neighborhood association or committee with the specific purpose of developing a plan should be formed. One staff person and one elected official from the City should guide them through setting up meetings and doing mailings. The Committee can use the Barton-Aschman study as a basis for its discussions. All property owners and residents within the affected neighborhood should receive notice of the activities as well as opportunity to have input or be a part of the group developing the plan. (For your convenience, I have provided a list of the 178 properties that would be "affected" as well as a highlighted map of the same. Using the Folio ranges indicated on the list, Data Processing can <u>assist</u> in building a project mailing data base for property owner and/or resident addresses). The plan should be developed with the County requirements (see step 3) in mind.

2 Once a plan is agreed upon by the Committee, a survey should be done to find out what percentage of the neighborhood will support the plan. If a majority of the neighborhood <u>does not</u> support the plan, go back to step one.

3 An official request should be sent to the County and the City Council for permission to implement the plan. The County will respond by requiring that a traffic study be done to determine the feasibility of the plan, including:

   a An indication of the alternatives that were considered when developing the plan and the rational behind the plan proposed. Alternatives to be considered include turn restrictions and one way designations.

b Traffic counts before and after the placement of temporary barricades on the streets to be closed, as well as on the streets which will be affected by the closures.

c Level of service at impacted intersections for existing, as well as proposed conditions. The study must result in an indication of street improvements that will be necessary as a result of the closures in order to maintain level of service.

d Details of the physical changes to be made, including barricade type, signage, and roadway improvements.

e Impact of street closures on emergency services such as Police and Fire Departments, and impact of the street closures on fire hydrants. The study must result in an indication of what improvements will be made to eliminate or minimize these impacts.

f An indication of construction costs and funding source. The improvements must be paid for by the City and may be charged back to the neighborhood.

4 The Committee should be made aware of the County requirements as well as the sentiment of the City Council, and charged with the responsibility of meeting the County's requirements. Many of the County requirements will not apply to Carl Byoir, but they will nonetheless need to be explained by the study.

5 The plan should be distributed to all of the relevant agencies and service providers with an indication that the City will install the improvements on a temporary basis for study purposes. A meeting should be held to obtain comment from them all. See the attached sheet for the most appropriate individuals to send the plan and invite to the meeting.

6 The temporary improvements should be announced to the neighborhood and installed for study purposes.

7 The results of the traffic study should be distributed to the County, all of the relevant agencies, and the residents of the neighborhood. Assuming the results of the study are positive and that the neighborhood still supports the plan, an indication that the plan will be installed permanently by the City of North Miami Beach should be distributed at the same time.

Please let me know how I can assist further.

cc: Michael J. Roberto, City Manager
Paul A. Leonard, Assistant City Manager
Kelvin L. Baker, Director of Public Works
Gary I. Brown, Administrative Services Director
Thomas J. Vageline, Community Development Director -kev95/memo.36

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City of North Miami Beach
17050 NE 19 Avenue
North Miami Beach, Florida 33162

Fred Webb, Division Chief
Metro-Dade Fire Rescue
2270 NE 168 Street
Miami, Florida 33180

C I T Y O F N O R T H M I A M I B E A C H

INTER-OFFICE MEMORANDUM

file: 561

TO: MICHAEL J. ROBERTO, CITY MANAGER

FROM: KEVEN R. KLOPP, ASSISTANT PLANNER

DRAFT

DATE: OCTOBER 26, 1994

==========

RE: REQUESTS FOR STREET CLOSURES

==========

Following is the procedure recommended for dealing with requested street closures based on the comments and instructions the City Council provided on October 11, 1994.

If and when a written request for a road closure is received, the request will be handled by the Community Development Department. The request shall specifically indicate the location of the closure(s). The request shall be submitted by a City of North Miami Beach property owner.

The Community Development Department shall identify for each request received the directly affected property owners and the indirectly affected property owners based on specific definitions and criteria of *directly* and *indirectly* affected. The Department will respond in writing to each request within 10 working days, including a map of the directly and indirectly affected properties and the total number of each.

The request will be further analyzed by the Community Development Department upon the receipt of signatures from at least 50% of the residents or owners representing the directly affected properties indicating their support for the request. A resolution of support will be presented to the City Council within 30 working days of receiving the required signatures. By passing the resolution of support the Council will instruct the Community Development Department to 1) proceed to obtain comment from City, County, State, and other affected agencies, 2) design temporary and permanent closure(s), and - - if the closure(s) will be acceptable to NMB Police, NMB Public Works, and Metro-Dade Fire-Rescue 3) prepare a Preliminary Project Resolution. If the closure(s) involve streets requiring approval from County or State Agencies, the Community Development Department will apply for such approval and will not prepare the preliminary project resolution until such approval is obtained.

Within 30 working days of the passage of the resolution of support, either a Preliminary Project Resolution will be presented to the City Council, or the Community Development Department will provide

a written explanation to the individual requesting the closure(s) regarding the status of the request. If and when prepared, the Preliminary Project Resolution will:

A. Summarize the project in context of the request initially received and the anticipated effects.
B. Identify the assessment method that will be used for the construction of the permanent barricade, if approved.
C. Estimate the cost of the project and the average cost per property.
E. Instruct the Community Development Department to complete the following within 60 working days:

1. Prepare the bid documents needed to implement the project
2. Receive bids on the project
3. Prepare an assessment roll for the project which consists of the directly affected property owners and notify them in accordance with state statute
4. Notify the indirectly affected residents and property owners of the proposal
5. Obtain existing traffic counts at the relevant intersections, install a temporary barricade, obtain traffic counts at relevant intersections subsequent to the temporary barricade, analyze the effects of the temporary closure based on the traffic counts, and prepare a recommendation based on the analysis
6. Schedule and hold an informational meeting for the residents that would be affected by the proposed project
7. Prepare a new preliminary resolution if necessary
8. Schedule a public hearing for approval of the Final Resolution

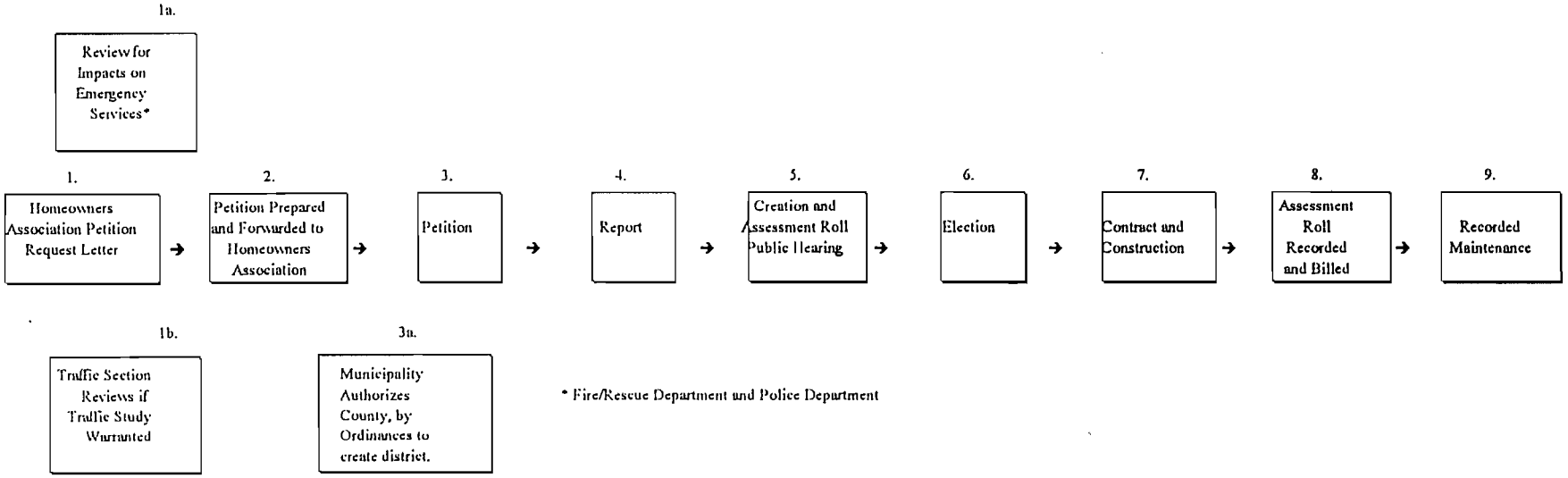
Within 20 working days of the informational meeting, a Final Resolution for the project approved by Preliminary Resolution will be presented to the City Council. The resolution will:

A. Summarize changes made in the project prior to approval of the Preliminary Resolution
B. Summarize changes made in the project after approval of the Preliminary Resolution
C. Approve the assessment role for the project
D. Instruct the City Manager to complete the following within 40 working days:

1. Award the bid
2. Complete the project
3. Levy the assessment

Special Taxing District
Milestone Flow Chart

SPECIAL TAXING DISTRICT MILESTONE FLOW CHART



1. & 2. Self Explanatory

3. Petition: Received by Public Works or Clerk of the Board; validated by Public works and filed with Clerk; invalid petitions returned to originators.

4. Report: Public Works prepares a detailed cost study; drafts report and summary; hold informal meeting with district owners; finalizes report and summary, files with County Manager; Public Works prepares the assessment roll which will be recorded and moneys collected if election passes.

5. Public Hearing: The County Manager's Office schedules the hearing; requests the Law Department to prepare: 1. ordinance and 2. resolution (if required); requests the Clerk of the Board to: 1. prepare notice of hearing, 2. advertise the hearing, and 3. notify owners of recorded by: a. mail and b. posting notices within district.

6. Election: County Commission directs the Dade County Elections Department to conduct an election by mail and notifies various departments of results. (majority vote)

7. Contract & Construction: Contracts for construction or services are secured; bids awarded by the Commission; Capital Improvements are inspected and accepted for billing.

8. Assessment Roll Recorded & Billing: Tax Collector receives assessment roll; records roll in Public Records and requests Data Processing to prepare billing. Tax Collector mails special billing or itemizes on annual tax roll.

9. Record Maintenance: Tax Collector maintains books for capital projects. Property Appraisal Department maintains records, forwarding record changes to Public Works Department for proportion or combining assessments. Public Works Department properties or combines and notifies appraiser and collector of new assessments.

County Procedures
to
Vacate a Public Street

METROPOLITAN DADE COUNTY, FLORIDA

METRO-DADE

METRO-DADE CENTER

PUBLIC WORKS DEPARTMENT
SUITE 1610
111 N.W. 1st STREET
MIAMI, FLORIDA 33128-1970

INSTRUCTIONS FOR FILING PETITIONS FOR CLOSING OF ROADS AND ALLEYS IN THE UNINCORPORATED AREA OF DADE COUNTY, FLORIDA

In accordance with County Commission Resolution No. R-1103-80 dated September 16, 1980, the following procedure has been established

Two (2) copies of the petition properly executed by ALL property owners abutting on the road sought to be closed, or who are affected by the proposed road closing, shall be filed with the Director of Public Works Department, Metro Dade Center, 14th Floor, 111 N.W. 1st Street, Miami, Florida - 33128-1970, together with:

1. Check for $200.00 payable to the Board of County Commissioners of Dade County to cover cost of publishing notices, recording fees and cost of administrative review.

2. Seven (7) copies of a location and survey sketch prepared by a Florida registered land surveyor showing and describing the road and roads sought to be closed and showing all encroachments, improvements and utilities.

3. Petitioner should attend County Commission meeting at time of road closing hearing.

[illegible] for closing of roads, [illegible] Subdivision Control at the above address, or phone 375-4654

Equal Opportunity/Handicap Employer/Services

PETITION TO CLOSE ROAD

TO: Board of County Commissioners
Dade County, Florida

The undersigned, pursuant to Sections 336.09 — 336.12, Florida Statutes, hereby petition the Board of County Commissioners to vacate, abandon, discontinue and close an existing public or private street, alleyway, road, highway, or other place used for travel, or a portion thereof, and to renounce and disclaim any right of the County and the public in and to any land in connection therewith; or to renounce and disclaim any right of the County and the public in and to certain land, or interest therein, acquired by purchase, gift, devise, dedication or prescription for street, alleyway, road or highway purposes; or to renounce and disclaim any right of the County and the public in and to certain land delineated on a recorded map or plat as a street, alleyway, road or highway.

The undersigned hereby certify:

1. LEGAL DESCRIPTION: The complete and accurate legal description of the road, right of way or land sought to be closed is as follows:

2. PUBLIC INTEREST IN ROAD: The title or interest of the County and the public in and to the above described road, right of way or land was acquired and is evidenced in the following manner (state whether public interest acquired by deed, dedication or prescription and set forth where deed or plat is recorded in public records):

3. ATTACH SURVEY SKETCH: Attached hereto is a survey or location sketch accurately showing and describing the above described road, right of way or land and its location and relation to surrounding property, and showing all encroachments and utility easements.

4. ABUTTING PROPERTY OWNERS: The following constitutes a complete and accurate schedule of all owners and occupants of property abutting upon or adjacent to the above described road, right of way or lands and all persons who will be affected by the closing and abandonment thereof (all interested or affected persons must either sign this petition or sign a written consent):

Name	Address	Description of Property

5. ACCESS TO OTHER PROPERTY: The undersigned certify that in the event this petition is granted no other property owners will be prevented from access to and from their property and no other property owners in the vicinity will be adversely affected.

6. NO FEDERAL OR STATE HIGHWAY AFFECTED: The undersigned certify that the above described road, right of way or land is not a part of any state or federal highway and was not acquired or dedicated for state or federal highway purposes; and that such road, right of way or land is under the control and jurisdiction of the Board of County Commissioners.

7. GROUNDS FOR GRANTING PETITION: The undersigned submit as a grounds and reasons in support of this petition the following (state in detail why petition should be granted):

(Petition must be signed by all property owners abutting the road, right of way or lands to be closed or abandoned)

Respectfully submitted,

Name	Address

_____

Attorney for Petitioners

Address: _____

(Signature of attorney not required)

STATE OF FLORIDA)
) ss.:
COUNTY OF DADE)

BEFORE ME, the undersigned authority, personally appeared _____

_____, who first by me duly sworn, deposes and says that he is one of the petitioners named in and who signed the foregoing petition; that he is duly authorized to make this verification for and on behalf of all petitioners; that he has read the foregoing petition and that the statements therein contained are true.

_____

(Signature of Petitioner)

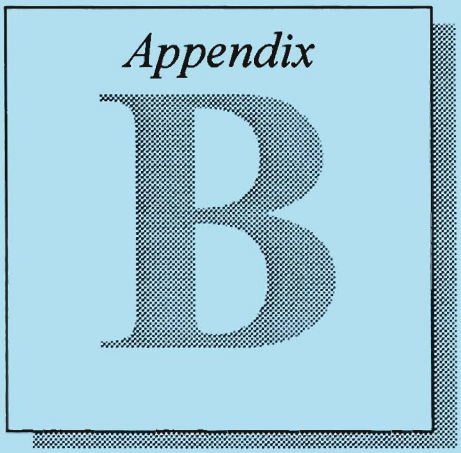
Sworn and subscribed to before me this

_____ day of _____, 19_____.

_____

Notary Public State of Florida at Large

My Commission Expires: _____



Street Closure Interview Questionnaire

METRO-DADE

HARRIS

METRO-DADE

METRO DADE COUNTY PUBLIC WORKS DEPARTMENT
STREET CLOSURE STUDY QUESTIONNAIRE

NAME _____ DATE _____
AGENCY _____
TITLE _____
PHONE NO. _____

1a. Does your municipality currently have street closures? ☐ yes ☐ no

If yes, please check if:

☐ Temporary Closures How many? _____
☐ Permanent Closures How many? _____

1b. Does your municipality have pending requests for street closures?

☐ yes ☐ no

If yes, how many? _____

2. What percent of citizen requests are typically made for the following traffic control measures. Please check all that apply and assign an approximate percentage.

☐ Speed Limit Signs ____ Percent of Requests
☐ Multi-Way Stop Controls ____ Percent of Requests
☐ Turn Restrictions ____ Percent of Requests
☐ One Way Streets ____ Percent of Requests
☐ Traffic Chokers ____ Percent of Requests
☐ Speed Bumps/Humps ____ Percent of Requests
☐ Street Closure ____ Percent of Requests
☐ Other _____ ____ Percent of Requests

HARRIS

3. Have street closures been requested in your jurisdiction as a solution to residential traffic problems? ❑ yes ❑ no

If yes, what problem(s) were they proposed to address?
(Check all that are appropriate)

❑ Speeding ❑ Pedestrian Safety ❑ Other _____
❑ High Traffic Volumes ❑ Traffic Intrusion
❑ Accidents ❑ Crime

If no, answer question (4) and skip to question (16).

4a. Do you have procedures by which citizens' request/petition for street closures?
❑ yes ❑ no.

If yes, please attach a copy of your procedures. If no documentation is available, please briefly describe these procedures.

_____
_____
_____
_____
_____

4b. After the citizens requests are received, do you have a procedure to process them.
❑ yes ❑ no

If yes, attach a copy, if no briefly describe how citizens' petitions are handled.

_____
_____
_____
_____
_____
_____

HARRIS

5a. Were traffic studies conducted to determine the causes and impacts of street closures on adjoining neighborhood and arterial roadway networks?

☐ yes ☐ no.

If yes, what type of studies were conducted?

☐ Before Studies ☐ After Studies

5b. How were these traffic studies funded?

☐ Resident's Assessment ☐ Other _____

☐ Municipal Budget

6a. How were the requested temporary closures funded?

☐ Resident's Assessment ☐ Bond Issue

☐ Municipal Public Works ☐ Other _____

6b. How were the permanent closures funded?

☐ Resident's Assessment ☐ Municipal Public Works

☐ Municipal Bond Issue ☐ Other _____

7a. Were follow-up analyses performed to determine the impacts of any street closures?

☐ yes ☐ no.

If yes, did the analyses include (check all that apply):

☐ Impacts to intersections within the neighborhood

☐ Impacts to intersections outside the neighborhood

☐ Roadway traffic volume analysis

☐ Impact on response time for police, fire and or ambulance service

☐ Impact on speed

7b. If yes, did the results show:

	Within Neighborhood	Outside Neighborhood
☐ An improvement in traffic conditions?	☐	☐
☐ No improvement in traffic conditions?	☐	☐
☐ Degradation of traffic conditions?	☐	☐

HARRIS

8. In general, do you feel that the common residential traffic complaints (listed below) received in your jurisdiction were real or perceived?

	REAL	PERCEIVED
High Traffic Volumes	☐	☐
Significant Traffic Intrusion	☐	☐
Speeding	☐	☐
Crime	☐	☐
Pedestrian Safety	☐	☐
Other _____	☐	☐

9. What traffic control measures, if any, were used to deal with the problems identified above prior to recommending street closures?

- ☐ Speed Limit Signing
- ☐ Multi-way Stop Signs
- ☐ Turn Prohibitions
- ☐ One-way Streets
- ☐ Gateway Treatments
- ☐ Traffic Gates
- ☐ Traffic Circles
- ☐ Police Enforcement
- ☐ Diverters
- ☐ Other _____

10. What legal hurdles, (petitions, Commission vote, Dade County/FL codes, etc.), if any, had to be overcome in order to institute the measures referenced above?

_____

_____

_____

_____

_____

_____

11. How were proposed traffic control improvements approved for implementation?

- ☐ Consultant Recommended/Approval by County Officials
- ☐ Neighborhood Recommendation/County Approval
- ☐ "In-house" Engineer Recommendation/County Approval
- ☐ Citizen Complaints/County Approval

HARRIS

12. If street closures were implemented in neighborhoods under your jurisdiction, have they caused adverse impact to:

	Yes	No
Emergency Vehicle Access/Response Time	❑	❑
General Access to the Neighborhood	❑	❑
Traffic Diversion to Other Neighborhoods	❑	❑
Traffic Diversion to Other Arterial & Collector Roads	❑	❑

13. Did you find street closures to be an effective traffic control measure in:

	Yes	No
Eliminating "cut-through" traffic in residential areas	❑	❑
Reducing speed of remaining vehicles	❑	❑
Improving safety for residents and street users	❑	❑
Reducing crime	❑	❑
Other _____	❑	❑

14. If these closures mentioned above are permanent, can they be accessed by emergency services? ❑ yes ❑ no

If yes, how do emergency vehicles gain access?

- ❑ Drive-Over Landscaping
- ❑ Remote Control Gate
- ❑ Other _____

15. Overall, do you believe street closures are an effective tool for neighborhood traffic control and should be encouraged within your jurisdiction? ❑ yes ❑ no.

16. Should alternative traffic control measures to address citizen concerns be implemented prior to street closures? ❑ yes ❑ no.

17. Do you know of any other contacts within your jurisdiction/municipality that could provide input concerning street closures? ❑ yes ❑ no.

If yes, please indicate the contact person's name and phone.

_____
_____
_____
_____

18. Please provide any additional comments that you personally feel are pertinent to the ever-increasing movement to close streets within your jurisdiction and/or County-wide.

_____
_____
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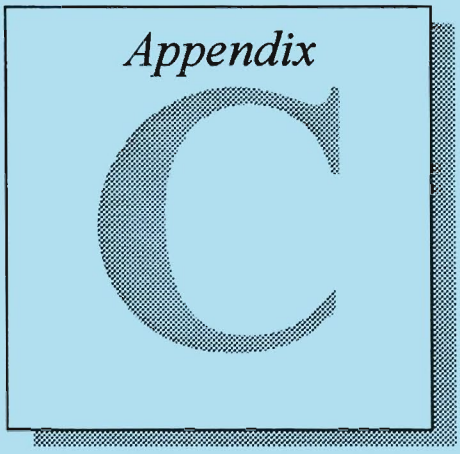
THANK YOU!

Please return to:
Frederic R. Harris, Inc., 15485 Eagle Nest Lane, Suite 220, Miami Lakes, FL 33014.
Attn: Anthony Castellone, P.E.
(A self-addressed, stamped envelope has been provided for your convenience.)

HARRIS



Interview Contact List

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
Village of Bal Harbour 655 96th Street Bal Harbour, FL 33154 866-4633 FAX: 868-6575	Mr. Robert Whalzon Public Works Director	✓	✓ 12/18/95	
Town of Bay Harbor Islands 9665 Bay Harbor Terrace P.O. Box 546667 Bay Harbor, FL 33154 866-6241 FAX:866-4863	Mr. Joe Fox Public Works Assistant Director	✓	✓ 12/18/95	
	Mr. Ken Cassel City Manager			✓ 2/21/96 Telecom
Village of Biscayne Park 640 N.E. 114th Street Biscayne Park, FL 33161 893-7490 FAX: 891-7241	Mr. John Pickens Public Works Director 893-4346		✓ 11/20/95	
City of Coral Gables Public Works Department 285 Aragon Dr. Coral Gables, FL 33134 446-6800 FAX: 460-5880	Mr. Alberto Delgado, P.E.* Acting Director 460-5002 FAX:460-5080		✓ 12/12/95	✓ 12/28/95 Telecom
	Mr. Al Linero, P.E. Public Works Director 460-5000			
Coral Gables Police Department 2801 Salzedo Street Coral Gables, Fl 33134 442-1600 FAX:460-5499	Mr. James Butler Chief of Police	✓	✓ 12/18/95	
Coral Gables Fire Department 2815 Salzedo Street Coral Gables, Fl 33134 460-5560 FAX:460-5583	Mr. David Teems Fire Chief	✓	✓ 12/18/95	

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
Village of El Portal 500 N.E. 87th Street El Portal, FL 33138 751-2406 FAX:759-5341	Mr. Nelson Lonsdale Structural Engineer	✓	✓ 12/18/95	
City of Florida City 404 West Palm Drive P.O. Box 3001 Florida City, FL 33034-3001 247-8221	Mr. Rafael Casals Asst. City Manager	✓		
Town of Golden Beach 1 Golden Beach Drive Golden Beach, FL 33160-2296 932-0744 FAX:933-3825	Ms. Nancy Ciummo Town Manger	✓	✓ 12/18/95	
City of Hialeah P.O. Box 40 Hialeah, FL 33011 883-5820	Mr. Ernest Horsley* Director, Leisure Services 5601 E. 8th Ave. 687-2644 FAX:687-2632			✓ 12/14/95
Hialeah Police Department 5555 E. 8th Avenue Hialeah, Fl. 33013 953-5300	Mr. Nick Solazzo Lt. Traffic Commander	✓		
Hialeah Fire Department 501 Palm Avenue Hialeah, Fl 33010 687-2685 FAX:687-6943	Mr. Paul DeYoune Fire Chief	✓	✓ 12/18/95	
City of Hialeah Gardens 10001 N.W. 87th Avenue Hialeah Gardens, FL 33016 558-4114 FAX: 362-7155	Mr. Jesus Valdez Public Works Director		✓ 11/20/95	

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
City of Homestead 790 North Homestead Blvd. Homestead, FL 33030 247-1801 ext. 107	Mr. Mike Tavano Director of Public Works	✓		
	Mr. Mike Causley* Building and Zoning Dir. 247-1801 x252 FAX: 247-3067		✓ 12/11/95	
Village of Indian Creek Village 50 Indian Creek Island Miami Beach, FL 33154 865-4121 FAX:865-4121	Mr. Leonard Matarise City Manager	✓	✓ 12/18/95	
Town of Medley 7331 N.W. 74th Street Medley, FL 33166 887-9541	Mr. Carlos Callava Public Works Supervisor 10776 NW South River Dr. Medley, Fl. 33178 820-1344 FAX:551-4950	✓	✓ 12/18/95	
City of Miami Public Works Department 275 NW 2nd Street Miami, FL 33128 579-6666 FAX: 285-1835	Mr. Waldemar E. Lee, Director 579-6865 FAX:579-6871		✓ 12/11/95	✓
	Mr. James J. Kay, P.E.* Deputy Director			
	Lt. George Scott for Mr. Dennis R. Wheeler Deputy Fire Chief of Operations 350-7836 FAX:579-6331		✓ 12/11/95	✓ 12/12/95 Telecom
City of Miami Beach 1700 Convention Center Drive Miami Beach, FL 33139 673-7010 FAX: 673-7647	Mr. Vincent Akhimie* Director 673-7620		✓ 11/20/95 12/13/95	

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
Village of Miami Shores 10050 N.E. 2nd Avenue Miami Shores, FL 33138-2382 795-2207 FAX: 756-8972	Mr. Tom Benton* Public Works Director 795-2210			
	Mr. Dave Traill Public Works Asst Director 795-2210 FAX:696-6402		✓ 12/11/95	✓ 12/12/95 Telecom
Miami Shores Police Department 10050 NE 2nd Avenue Miami Shores, Fl 33138 759-2468	Mr. Michael Zoovas Chief of Police	✓		
Miami Shores Fire Department 6000 SW 87th Avenue Miami, Fl 33173 596-8600	Mr. Dave Paulison Director	✓	✓ 12/18/95	
City of Miami Springs 201 Westward Drive Miami Springs, FL 33166-5295 885-4581 FAX: 887-8307	Mr. Clarance Patterson* Director of Public Works 345 N. Royal Poinciana 887-4116		✓ 11/20/95	
	Mr. Steve Johnson City Planner			
Miami Springs Police Department 201 Westward Drive Miami Springs, Fl 33166 888-9711	Mr. G. Duffy Chief of Police	✓		
Miami Springs Fire Department 6000 SW 87th Avenue Miami, Fl 33173 596-8600	Mr. Dave Paulison Director	✓	✓ 12/18/95	
City of North Bay Village 7903 East Drive North Bay Village, FL 33141 756-7171 FAX: 756-7722	Mr. Michael Berkman Public Works Director 1841 Galleon Street North Bay Village, 33141 865-0560 FAX:868-9849		✓ 11/20/95 12/13/95	

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
City of North Miami 776 N.E. 125th Street P.O. Box 610850 North Miami, FL 33261-0847 893-6511 FAX: 899-0497	Mr. Al Signore Public Works Director		✓ 11/20/95	
	Mr. Jack Strain* Sr. Civil Engineer		✓ 11/20/95	
City of North Miami Beach 17011 N.E. 19th Avenue North Miami Beach, FL 33162 947-7581 FAX: 948-2996	Mr. Kelvin L. Baker Public Works Director 1965 NE 151 Street 948-2903 FAX 944-2551			
	Keven R. Klopp* Assistant City Planner 948-2900 FAX:787-6004		✓ 12/11/95	✓ 12/14/95 Telecom
City of Opa-Locka 777 Sharazad Boulevard Opa-Locka, FL 33054 688-4611	Mr. Ajibola Balogun Public Works Director 12950 LeJuene Road 953-2828 FAX:953-2824	✓	✓ 12/18/95	
City of South Miami 6130 Sunset Drive South Miami, FL 33143 663-6300	Mr. Melvin L. Tooks* Public Works Director 663-6350 FAX 261-3791		✓ 11/20/95	
Town of Surfside 9293 Harding Avenue Surfside, FL 33154 861-4863	Mr. Hal "Chip" Cohen Town Manager	✓		
City of Sweetwater 500 S.W. 109th Avenue Sweetwater, FL 33174-1398 221-0411 FAX: 221-2541	Ms. Marie Schmidt, City Clerk, for Mr. Alfredo Crespo Public Works Director		✓ 11/20/95	

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

PUBLIC OFFICIALS		INTERVIEW		
CITY NAME	CONTACT	MAIL	FAX	PERSONAL
Village of Virginia Gardens 6498 N.W. 38th Terrace Virginia Gardens, FL 33166-6999 871-6104 FAX:871-1120	Ms. Bonilyn Wilbanks, Public Safety Director, for Mr. Butch Martin Public Works Director	✓	✓ 12/18/95	
City of West Miami 901 S.W. 62nd Avenue West Miami, FL 33144 266-1122	Mr. George Kulik Public Works Director 266-4214	✓		

PRIVATE/COMMUNITY ORGANIZATIONS		INTERVIEW		
NAME	CONTACT	MAIL	FAX	PERSONAL
David Plummer & Associates 1722 Ponce de Leon Blvd Coral Gables, FL 33134 447-0900	Mr. David Plummer, P.E.* President			✓ 10/12/95
COSS- Citizens for Open and Safe Streets P.O. Box 1706 Coral Gables, FL 33134 444-3696 FAX: 445-2525	Ms. Patricia Keon 448-5194 Also: Mr. Martin Mendiola Ms. Maria Velez 377-6700			✓ 01/08/96 Telecom
University of Miami School of Architecture 1223 Dickinson Drive Coral Gables, FL 33134	Ms. Elizabeth Plater-Zyberk, Dean of Architecture			✓ 3/27/96
City of Miami Heynsworth Village Homeowner's	Ms. Monique Taylor 751-0084			✓ 01/09/96 Telecom
S.T.O.P.	Mr. William Lehman 653-7111			✓
S.H.O.R.N.	Mr. Michael Van Dyke Chairman			
City of Miami Shorecrest Homeowners Association	Mr. Brian Geenty 751-5063 Mr. Heikki Talvitie 754-4134 or 573-8472			

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

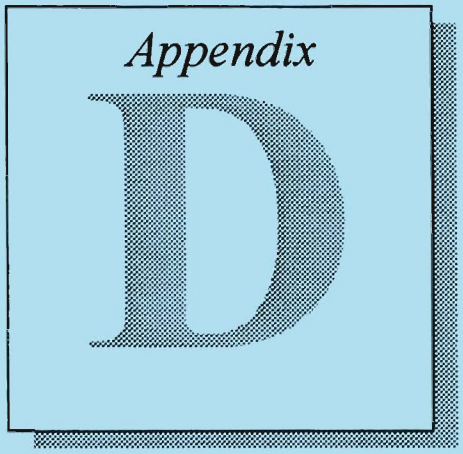
METRO-DADE COUNTY			INTERVIEW	
NAME	**CONTACT**	**MAIL**	**FAX**	**PERSONAL**
City Attorney 375-5151 FAX:375-5634	Mr. Tom Goldstein		✓ 12/11/95	
MPO 375-4507 FAX:375-4950	Mr. Jose Mesa		✓ 12/11/95	✓ 12/14/95
Board of County Commissioners	Mr. Maurice Ferre 375-5697/375-5717 FAX		✓ 12/11/95	
Metro-Dade Fire and Rescue	Ms. Barbara Mathews* Planning Coordinator 596-8556 596-8891 (FAX)		✓ 12/10/95	
Dade League of Cities 776 NE 125th Street P.O. Box 610850 North Miami, FL 33261-0850	Ms. Anna Rijo-Conde Director of Planning and Development 893-6511 Giovanni Batista		✓ 12/11/95	
Metropolitan Planning Organization Metro-Dade Center, Suite 1220 111 NW 1st Street Miami, FL 33128-1972	Mr. Frank Baron* Principal Planner 375-1886			
	Mr. Jeff Hunter* Bicycle Coordinator			
	Mr. Mark Woerner* Division Supervisor 375-2835			
Public Works Department	Ms. Esther Calas, P.E.* Assistant Director			
	Mr. Jim Leone* Chief of Highway Division			

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee

DADE COUNTY STREET CLOSURE STUDY
Interview Contact List

FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT VI		INTERVIEW		
NAME	**CONTACT**	**MAIL**	**FAX**	**PERSONAL**
Florida Dept of Transportation (District 6) 1000 NW 111 Avenue Miami, FL 33172	Mr. Rory Santana, P.E. District Traffic Operations Engineer 470-5336			✓ 12/13/95
	Mr. Rafael E. De Arazoza* Assistant District Operation Engineer 470-5335			✓ 12/13/95
FHWA Division Office Tallahassee, FL (904) 942-9583	Mr. Robert Callan			✓ 5/1/96

Shaded Boxes indicate returned Questionaires
* Member - Street Closure Steering Committee



Street Closure Survey Results

METRO-DADE

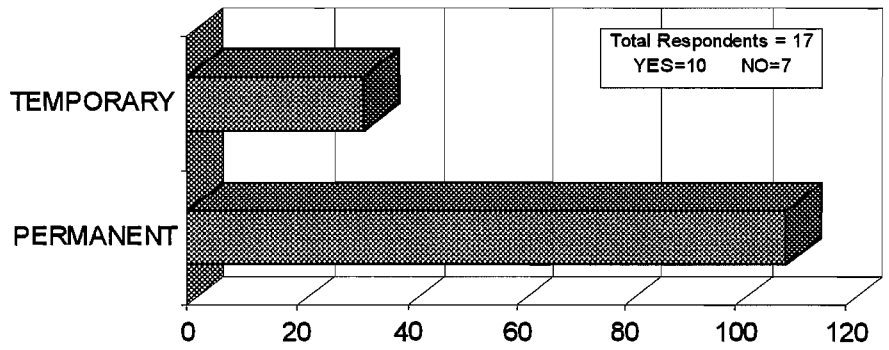
HARRIS

QUESTIONNAIRE RESULTS

The following pages represent the results of the written survey questionnaire. Specific comments that follow represent the opinions of those municipalities concerning the issue in question.

1a.) Does your municipality currently have street closures? If yes, how many?

Figure 1. Number of Closures



As previously mentioned, 56% of the municipalities responded to the written questionnaire. The City of Hialeah and the City of Miami Springs Police Departments' responses are included in this graphic though questionnaires were also received from the respective cities Public Works Departments. Metro-Dade Fire Rescue accounts for those unincorporated sections of Dade County. Subsequently, ten (10) respondents reported either temporary street closures, permanent street closures or a combination of these. The following was noted:

- **The Village of Miami Shores** reported 61 permanent street closures,
- **The City of Coral Gables** has 13 temporary and 12 permanent street closures,
- **The City of North Miami Beach** has 17 temporary street closures,
- **The City of North Miami** has 15 permanent closures.

1b.) Does your municipality have pending requests for street closures? If yes, how many?

The second part of the question reveals the extent of pending street closure requests. Seven of the nine municipalities and Metro-Dade Fire/Rescue reporting temporary or permanent street closures also indicated that there were pending street closure requests; a total of approximately 47 among these jurisdictions. The City of Opa-Locka had no pending requests, while the Town of Surfside had one pending street closure request.

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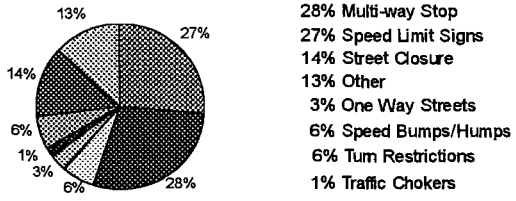
2.) What percent of citizens requests are typically made for the following traffic control measures? Please check all that apply and assign the an approximate percentage.

The results are summarized in Figure 2 below:

Figure 2. Typical Resident Requests



The results of this question reveal that speed limit signs and multi-way Stop signs, on the average among all municipalities, are requested by citizens 55% of the time to address residential traffic problems. Street closures comprise of approximately 14% of all citizens' requests. Other traffic control measures requested include:

- Increased Law Enforcement,
- Restricted Parking Signs,
- "No Thru Trucks" Signing.

The City of North Miami Beach indicated that "citizens do not know the solutions (to residential traffic control), just the problems". In this regard, complaints are evenly divided among speeding, cut-through traffic and crime issues.

3.) Have street closures been requested in your jurisdiction as a solution to residential traffic problems and what problems were they proposed to address.

The responses to Question #3 are summarized in Figure 3. It should be noted that the most common residential traffic problems identified by the majority of municipalities (and unincorporated Metro-Dade) include:

- Speeding ,
- High Traffic Volumes,
- Traffic Intrusion,
- Crime.

It is interesting to note that "crime", while not a traffic operations problem, was indicated as a problem by eight of the twelve respondents answering "Yes" to this question. One respondent, the Town of Golden Beach, answered "No" to the first part of the question but indicated that 100% of requested street closures are proposed to reduce crime.

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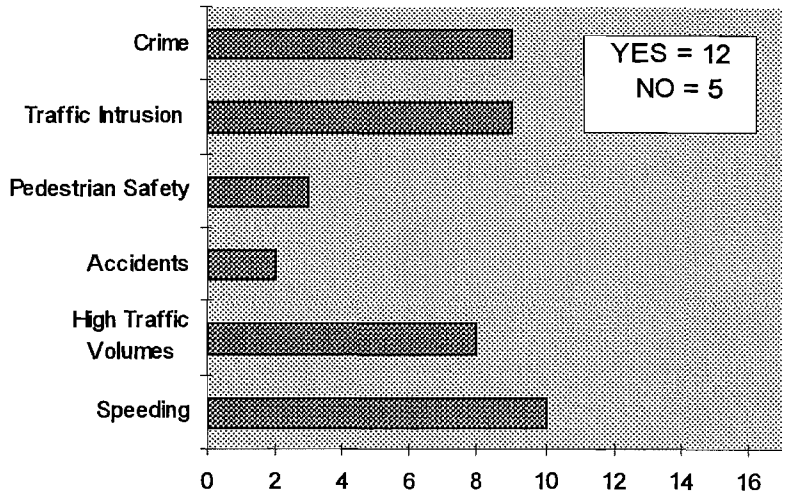
Those respondents that answered "No" to this question were referred to Question #16, except the Town of Golden Beach as noted above. Thus thirteen respondents, representing ten (10) municipalities and unincorporated Dade were directed to continue to answer Questions 4 -15.

Figure 3. Typical Reasons for Requests



4a.) Do you have procedures by which citizens request/petition for street closures?

Five municipalities indicated that they have developed procedures by which citizens can request or petition for street closures:

- City of Coral Gables,
- City of Hialeah,
- City of Miami,
- City of North Miami Beach,
- City of North Miami.

The cities of Coral Gables' and North Miami Beach's current policies are included in Appendix A along with Dade County's current "Street Closures" policy.

4b.) After these requests are received, do you have a procedure to process them?

After the citizens requests are received, most municipalities (83%) identified above have a procedure to process them (Figure 4). Only two municipalities, the Village of Miami Shores and the City of Miami Springs, indicated no procedures to process street closure requests. Most appeals are directed to the Town Council or City Commission for final approval.

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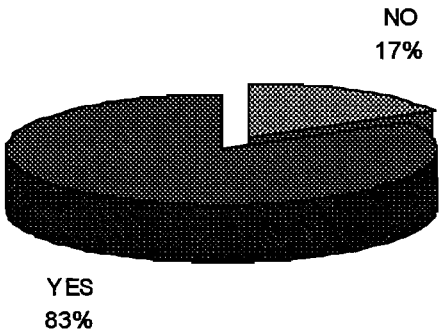
Figure 4. Cities with Street Closure Procedures



In Hialeah, requests are directed to the Planning & Zoning Department, reviewed by the appropriate Department's, and final recommendations submitted to the City Council. The City of Coral Gables has an application procedure that begins with a preliminary Street & Alley Vacation Committee meeting, requires public notification and Commission approval, is reviewed by the County, and ends with an assessment levied on the applicant for the cost of the requested improvements.

5a.) Were traffic studies conducted to determine the causes and impacts of street closures on adjoining neighborhood and arterial roadway networks? If yes, what type of studies were conducted?

Four municipalities, or approximately 40% of respondents, do not require "before" nor "after" traffic studies. These municipalities are listed below:

- Town of Golden Beach,
- Town of Surfside,
- City of Opa-locka,
- City of Hialeah.

5b.) How were these traffic studies funded?

Figure 5 shows that, of those municipalities that did require either "before" or "after" traffic studies, approximately 50% funded these studies through their municipal budgets.

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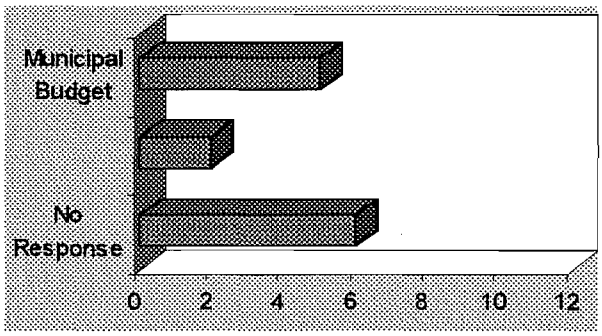
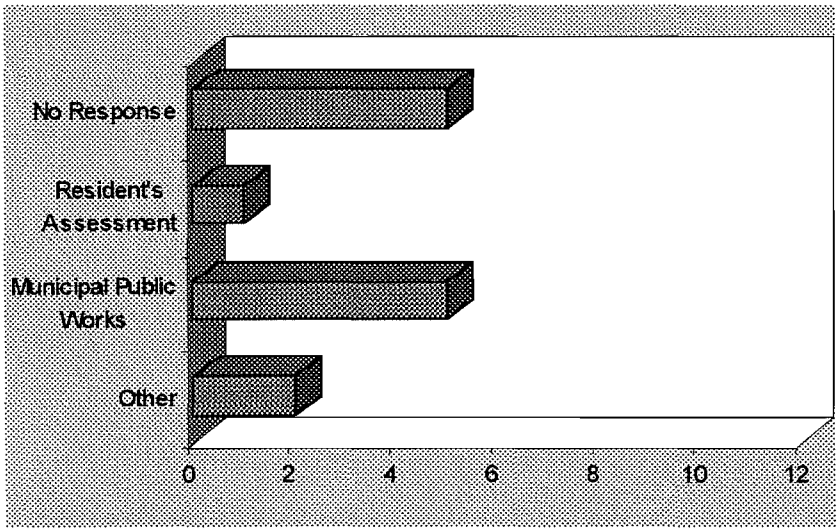
Figure 5. Study Funding Sources



The City of North Miami Beach reported that traffic studies can also be funded by developers through an agreement with the City. Miami Springs indicated that the County is another source of funding for these traffic studies. No municipalities quoted "resident assessment" as a source of funding for these traffic studies.

6a.) How were requested temporary closures funded?
6b) How were permanent closures funded?

Figure 6. Street Closure Funding Sources



Question #6 expanded the funding question to include temporary and permanent street closures within those cities answering "yes" to the first question of the survey. More than 50% of respondents indicated that Public Works funds were the primary funding source (Figure 6).

The cities of North Miami Beach and Coral Gables collected funds from those residents requesting the street closures, while the Village of Miami Shores levied an additional 1/2 mill tax on those residents obtaining permanent street closures.

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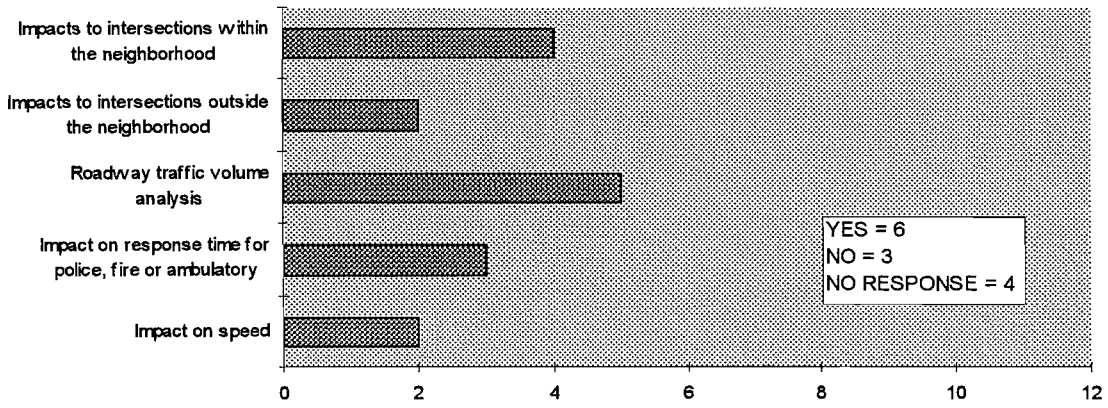
7a.) Were follow-up analyses were performed to determine the various impacts of any street closures within the municipality.

Seven of ten municipalities with street closures (70%) indicated that there was some type of "after" traffic impact analysis; slightly more than those reporting "after" traffic studies. Only two municipalities, Coral Gables and Miami Shores indicated any analysis of diverted traffic impacts to intersections outside a neighborhood (Figure 7). The City of North Miami Beach reported that the analysis of any street closures essentially involved a survey of the neighborhood residents' level of satisfaction with the implemented traffic control measures. Figure 7 summarizes the results of this question.

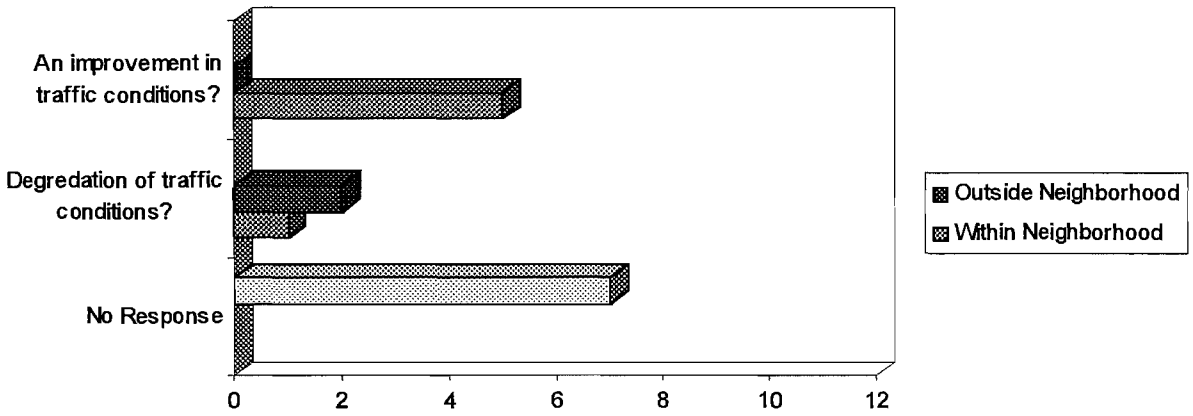
Figure 7. Typical Analysis Requirements for Closure Studies



7b.) If yes, did the results show an improvement, no improvement, or degradation in traffic conditions?

Five of the aforementioned seven municipalities, approximately 70%, noted in the second part of Question #7 that the "after" study results indicated an improvement in traffic conditions within a neighborhood that had implemented street closures (Figure 8). Coral Gables and North Miami Beach did not respond to this question and only two cities, Miami and Miami Shores, noted any degradation of traffic conditions within or outside the affected neighborhood.

Figure 8. Results of Street Closures



8.) In general, do you feel that common residential complaints received in your jurisdiction were real or perceived?

This question attempted to obtain local officials' attitudes toward typical residential complaints; specifically, whether or not they felt that these complaints were real or perceived. In general, most respondents noted the following "real" traffic complaints:

- High Traffic Volumes,
- Significant "Cut-Through" Traffic,
- Speeding,
- Crime.

It should be noted that "Crime", although a social-economic issue, was indicated as a common complaint by all those municipalities responding to this question. The City of Opa-Locka added that "Drugs" were a "real" problem. Only 20% of those municipalities responding, or approximately 1 in 5, indicated that some of these problems were "perceived" by neighborhood residents (See Figure 9).

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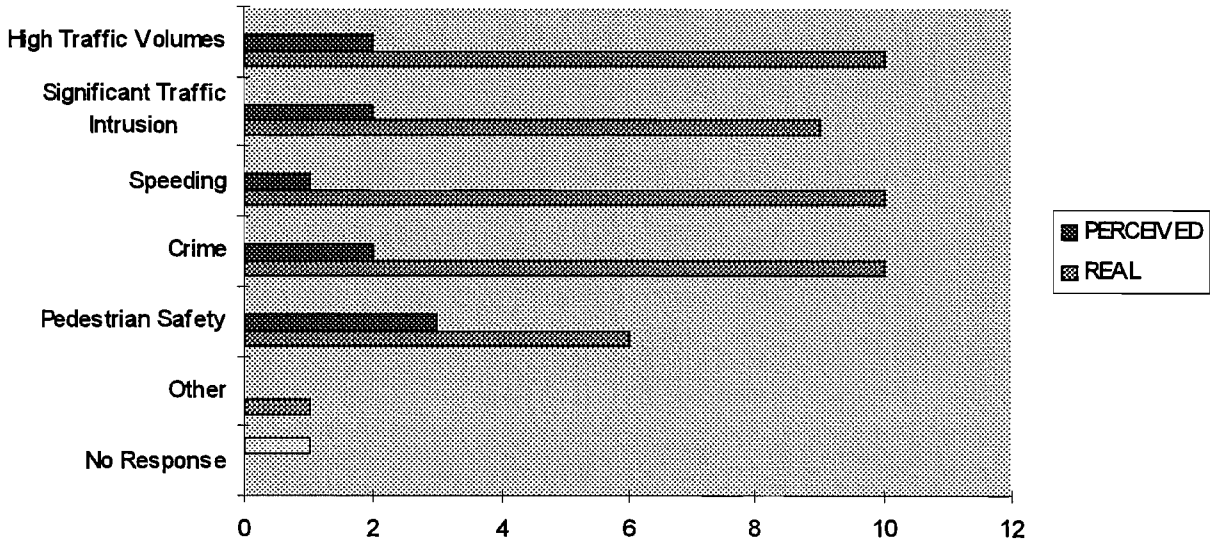
Figure 9. Officials' Perception of Citizen Complaints



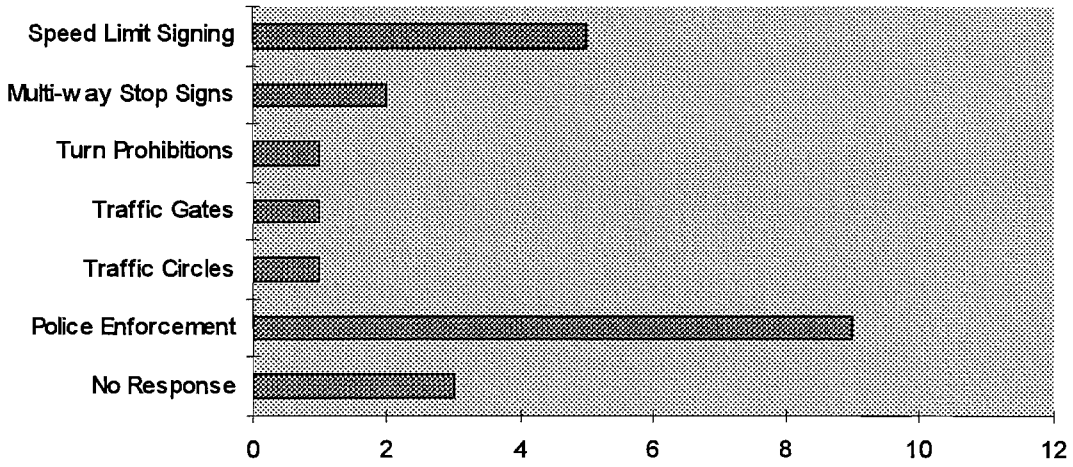
9.) What traffic control measures, if any, were used to deal with the problems identified above prior to recommending street closures?

Police enforcement was the primary traffic control measure to address those "real" problems identified by local officials in the previous question. As indicated by Figure 10, this passive traffic control measure was utilized approximately 85% of the time, followed by the installation of "Speed Limit" signs (approximately 50% of respondents) and multi-way "Stop" signs (25%).

Only three respondents noted the use of more active, physical traffic control devices to address residential neighborhood traffic complaints. Those municipalities implementing traffic gates, turn prohibitions, traffic circles and/or closures in addition to signing or enforcement measures include:

- The City of Coral Gables (Street Closures/Turn Prohibitions),
- The Town of Golden Beach (Traffic Gates/Gateway Treatments),
- The City of North Miami (Traffic Gates/Traffic Circles).

Figure 10. Measures Used to Address Citizen Complaints



10.) What legal hurdles, if any, had to be overcome in order to institute the measures reference above?

For Question #10, six municipalities indicated that the most prominent legal hurdle was obtaining Metro-Dade County's approval; four did not respond to the question. The following municipalities also indicated that a public hearing process and city commission or council vote were required prior to getting the County's approval:

- City of Opa-Locka,
- City of Coral Gables,
- City of Hialeah.

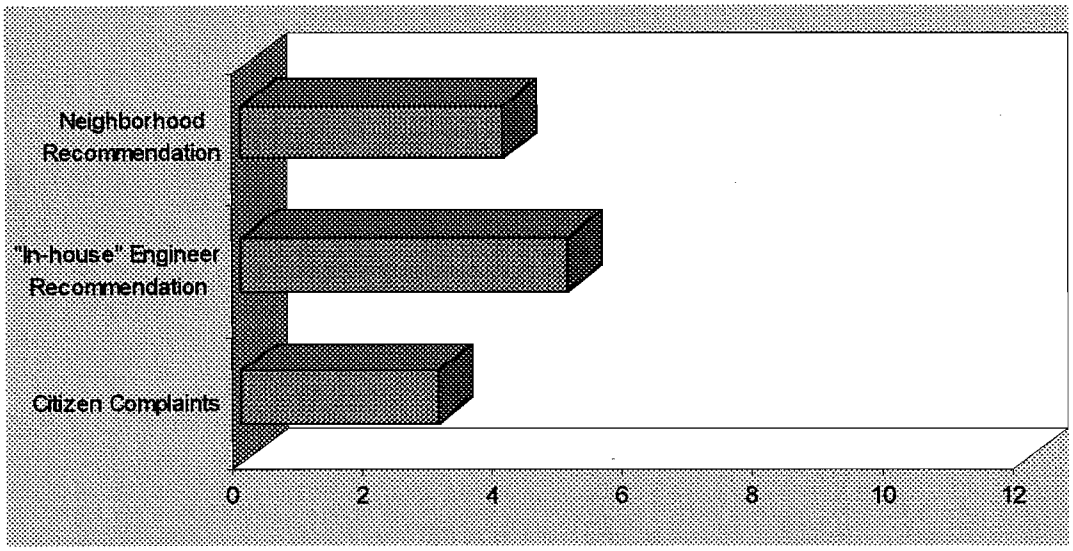
As previously mentioned, all requests for traffic control devices in the City of Hialeah must pass through the Planning & Zoning Board first. The City of North Miami Beach noted that "agency review and approval is difficult," while Coral Gables was the only municipality to mention approval requirements by the Florida Department of Transportation.

11.) How were proposed traffic control improvements approved for implementation?

Question #11 attempted to define the major source responsible for the implementation of those traffic control devices previously identified. Specifically, were the implemented controls recommended by Neighborhood Associations, "In-house" Engineers or Citizen Complaints? Approximately half of the municipalities responding to this question indicated that their engineers were responsible for recommending a particular traffic control device. However, more than 60% of municipalities cited residents as primarily responsible for recommending the implementation of a particular traffic control device.

Figure 11 summarizes these results.

Figure 11. Source of Traffic Control Device Recommendations



12.) If street closures were implemented in neighborhoods under your jurisdiction, have they caused adverse impacts to: Emergency vehicle access? General access to neighborhood? Traffic Diversion to Other Neighborhoods? Traffic Diversion to Other Arterial & Collector Roads?

The impact of street closures on traffic operations and emergency vehicle response time was the focus of this question. Of the nine municipalities that responded, greater than 50% felt that there were adverse impacts to the arterial and collector road system as a result of street closures within their jurisdiction. Twice as many respondents felt that emergency vehicle access and response times were not adversely impacted by street closures.

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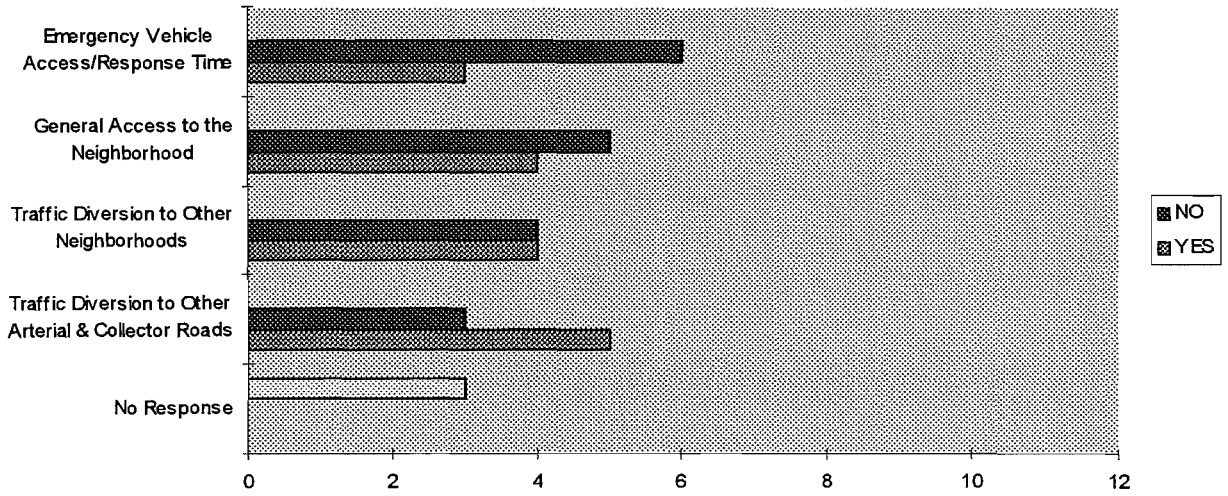
Figure 12 below summarizes the results of Question #12.

Figure 12. Adverse Impacts of Street Closures



13.) Did you find street closures to be an effective traffic control measure in: Eliminating "cut-through" traffic? Reducing speeds? Improving pedestrian safety? Reducing crime?

Figure 13 illustrates those public officials' attitudes regarding the use of street closure as an effective tool in addressing residential neighborhood traffic problems. Once again, nine municipalities offered responses to Question #13. These responses overwhelmingly indicated that street closures were effective in:

- Eliminating "Cut-through" Traffic,
- Improving Pedestrian Safety, and
- Reducing Crime.

"Crime Reduction" is again noted as a significant benefit of street closures, even though this issue is not a traffic operations problem. The City of Opa-Locka reiterated that "Drug Sales" were curtailed by the implementation of street closures.

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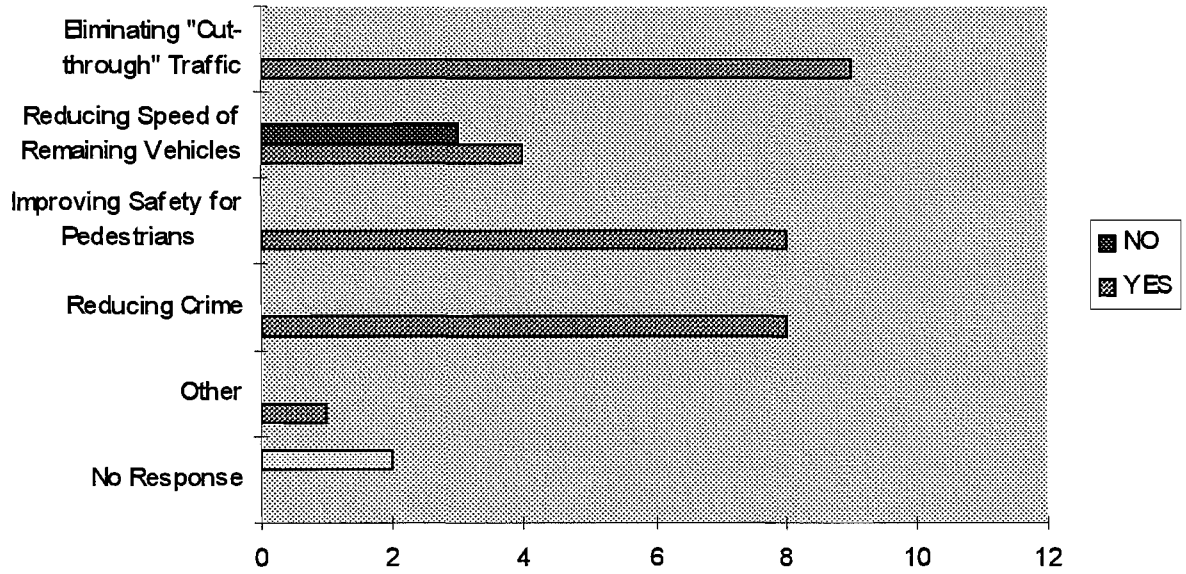
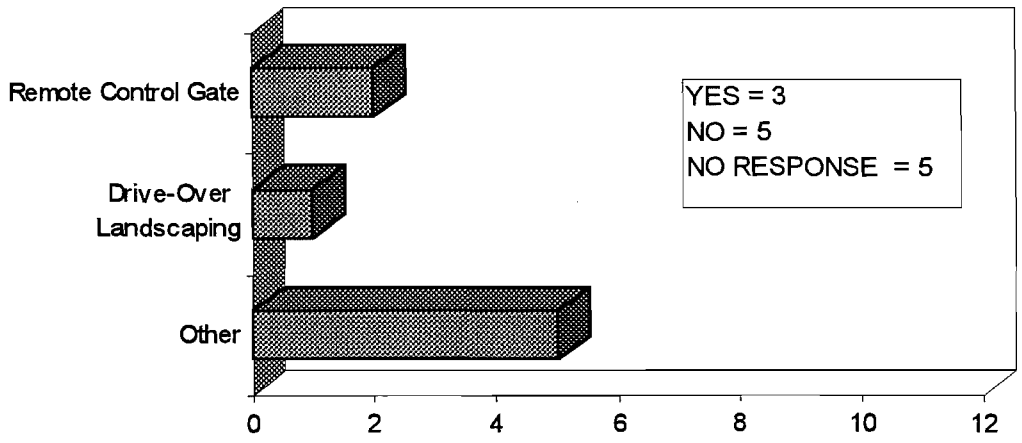
Figure 13. Effectiveness of Street Closures



14.) If these closures mentioned above are permanent, can they be accessed by emergency services? If yes, how do emergency vehicles gain access?

Question #14 asks whether or not permanent street closure devices are accessible by emergency services. Of the thirteen total respondents, representing ten municipalities and unincorporated Dade County, fewer than 25% indicated that the closures within their municipality are accessible by emergency vehicles (See Figure 14 below).

Figure 14. Emergency Vehicle Access Types



Metro-Dade Fire & Rescue noted that response times are increased when their vehicles are forced to use main entrances. The City of Miami's Fire Department Chief reports that drive -over landscaping did not work; vehicles had to use main access

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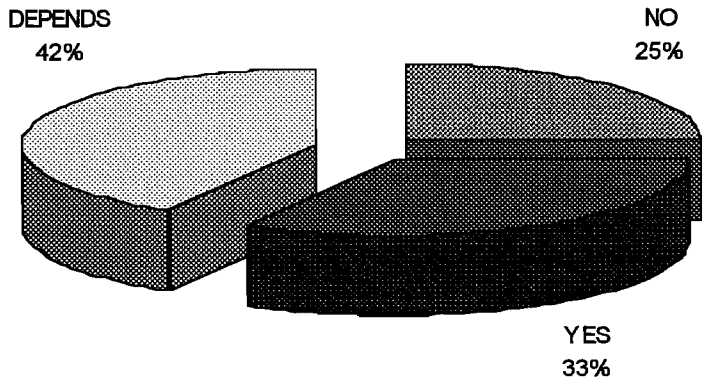
roads; thus increasing response times. Other responses included the use of alternative routes or ignoring "One-Way" streets to allow emergency vehicle access.

15.) Overall, do you believe street closures are an effective tool for neighborhood traffic control and should be encouraged within your jurisdiction?

Figure 15. Should Street Closures be Encouraged?



Twelve respondents representing nine municipalities and unincorporated Dade County answered whether they considered street closures to be an effective tool for neighborhood traffic control and should be encouraged within their jurisdictions. Figure 15 illustrates that 2/3 of those responding to this question felt that street closures should only be implemented under certain circumstances or limited applications. The City of North Miami Beach added that they should only be implemented with neighborhood approval.

16.) Should alternative traffic control measures to address citizen concerns be implemented prior to street closures?

This question re-incorporated those municipalities that currently do not have existing street closures or pending requests for street closures (reference Question #3). Of the seventeen total respondents to this question, representing 15 municipalities, 88% feel that alternative traffic control measures should be considered before implementing street closures.

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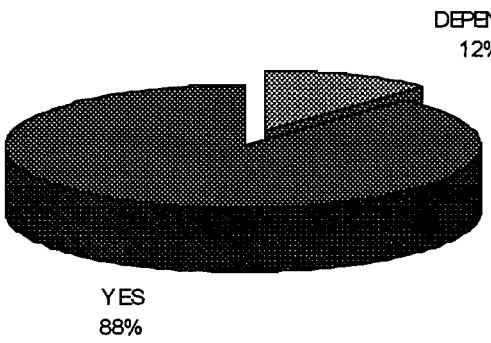
Figure 16 summarizes the responses to this question.

Figure 16. Should Alternatives be Considered First?



Finally, the last two questions asked for additional contacts and comments within the respondents' jurisdiction that would help provide further input concerning the use of street closures for residential traffic control. The following comments were received from the various respondents:

- *"The closing of City/County streets for the benefit of a few is not in the best interest of the whole community...resulting in higher service costs. In 20 years, the County may be one continuous maze (of walled in communities) if street closures are not managed in a strict manner."* --- City of Homestead

- *"Only one request for a street closure has been made in the past five years, and that request was denied after review by Dade County Traffic Engineering."* --- City of Hialeah

- *"It goes without saying that any street closures, temporary or permanent, would have an adverse impact on all emergency vehicles responding to those areas. All other alternatives should be looked at prior to giving in to street closures."* --- City of Miami Fire Department

- *"Street closure is an effective tool in controlling crime, unwanted traffic and drug sales while giving local communities some control of the area in which they live."* --- City of Opa-Locka

- *"Under the appropriate circumstances, closures seem to be an effective way to deal with certain specific issues. They are not a panacea and should not be used unless all alternatives to a given problem are pursued and exhausted. They seem to appear particularly effective in reclaiming neighborhood streets for the use of residents; children, bicyclists and pedestrians. Alternatively, every street that is closed impacts another that remains open. These impacts need to be carefully considered."* --- City of North Miami

- *"With a police force of 20 officers, citizens feel comfortable contacting the Police Department with problems concerning speeding."* --- City of Florida City

- *"Our major concern deals with our ability to provide the citizens with the best fire rescue service possible...a service that relates to our ability to access and*

respond to an emergency call in a timely and non-restricting manner." --- Metro-Dade Fire & Rescue

- *"The use of residential streets as alternatives to State roads for through traffic is becoming increasingly popular. Unless alternative ways of discouraging this practice are found, the demand for street closing will increase. The rising crime rate, especially home burglaries, needs to be addressed by our criminal justice system."* --- Town of Surfside

- *"Drug traffic control is possible through the use of street closures to some degree; the deterrent effect being short term compared to the cost and long-term inconvenience to area residents, visitors and emergency personnel. Historically, criminals have shown a persistence to indulge in their activities no matter how inconvenient we make it for them."* --- Virginia Gardens Police Department

- *"Setting up a minimum standard regarding a maximum amount of street closures per evacuation or emergency routes. We try not to have more than four consecutive street closures, such that the furthest distance in an emergency situation is not more than two blocks to access a main street."* --- City of Miami Springs

It should be noted that respondents answers to the questionnaires are not necessarily representative of a particular municipalities opinion as a whole. For example, the City of Coral Gables questionnaire was completed by its Public Works Department with input from both the Fire Department and Police Department, while other cities may not have solicited inter-departmental input.

PERSONAL INTERVIEWS

Frederic R. Harris, Inc. conducted several personal interviews with various representatives of Metro-Dade County, the Florida Department of Transportation, municipal governments, local engineering firms, neighborhood associations, and street closure activists. Those interviewed included:

Mr. Jose Mesa, Metro-Dade County Metropolitan Planning Organization;
Mr. Rory Santana, Florida Department of Transportation (District 6);
Mr. Rafael DeArazoza, Florida Department of Transportation (District 6);
Mr. Ernest Horsley, City of Hialeah;
Mr. David Plummer, David Plummer & Associates, Inc.;
Ms. Monique Taylor, Heynsworth Village Homeowner's Association;
Ms. Patricia Keon, Citizens for Open and Safe Streets (COSS);
Ms. Elizabeth Plater-Zyberk, University of Miami.

In conducting these interviews, an attempt was made to discover the underlying causes of residential traffic control problems and examine the use of street closures to solve both traffic problems and socio-ecomomic problems. Discussions centered around future neighborhood traffic management policy, procedures and techniques that may result from this study. Sources of funding of existing and future traffic control measures were also discussed. Finally, some of the more prominent legal issues that may affect existing and future street closures were identified. These issues are summarized below.

No attempt was made to follow the same format of the written questionnaire, however the discussions were formulated to develop true opinions relating to the street closure issues.

The Problems

Overall, concerns favoring the implementation of street closures typically base themselves on one of two issues; traffic or crime. Typical citizen traffic complaints usually identify cut-through traffic and speeding vehicles. According to one professional engineer, "crime usually prevails when its countermeasures conflict with traffic concerns".

In many communities, it appears that street closures have been proposed as a crime deterrent without sufficient analysis of overall effects on the community. According to one street closure opponent, "there are few documented cases that street closures decrease crime rates. In fact, a comparative analysis of crime statistics for a particularly neighborhood that implemented five (5) street closures over 10 years ago revealed that these closures had no significant effect on crime statistics when compared to adjacent (open) streets".

The street closure solution may often create other problems; problems that are traffic-related as well as socio-economic related. Subsequently, it can be difficult to address one problem without affecting the other.

Both street closure advocates and street closure opponents might agree that specific instances could justify the implementation of a street closure to improve traffic operations. For example, the Florida Department of Transportation agreed that one goal of access management is to control median access to side streets (by restricting openings); thus reducing the potential for accidents.

Policy, Procedures & Techniques

A common feeling among street closure opponents is that a formal policy should outline procedures to discourage street closures. Professional opinions seem to favor a methodology that identifies those conditions or "trigger points" to justify a restrictive traffic control measure such as a street closure. For example, one Metro-Dade County official feels that an incremental approach to a traffic-related problem might initially involve a Level I solution, which may be the most passive (e.g., signing), and eventually require a Level IV solution, which may be the most aggressive (e.g., closure). The policy that is developed must recognize that passive traffic control techniques, such as the use of restrictive turn signs, may not be effective when enforcement is the underlying key to success.

All requests for a particular traffic control device, whether passive or aggressive, should be initiated by a petition process. Subsequently, a politically appointed Board could be established to review street closure requests. In the opinion of one local official, "crime reduction" should not be a reason to consider a petition request issues for street closures.

In accordance with current County policy, "before" and particularly "after" traffic impact studies need to be performed to identify and document these instances. The Florida Department of Transportation acknowledges that these studies must be comprehensive; extending "traditional" traffic analyses to include queuing analyses, intersection capacity analyses, and emergency vehicle access response times. These studies should also account for all previous closures within a defined study area. The "before" study, or existing traffic analysis, should provide a "best guess" of expected traffic diversion while the "after" study analyzes actual diverted traffic.

Historically, street closure traffic studies have included entire neighborhoods within the study area. However, "politics has caused the trend to consider street closures on an individual basis" according to one professional engineer. While the physical solution of street closures will deter traffic from avoiding a heavily over-saturated intersection, Consultants who study street closures for a particular neighborhood must look at "the big picture"; that is, how the proposed plan may affect the traffic circulation element of the County's Comprehensive Plan and/or the County's traffic model. For example, a standardized Development Impact Model could potentially be utilized to analyze the impacts of diverted traffic, specifically those impacts on the transportation system only.

Most interviewees agreed that any plan to implement a street closure or any restrictive traffic control measure needs community involvement and some formal public hearing or referendum. Also, many municipalities may adopt a pragmatic Dade County Policy regarding street closures as long as implementation procedures are applicable, and acceptable, to those municipalities within the County's

jurisdiction. According to Ms. Pat Keon of COSS, "this study needs to provide a procedure to remove the emotions and politics from the decision to close a street while involving County traffic engineers in the solution process".

Funding Sources

Regarding funding for street closures or any modifications within State jurisdiction, the Department of Transportation requires that the applicant pay for the design, construction and permitting of those modifications. However, there is a possibility that perhaps some public funds could be allocated as part of the Department's work program if those modifications could be incorporated into an existing project. Of course, a mechanism to prioritize requests for this funding and contribute partial funding would need to be developed.

If additional right-of-way (R/W) is required as a result of street closures, one solution to this partial funding dilemma may be for the State, County or City to provide the necessary R/W. If this can not be possible, suggests one engineer, then the subject closures can be removed.

In Coral Gables, the Law Enforcement Trust Fund, containing funds from drug-related seizures, has been used to defray the cost of $125,000 in traffic studies, aerial photographs, and closures, according to COSS. These funds are typically utilized for "crime-related" issues or operations such as the purchase of bullet-proof vests, sting operations, etc. and must be approved by the Chief of Police. In the City of Miami, one neighborhood association reports that public funding in excess of $100,000 has been used for traffic studies and roadway modifications within the Coral Gate and Shorecrest communities.

In general, most opponents of street closures argue that the cost burden for residential traffic control measures requested by a citizen or neighborhood association, particularly for those costly restrictive measures such as street closures, should be borne by the applicant. Advocates of street closures feel that the governing municipality or agency should contribute to the costs of the closure.

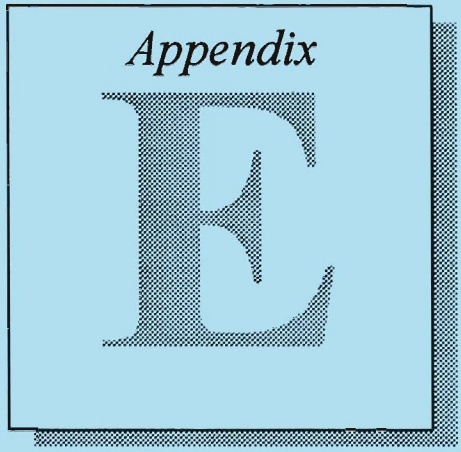
Legal Implications

Some interviewed County officials feel that a future County-wide street closure policy needs to find a balance between the public's call for increased crime protection and providing free access to public streets. The consideration of safety and emergency vehicular access is also an important (legal) issue that may dictate the direction of this policy. Politically, the issue of legal authority will be a crucial consideration in determining the effectiveness of it's implementation.

According to one street closure opponent, "the perception that most street closure advocates have is that their property values will increase if they live within a gated community". They cited a recent property tax reduction case in Dade County involving a property owner who petitioned for, and obtained, a $5000 deduction in his tax bill because the house was located outside a gated community.

COSS is awaiting the Dade County Attorney's opinion regarding the legality of municipal street closures. This organization feels that the issues regarding street closures have become too political. Consequently, the Dade County Public Works Department has had little power to enforce municipal conformance to County standards and policy.

Finally, as one State official pointed out, public funding of any improvement not in the Comprehensive Plan may be a violation of the 1985 Growth Management Laws. If this is the case, the costs of these improvements may halt the escalation of street closure requests.



Traffic Calming Alternatives

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

EDUCATION

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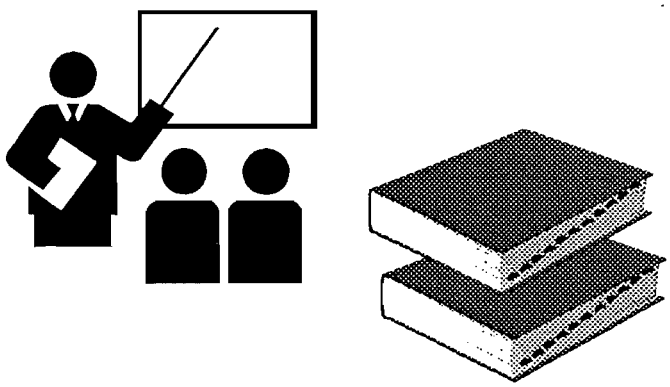


Description:
This alternative does not include any physical modification of a roadway yet involves educating the motoring public and pedestrians on areas where speeding is not allowed. Information can be distributed by open forums, brochures, pamphlets and videos. Forums may be conducted by police officers or engineering/public works personnel.

Objectives:
- Educate public through brochures and pamphlets resulting in decreases in speeding, traffic intrusion, and traffic volumes
- Educate pedestrians in proper procedures for crossing streets.
- Open forums involving neighborhood residents

Considerations:
- Requires active participation of neighborhood residents to maximize effectiveness
- Development and distribution of educational materials such as brochures, wall displays, and videos.
- Educational programs typically take a period of time to be effective.

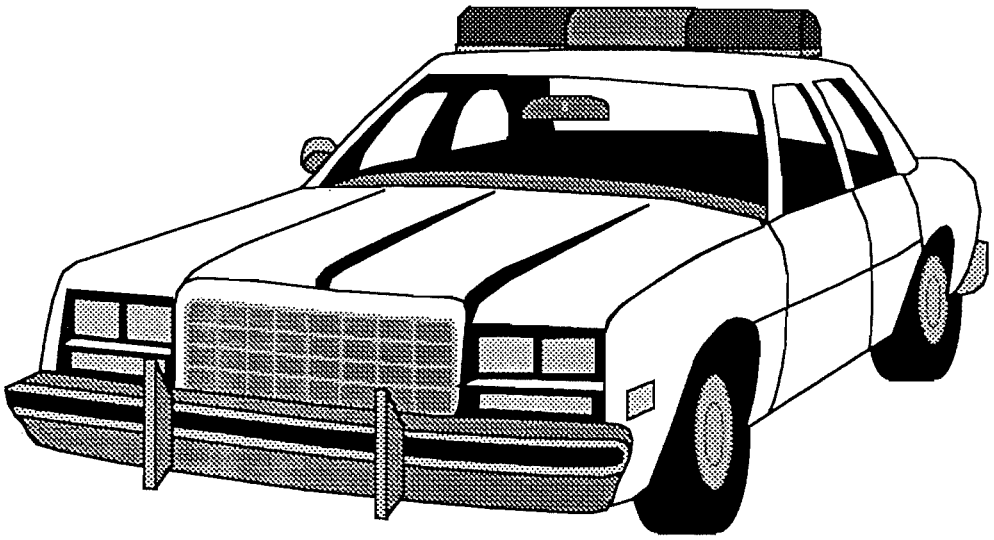
Suggested Reference:
- Metro-Dade Police
- Neighborhood Crime Watch Programs
- Department of Motor Vehicles
- American Automobile Association

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

SPEED WATCH/LAW ENFORCEMENT

HARRIS



Description:

This traffic calming alternative does not involve physical modifications to the roadway. Routine police enforcement is increased in an effort to cut down on number of speed violators. The speed watch program includes placing a speed radar detector in the field connected to a display board which informs motorists when they are exceeding the acceptable speed limit.

Objectives:

- Reduce speeding
- Increased visibility increases public perception

Suggested Reference:

- Womble, Joseph. *Neighborhood Speed Watch: Another Weapon in the Residential Speed Control Arsenal*. TIE Journal, Feb. 1990. pp 16-17.
- Metro-Dade Police

Considerations:

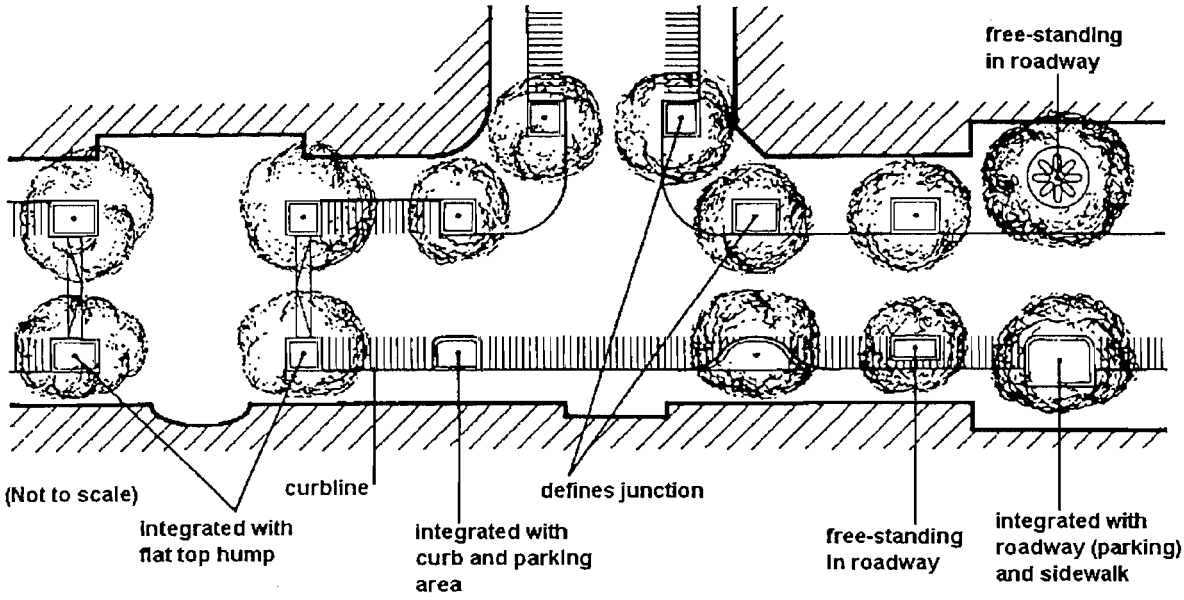
- Speed watch equipment placement
- Coordination and commitment of law enforcement agencies are essential.

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

BORDER LANDSCAPING

HARRIS



Source: Chorlton, Edward. Traffic Calming Guidelines. Devon County, England. 1992.

Description:

Additional landscaping enhances the beauty of a neighborhood creating a residential feel to the area. Drivers are mentally encouraged to slow down while traveling through this area.

Design Objectives:

- Reduce speeding via psychosomatic suggestion
- Increase side friction by adding landscaping and/or parking

Suggested Design Reference:

- Chorlton, Edward. Traffic Calming Guidelines. Devon County. 1992
- Woonerf Principles

Design Considerations:

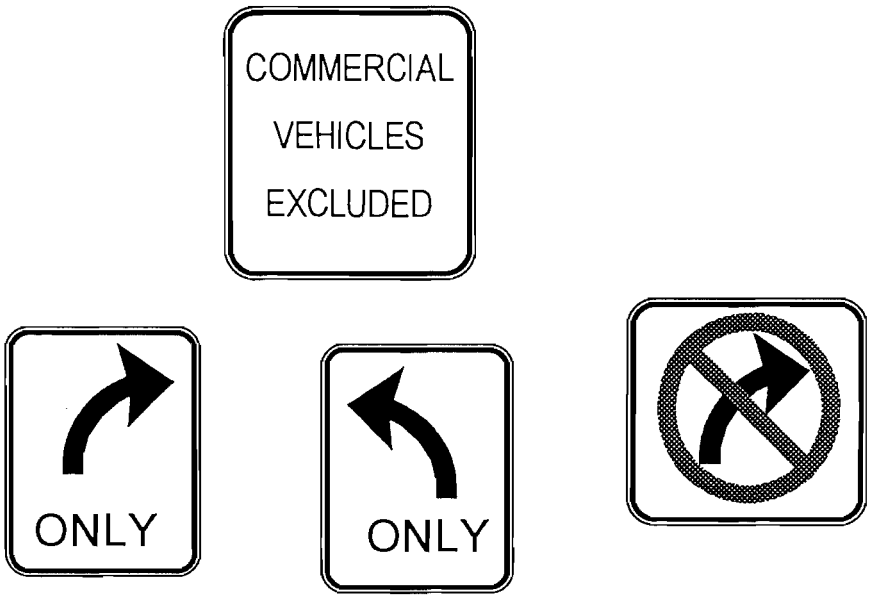
- Safety
- Sight distance
- Right-of-Way
- Clear space
- Aesthetics
- Landscape irrigation
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

MOVEMENT RESTRICTIONS

HARRIS



Description:

Movement restrictions are traffic control devices intended to inform motorists of available legal traffic manuevers. These signs are used to restrict a particular vehicular movement.

Design Objectives:

- Increase motorist awareness for local driving conditions
- May reduce traffic intrusion
- May reduce excessive traffic volumes
- May reduce speeding

Design Considerations:

- Level of enforcement
- Sign placement
- Can be initiated by time-of-day
- Strong support by neighborhood required

Suggested Design Reference:

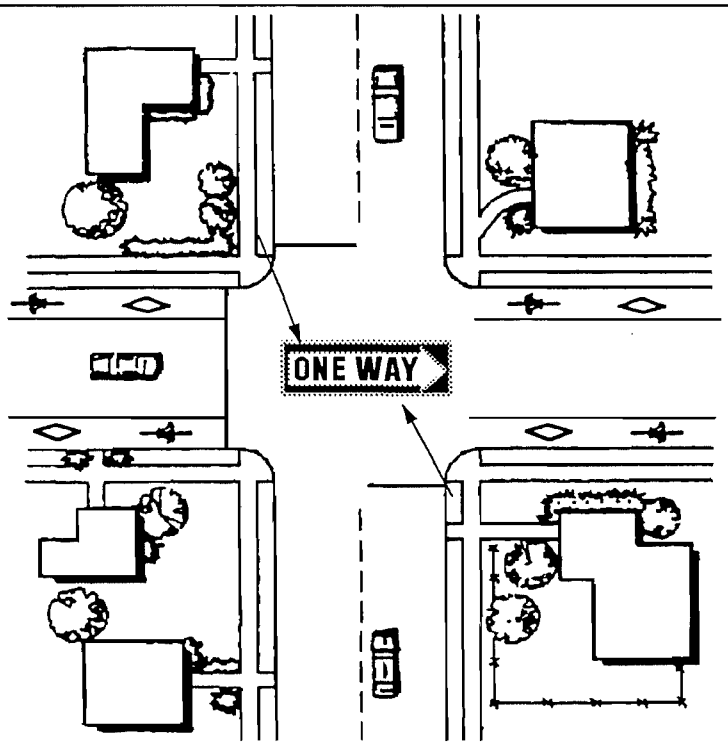
- Manual on Uniform Traffic Control Devices
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

ONE-WAY STREETS

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program; Frederic R. Harris, Inc.

Description:

One-way streets create a discontinuity in the roadway network forcing motorists into different navigational patterns. Traffic volumes are inherently reduced by eliminating the opposing direction.

Design Objectives:

- Reduce traffic intrusion
- May reduce excessive traffic volumes
- May reduce speeding

Suggested Design Reference:

- Manual on Uniform Traffic Control Devices
- AASHTO Policy on Geometric Design of Highways and Streets
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

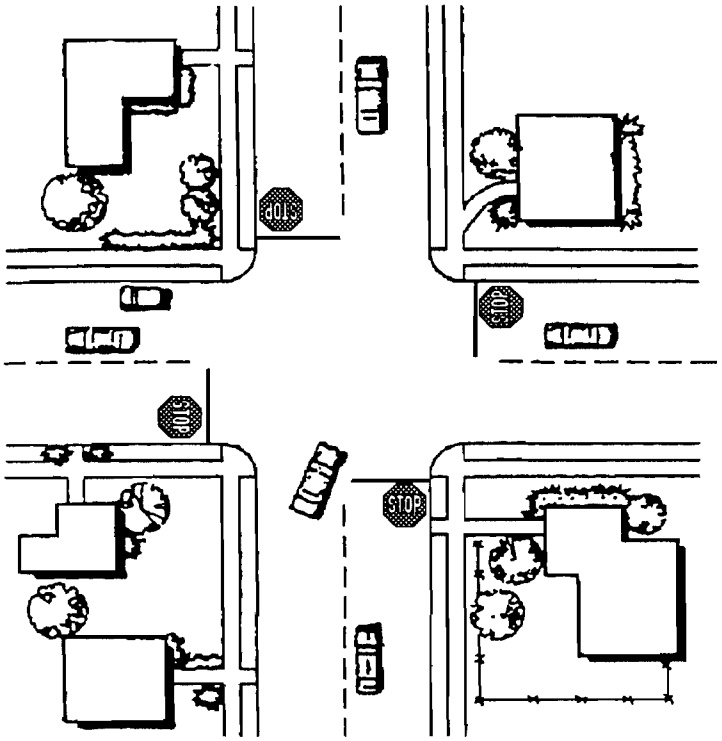
- Traffic diversion impacts on adjoining street system
- Sign placement
- Should be a part of a neighborhood traffic circulation plan
- Strong neighborhood support is required
- Bicycle lane is optional

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

MULTI-WAY STOP SIGNS

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program and Frederic R. Harris, Inc.

Description:

Stop signs are intended for use where traffic is required to stop with the purpose of assigning right of way and improving safety. Stop signs should be used only where warranted because they cause a substantial inconvenience to motorists. Traffic volumes and accident history needed for multi-way stop control precedes the installation warrants for a traffic signal.

Design Objectives:

- Regulatory traffic device to improve safety at an intersection by assigning right of way.

Design Considerations:

- Sign placement
- Pavement markings
- Traffic volumes
- Accident history
- Advance warning

Suggested Design Reference:

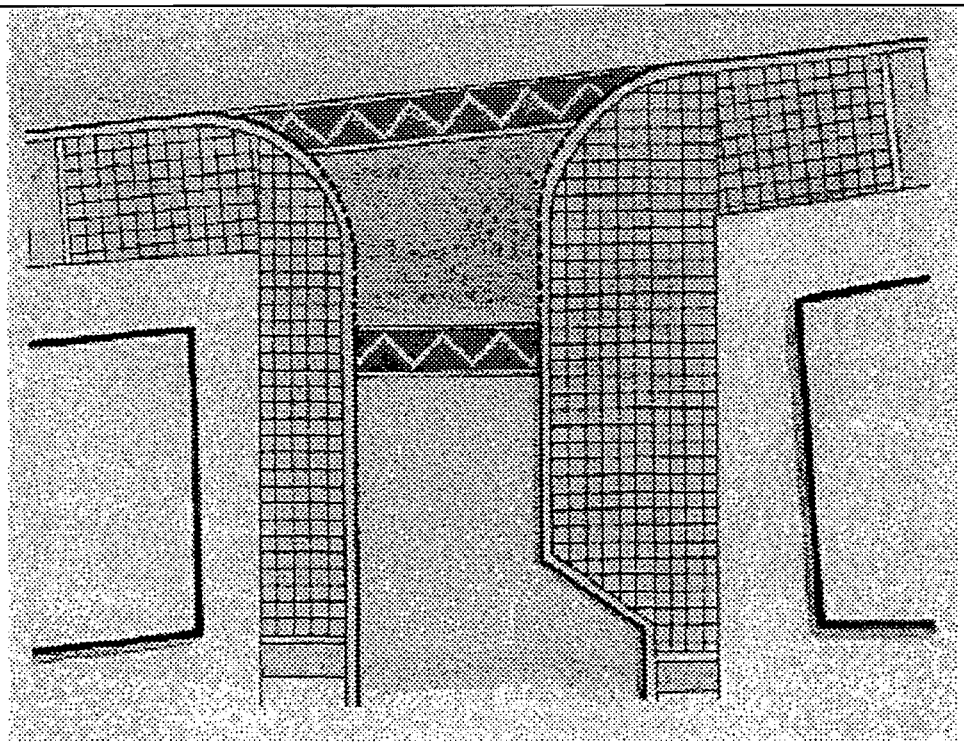
- Manual on Uniform Traffic Control Devices

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

HARRIS

TEXTURED PAVING



Source: Chorlton, Edward. Traffic Calming Guidelines. Devon County, England. 1992.

Description:

Textured pavement techniques create an inconsistency in the roadway and provides a mental and sometimes physical (depending on the chosen pavement surface) suggestion to slow down through this area. This treatment can be used in conjunction with gateway treatment to further enhance.

Design Objectives:

- Alert driver to changes in land use and/or roadway classification
- Reduce speeding

Design Considerations:

- Best if used in combination with gateway treatment

Design Reference:

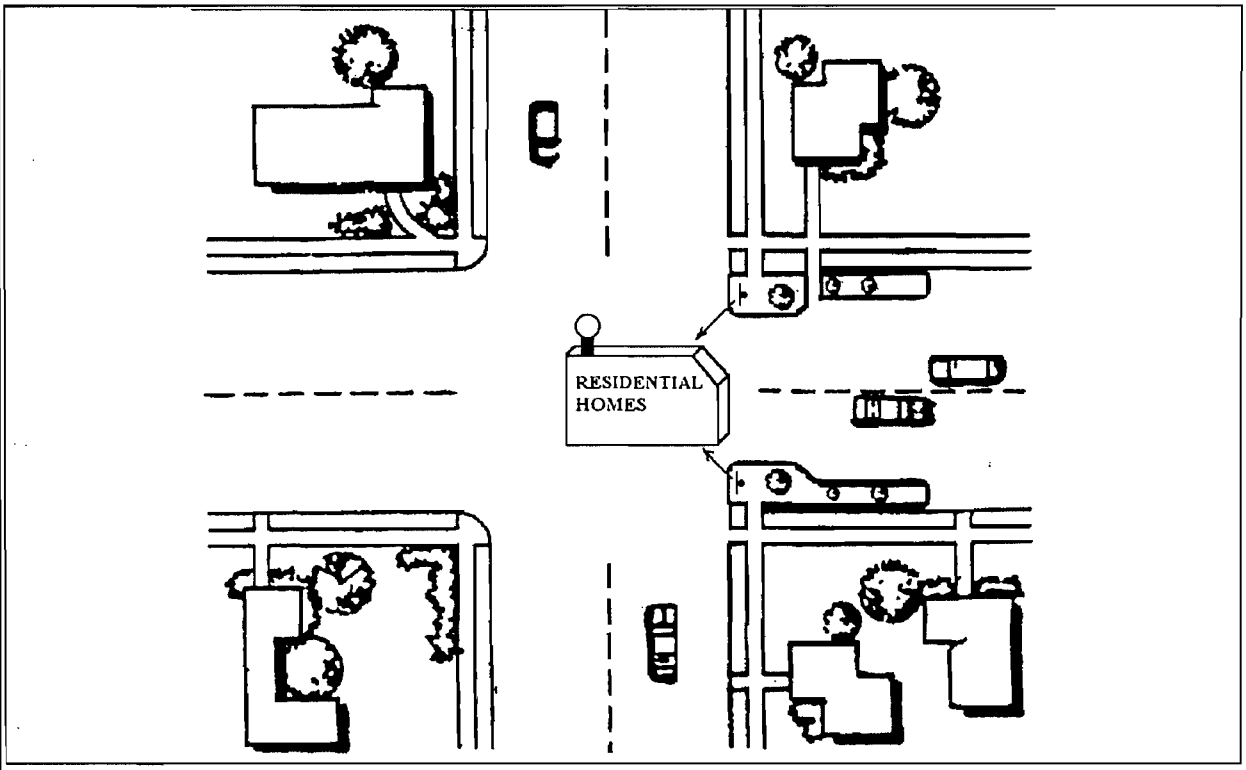
- Appleyard, Donald. Livable Streets. Traffic Control Devices and Systems. 1981.
- Manual on Uniform Traffic Control Devices

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

GATEWAY TREATMENTS

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program; Frederic R. Harris, Inc.

Description:

Gateway treatments provide a mental suggestion to the motoring public that this area is a private residential community and should not be used as a travel path. This type of treatment typically includes a monument with the community's name and landscaping at the entrance to a neighborhood. Chokers can also be used to further accentuate the gateway treatment.

Design Objectives:

- Reduce traffic intrusion
- Reduce excessive traffic volumes
- Reduce speeding

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

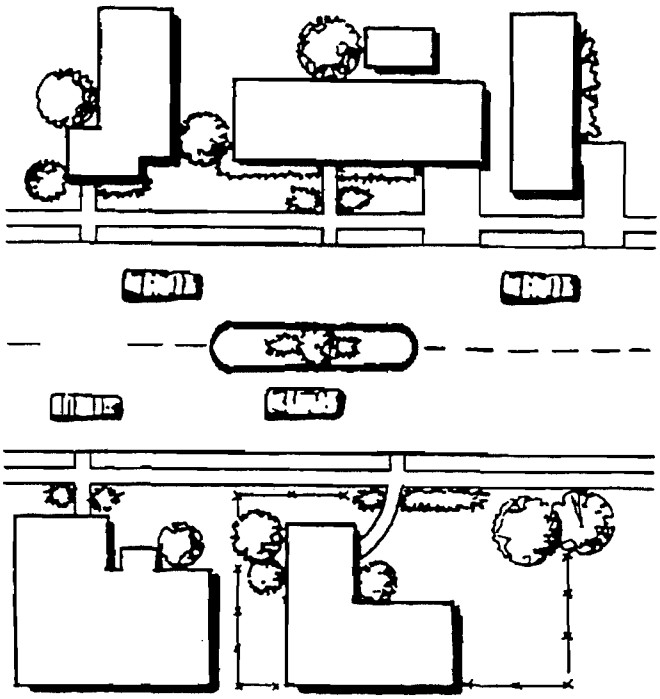
- Drainage
- Turning radii
- Sign placement
- Can be used in conjunction with other devices (e.g. chokers, center median, textured paving)
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

RAISED ISLAND/MEDIAN

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The raised island reduces pavement width on the traveled roadway yet still allows opposing vehicles to pass. The island can be used as a pedestrian refuge and can be landscaped with low plants for aesthetics. The local access management plan needs to be taken into account for control of available access points for a development.

Design Objectives:

- Reduce traffic intrusion by physically restricting vehicular movements
- May reduce speed
- Channelize traffic flow

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

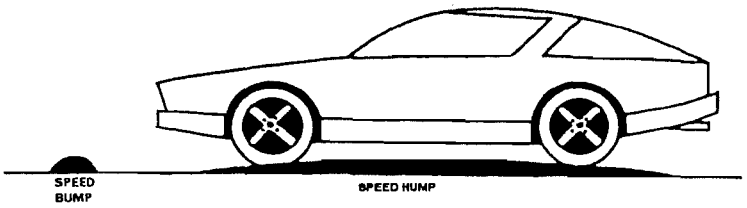
- Drainage
- Turning radii
- Pavement widths
- Access management
- Aesthetics
- Landscape maintenance

METRO-DADE

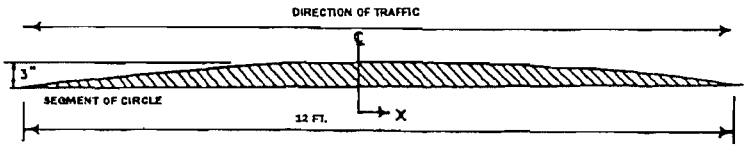
TRAFFIC CALMING ALTERNATIVES

SPEED HUMP/RAISED CROSSWALK

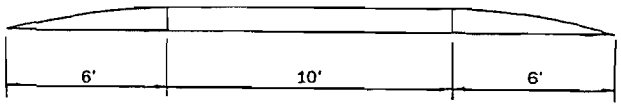
HARRIS



RELATIVE DIFFERENCE BETWEEN CONVENTIONAL SPEED BUMPS AND NEW SPEED HUMPS.



WATTS TYPE HUMP CROSS SECTION



FLAT TOP HUMP CROSS SECTION

Source: Suburban Residential Traffic Calming, ITE 1994 Compendium of Technical Papers, p. 446

Description:

The speed hump or raised crosswalk is used to reduce speeding in a residential area. The hump creates an inconsistency in the roadway pavement encouraging a motorist to decelerate the vehicle. Speed humps should be used in series to be effective. They can be painted a different color than the roadway surface to further point them out to motorists.

Design Objectives:

- Reduce speeding

Design Considerations:

- Pavement markings
- Warning sign placement
- Recommend flat top design for pedestrian crossing
- Best if used in series
- Should be designed, installed, operated and maintained using proven engineering principles and engineering judgment.
- Requires strong neighborhood support
- Designed for less than 30 mph
- Traffic volume design limit is 3000 vpd

Design Reference:

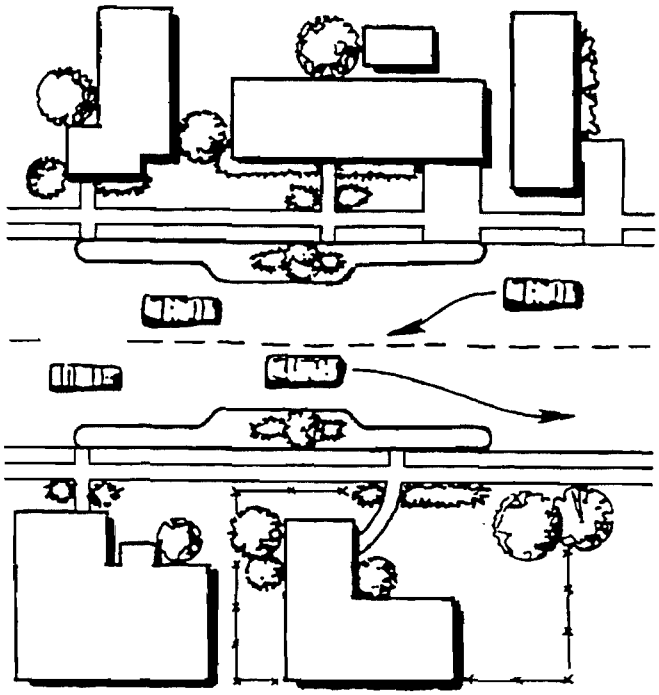
- ITE Guidelines for Speed Humps, ITE Compendium of Papers, March 1993
- Manual on Uniform Traffic Control Devices

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

TWO LANE SLOW POINT

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The two lane slow point reduces pavement width on the traveled roadway yet still allows opposing vehicles to pass.

Design Objectives:

- Reduce speed
- Reduce traffic intrusion
- Indirectly reduce traffic volumes

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

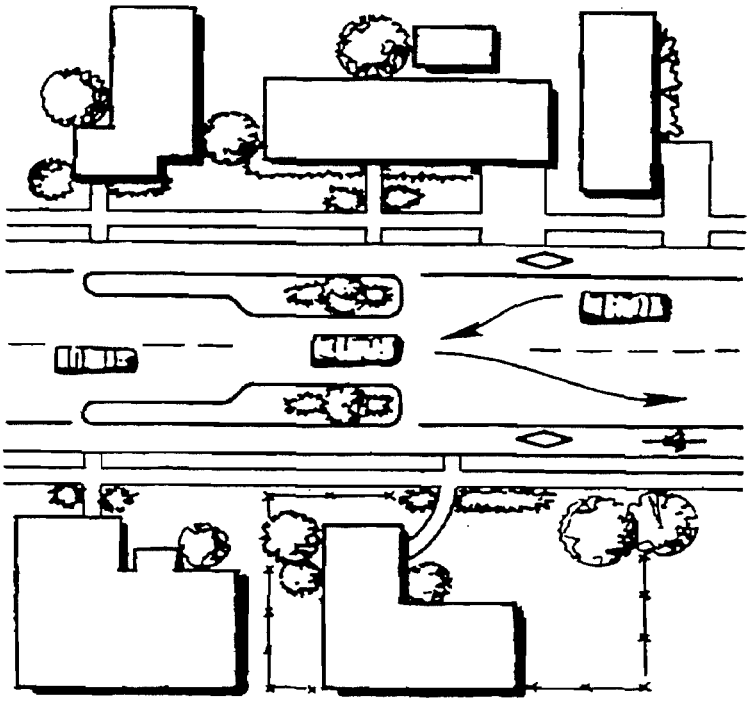
- Drainage
- Traffic volumes
- Aesthetics
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

SINGLE LANE SLOW POINT

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The single lane slow point reduces pavement width on the traveled roadway allowing only one vehicle to pass. Right of way is assigned on a first come, first serve basis.

Design Objectives:

- Reduce speed
- Reduce traffic intrusion
- Indirectly reduce traffic volumes

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

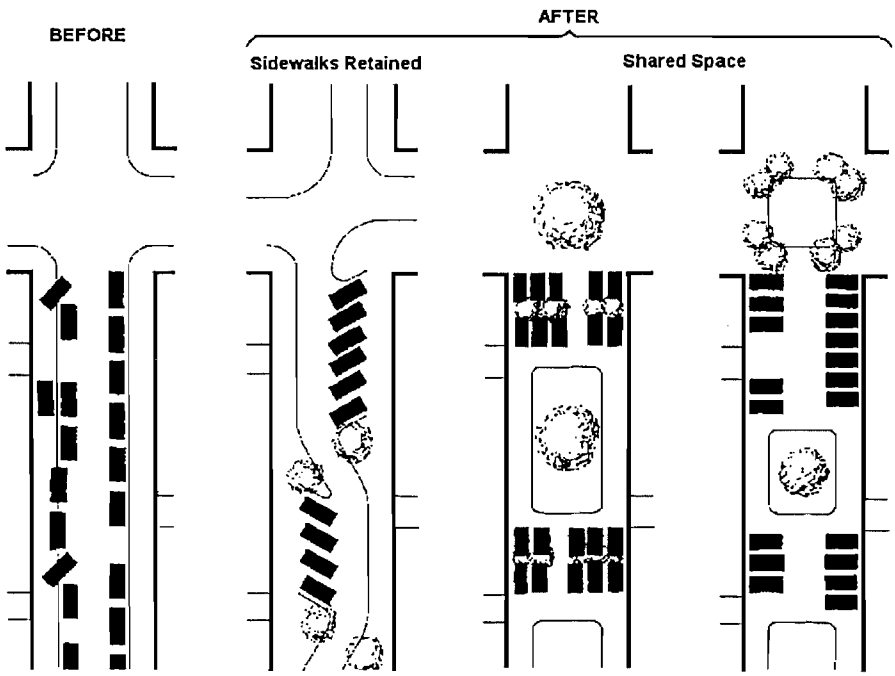
- Drainage
- Advance warning sign placement
- Traffic Volumes
- Bicycle lane (optional)
- Aesthetics
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

SHARED PEDESTRIAN/VEHICLE ZONES

HARRIS



Source: Chorlton, Edward. Traffic Calming Guidelines. Devon County, England. 1992.

Description:

The shared pedestrian zones provides a safe area for use by pedestrians. The design requires a significant amount of right-of-way and can be landscaped to increase aesthetics. The design could integrate or separate pedestrians with the roadway.

Design Objectives:

- Reduce traffic intrusion
- Increase pedestrian safety
- Reduce speeding

Design Considerations:

- Drainage
- Right-of-Way
- Traffic volumes
- Pedestrian volumes
- Requires strong neighborhood support
- Aesthetics
- Landscape maintenance

Suggested Design Reference:

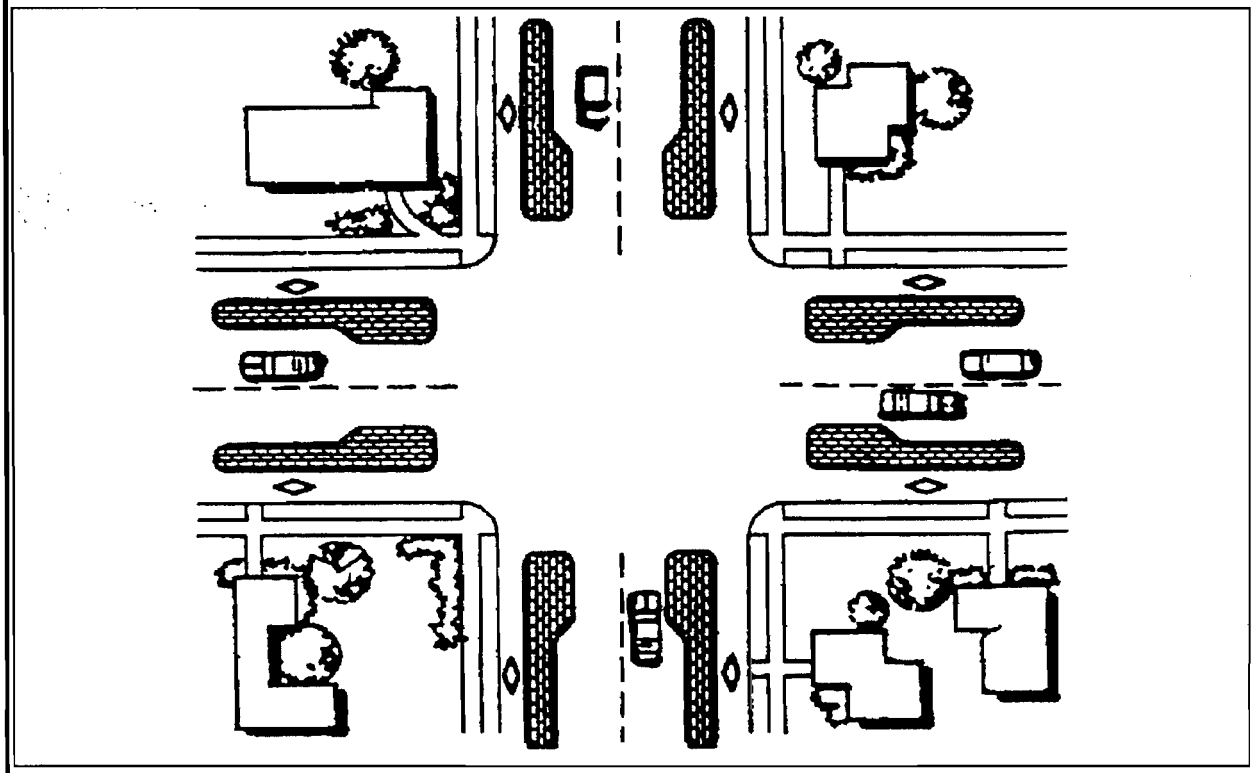
- Chorlton, Traffic Calming Guideline, Devon County, England.
- Appleyard, Donald. Livable Streets. Traffic Control Devices and Systems. 1981.

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

CHOKERS

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

Traffic chokers reduce pavement width by constricting both the left and right side of the roadway. Chokers allow passage of opposing vehicular movements and can be used in conjunction with gateway treatments.

Design Objectives:

- Reduce traffic intrusion
- Reduce speeding

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

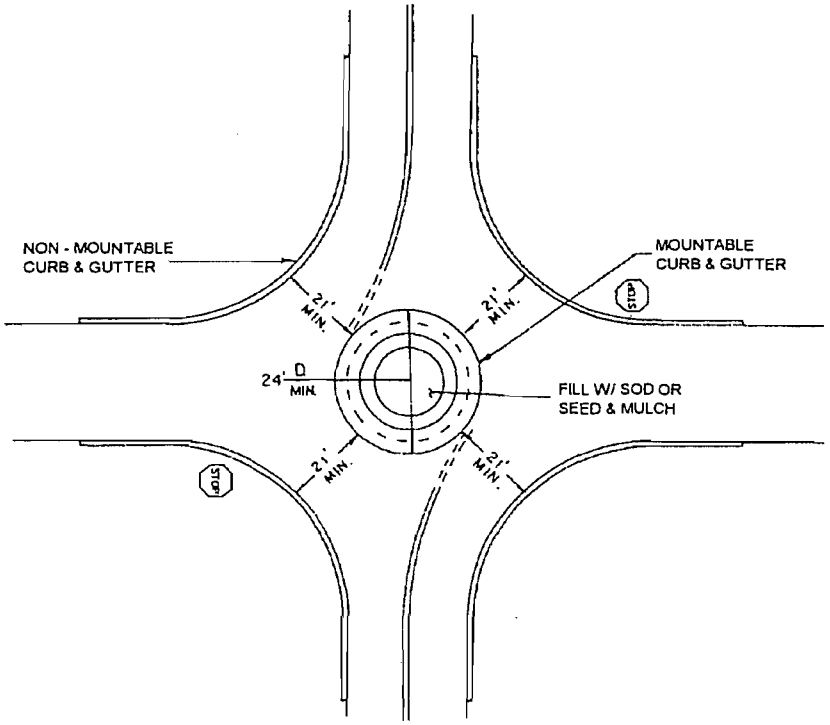
- Drainage
- Turning radii
- Sign Placement
- Could be used in combination with gateway treatments
- Bicycle lane (optional)

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

MINI-TRAFFIC CIRCLES

HARRIS



Source: Suburban Residential Traffic Calming, ITE 1994 Compendium of Technical Papers, p. 446

Description:

The traffic circle is a traffic control device designed to assign right-of-way at an intersection. Traffic circles differ from roundabouts by requiring vehicles to come to a complete stop before entering the circle. The traffic circle requires less right-of-way since it is ideally designed to operate within the geometric constraints of the intersection.

Design Objectives:

- Reduce speeding
- Assigns right of way at an intersection
- Eliminates unwarranted multi-way stop control

Suggested Design Reference:

- Mini-Traffic Circles, City of Gainesville Traffic Engineering Department
- City of Seattle Traffic Circle Design

Design Considerations:

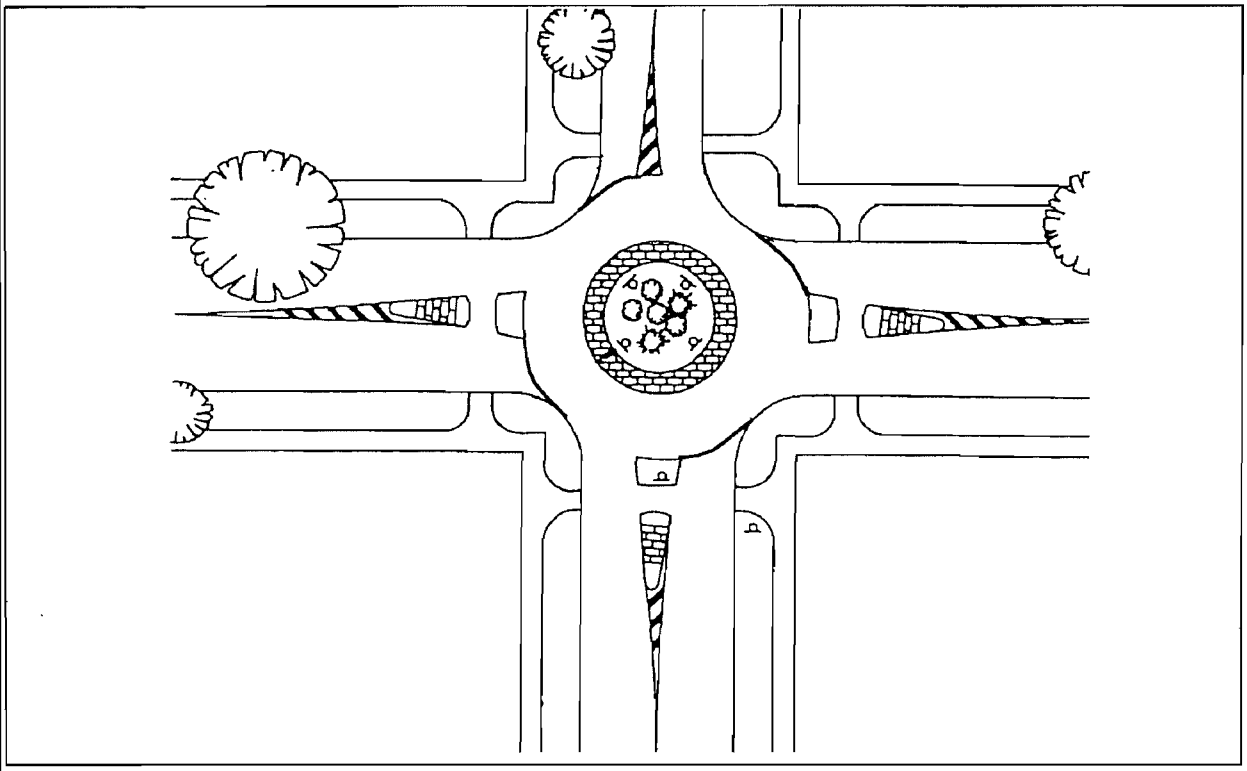
- Sign placement
- Pavement markings
- Turning radii
- Line of sight
- Best if used in series within neighborhood traffic circulation plan
- Aesthetics
- Maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

ROUNDABOUT

HARRIS



Source: Chorlton, Edward. Traffic Calming Guidelines. Devon County, England. 1992.

Description:

The roundabout is a traffic control device similar to a 4-way stop, however, traffic yields to opposing vehicles in the intersection. The roundabout allows continuous flow of traffic while slowing down vehicular speed. A reduction in travel speed is achieved by the designed deflection in the path of the vehicle

Design Objectives:

- Slows traffic
- Can increase capacity
- Continuous traffic flow

Suggested Design Reference:

- FDOT Roundabout Guidelines, *DRAFT*
- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

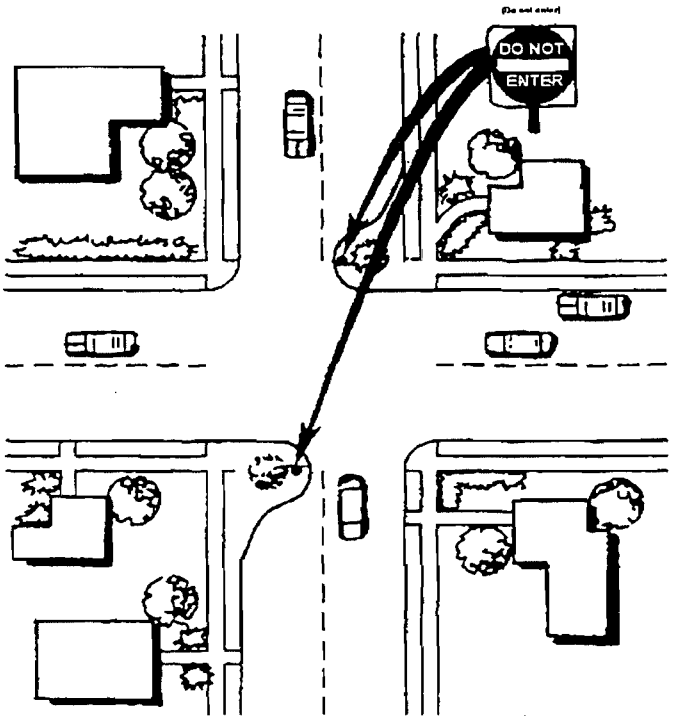
- Drainage
- Right-of-way availability
- Line of sight
- Sign placement
- Pavement markings
- Aesthetics
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

SEMI-DIVERTER

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The semi-diverter is a physical roadway barrier which restricts vehicular movement for specific directions of travel. The barrier can be landscaped to improve aesthetics.

Design Objectives:

- Reduce traffic intrusion
- Reduce speeding

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

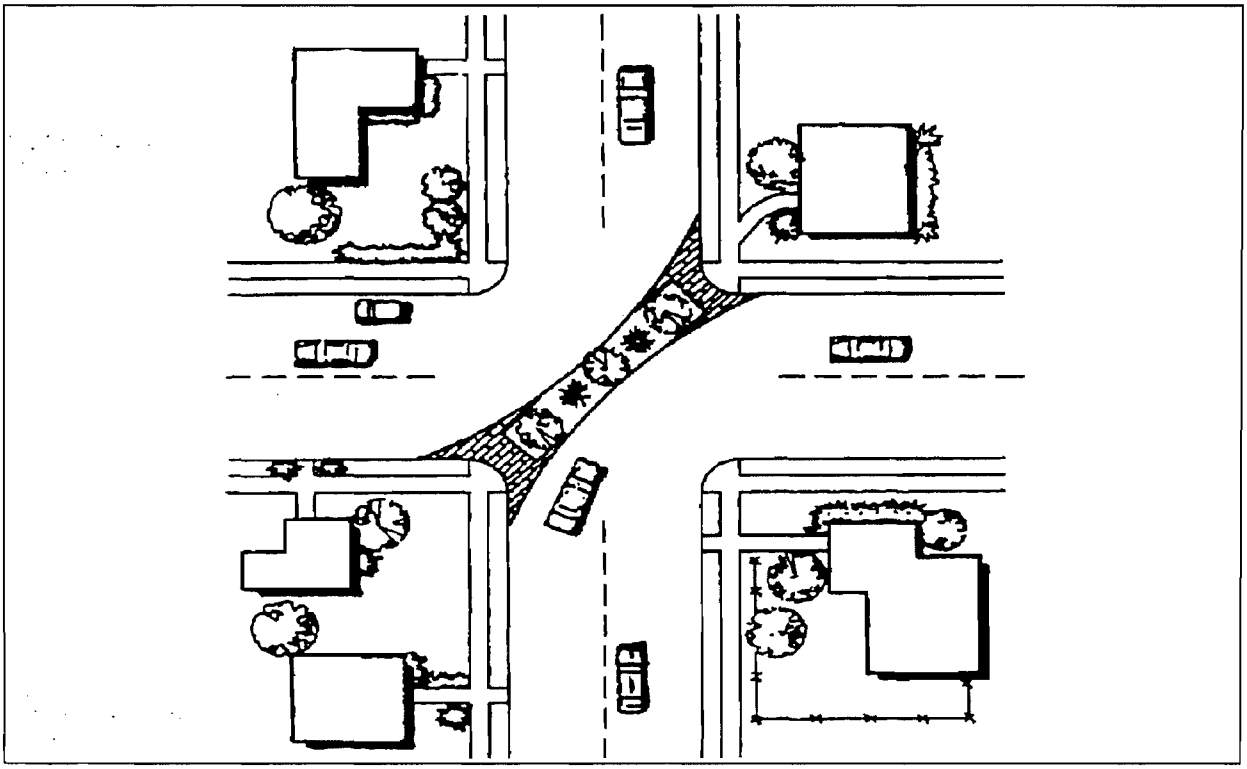
- Drainage
- Turning radii
- Sign placement
- Pavement markings
- Could be in combination with gateway treatments
- Strong neighborhood support is required
- Aesthetics
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

DIAGONAL DIVERTER

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The diagonal diverter restricts particular vehicular movements at an intersection. Motorists are forced to choose an alternate route if their current path is affected.

Design Objectives:

- Reduce traffic intrusion by re-directing traffic
- May indirectly reduce traffic volumes

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

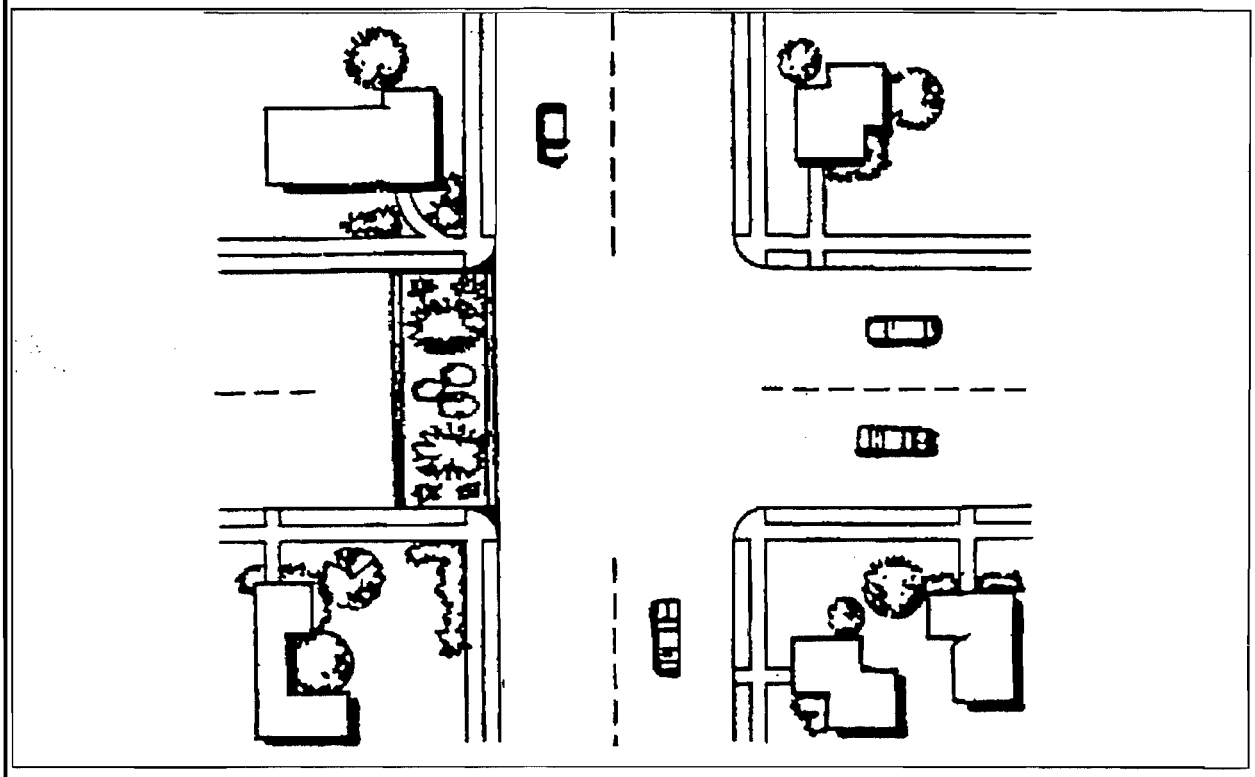
- Drainage
- Turning radii
- Sign placement
- Pavement markings
- Sight distance
- Passable by emergency vehicles
- Strong neighborhood support required
- Aesthetics
- Landscape maintenance

METRO-DADE

TRAFFIC CALMING ALTERNATIVES

STREET CLOSURE

HARRIS



Source: City of Boulder, Colorado Neighborhood Traffic Mitigation Program

Description:

The street closure is a physical barrier which restricts access to a particular roadway. The barrier closes off all vehicular access and forces motorists to find an alternate route around the closure.

Design Objectives:

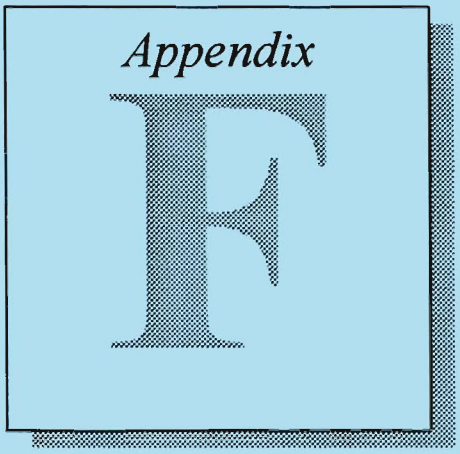
- Restrict vehicle access continuously or time-of-day basis
- Reduce traffic intrusion
- Reduce excessive traffic volumes

Suggested Design Reference:

- AASHTO Policy on Geometric Design of Highways and Streets
- Metro Dade Public Works Standard Details
- Institute of Transportation Engineers, Residential Street Design and Traffic Control

Design Considerations:

- Drainage
- U-turn clearance
- Emergency vehicle access
- Traffic volume diversion on adjacent roadway system
- Possible use of gates initialized by time-of-day
- Strong neighborhood support is required
- Aesthetics
- Landscape maintenance



Application for Street Closure
- or-
Traffic Flow Modification

METRO-DADE

HARRIS

METRO DADE

Street Closure or Traffic Flow Modification
Project Application Form

Applicant: _____ Date: _____
Contact Name: _____ Phone: _____
Local Address: _____
Location: _____

What traffic control measure(s) is being requested? _____

_____

What problems have you identified to require the above requested measure(s)? _____

_____

_____

_____

_____

_____

How long have these problems occurred? If recently, what conditions have caused these problems?

_____

_____

Please return the completed application form to:

Metro-Dade County Public Works Department
111 N.W. First Street
Miami, Florida 33128-1970 Phone: 375-2030

NOTE: **IT IS THE COUNTY'S POLICY THAT THE ABOVE PROPERTY OWNERS WILL BE REQUIRED TO PARTICIPATE IN ALL COSTS ASSOCIATED WITH THE PROPOSED TRAFFIC CALMING PLAN.**

For Office Use Only

Project Number _____ Date Application Received _____
Date Preliminary Analysis Completed _____ Identified Problems: ☐ Exist ☐ Perceived
Date of First Neighborhood Workshop _____ Traffic Team: ☐ Yes ☐ No
Director Action: ☐ Favorable ☐ Unfavorable Consensus Reached ☐ Yes ☐ No
Date of Project Implementation _____
Project Review Date _____ Project Successful: ☐ Yes ☐ No

Please attach additional sheets as necessary.

METRO DADE

Street Closure or Traffic Flow Modification Applicant Questionnaire

Contact Name(s): _____ Phone: _____

1. Rank your neighborhood's traffic problems and provide a brief description of each (for instance, time when the problem is worst, or specific issue, such as a pothole).

   - ☐ Speeding _____
   - ☐ Cut-through traffic _____
   - ☐ Safety _____
   - ☐ Traffic volumes _____
   - ☐ Truck traffic _____
   - ☐ Other (please explain) _____

   _____

2. Please check the type of action requested.

   - ☐ Street Closure
   - ☐ Special Taxing District
   - ☐ Reverting the Right-of-Way

3. List locations where closure is requested and provide an area map showing closure.

   _____

   _____

4. How much funding is available for planning, design and implementation of the requested improvements.

   Current Funding $_____
   Anticipated Future Funding $_____

5. This request is made on behalf of homeowners by:

   Homeowners Association
   Individual
   Other (please specify) _____

Please attach additional sheets as necessary.

METRO DADE

Street Closure or Traffic Control Modifications
Interdeparment Review

To: Director, Public Works Department
111 N.W. 1st Street, Suite 1610
Miami, Florida 33128-1970

_____
_____
_____
_____
_____
_____
_____
_____

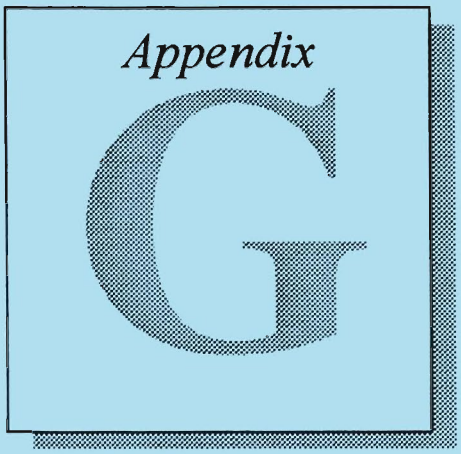
We have reviewed this request and based on reasoning as stated above we recommend the following action:

☐ Request Approved ☐ Request Denied

Signature _____ Date _____

_____
Print Name
Reviewing Agency _____
Address _____
_____

Please attach additional sheets as necessary.



Sample Traffic Calming Alternative Evaluation Process

METRO-DADE

HARRIS

STAGE 1 EVALUATION

a) Applicant's traffic consultant should verify actual problems through the application process and define objectives.

b) Applicant's traffic consultant should assess the needs of the community by inviting input via a selected number of designated representatives for the applicant. Familiarize community representatives with constraints and issues.

c) Citizens' consultant, County and Municipality will brainstorm ideas in conjunction with professional engineering and planning judgment to generate traffic calming alternatives.

d) Citizens' consultant, County and Municipality will select a traffic calming plan for public consensus via 2/3 petition approval. This plan should only include those passive and active devices identified in category Levels I through IV of Technical Memorandum #3.

e) If consensus is reached, the traffic consultant will design a combination of Level I through Level IV traffic calming measures to address the specific traffic problems identified during the application process. The County may participate in certain operational improvements by installing signs, pavement markings, etc. These designs must be approved by the County prior to implementation (Levels I through III only) by a licensed contractor hired by the applicant. Be prepared to identify implementation problems and make adjustments. If traffic calming plan is not approved by the majority of affected property owners, STOP.

f) The County and traffic consultant will monitor and evaluate the Stage 1 traffic calming plan after a period of six (6) months to allow traffic patterns to stabilize.

g) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

h) If measured impacts are acceptable, continue traffic calming measures and STOP. If measured impacts are unacceptable, proceed to Stage 2.

STAGE 2 EVALUATION

a) The applicant's licensed contractor, upon obtaining the necessary plan approvals and permits, will implement temporary Level IV traffic calming measures to address the specific traffic problems identified in the application process. Design plans for physical modifications to the roadway must be signed and sealed by a professional engineer registered in the State of Florida and approved by the County Public Works Department.

b) The County and traffic consultant will monitor and evaluate the Stage 2 traffic calming plan after a period of six (6) months to allow traffic patterns to stabilize.

c) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

d) If measured impacts are acceptable, the applicant should continue those successful Stage 1 traffic calming measures, implement permanent Stage 2 devices and STOP. If measured impacts are unacceptable, retain temporary Level IV devices and proceed to Stage 3.

STAGE 3 EVALUATION

a) Applicant's traffic consultant should re-assess the needs of the community through a select number of designated representatives for the applicant.

b) Citizens' consultant, County and Municipality will brainstorm additional ideas in conjunction with professional engineering and planning judgment to generate alternatives.

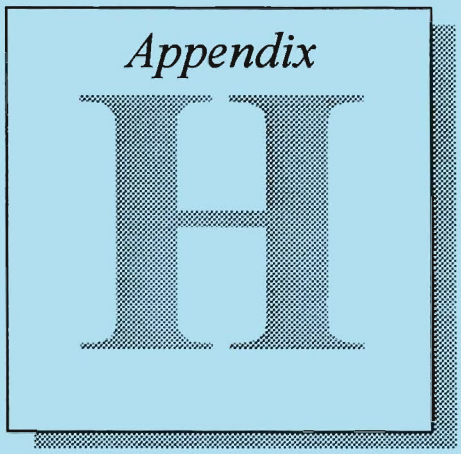
c) A traffic calming plan that incorporates Level V devices for street closure or traffic flow modifications will be developed by the applicant's consultant and petitioned for public consensus.

d) The applicant will procure the design and implementation of temporary Level V traffic calming devices to be used on a temporary basis in addition to or in lieu of those measures previously implemented under Stage 1 and Stage 2 plans. Design drawings for physical modifications to the roadway must be signed and sealed by a professional engineer registered in the State of Florida and approved by the County's Public Works Department. Contractors must be licensed in the State of Florida.

e) The County will monitor and evaluate the Stage 3 plan for a period of six (6) months to allow traffic patterns to stabilize.

f) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

g) If measured impacts are acceptable, the applicant's Contractor may implement permanent Level IV and Level V devices and STOP. If measured impacts are unacceptable, the applicant shall remove Level V devices and revisit needs assessment.



Traffic Calming Plan Petition Form

Date: _____

Traffic Calming Project
Petition Form

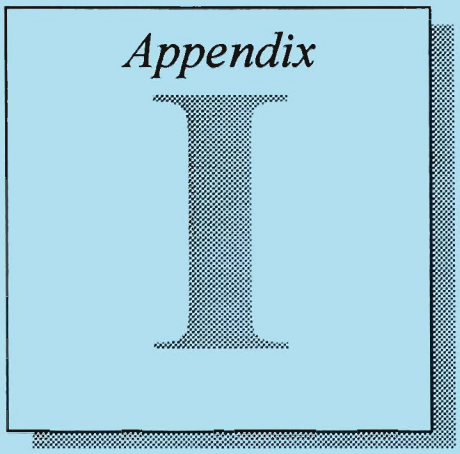
METRO DADE

We, the undersigned, as residents of _____, hereby request the implementation of the attached traffic calming plan to address the following problems: _____

_____

Date	Name (please print)	Address/Phone #	Signature

IT IS THE COUNTY'S POLICY THAT THE ABOVE PROPERTY OWNERS WILL BE REQUIRED TO PARTICIPATE IN ALL COSTS ASSOCIATED WITH THE PROPOSED TRAFFIC CALMING PLAN.



Steering Committee Minutes and Correspondence

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Comments:

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March 21, 1996	Town of Bay Harbor Islands
March 25, 1996	Village of Miami Shores
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May 13, 1996	Florida Department of Transportation
May 16, 1996	City of Miami
June 6, 1996	Citizens for Open and Safe Streets
June 6, 1996	Dade League of Cities
June 25, 1996	City of North Miami Beach
July 15, 1996	William Brown
July 15, 1996	Michael C. Lavin
July 19, 1996	F. Russel Specht
August 9, 1996	Sylvia M. Uzueta

MINUTES

Metro Dade County
Street Closure Study

HARRIS

KICK-OFF MEETING MINUTES

September 26 , 1995

A meeting was held on this date, beginning at 1:30 PM, with the following in attendance:

Attendees	Company Name	Telephone Number
Rafael E. De Arazoza	FDOT	470-5335
Pete Hernandez	DCPW	375-2987
Esther Calas	DCPW	375-2092
Joaquin Urrechaga	DCPW	375-2078
Muhammed M. Hasan	DCPW	375-2030
Frank Baron	MPO	375-4507
Anthony Castellone	FRH	826-0606
Phil Tokich	FRH	(813)971-4117
Donald Avery	FRH	826-0606
Jeff Weidner	FRH	826-0606
Jim Reynold	FRH	826-0606

Mr. Pete Hernandez addressed the meeting with the following remarks:

- MPO and Public Works are facing a County-wide epidemic of Street Closure requests.
- The County is requesting an organized way to approach each request through Standards, Parameters and Guidelines, developed via multi-agency participation and consensus.
- Street Closings should be the last resort as there other alternatives for consideration. Most residents of a neighborhood are against traffic intrusion. Crime is an area beyond the Public Works Division's expertise. He feels that most people will accept "progressive" closures.
- The County has authority on all municipal roads in Dade County.
- Coral Gables for example has both "PRO" and "CON" constituencies. Shorecrest and Coral Gate have current road closure requests. Also, the cities of Miami, N. Miami Beach, and Miami Shores should be contacted for this study.

HARRIS

- FRH's leadership is requested for the development of Street Closure Guidelines and a formal County policy and/or ordinance.

- The County has placed new closure requests on hold until the conclusion of this study.

- David Plummer will be participating in the Steering Committee to offer "pro bono" advice due to his experience in this area.

The meeting continued with the following salient points:

Who will pay for physical improvements such as roundabouts? This issue will be discussed at a later date. It was added that the County has special Taxing District for Unincorporated Areas.

Mr. Frank Baron from the MPO addressed the meeting noting Aventura and Pine Crest have seceded from the County. He also stated that the County has absolute control of the traffic per code. County attorneys are preparing a legal opinion to assure this.

A macro level analysis of street closures would not be inciteful. The model is not detailed enough for neighborhood analyses.

A Traffic Operations analysis could show how street closures may impact signalized intersections.

Involve CTAC impact right away, contact Clinton Forbes.

FRH will prepare a schedule. The first project meeting should occur after Task 2 completion on or about December 1, 1995.

Agency Contacts: Meeting summary formats and memo/questionnaire with follow-up phone calls.

Any media contacts should be referred to the County.

FDOT expressed its concern that the results of the study should include means to assess impact on major state arterials.

County data files on street closures is available to FRH.

HARRIS

Ideally an ordinance will result from the study which will include a procedure and detailed application requirements. A graduating range of alternatives to street closures should be prescribed.

The meeting adjourned at 3:00 PM.

Frederic R. Harris, Inc.
15485 Eagle Nest Lane
Suite 220
Miami, FL 33014
305-826-0606
Fax: 305-826-0560

HARRIS

Metro Dade County
Street Closure Study
Steering Committee Meeting #2

January 16, 1996

AGENDA

- Introductions
- Project Overview
- Technical Memorandum #1
  - Literature Research
  - Discussion
- Technical Memorandum #2
  - Survey Questionnaire
  - Personal Interviews
- Technical Memorandum #3
  - A toolbox of solutions
- Schedule Next Meeting

Metro Dade County
Street Closure Study

HARRIS

Steering Committee Meeting #2

January 16, 1996

A meeting was held on this date, beginning at 1:40 PM, with the following in attendance:

Attendees	Company Name	Telephone Number
Don Avery	FRH	826-0606
Anthony Castellone	FRH	826-0606
Muhammed Hasan	DCPWD	375-2030
Barbara Matthews	FRD	596-8557
James Kay	City of Miami	579-6865
Len Helmers	City of Miami	579-6865
Keven Klopp	City of North Miami Beach	948-2966
Tom Benton	Miami Shores Village	795-2210
Mark Woerner	Dade County Planning	375-2835
Clarance Patterson	City of Miami Springs	887-4116
Marcos Urra	Miami Springs	887-4116
Paul Bergeron	Homestead	247-1801 x-169
Ignacio Resillez	Hialeah	687-2611
Jim Leone	DCPW	375-2094
Dave Plummer	DPA	447-0900
Rafael De Arazoza	FDOT	470-5335
Alberto Delgado	City of Coral Gables	460-5002
Esther Calas	DCPW	375-2092
Jeff Hunter	MPO	375-4507
Frank Baron	MPO	375-4507

Mr. Muhammad Hasan commenced the meeting and was followed by self-introductions by all Committee members and guests.

Mr. Anthony Castellone provided a brief overview of Technical Memorandum #1, which was previously distributed to the Committee members.

Ms. Barbara Matthews from the Metro-Dade Fire Rescue Department questioned the comparison of crime versus traffic problems. According to Ms. Matthews, it appears that most cities reviewed implement a plan based on traffic, whereas in Dade County, crime is the primary issue. Mr. Castellone responded that the study is intended to address traffic

HARRIS

issues only; how to deal with crime issues could be discussed in meetings with this committee. He also stated that the Technical Memorandum #2 summarizes the concerns of local municipalities.

Mr. Jeff Hunter from the MPO asked that "if people are encouraged to walk on a street that is closed, will crime decrease?". FRH confirmed that the focus of the study is to look at alternative traffic control measures to street closure; not crime statistics. The study should be concerned with addressing the pros and cons to the various traffic control alternatives. FRH will develop a matrix for the advantages and disadvantages of the alternatives for the next technical memorandum.

Mr. Jim Kay from the City of Miami stated that over half of their street closures have been based on crime, most of them being on Biscayne Boulevard.

Mr. Leone added that, in his opinion, crime should not be the overriding factor in deciding on a street closure. No matter what the traffic volume is, it needs to be analyzed to determine what impacts (of diverted traffic) will be to adjacent streets and neighborhoods.

Mr. Kay asked whether a political body should question objections of Fire/Rescue to a street closure, and also offered some comments concerning the "Introduction" of Technical Memorandum #1.

Mr. Frank Baron from Metro-Dade MPO presented the following comments:

1. Crime "problems" appear to be running closely with traffic "problems" when it comes to reasons for closing a street;
2. Worldwide examples could also be cited which may be applicable for neighborhood traffic control;
3. Planning issues should be addressed in the study. For example, closed-in neighborhoods are seeing the encroachment of commercial land uses such as spillover parking;
4. Crime will have to be addressed one way or another while considering:
    a. the amount of public government involved, and
    b. perceptions of residents vs. reality;

FRH realizes the need for extensive public involvement if any neighborhood traffic management program is to be successful.

Ms. Barbara Mathews from Metro-Dade Fire/Rescue asked if any other legal research was done. FRH noted that, while the scope of this project could not possibly address or provide an opinion on all of the potential legal issues evolving from street closures, FRH will continue to obtain pertinent legal data throughout the development of a policy statement

HARRIS

and procedures. Some local information may touch on more legal issues as time progresses.

Mr. Leone stated he would like to see a comparison of California law to Florida law; referencing the California Supreme Court decision (noted in Tech Memo #1) disallowing permanent street closures.

Mr. Keven Klopp from North Miami Beach asked why the County will not relinquish control of local streets to local government. Instead of engineering solutions, why not let public desires rule? North Miami Beach's biggest problem is crime, speeding, and cut-through traffic. Mr. Klopp noted that North Miami Beach had requested a 4-way Stop and it took 6 months to receive a refusal from the County. He would like the public involved; the cities should not be forced into using a different alternative.

FRH stated that the intent of the new policy will not be to "force" solutions that the public does not want, but to find a balance between street closure and alternative techniques that the public will accept.

Mr. Hasan stated that the County is very responsive to municipality requests.

Mr. Mark Woerner from Dade County Planning was satisfied with Technical Memorandum #1 and offered some observations about crime. He feels that the study will need to look at crime one way or another. Mr. Woerner found it interesting to see that over half of the municipalities (highlighted in Tech Memo #1).funded the traffic studies. Improvements could possibly involve better local design standards to address these issues. However, he questioned where the funding would come from. (*Mr. Frank Baron noted that many of the new designs are now being placed in new developments, for example, inward facing neighborhoods and cul-de-sacs.)* Even though an entire neighborhood may be a huge cul-de-sac, there are still local traffic problems resulting from internal residents.

Mr. Tom Benton from the Village of Miami Shores said they already have ordinances and/or policies to effect street closures. Subsequently, crime is down and property valorous are up. Echoed North Miami Beach comment on giving control of local streets to local governments. Crime should be integral part of this study since crime will always be an issue. Fire/Rescue service would suffer when a closure is implemented. However, the residents are willing to make this trade-off for improvements in their day-to-day quality of life. Mr. Benton talked with a local fire station to see if the fire truck operator would drive through a landscaped street closure; one with hedges and bushes. The driver would not drive through because of fire department policy not to scratch/damage trucks. *(Fire Rescue responded with there is a fire hydrant every 500 feet for single family homes, 300 feet spacing for everything else. Street closures go against ISO (Insurance Services Organization) rating. The ISO is*

HARRIS

the underwriter's for fire rescue.) Miami Shores is happy with Fire Rescue. Miami Shores provided Fire Rescue with maps and response appears to have worked fine. They contacted the ISO and the ISO had no problem their plans.

Mr. Hasan stated that everyone should keep an open mind early in the study. The County wanted to bring the cities in early in the process to get their input; hopefully the end result will be workable for everyone.

Mr. Tom Benton stated that they appreciate the alternatives, but would rather "go from A to Z" to get to the street closure; skipping any alternatives in between.

Mr. Clarance Patterson of Miami Springs stated that street closures came about originally because of crime and they are still by and large intended for that purpose. Street closures are very political and thus are here to stay. The study should look at the simplest way to close streets with minimal impact and aesthetically pleasing designs.

Mr. Paul Bergeron from the City of Homestead said that his city was demographically affected after Hurricane Andrew. Many new residents have since moved into the city. The city has a process to review closure requests. He agreed with the crime and speed concerns already addressed. Residents are paying taxes to maintain the roads. The city is mostly closing alley-ways utilizing simple post and chains across the entry.

Mr. Ignacio Resillez from the City of Hialeah stated that the public does not seem to respond as noted in the other municipalities. They do not have a closure policy. The residents seem to be satisfied knowing that police and emergency can get into the neighborhoods quicker.

FRH commented that Hialeah does request traffic studies for any traffic control modification whether it be for a multi-way stop sign or street closure.

Mr. Jim Leone from Dade County Public Works is curious how Florida Law compares to California Law regarding restricting access to local streets. He still fells that crime should not be an issue for this study and for consideration of a street closure. Mr. Leone knows of 1 legitimate closure (based on traffic issues) on Bayshore Drive, but there may be others.

The City of Coral Gables was pleased with Technical Memorandum #1. The following was noted for the record:

- As a legality issue, Mr. Al Delgado feels that the term "street closure" is wrong; it is more of an interruption in the flow of traffic (e.g., the City of

HARRIS

Miami calls a street closure a "restriction of vehicle access"). The study must be clear on terminology.

- The City of Coral Gables is installing operable barricades for emergencies such as a natural disaster. The issues common to the City are crime/safety, traffic intrusion, and speeding. The wide right-of-way in Coral Gables encourages speeding.

- There are land use zoning issues to be addressed, for example motels adjacent to residential areas. Also, the City has several roads classified as historic arterials (Bird Road, Red Road, and Coral Way) which cannot be altered. Insufficient R/W is often an issue with street closures

- The study should address those common perceptions of crime and the specific characteristics of municipalities; since every community is different. For instance, most traffic intrusion in the Gables is a result of CBD-destined traffic while in other communities traffic patterns may be different because of locale.

- The City stated that they have paid $12,000 - $15,000 per closure totaling close to $500,000 so far plus $200,000 for traffic studies. The studies were paid for through a police drug fund since it was treated as a crime issue. The actual closure is paid by the residents. A resident is designated the Captain-of-the-Street whose responsibility is to collect the money for the street closure from the residents. If the money is not collected in time, the closure is not built. The gates are solar powered and the decibel pitch of a siren opens the gates for emergency vehicles.

The City of Miami questioned how the issue of street closures might affect comprehensive plans and concurrency.

The City of North Miami Beach stated the County requires before and after counts in response to proposed street closures.

Mr. Rafael DeArazoza from FDOT Traffic Operations had the following comments:

1. Before a municipality installs a closure, the FDOT would like to see a before and after study to ascertain the impact on the state road system. The studies should not be done on a piecemeal basis, the studies should incorporate the surrounding area.

HARRIS

2. Also, he suggested to try traffic calming before street closure.

Mr. DeArazoza was complimentary of Technical Memo #1 and offers some minor comments to FRH.

Mr. David Plummer of David Plummer and Assoc. stated that street closures started as result of traffic intrusion and did not involve crime; in fact the crime issue was avoided. However, this has charged in the last 3 years when crime has became more prevalent. He offered the following comments:

1. The hierarchy of the street systems must be recognized; put policy in the comprehensive plan to identify those streets that are candidates for closing.

2. Instead of an "individual based" studies, a look at the overall neighborhood impacts of street closures needs to be addressed. If a neighborhood perceives they have problem, they probably do. Mr. Plummer stated it is difficult to get the exact same conditions for a before and after study.

3. The solution should be practical and workable. For example, if it is known that speed bumps or rumble strips are not workable then they should not be included as an alternative in the County's policy.

Finally, Mr. Plummer added that street closures are not the only solution to crime prevention. There are crime watch programs, landscape enhancements, and improved lighting.

Mr. DeArazoza said that FDOT would like to be involved in the review of before and after studies.

Mr. Castellone distributed Technical Memorandum #2 to the attendees and summarized some of the points. He suggested that municipalities think of the alternatives that they would like to see for discussion at the next steering committee meeting.

The next meeting was scheduled for February 14, 1996 at 1:30 pm.

The meeting adjourned at 4:30 pm.

HARRIS

Metro Dade County
Street Closure Study

Special Coordination Meeting

January 30, 1996

A meeting was held on this date, beginning at 10:00 a.m., to discuss aspects of the Metro-Dade Street Closure Study. The following people attended:

Attendees	Company Name	Telephone Number
Pete Hernandez	DCPW	375-2092
Muhammad Hasan	DCPW	375-3020
Esther Calas	DCPW	375-2092
Anthony Castellone	FRH	826-0606
Jim Reynold	FRH	826-0606

FRH provided a compendium of legal background information, including California traffic control statutes, in response to Jim Leone's request at the last Steering Committee meeting.

The County indicated that their legal council is aware of the current issues but has not specifically taken any action. FRH's research could be very helpful to provide background information to the County attorney's office.

FRH presented the point that input from the committee to date has concentrated on legal and crime issues. For this reason, FRH feels that if these two areas are not addressed, the committee may not feel that consensus is attained with the County's policy/procedure. The County agreed, noting that traffic intrusion is Public Works' main concern.

A parallel example of Security Guard Districts was noted. Actual crime studies are not required and Public Works handles the area definition and study of the traffic impacts.

After discussion, it was agreed that the study findings would migrate toward:

- Traffic intrusion based requests would undergo a traffic analysis to determine appropriate traffic calming countermeasures.

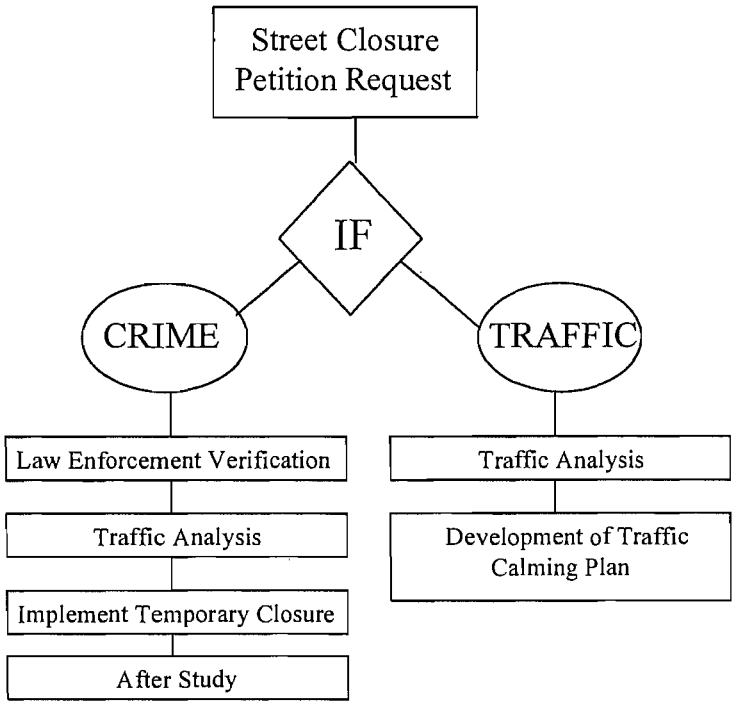
- Crime based requests for street closures should undergo a verification by qualified (law enforcement) agencies to determine an actual crime problem exists. Traffic studies would still be required if such requests are deemed valid.

HARRIS

- FRH will strive to incorporate as much expertise and opinion as possible by reaching out to the neighborhood representatives, knowledgeable experts such as university professors, and law enforcement representatives.

- A law enforcement representative should be invited to the next Steering Committee meeting (February 14, 1996) to discuss road closures and crime deterrents. M. Hasan will coordinate.

Figure 1 represents a potential petition request flow chart. FRH suggested that the Steering Committee participate in the final development of the petition request sequence.



Other issues discussed were that traffic studies managed by the County will potentially provide greater objectivity than those sponsored by the neighborhoods. Municpality-sponsored traffic studies may be prejudicial.

FRH added that Federal Funding may be available for neighborhoods meeting certain criteria.

HARRIS

Metro Dade County
Street Closure Study
Steering Committee Meeting #3

February 14, 1996

AGENDA

- Introductions
- Review of Meeting Minutes
- Technical Memorandum #2
  - Survey Results
- Technical Memorandum #3
  - Evaluation Matrix
- Technical Memorandum #4
  - Overview
- Schedule Next Meeting

Metro Dade County
Street Closure Study

HARRIS

Steering Committee Meeting #3

February 14, 1996

A meeting was held on this date, beginning at 1:35 PM, with the following in attendance:

Attendees	Company Name	Telephone Number
Muhammed Hasan	DCPW	375-2030
Esther Calas	DCPW	375-2091
Jim Leone	DCPW	375-2094
Tom Benton	Miami Shores Village	795-2210
Frank Baron	MPO	375-4507
Marcos Urra	Miami Springs	887-4116
Rafael De Arazoza	FDOT	470-5335
Mark Woerner	MPO	375-2835
Patricia Addison	Metro Dade Police	471-2514
Alberto Delgado	City of Coral Gables	460-5002
Arshad Viqar	City of Miami Beach (PW)	673-7620
Giovanni R. Batista	City of North Miami Dade League of Cities	893-6511
Ignacio Resillez	City of Hialeah	687-2611
Len Helmers	City of Miami	579-6865
Barbara Matthews	Metro Dade Fire/Rescue	596-8557
Charles W. Small, Jr.	DCPW	375-2703
Keven Klopp	City of NMB	948-2966
Don Avery	FRH	826-0606
Anthony Castellone	FRH	826-0606

The meeting began with introductions from all attendees. The minutes from the previous meeting were approved as written.

FRH distributed Technical Memorandum #2 at the last meeting which addressed some of the issues that will drive study. Current status of the study is identifying potential Traffic Calming Alternatives.

A round table discussion of comments for Technical Memorandum #2 was initiated.

Mr. Rafael De Arazoza from the FDOT noted that the memorandum should include a disclaimer stating that the survey results are statistical invalid due to small sample size. FRH responded that a statement was included in the conclusion stating that the respondents' responses to the survey were not reflective of their whole municipality. However, this will be clarified in the beginning of the paper.

Mr. Mark Woerner from Dade County Planning was concerned with Fire/Rescue and school bus access versus street closure. FRH responded these issues as well as trash, UPS Federal Express, etc. will need to be addressed in the study. School Board contact may need to be included in the petition request process.

Mr. Alberto Delgado from the City of Coral Gables stated that page 7 of Technical Memorandum #2 identifies that they hold a Public Works meeting at the beginning of a street closure application process. The process starts with a meeting of the Street and Alley Vacating Committee. The committee receives the request, discusses the request, then holds a public meeting. The committee's recommendation is then given to the City. A process matrix for the City of Coral Gables has been included in the Appendix of Technical Memorandum #2.

Mr. Ignacio Resillez from the City of Hialeah asked if Dade County has done a study for speed humps. Does the County allow humps within the Right-of-Way? FRH stated that many of these devices are not standard according to references such as MUTCD and ITE.

Mr. Kevin Klopp from the City of North Miami Beach expressed concern with the content of pages 20 and 21. Specifically, the report gave the impression that no pro-closure people were contacted. He gave the name and phone number of Bill Lehman (653-7111) as a possible contact. Also, he noted that Page 20 discussed the opponents concerns without the proponents concerns. Finally, Page 21 should not have verbiage such as "...was allegedly used." FRH noted that the interviewing process is continuing and will be talking to street closure proponents.

Mr. Frank Baron from the MPO stated that the introduction needs to mention crime in the first or second sentence. The report should more strenuously state that the survey is not statistically valid due to the small sample size. He suggested that the number of respondents should be indicated next to each graph. The graphs should list data in order of importance (for example Figure 2, page 5). Mr. Baron questioned if the term "traffic gates" on page 12 would be the same as a street closure. Page 21 states "opponents might argue..."; the study should report all information (what are these people saying?). He also addressed the memo-to-file about a conversation with Rory Santana and Rafael de Arazoza; he is concerned with the term "best guess" in the second bullet. [Mr. De Arazoza claified that the engineer needs to forecast trip distribution on the front-end and collect follow-up data after implementation.]

FRH distributed a draft Technical Memorandum #3 Introduction and chart of potential traffic calming devices to all attendees and gave an overview of the content. Basically, the results of the surveys were used to see which issues floated to the top. FRH explained the traffic alternatives chart and the meaning of passive to active devices. This chart is very preliminary, subjective and open to the Committee's comments and input.

FRH described the content for Technical Memorandum #4 and the flow chart procedure to address the petition request for a street closure or other residential traffic control modification. The flow chart is

HARRIS

envisioned to deal in some manner with the crime issue; perhaps branching off as a separate process. The next Steering Committee meeting will be formatted as a workshop to better define this flow chart.

An open discussion took place about different traffic calming devices, perceptions of the current street closure process, and issues related to street closures.

FRH asked for all to review the traffic calming devices matrix and fax comments to Anthony Castellone. They will be incorporated into Technical Memorandum #3. FRH will attempt to add consequences of the alternative traffic devices to the matrix.

Mr. Marcos Urra from Miami Springs suggested conducting a survey to home owners. FRH responded that residents' inputs need to be part of the petition procedure, however this study is not the correct forum for public input. There will be a symposium at the end of this study to inform the public of the results.

The next meeting was scheduled for Wednesday, March 13, 1996 at 1:30 PM in the Metro-Dade Government Center, 18th Floor conference room.

HARRIS

Metro Dade County
Street Closure Study
Steering Committee Meeting #4

March 13, 1996

AGENDA

- Introductions
- Review of Previous Meeting Minutes
- Technical Memorandum #3
  - Evaluation Matrix Revised
  - Potential Traffic Calming Devices
- Technical Memorandum #4
  - Application Procedures, Workshop
- Final Steering Committee Meeting
  - Schedule Date

Metro Dade County
Street Closure Study

Steering Committee Meeting #4

March 22, 1996

A meeting was held on this date, beginning at 2:30 PM, with the following in attendance:

Attendees	Company Name	Telephone Number
Marcos Urra	City of Miami Springs	887-4116
Samuel Schafer	Metro-Dade Police	471-2533
Howard Ostlund	Metro-Dade Police	471-1775
Paul Bergeron	City of Homestead	247-1801
Barbara Mathews	Metro-Dade Fire Rescue	596-8557
Randy Atlas	Atlas Safety and Security	756-5027
Alberto Delgado	City of Coral Gables	460-5002
Donna Morris	City of Coral Gables	460-5007
Giovanni Batista	Dade League of Cities City of North Miami	893-6511 ext. 205
Len Helmers	City of Miami	416-1221
Frank Baron	Dade County MPO	375-4507
Erick Vereia	City of North Miami Beach	948-2946
Ken Cassel	Town of Bay Harbor Islands	866-6241
Dorothy Cissel	CTAC	385-1602
Ed Moore	City of Opa-Locka	953-2836
Arshad Viqar	City of Miami Beach	673-7620
Muhammed Hasan	Dade County Public Works	375-2030
Jim Leone	Dade County Public Works	375-2913
Rafael DeArazoza	FDOT	470-5335
Jeff Weidner	Frederic R. Harris, Inc.	826-0606
Anthony Castellone	Frederic R. Harris, Inc.	826-0606
Don Avery	Frederic R. Harris, Inc.	826-0606
Jim Reynold	Frederic R. Harris, Inc.	826-0606

The meeting began with introductions from all attendees.

Mr. Anthony Castellone of Frederic R. Harris, Inc. (FRH) opened the meeting and discussed Technical Memorandum #3 which was distributed at the meeting. He asked for a review and comments from members of the committee.

Ms. Dorothy Cissel from CTAC could not determine if Unincorporated Dade County was being represented for this study based on the contact contained in Technical Memorandum #1. Mr. Hasan and Mr. Leone from Dade County Public Works stated that they were representing Unincorporated Dade County and Ms. Cissel, as a member of CTAC, could also represent Unincorporated Dade.

HARRIS

The minutes from the previous meeting were approved with one correction. Mr. Rafael DeArazoza from FDOT would like to change (page 1, last paragraph) the wording "...statistically invalid..." to "...statistically insignificant...."

Mr. Castellone discussed the content of the upcoming Technical Memorandum #4.

The remainder of the meeting was dedicated to a workshop for the development of a Street Closure Implementation procedure which will be included in Technical Memorandum #4. FRH presented a draft flowchart procedure.

FRH is developing a request form for a street closure or roadway modification.

Mr. Cassel from Town of Bay Harbor Islands asked if approval is needed from the County for street closure, vacation or modification for local roads. The charter and rights as dictated by the State says they can do what they want at will on the streets in their incorporated area. Mr. Hasan from MDPW responded that the County has the authority for the traffic control in the municipal area. Mr. Delgado from Coral Gables stated that this is a legal question which has not been answered yet. A discussion ensued on this subject.

Mr. Hasan suggested that "Request for Roadway Modification" on the flowchart should be changed to "Request for Street Closure." Mr. Delgado stated that the only issue needing commission action is a street closure. A short discussion developed from this issue. The flowchart will be modified to incorporate the stated change. Ms. Cissel would rather have the word barricade rather than closure. The word closure is too final. A short discussion ensued on this issue. The word "closure" will continue to be used.

Mr. Baron from the MPO addressed the sovereignty issue and municipal streets. He stated that the flowchart should be the process to go through to see if a street closure is the bottom line. Would there be a separate request for a special taxing district or vacating streets under this procedure. Mr. Delgado gave examples of requests needed for these issues in Coral Gables. Mr. Castellone stated that these requests should come through the process.

Mr. Baron suggests that special taxing district and street vacation should be asides from street closure on the flowchart. The change was made to the flowchart.

Mr. Castellone continued on to the next tier of the flowchart which discusses the process for a request that is generated as a result of crime issues. Mr. Cassel asked what will be the percent improvement or thresholds for crime to be used in the procedure. Mr. Baron said this should be a question on the request form. Mr. Castellone stated that the crime thresholds will not be defined in this study.

HARRIS

Mr. Baron would like to see the two decision boxes "Crime Elements" and "County Requirements, Study Area Acceptable?" switched. They were switched on the flowchart.

Mr. Castellone discussed the definition of a request. It would come from sort of body as opposed from an individual. Mr. Hasan stated that a city should be involved with the request from a municipality. Mr. Castellone said that the municipality procedure is included in the "Municipality" block of the flowchart. Mr. Cassel stated that it appears that the process makes people do the procedure twice. Mr. Delgado asked how far is a municipality expected to carry out their study before going to the County; how soon should the County be notified. Mr. DeArazoza pointed out that the procedure is going to be defined by this study with the intention that everyone will buy into it and use this when a street closure request is presented.

Mr. Castellone continued presenting the flowchart with regards to the crime issue. Mr. Atlas explained his methodology for conducting a crime study and used Coral Gables as an example.

Mr. Batista from the City of North Miami asked how will the police evaluation be performed. Mr. Ostlund from MDPD wanted to change "Crime Elements" to "Public Safety Concerns." Public safety concerns should include fire, medical, police, school board, etc. He discussed some of the impacts street closures would have on the above services. Mr. Castellone stated that those concerns are addressed in the procedure during the traffic impact study. The consensus agreed to keep "Crime Elements" as presented.

Mr. Cassel asked why cannot a municipality go through the crime process to the temporary closure without intervention by the County. Mr. Hasan stated the study must include a traffic analysis to see the impacts and the County should be involved. Mr. Cassel said that a city should be able to do a study and give results to the County. Mr. Hasan said that the study still needs to be looked at by the County. since the County has ultimate control of the streets.

Mr. Reynold of FRH asked if the crime track is repeating an existing procedure for security districts. Mr. Leone answered that it is not necessarily the case. Special taxing districts asked to be involved in the study so that they could get definitive guidelines.

Mr. DeArazoza suggested that the "Implement Street Closure" box should be changed to "Implement Temporary Street Closure" and add an additional box after the "After Traffic Analysis Results OK?" titled "Implement Permanent Street Closure." The change was made to the flowchart.

Mr. Bergeron from the City of Homestead noted that it appears that the process inherently defines a lot of duplicity for a municipality to go through. The City of Homestead already has a procedure and they do not want to do any procedure twice. Mr. Leone answered that every municipality has different procedures. The County is not trying to tell a municipality that they cannot do something. We are all

HARRIS

trying to get consensus among everyone so that what is reasonable for the County is also reasonable for the municipalities and is reasonable for everyone.

Mr. Vereia of North Miami Beach said that the State and County needs to be involved early in the process regardless if a closure is temporary or permanent.

Mr. Baron stated that we are trying to develop a structural approach to a problem that is affecting everyone. He suggested a change for the flowchart. The crime track should tie into the traffic track. After the crime issue is deemed valid, the flow should be connected to the "Before Traffic Impact Analysis" of the traffic track. The following boxes on the crime track would be deleted. The change was made.

Mr. Castellone continued with the flowchart addressing the traffic side. He also discussed procedures for conducting a traffic study.

Mr. Batista stated that a municipality should not have to expend the resources on an After Traffic Study if the roadway in question is already at Level-of-Service (LOS) A. Mr. Castellone stated that the LOS criteria for residential roads is deficient and the study will define levels for different classifications of roads within a residential area. Mr. Hasan said that if a City has the capability to sign and seal a study it would be acceptable as long as the procedure defined by this study was followed.

Ms. Cissel raised a point about Unincorporated Dade County paying for studies and remedies in an incorporated municipality. Mr. Leone stated that the study has not identified responsibility as to who does what in the process.

Mr. Bergeron asked if there will be a clause defining when a request may be allowed to come back if denied. Mr. Cassel asked if there will be an appeals process. Mr. Castellone stated before we even get to that point, a street closure recommendation needs to pass by majority rule of the residents affected by the modification. He asked for suggestions on the definition of the majority, should it be 51% or 2/3 majority. Mr. Cassel suggested changing "Establish Total Residents Affected" to "Establish Total Property Affected;" the change was made.

Mr. Hasan stated that street closures and traffic calming techniques should be separated in the process. A discussion followed on this issue and resulted in some modification to the flowchart.

FRH will revise the flowchart according to the results of the workshop and will distribute along with the meeting minutes.

The next meeting was tentatively scheduled for the end of April, 1996.

HARRIS

Metro Dade County
Street Closure Study
Steering Committee Meeting #5

May 16, 1996
1:30 PM

AGENDA

- Introductions
- Review of Previous Meeting Minutes
- Technical Memorandum #3 Comments
  - Correspondence
- Technical Memorandum #4
  - Application Process
  - Draft Policy
  - Objectives
  - Procedures
  - Funding
- Final Steering Committee Meeting
  - Symposium
  - Date to be announced

Metro Dade County
Street Closure Study

HARRIS

Steering Committee Meeting #5

May 16, 1996

A meeting was held on this date, beginning at 1:45 PM, with the following in attendance:

Attendees	Company Name	Telephone Number
Anthony Castellone	Frederic R. Harris, Inc.	826-0606
James Reynold	Frederic R. Harris, Inc.	826-0606
Don Avery	Frederic R. Harris, Inc.	826-0606
Muhammed Hassan	Dade County Public Works	375-2030
Jim Leone	Dade County Public Works	375-2913
Rafael DeArazoza	FDOT	470-5335
Alberto Delgado	City of Coral Gables	460-5002
Wagner Almeida	Town of Bay Harbor Islands	866-6241
Arshad Viqar	City of Miami Beach	673-7080
Edgar Muñoz	City of Miami	416-1275
Dorothy Cissel	CTAC	385-1602
Pat Rebull	CTAC	445-7501
Erick Verela	City of North Miami Beach	948-2946
Lucy Fitts	Metro-Dade Police	471-1775
Samuel Schafer	Metro-Dade Police	471-2533
Barbara Mathews	Metro-Dade Fire Rescue	596-8557
Mark Woerner	Dade County Planning	375-2835
Jeff Hunter	Dade County MPO	375-4507
Esther Calas	Dade County Public Works	375-2092

Mr. Anthony Castellone, Frederic R. Harris (FRH), opened the meeting. There was a roundtable introduction session which the attendees also voiced comments on Technical Memorandum #4.

Mr. Jeff Hunter, MPO, was concerned that the study seems to deal only with local streets. There is a possibility that some streets may be collectors and/or arterials. He also mentioned conducting air pollution studies.

Mr. Mark Woerner, DPDR, expressed two views. First, he does not think that any public street should be closed; traffic calming measures are a good alternative. Secondly, he was concerned with the costs borne by the applicants for traffic studies could be cost prohibitive. There is much cost associated with the application procedure in addition to paying for a physical device. Mr. Castellone responded that it has been anticipated that funding would be an issue and he foresees that there would be an opportunity for joint participation between government and citizens.

Ms. Barbara Mathews, Fire-Rescue, mentioned that crime is the perceived reason for existing street closures. She also commented that new "neighborhood design communities" already have traffic

calming elements implemented, however this poses a problem for emergency vehicle access. This problem is exasperated when these streets are closed based on crime reasons.

Mr. Samuel Schafer, MDPD, addressed the subject of interagency review and length of time for reviewing crime statistics.

Ms. Lucy Fitts, MDPD, was concerned with street closure effect on emergency vehicle response time.

Mr. Eric Verela, City of North Miami Beach, mentioned that the needs have been addressed by the study.

Mr. Pat Rebull, CTAC, would like to see the wording "or bypass roadway construction routes" incorporated into the draft Dade County policy in Technical Memorandum #4. He also proposed the concept of a "weighted scale factor profile" to be incorporated into step 4 of the flowchart. This factor would facilitate ranking the traffic calming alternatives by taking into account cost versus intangibles to develop a benefit cost ratio.

Ms. Dorothy Cissel, CTAC, discussed the new boundaries commission established recently in the County. She is very concerned with emergency response times and emergency vehicle access in relation to street closures. Citizen service should be a major concern.

Mr. Edgar Muñoz, City of Miami, brought up a point concerning road classification and also stated that traffic calming and street closures should be separated in the process.

Mr. Wagner Almeida, Town of Bay Harbor Islands, stated that the study does not fulfill the needs of small cities. The flowchart addresses traffic issues in contrast to a small city closing a street based on crime issues. Traffic calming would impact emergency service and it is not always an alternative to a street closure. Mr. Castellone responded that the study tries to recognize that every situation is unique and it tries to be general enough so that all parties concerned are operating on the same level.

Mr. Arshad Viqar, City of Miami Beach, stated that the study has been helpful in their decisions in dealing with current street closure requests.

Mr. Alberto Delgado, City of Coral Gables, stated that the "2/3 Property Owners Approve Plan?" decision box in step 6 of the flowchart should be moved up in the process. This decision should be made before any money is spent on studies or engineering. He would like to see the pending legal opinion concerning the legality of street closures.

Mr. Jeff Hunter, MPO, questioned if the procedure applies to the County if they try to implement traffic calming or street closures. Will the County go through the procedure before putting up stop signs or a traffic signal? Discussion ensued on this topic.

Mr. Rafael DeArazoza, FDOT, is concerned that this procedure could be a large burden for a group of citizens. He advised that the Level-of-Service section should be expanded. The report gives the impression that there is federal funding available for the application procedure which may be misleading.

Mr. Muhammed Hassan, MDPW, stated that current street closures have been funded by citizens.

Mr. Jim Leone, MDPW, is pleased that the procedure includes special taxing districts.

Mr. Pat Rebull, CTAC, raised the point that there are ways to grant access to vehicles with a street closure. A discussion ensued on this topic between Fire-Rescue, CTAC, and the Cities of Miami Beach and Coral Gables.

Mr. Anthony Castellone, FRH, discussed Technical Memorandum #4. The County is opposed to street closures, however street closures are included in the process as a last resort.

Ms. Barbara Mathews, Fire-Rescue, stated that on page 11 of Technical Memorandum #4, the discussion of emergency service response time should include "and hydrant accessibility inside and outside of the street closure." Also, page 8 does not mention trash pick-up service, but it is mentioned elsewhere in the report.

Ms. Dorothy Cissel, CTAC, asked where does the community councils from the boundary commission fit in and should they be accounted for? Mr. Castellone responded that the boundary commission will be addressed, if needed, in the future.

The steering committee discussed the proposed symposium.

Mr. Muhammed Hassan, MDPW, said that the steering committee has representation from the major cities within the County. The symposium will inform all other cities and municipalities.

Mr. Castellone, FRH, said that the symposium will be developed and scheduled for hopefully sometime in June. He asked for comments on Technical Memorandums #3 and #4. All received applicable comments will be compiled and incorporated into the final report.

Ms. Barbara Mathews, Fire-Rescue, asked what is the goal of the whole study? Mr. Jim Leone, MDPW, responded that the goal is to produce a report for the commission to act on with the intent of establishing a county-wide ordinance.

The meeting adjourned at 3:10 PM.

CORRESPONDENCE

City of North Miami

776 Northeast 125th Street, P.O. Box 610850, North Miami, Florida 33261-0850

(305) 893-6511

January 26, 1996

Mr. Muhammed M. Hasan, P.E.
Project Manager
Metropolitan Dade County
Public Works Department
111 N. W. First Street, Suite 1610
Miami, FL 33128-1970

Dear Mr. Hasan:

I enjoyed reading Technical Memorandum I concerning street closure policies and programs currently in effect in Dade and across the country. I found the Memorandum informative and accurate. As I was unable to attend the first Steering Committee meeting held January 16, 1996, I would appreciate it if you would send to my attention a copy of Technical Memorandum II, which I understand was distributed at that time. Additionally, please keep me on your mailing list to receive notices of future Steering Committee meetings.

Thank you in advance.

Sincerely,

Ana Rijo-Conde, AICP
Planning & Development Director

ARC:al\96020

FLORIDA DEPARTMENT OF TRANSPORTATION

LAWTON CHILES
GOVERNOR

BEN G. WATTS
SECRETARY

Traffic Operations

Facsimilie Transmittal Cover Sheet

District Six
1000 N.W. 111th Avenue
Miami, Florida 33172

DISTRICT VI

TRAFFIC OPERATIONS

FAX copy to HASSAN (DCPW)
375-2931

Date: 2/15/96

Fax To: Anthony Castellone

Company Name: F R HARRIS

Fax # Dialed: 826-0560

From: RAFAEL De ARAZOZA

Traffic Ops Fax #: (305) 470-5815

D.O.T. District 6 Fax#: (305) 470-5699

Total Pages including Cover Sheet: 5

Any Questions? Call this number: (305) 470-5545/5335

Comments: Anthony: attached my comments on the Matrix and tables presented at the 2/14/96 Street Closure Committee meeting.

Rafael

Residential Traffic Control Alternatives and Related Issues

Type of devices that could be use ↓

Traffic Calming Devices

Passive ——— Active

add: → Neighborhood Speed Watch?

Issues	Education	Enforcement	Landscaping	Movement Restrictions	One-Way Streets	Four Way Stop	Textured Paving	Gateway Treatment	Raised Islands	Speed Humps	Speed Bumps	Raised Crosswalk	Two-Lane Slow Point	Single-Lane Slow Point	Shared Ped/Veh Zone	Chokers	Roundabouts	Diagonal Street Closure	Street Closure
Excessive Speed	○	◒	○			○	○			◒	◒	◒	●	●	●	●	●	○	○
Traffic Intrusion				○	◒			○		○	○		○	○	○	○		◒	●
Traffic Volume				○	◒			○		○	○		○	○	○	○		◒	●
Pedestrian Safety	○	○							●			◒	◒	◒	●			○	○
Crime	◒	●																	
Truck Traffic		◒		○				○		○	○				◒			◒	●
Excessive Noise			◒	○									○	○		○	◒	○	○

add: → Traffic Circles

← Add

Emergency Services
- Hwy Capacity/LOS/Traffic Operations
- Access Management, etc

● Highly Effective

◒ Moderately Effective

○ Somewhat Effective

Will look into addressing crime on this matrix? or as a separate one?

There are ramifications arising from implementing street closures

FRH A. Castellone
FAX 826-0560

Comparison of Traffic Calming Devices

Device	Advantages	Disadvantages	Cost
Education	Increase public awareness.	No effect on non-resident traffic.	Low
Enforcement	Increase safety in residential areas.	Cannot be in place at all times.	Moderate
Landscaping	Improves appearance for residents. Provides refuge for pedestrians and cyclists.	Minimal effect on speed/volume. ?	Low
Movement Restrictions (REGULATORY SIGNS ?)	Increased driver awareness of special circumstances.	-Undocumented speed reductions. - enforcement or lack of ?	Low
One-Way Streets	Restrict the movements with the most number of conflicts.	-Difficult to enforce. - Longer distance to travel	? Low
Four Way Stop	Occasional volume reduction	Increase noise. Mixed safety results. ← ARE YOU SURE ?	Low
Textured Paving	Differentiates between arterial and residential road. Alerts driver to different driving surface.	Negligible effect on speed/volume.	Moderate
Gateway Treatment ↑ Define	Indications of change from arterial to residential. Reduces entry speeds. Reduces pedestrian crossing distance.	May restrict arterial flow. Safety implications ? Conflicts ?	Moderate
Raised Islands	Provide refuge for pedestrians and cyclists. Can improve the streetscape if landscaped.	Will only create a limited reduction in vehicle speeds.	High

March 11, 1996

TO: DADE COUNTY CITY MANAGERS

FROM: MICHAEL J. ROBERTO, CITY OF NORTH MIAMI BEACH

RE: DADE COUNTY STEERING COMMITTEE ON TRAFFIC ISSUES

Speeding, cut through traffic, and crime have been identified year after year as the biggest concerns North Miami Beach residents have for their neighborhood. I know your City has the same concerns and desires to have the ability to deal with them as you believe necessary.

The County is currently conducting a study and preparing a report regarding street closures and other traffic calming techniques. The study will conclude with the preparation of a draft ordinance. The ordinance will set up requirements and procedures for approval of these improvements on your local streets and within your residential neighborhoods. Following is a letter I recently sent to Dade County's Director of Public Works regarding the progress of this study to date.

I hope you will join me in expressing concern over the direction the County is taking in this matter. Please feel free to use any or all of the words I have used in a letter of your own.

Together we can prevent the County from further inhibiting our ability to deal with these problems.

City of North Miami Beach, Florida

17011 N.E. 19th AVENUE
NORTH MIAMI BEACH, FLORIDA 33162-3194

From the Office of
CITY MANAGER

(305) 948-2900
FAX (305) 787-6004

March 11, 1996

Post-it® Fax Note 7671	Date	# of pages ▶ 2
To Pedro Hernandez	From M. de Roberto	
Co./Dept.	Co.	
Phone #	Phone # 948-2905	
Fax # 375-2825	Fax #	

Pedro Hernandez, P.E.
Director of Public Works
Metropolitan Dade County
111 N.W. 1st Street, Suite 1610
Miami, FL 33128

Dear Mr. Hernandez:

On Friday, March 22, 1996 the County's Street Closure Steering Committee will hold its third meeting at which the third of five technical memoranda being prepared will be reviewed. I would like to request that the Committee and the yet to be prepared Memoranda address the following comments:

- Although the City of North Miami Beach does not necessarily wish to encourage the implementation of access restrictions and other traffic control measures, we do believe that the residents of our jurisdiction who desire a fair and expedient review of such requests deserve our support. Therefore, we request that rather than developing "a formal policy that outlines procedures to discourage street closures", a formal policy be developed that promotes involvement by not requiring that expensive and time consuming procedures be followed before such proposals will be considered. Our experience with the proposed Skylake closures demonstrates that the County's current procedure is time consuming and ineffective. Had County staff analyzed the request upon its initial submittal rather than responding with a long list of boiler-plate requirements, a different plan may have been developed at far less cost and with greater acceptability to the County.

- If requests for traffic control measures have the potential to negatively affect State or County arterials, an analysis of the potential effects should be required. However, if the effects of the proposed measures are determined to be non-existent or minimal and inconsequential to the operation of state and county roadways, approval should be determined on a local level.

- The use of Development Impact Models and other measurable criterion in evaluating proposed traffic control measures must be balanced with an understanding of the local residents' reasons for desiring traffic control measures. An analysis of the negative impacts of diverted traffic on the transportation system will not show the positive, many times unquantifiable, impacts the traffic control measures have on a neighborhood.

- Attempts to remove the emotions and politics from the issue will not be successful. The procedures developed must allow these highly emotional issues to be decided by the public. If that decision making ability resides instead with government representatives, political battles will be unavoidable. A request should only be denied by a governmental body when the proposal causes an unnecessary public harm.

These comments have resulted from my staff's review of Technical Memoranda #1 and #2. Our concern is that the direction of the Committee and the tone of the Memoranda have been prematurely influenced by those who appear to believe that traffic controls and restrictions are normally not in the public interest and, thus, should be discouraged.

Sincerely,
CITY OF NORTH MIAMI BEACH

Michael J. Roberto
CITY MANAGER

cc: Dade County City Manager's Association
Dade County League of Cities

+kev96/ltr.20

BAY HARBOR ISLANDS

March 21, 1996

Pedro Hernandez, P.E.
Director of Public Works
Metropolitan Dade County
111 N.W. 1st. Street, Suite 1610
Miami, FL 33128

Re: Street Closures

Dear Mr. Hernandez:

It is our understanding that the County's Street Closure Steering Committee will hold its third meeting on March 22, 1996 at which the Committee will review the third of five technical memoranda being prepared. I would like to request that the Committee address the following comments in the yet to be prepared memoranda.

- Although the Town of Bay Harbor Islands does not necessarily wish to encourage the implementation of access restrictions and other traffic control measures; we do believe that the residents of our jurisdiction deserve a fair expedient review of such request. Therefore, we request that development of "a formal policy that outlines procedures to discourage street closures" be abandoned. In its place a formal policy that promotes involvement by the community and the municipal jurisdiction be implemented. This would minimize the need for expensive and time consuming procedures before a request could be considered.

- If the request for a traffic control measure has the potential for negative affect to a State or County arterial road, then an analysis of the potential effects should be required. However, if the results of the analysis indicate that the effects are non-existent or inconsequential to the arterial road then approval should be left solely to the local jurisdiction.

- The use of Development Impact Models and other measurable criteria must be balanced by an understanding of local residents' reasons and desires for traffic

9665 BAY HARBOR TERRACE (P.O. BOX 546620) BAY HARBOR ISLANDS, FLORIDA 33154
TELEPHONE: (305) 866-6241 FAX (305) 866-4863

control measures. Models and analysis that only view the negative impact on the transportation system do not account for the positive and many times unquantifiable impacts on the neighborhood.

- Decisions in this issue can not be made simply on engineering data and no emotion. These decisions directly affect the daily life of the residents in the community. The community belongs to the people, not the politicians, policy analysis or engineers. The people who pay the taxes to pay for the closures and all other governmental services should have the greater voice. A request for closure should only be denied by a governmental body when the proposal for a few causes an unnecessary public harm for the many.

- The decision of what properties are in a special taxing district for traffic control devices and what properties are not should be left to the local municipal jurisdiction where the request originates. This allows the local governmental body and the residents affected to work out the proper allocation of assessment. The people decide what they are willing to pay for not a distant third party.

These comments have resulted from information provided from a review of Technical Memoranda #1 and #2. We are concerned that the direction of the committee has been influenced by those who believe that traffic controls and restrictions are not in the public interest and therefore be discouraged. The residents of a community must have the ability to control their community.

Sincerely,

Town of Bay Harbor Islands

Kenneth G. Cassel
Acting Town Manager

Miami Shores Village

PUBLIC WORKS DEPARTMENT
10050 N.E. SECOND AVENUE
MIAMI SHORES, FLORIDA 33138-2382
TELEPHONE (305) 795-2210
FAX (305) 696-6402

THOMAS J. BENTON
Assistant Village Manager
Director of Public Works

March 25, 1996

Mr. Pedro Hernandez, P.E.
Director of Public Works
Metropolitan Dade County
111 NW 1st Street
Suite #1610
Miami, FL 33128

Dear Mr. Hernandez:

The Dade County Highway Division has recently completed its third meeting of the County's Street Closure Steering Committee, at which the third of five technical memorandum are being prepared for review. As a community that has undertaken a major street closure program, it is our opinion, and request, that the County should not implement lengthy and restrictive policies and procedures prior to the installation of a road closure.

Miami Shores Village does not encourage the closing of streets and alleyways. However, if our residents petition for such an action, we feel strongly that they receive a fair and expedient review of such requests. Upon attending these steering committee meetings, it appears that the focus of your consultant has been on the merits of moving traffic, and the negative impacts of road closures. An analysis of the negative impacts of diverted traffic on the transportation system will not show the positive, many times unquantifiable impacts the traffic control measures have on a neighborhood. Our community has experienced very positive results since our road closures have been installed, that were not identified during the traffic analysis we were required to conduct prior to being allowed to install the first closure.

The committee's attempts to remove the emotion in politics from this issue are admirable, but unrealistic. Whatever procedure is developed, must allow these highly emotional issues to be decided by the public of the local jurisdiction. A request should only be denied by a governmental body, when a proposal causes an unnecessary public harm.

We ask that the County change the direction of the Steering Committee, and focus more on the local jurisdiction's ability to manage and control this issue, rather than implementing restrictions that are not in the local municipalities best interest.

Sincerely,

Tom Benton
Assistant Village Manager/
Director of Public Works

TB/pm

cc: Michael R. Couzzo, Jr., Village Manager

City of North Miami

776 Northeast 125th Street, P.O. Box 610850, North Miami, Florida 33261-0850

(305) 893-6511

April 5, 1996

Mr. Muhammed M. Hasan, P.E.
Project Manager
Metropolitan Dade County
Public Works Department
Suite 1610
111 N. W. First Street
Miami, FL 33128-1970

Dear Mr. Hasan:

Re: Street Closure Study

It is my understanding that Frederic R. Harris, Inc. is currently in the process of preparing the last of the Technical Memoranda relative to the referenced study, and that the Memorandum will clearly outline the process under which petitions for street closures will be reviewed in the future by Dade County. Because of the significance and impact that this process will have on cities and its citizens, I would strongly suggest that an advance copy of the Memorandum be supplied to the Street Closure Committee members; this will enable us, the participants, some time within which to review the document and make comments in preparation for the final meeting. I have been concerned over the fact that the prior technical memoranda were handed out to the participants at the meetings; this, I believe, has undermined the value of the meetings which were to be a real tool for consensus-making on street closures and related issues.

Thank you in advance for your consideration of my request and I look forward to the receipt of Technical Memorandum 4.

Sincerely,

Ana Rijo-Conde, AICP
Planning & Development Director

ARC:al\96071

cc: Russ Marchner, Executive Director, Dade League of Cities
Lee Feldman, Deputy City Manager
Giovanni Batista, Civil Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION

LAWTON CHILES
GOVERNOR

To Anthony Castellano	
Co./Dept.	Co.
Phone #	Phone # 375-2030
Fax # 826-0560	Fax # 375-2931

Tra

Facsimile Transmittal Cover Sheet

District Six
1000 N.W. 111th Avenue
Miami, Florida 33172

DISTRICT VI

TRAFFIC OPERATIONS

Date: 4/8/96

Fax To: Muhammed HASSAN

Company Name: Metro-Dade Public Works

Fax # Dialed: 375-4505

From: RAFAEL De ARAZOZA

Traffic Ops Fax #: (305) 470-5815

D.O.T. District 6 Fax#: (305) 470-5699

Total Pages including Cover Sheet: 8

Any Questions? Call this number: (305) 470-5335

Comments: Hassan: ATTACHED are my comments from reviewing F.R. HARRIS Tech. MEMO No 3 → STREET Closure Study.

RDA

RECYCLED PAPER

~~Copy: Roy~~

~~Return to: Ed~~ 3/25/96 OK

METRO DADE

STREET CLOSURE STUDY TECHNICAL MEMORANDUM 3:

Traffic Calming Alternatives for Residential Traffic Control

Prepared for:

Dade County Public Works Department

and

Metropolitan Planning Organization

To: M. HASSAN (DCPW)
R. ESTEBAN (FDOT)
From: R.E. De Arazoza
ATTACHED please find my review comments.
RDA 4/8/96

Prepared by:

Frederic R. Harris, Inc.

Consulting Engineers

March 1996

HARRIS

THE ISSUES

A survey was performed as part of the study and is documented in Technical Memorandum #2. The survey consisted of sixteen questions relating to the street closure issue currently facing local officials and their constituency throughout the County. Specifically, the main topics covered included:

- The status of existing or pending street closures;
- Typical traffic control measures requested by citizens;
- Identification of typical residential traffic problems;
- Funding methods; and
- Perception of street closure performance.

Institutional Concerns

The survey results identified a number of issues as typical concerns or complaints by both municipal officials and local neighborhood representatives regarding the benefits and consequences of street closures. Listed below are those common macroscopic issues public officials are faced with when addressing street closure requests:

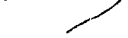
- Diverted Traffic Volumes resulting in degraded Levels of Service (LOS) on Adjoining Neighborhood Streets,
- Diverted Traffic Volumes resulting in degraded LOS on the Adjoining Arterial or Collector Roadway System,
- Degradation of Emergency Services' Access and Response Times, and
- Degradation of Other Services such as Busing, Delivery and Trash.

Many times these issues are identified *after* a particular street closure has been implemented; either by affected neighborhood residents or other municipal agencies.

Private Concerns

The general public is more concerned about those microscopic problems that they perceive to adversely affect the neighborhoods' "livability". These problems may include:

- Excessive Vehicle Speeds within Residential Neighborhoods,
- "Cut-through" Traffic or Traffic Intrusion,
- Safety of Pedestrians and Bicyclists,
- Perception of Increasing Crime and Drug Sales,
- High Truck Traffic as a result of Traffic Intrusion,
- Increased Noise as a result of High Traffic Volumes, and
- Perceived Increase (or Decrease) in Property Valuation as a result of Street Closures.
- Decreased Emergency Services Response time



Device	Advantages	Disadvantages	Cost	MOE's
Movement Restrictions *No Left/Right Turns, or No Trucks signing and/or pavement markings. Can be initiated by time-of-day at signal intersections.*	Increases driver awareness of special circumstances. May reduce traffic intrusion.	Requires enforcement. Diverted traffic may increase volumes on adjacent streets.	Low	Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections.
One-Way Streets Used as part of a neighborhood traffic mitigation plan to create street discontinuities.	Restricts those movements with the most number of conflicts. Maintains emergency vehicle access. Can discourage traffic intrusion & speeding if used in combination with other one-way streets.	Increases travel distance of residents. Difficult to enforce. Can increase vehicle speeds within one-way section. Diverted traffic may increase volumes on adjacent streets.	Low	Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections.
Multi-Way Stop Signs *Used to improve the safety of an intersection by assigning vehicular right-of-way.*	Possible volume reduction due to driver inconvenience. High compliance at higher volume, four-way stop locations.	May increase speeds between locations. Mixed safety results and low level of compliance at un-warranted locations. Increases motorist delay, air pollution, fuel consumption and noise from stopping and starting vehicles.	Low ALSO	Reduction in traffic accidents. Environment. stopped/average veh. delay ?
Textured Paving *Examples include brick, cobblestone, or concrete pavers.*	Differentiates between arterial and local streets. Can be used as crosswalks or in conjunction w/ gateway treatments. Alerts driver to change in land use.	Negligible effect on vehicular speeds or volumes. Maintenance required.	Moderate	Neighborhood cohesion. (Aesthetics) ADT's before & after implementation

Device	Advantages	Disadvantages	Cost	MOE's
Gateway Treatments *Typically, a landscaped island in the center of a street or heavily landscaped monuments at street corners marking the entrance to a neighborhood.*	Alerts drivers of change to local street from higher street classifications. May reduce entry speeds. Gives sense of neighborhood identity.	May require additional maintenance of landscaping, lighting or sprinkler system.	Moderate	Neighborhood cohesion. (Aesthetics) ADTs before & AFTER
Raised Islands/Medians *May include channelization islands at intersections or mid-block median closures.*	Provides refuge for pedestrians. Effective in channelizing traffic or forcing traffic movements. May significantly reduce traffic intrusion.	Will only create a limited reduction in vehicle speeds. Could increase emergency vehicle response times. Traffic diversion.	High	Decrease in cut-through traffic. LOS in neighborhood. LOS at peripheral signalized intersections. Emergency service access.
Speed Humps *A pavement undulation, 12 feet long and 3 to 4 inches high.*	Reduces vehicle speed in the vicinity and between humps when installed in series. May reduce traffic volumes by causing diversion.	Not a standard traffic control device as defined by MUTCD. / FDOT May create additional noise. Could increase emergency vehicle response times. Must be used in series for maximum effectiveness.	Low	Decrease in 85th percentile speed. Emergency service response time. Environment ADTs before & AFTER
Raised Crosswalks *Could be provided at intersections or mid-block.*	Slows vehicle at installation. Reduces pedestrian/vehicle conflicts. Highlights intersection area.	May increase difficulty of making a turn. Improper drainage considerations could adversely affect intersection conditions. Could increase emergency vehicle response times.	Low	Decrease in 85th percentile speed. OR INCREASE Reduction in traffic accidents. Emergency service response time. Environment.

safety concern of over ve" turning into "wrong" lane ?

Device	Advantages	Disadvantages	Cost	MOE's
Semi-Diverter *A physical, landscaped barrier placed at an intersection to eliminate one direction of traffic flow.*	Eliminates traffic intrusion while maintaining emergency vehicle access. Reduces pedestrian/vehicle conflicts.	Will decrease access to properties. Diverted traffic may adversely affect arterial and other local streets. May require increased landscaping maintenance.	Moderate	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in neighborhood.
Diagonal Diverter *A landscaped barrier placed diagonally across a 4-legged intersection to divert traffic flow.*	Eliminates traffic intrusion while maintaining pedestrian access. Reduces pedestrian/vehicle conflicts. Can be designed to traversable for emergency vehicle access.	Will decrease access to properties. May inhibit emergency vehicles' access. Diverted traffic may adversely affect arterial and other local streets. May require increased landscaping maintenance.	High	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in Neighborhood. Emergency service access, response. Neighborhood cohesion.
Street Closure *Street access restricted to motor vehicles using landscaping, bollards, gates, etc.*	Eliminates vehicular traffic intrusion.	May significantly reduces emergency vehicle access. Reduces access to properties for residents. May adversely impact adjacent neighborhoods' and arterial streets' traffic operations. Typically requires legal action by jurisdictional authorities. May require increased landscaping maintenance. May be perceived as an unwarranted restriction by general public.	High	Decrease in cut-through traffic. LOS at peripheral signalized intersections. LOS in Neighborhood. Emergency service access, response. Neighborhood cohesion.

ON ALL of above under "MOE" column add before & after ADT's

HARRIS

Level of Service - Within Neighborhood

Needs to be defined in more details. LOS concept as defined in the HCM does not lend itself properly to residential & collector roads.

An installed traffic calming alternative will most probably have some impact on traffic level of service (LOS). LOS is operationally categorized as a letter grade from A (best) to F (worst) and is based on volume-to-capacity thresholds as proposed in this Technical Memorandum. A proposed alternative must be analyzed to determine if a positive or negative impact on LOS will be realized. In addition, adjacent roadways in the neighborhood should be analyzed as some of the traffic calming alternatives may redirect traffic to other areas of the neighborhood leading to an impact on the level of service.

Agree!!

Level of Service - Neighborhood Periphery

The LOS of roadways adjacent to the neighborhood or on the periphery of the neighborhood must be analyzed for impact due to diverted traffic from a traffic calming alternative. Special attention should be paid to intersecting roadways on the State Highway System and whether there would be a degradation of LOS.

Accidents

A proposed traffic calming alternative should be assessed to the impact (increase or decrease) it will have on traffic accidents, and vehicular conflicts. X

Neighborhood Cohesiveness

Neighborhood cohesiveness relates to the physical characteristics and boundaries which define a neighborhood. Each proposed traffic calming alternative should be assessed to whether it could potentially break up or bring together sections of the neighborhood. This will be dependent on the amount of physical roadway modification associated with the chosen traffic calming alternative.

Emergency Service Access

Emergency vehicle access (which includes fire and medical) may be affected depending upon the actual amount of physical roadway modification is realized as a result of a traffic calming alternative installation. Obstructing emergency vehicle access could lead to increases in response time to an emergency call. Each proposed alternative should be evaluated to ascertain if emergency vehicle access could be reduced, as well as response time. X

Right-of-Way Requirements

Additional right-of-way or space may be required to properly install some of the traffic calming alternatives. Conversely, available right-of-way may constrain or limit the type of chosen alternative. Right-of-way acquisition would also incur additional cost over the actual construction of an alternative. Each proposed alternative should be evaluated to determine installation space requirements if there would need to be an acquisition of additional space.

MEMORANDUM

107.07-17A METRO-DADE/GSA-MAT MGT

D: Pedro Hernandez, P.E., Acting Director
Dade County Public Works Department
ATTN: Muhammed Hasan, P.E.
Project Manager

DATE: April 11, 1996

SUBJECT: Street Closure Study

FROM:

Fred Taylor, Director
Metro-Dade Police Department

We appreciate the opportunity to participate in the formulation of procedures for processing requests for street closures in Dade County. The following comments are based on the proposed Draft Street Closure Petition Request flow chart (attached), as presented and discussed at the March 22, 1996, meeting.

- The flow chart refers to a police evaluation, if crime is a concern, at the beginning of the review process. It is suggested that review at this point not be limited to law enforcement, but include other public safety areas such as fire, emergency rescue, and hurricane evacuation.

- The proposed flow chart indicates that if crime is to any degree a reason for the request, the street closure could be rejected solely based on law enforcement evaluation. Crime rates should not be the sole determinant for the establishment or disapproval of a street closure. Review by concerned law enforcement agencies should occur even if crime is not stated to be a reason for a proposed street closure.

- Because a street closure in a municipality could impact the unincorporated area, the Metro-Dade Police Department should be included in the review of all street closures. Likewise, nearby municipalities should be included in reviews. Law enforcement review should be consistent from agency to agency and include procedures for addressing concerns of adjoining jurisdictions.

- It would be preferable to analyze crime statistics before and after the street closure, as reflected in the flow chart regarding traffic review. The analysis should cover a period of perhaps one year before and one year after the street closure to determine the impact on crime patterns. Discussion concerning the size of the area to be analyzed should be revisited, as different considerations of the various agencies involved may preclude establishment of an arbitrary radius due to operational and geographic parameters. While review of crime-related statistics will provide insight into what crimes have occurred, it will not necessarily have any predictive value.

- If post-closure analysis reveals unacceptable problems caused by the closure, there should be a process for revision or revocation of the approval.

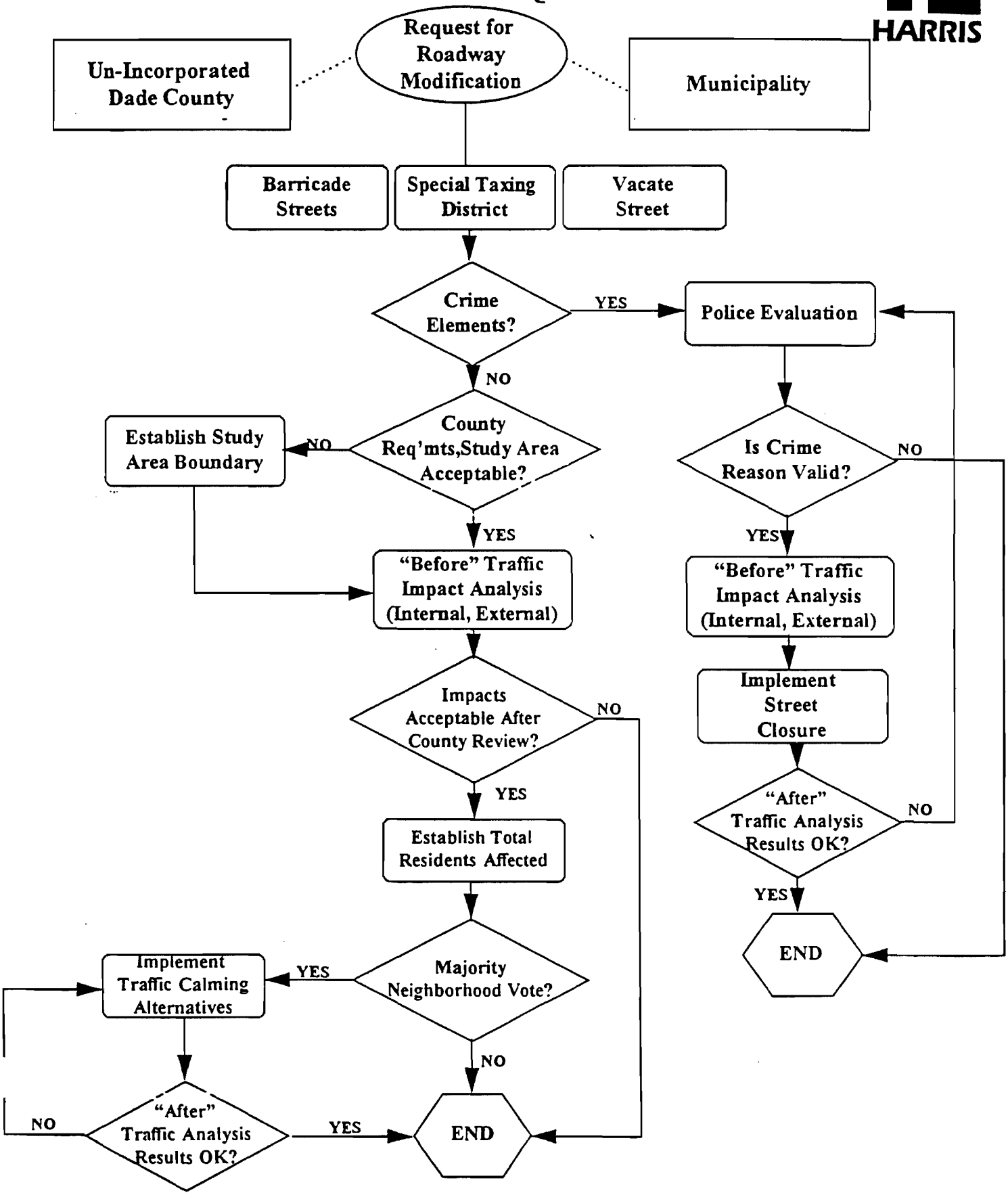
- The review process should provide for alternatives if a street closure is denied in the application process.

If additional information is required, please contact Samuel Schafer, Budget and Planning Bureau, at telephone number 471-2533.

FT/go
Attachment

DRAFT
STREET CLOSURE
PETITION REQUEST

HARRIS



City of North Miami Beach, Florida

CITY MANAGER

April 12, 1996

Armando Vidal
County Manager
Metropolitan Dade County
111 N.W. 1st Street
Miami, FL 33128

Dear Mr. Vidal:

Over the past few months a steering committee created to study the increase in street closure requests has been meeting under the direction of the County's Public Works Department. Your response to the objections being raised regarding the pre-determined direction of the County's Street Closure Steering Committee is respectfully requested. Please address the apparent lack of consideration the Committee has given to local government's desire to have the ability to deal with neighborhood traffic problems on a local level. The Committee appears to be headed toward developing a draft ordinance that would respond to the increased demand for traffic mitigation by making it more difficult for cities and their respective residents to accomplish anything. The Committee **should be** attempting to determine how to most efficiently and effectively address the problems which have lead to the requests.

Following are two questions which need to be answered before the Committee proceeds:

- The negative effects neighborhood traffic mitigation measures have on state and county arterials are often minimal or non-existent and, thus, are inconsequential in comparison to the benefits they provide to the neighborhood. What procedures can be developed to recognize such a situation and exempt it from expensive and time consuming requirements?

- Minimum standards need to be developed to defined in terms of emergency access, average daily traffic counts, functional roadway dimensions, etc. Once it can be demonstrated that a proposed traffic mitigation plan meets these standards, the decision should be made on a local level. What procedures can be developed to insure that the minimum standards are met and that the decision is ultimately made by the affected residents and their local government?

I look forward to your response and hope that the Committee will take these issues into consideration.

Sincerely,

Michael J. Roberto
City Manager

METROPOLITAN **DADE** COUNTY, FLORIDA

METRO-DADE

STEPHEN P. CLARK CENTER

OFFICE OF COUNTY MANAGER
SUITE 2910
111 N.W. 1st STREET
MIAMI, FLORIDA 33128-1994
(305) 375-5311

July 26, 1996

Mr. Michael J. Roberto
City Manager
The City of North Miami Beach
17011 NE 19 Avenue
North Miami Beach, Florida 33162-3194

Re: **Street Closures**
Traffic Flow Modification Study

Dear Mr. Roberto:

This is in response to your letter concerning the above-referenced matter.

The Public Works Department and the Metropolitan Planning Organization have initiated the Street Closure/Traffic Flow Modification Study with an open mind and no pre-determination direction.

The Public Works Department has the countywide responsibility for traffic control; therefore, we must ensure that traffic flow modifications do not transfer the problem from one street to another. The study provides an expeditious manner to handle single street closure/traffic modification without going through an extensive study process. However, depending on the complexity of the request, studies may be required to the extent justified by specific conditions.

It was gratifying to see how well the cities and County worked together during the study process. At the last Steering Committee Meeting the committee members indicated their appreciation of the consultant's work and supported the proposed procedures.

However, the new procedures need to be tested and analyzed over a trial period and fine tuned accordingly. Likewise, the new traffic calming devices will also have to be tested and evaluated. When a level of confidence is achieved at both the City and County level, these procedures and devices will be finally adopted by County Ordinance.

We, like always in the past, are willing to work with the cities to develop a working document which is amenable to the cities, their neighbors and the community at large.

Sincerely,

Armando Vidal, P.E.
County Manager

cc: Pedro G. Hernandez, P.E.
Acting Director, Public Works Department

CITY OF MIAMI SPRINGS
PUBLIC WORKS DEPARTMENT

May 9, 1996

Mr. Muhammed M. Hassan, P. E.
Public Works Department
METROPOLITAN DADE COUNTY
111 NW 1st Street #1610
Miami, FL 33128-1970

Re: Steering Committee Meeting

Dear Project Manager:

As far as we are concerned, after reviewing our copy of the TECHNICAL MEMORANDUM 4, we have no major objections to the proposed application procedures and implementation guidelines for street closure. This letter is to excuse Mr. Marcos Urra's attendance on May 16, 1996 due to a pre-scheduled commitment. Please, let us know about the next steering committee meeting to ensure our participation.

If you have any questions, please do not hesitate to contact me at 887-4116

Sincerely,

Clarance Patterson
Public Works Director

copy: Rory return → RDA 5/10

METRO-DADE

STREET CLOSURE STUDY TECHNICAL MEMORANDUM 4:

Application Procedures & Implementation Guidelines for Street Closure or Modification of Traffic Flow on Local Streets

Prepared for:
Dade County Public Works Department
and
Metropolitan Planning Organization

Prepared by:
Frederic R. Harris, Inc.
Consulting Engineers

May 1996

REPLY FAX TO →

Post-It™ brand fax transmittal memo 7671	# of pages ▸ 15
To M. HASAN	From RAFAEL De ARAZOZA
Co. TRAFFIC Engineering	Co. EDOT
Dept. Metro Dade Public Works	Phone # 470-5335
Fax # 375-2931	Fax #

HARRIS

FDOT DIST. 6 TRAFFIC OPERATIONS COMMENTS RDS 5/13/96

Street Closure Study
Technical Memorandum 4:

Application Procedures & Implementation Guidelines for Street Closure or Modification of Traffic Flow on Local Streets

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INTRODUCTION

as well as other roadways

Technical Memorandum 4 presents a standardized set of sequential procedures and guidelines for use by the public, local officials, or other private sector interests in considering any request for traffic flow modifications that may affect local neighborhood traffic patterns. The intent of these procedures is to provide Unincorporated Dade County and municipalities a pragmatic approach to facilitate government action in response to petitions to restrict local traffic access via street closures, other physical modifications or traffic calming alternatives. These procedures are also intended to ensure that such issues are given appropriate study and timely response and that the full range of traffic and community impacts are considered.

This Technical Memorandum also contains recommended guidelines and procedures for developing and implementing neighborhood traffic access and control measures. The procedures address traffic issues in an incremental fashion with the least restrictive measures tested first, then monitored and replaced with more stringent measures if ineffective. When non-traffic issues enter into the decision process, the procedures weigh fully both the traffic and non-traffic implications of a street closure or traffic flow modification. Although each citizen request will be unique, a process described herein shall apply equally to any residential traffic control situation. This process should be regarded as a minimum. An applicant who has followed the process is not guaranteed a street closure or traffic flow modification. Some other action or combination of actions may be found to be preferable to street closure or it may be found that no action is recommended.

supplemented, modified or

HARRIS

DRAFT DADE COUNTY POLICY

Florida Statutes (Section 316) states that "no local authority shall enact or enforce any ordinance on matters covered by the Motor Vehicle Laws of Florida unless expressly authorized by statute". Accordingly, Metro Dade County should enforce the following policy as it relates to traffic flow restrictions on local streets within its municipalities and unincorporated areas:

> **It is the policy of Dade County, Florida that all persons have an equal right to lawful use of the public streets and highways within its boundaries. Chartered municipalities may regulate traffic in order to ensure public safety and health, but, absent express authority, may not determine which traffic shall and which shall not use local streets. Based upon this policy, and in the absence of specific State legislative authority to the contrary, a municipality or any organization within Dade County may not restrict the right to travel upon its public streets to its residents or to other exempted drivers.**

This proposed policy is modeled after the City of San Buenaventura, California's *"Policy Relative to Closure or Modification of Traffic Flow on Public Streets"* (as adopted by Resolution 93-130) which addresses the issue of traffic regulation within chartered municipalities.

The purpose of this policy is to set forth the process and criteria by which modification of traffic flow or closure of public streets may be considered by the Metro-Dade County Public Works Department and to identify the conditions under which street closures or traffic flow modifications may be enacted. This policy only applies to the closure or modification of traffic flow on public streets initiated by citizens or municipal officials. This policy will not apply to the closure or modification of traffic flow on public streets initiated by a municipality to address special events, emergency or traffic safety issues or to comply with State or Federal standards and warrants. This policy also will not apply to temporary changes in traffic that are needed to stage special events within Unincorporated Dade County.

Some examples of Florida Uniform Traffic Control Law of such specific authority given to Dade County to regulate travel upon streets are:

- If the Board of County Commissioners determines the street is no longer needed for vehicular traffic (§316.006);
- If a Special Taxing District is created to monitor traffic by security devices or personnel (§316.008);
- If a lane of a public roadway is designated as a "High Occupancy Vehicle (HOV) Lane" (§316.0741);
- If the street is within the boundary of any airport (§316.008);
- If roadway construction or maintenance is being performed (§316.008);
- If the street is designated as a one-way roadway (§316.008); and
- If a street has been designated as a "play street" or "safety zone" (§316.008, §316.1355).

While Florida statutes (Section 316.002) indicate that there are conditions which allow Dade County to pass certain traffic ordinances for the regulation of municipal traffic as noted above, State law explicitly disallows any local authority to regulate or control the movement of traffic outside such municipalities. This express delegation does not prevent local authorities from "restricting the use of streets" and "designating and regulating traffic on play streets", however, Florida statutes prohibit Dade County from installing or maintaining a traffic control device at any location that may regulate, control or impact the traffic on any State road, unless approval in writing has first been obtained from the Florida Department of Transportation.

The Dade County Attorney's office is currently reviewing State and County law relative to the closure of public streets and will render a final opinion prior to the resolution of this Draft Policy.

or any other governmental/public agency

- Metro-Dade Police Department,
- Affected Municipal Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- District VI office of the Florida Department of Transportation, and
- Any other agency affected by closure.

2.b If the request affects local streets within a chartered municipality, the City Manager's designated representative will request review of the application from the following agencies or departments:

- Municipal Fire Department,
- Metro-Dade Fire Department,
- Municipal Fire Department,
- Metro-Dade Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- Florida Department of Transportation (District VI),
- Dade County Public Works Department, Traffic Engineering, and
- Any other agency affected by closure.

These reviews should be relevant to the agency reviewing the proposed closure or traffic flow modification. The scope of the review should be determined by the reviewing municipality on a case-by-case basis.

2.c If engineering judgment can, with minimal analysis:

2.c.1.1 Determine that the request for closure or traffic flow modification affects an isolated location; and

2.c.1.2 Determine impacts on services or traffic operations to be insignificant;

then final determination concerning the approval or denial of the application for street closure or traffic flow modification can be made immediately.

2.d For Unincorporated Dade County applications, Public Works will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and extenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the County's Public Works Director.

when would the applicant be allowed to bring back request?

HARRIS

2.e If the request affects local streets within a chartered municipality, the City Manager's designated representative will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and attenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the City Manager of the respective municipality.

See comment (2.d) p. 8

2.f If all agencies and departments concur, proceed to the next step.

3. Evaluate Criteria Establishing Specific Type of Request

If the request is for:

3.a Street closure or other modification that would impact traffic flow, proceed to Step 4;

3.b A Special Taxing District, see the Special Taxing District Procedures listed in Appendix B;

3.c Reverting public right-of-way to adjacent property owners, then:

3.c.1 For Unincorporated Dade County, follow the Dade County Procedures listed in Appendix C.

3.c.2 For municipalities, follow municipal procedures.

Each type of request has a specific set of procedures and guidelines for the applicant to follow; with those for street closures or traffic flow modifications being described herein.

The affected area as determined by the County Public Works Department will include, but not be limited to, those properties where normal travel routes to and from the affected area are to be altered by the street closure or traffic flow modification, and/or properties which are significantly impacted by traffic that is to be diverted.

4. Identify Potential Impacts of Street Closure or Traffic Flow Modification

Agree in principle BUT

A professional traffic engineering consultant should be engaged by the applicant to perform a detailed traffic study. This study must show that the closure or modification will not create unreasonable traffic impacts on the subject street or on streets which may be impacted by diverted traffic.

↳ concern: How can a fairly large number of citizens, say 3 or 4 blocks, get together and pay for such a study? The logistics of achieving this may be quite a "challenge". Specially when viewed against stages 1→3 on appendix D.

HARRIS

The following study elements may be required by the Dade County Public Works Department, depending on the type of residential traffic control problems identified above:

4.a Drawings showing the exact location of the proposed street closure or traffic flow modifications, intersection geometrics and the boundary of the area affected. This boundary will be determined by the Traffic Engineering Section of the Dade County Public Works Department.

4.b An origin-destination (O/D) study that identifies the percentage of "cut-through" versus neighborhood traffic, if the reason for the request is traffic intrusion. Cut-through traffic volumes as a result of diverted trip links can be measured according to the guidelines provided in the Institute of Transportation Engineer's Trip Generation Manual.

4.c A review of accident history for the prior three (3) years to identify any significant collision trends at locations identified with safety concerns, if the reasons for the request are safety related such as a high number of accidents. This data could be obtained from the County or affected Municipality.

4.d Spot speed studies for an application that indicates "speeding" as a typical neighborhood traffic control problem. A speeding problem can be verified when the 85th percentile speed of all vehicles is at least 10 mph greater than the posted speed limit. An initial survey of 100 vehicles will be considered an adequate sampling.

4.e Crime statistics for the study area, to be obtained from the jurisdictional law enforcement agency, for a period of one (1) year, if security and crime prevention are the primary reasons for a requested closure and formation of a Special Taxing District is unacceptable.

4.f An internal analysis of expected diverted traffic on those roadways within the study area. This will require:

4.f.1 7 day, 24 hour counts on those streets that are proposed to be closed or modified;

4.f.2 7 day, 24 hour counts on those streets that may be impacted by proposed closures or traffic flow modifications;

4.f.3 Future traffic volumes on a *Residential Collector* should not exceed 3,000 vehicles per day (300 vph during the peak hours) if a complete street closure is implemented. These threshold values define those limits when a residential collector begins to lose its livability and are for analysis purposes only. They do not guarantee that a closure will be approved.

what if traffic existing is already more than 3000 or 300? vpd vph

← General note:
• should school traffic be considered? or not?

HARRIS

overal intersection LOS must not exceed LOS D or if operating at LOS E must not go into LOS F. However same applies for an individual intersect. approach and/or Lane group within the most affected intersect approach.

(2) If intersection or approach or Lane group is already at LOS F, then diverted veh. volume must not be more than 5% or 10% of the exist. volume w/o the diversion.

4.f.4 Future traffic volumes for a partial closure of a *Residential Local Street* should not exceed 1,500 vehicle per day (150 vph during the peak hours). These threshold values define those limits when a local residential street begins to lose its livability and are for analysis purposes only. They do not guarantee that a closure will be approved. See comment REF # 4f3 Page 10

4.f.5 Peak hour turning movement counts and a level of service (LOS) analysis at critical locations that will be affected by re-distributed traffic. LOS must not exceed "D"; ← weak. needs to be reworded/expanded (2) See (1) & (2) above

4.f.6 A schematic diagram for both AM and PM peak hours showing existing and re-distributed traffic and Average Daily Traffic (ADT's).

4.g An external analysis of expected diverted traffic on those roadways adjacent to and surrounding the affected area. Particular attention shall be directed to the impacts on the State highway system and County roadways, including:

4.g.1 Queuing analysis and storage requirements at existing signalized intersections;

4.g.2 Peak hour turning movement counts (TMC's) and LOS analysis at selected signalized and unsignalized existing intersections. A schematic diagram showing the results of the TMC analyses for critical locations. LOS must not exceed "D"; ← See comment on 4.f.5

4.g.3 Timing modification requirements at existing signalized intersections; and

4.g.4 Previous street closures or traffic flow modifications within the study area.

4.h A detailed evaluation of the impacts of street closure or traffic flow modifications on emergency vehicle response times as well as the impacts on other services such as mail delivery, school bus routing, transit service, trash pick-up and other services.

The specific case will dictate which of the above items will be required, depending on the complexity and requirements of the study area in question. Any traffic study performed for a requested street closure or traffic flow modification should be compiled by the applicant's traffic consultant in a form of a formal report, signed and sealed by a Florida registered professional engineer.

(See comment on ITEM 4, page 9

HARRIS

5. Evaluate Traffic Calming Alternatives to Street Closures

It is necessary to adopt an area-wide, systematic approach to the development of alternative solutions relative to street closures. This approach would include:

- Problem Identification & Needs Assessment
- Generating Alternative Traffic Calming Plans
- Plan Selection
- Design, Implementation & Evaluation

This approach must work within the overall framework of the existing roadway classification system and encourage community participation.

Several category levels (I through V) to distinguish those least restrictive (passive) traffic control measures from those that are most restrictive (active) have previously been defined in Technical Memorandum #3. Ideally, the least restrictive measures to address a traffic problem would be employed first, followed by more active and physical traffic calming devices. This incremental approach would allow a cost effective opportunity to identify the real traffic problem, if any, and better evaluate the impacts of more restrictive measures.

With the above staged approach in mind as defined in Appendix D, and a handful of traffic calming alternatives available for use on local Dade County roads, a typical request for a street closure or traffic flow modification might proceed accordingly:

5.a The Applicant's traffic consultant will identify traffic problems as a result of his analysis above and assess the community's needs.

5.b The consultant will generate staged alternative traffic calming plans, including design plans for temporary and permanent traffic calming measures, for approval by Metro-Dade County Public Works Department. These plans should:

5.b.1 Implement the lowest level (Level I through Level III) traffic control measures on a temporary basis; measures that, in the consultant's opinion, will satisfy the applicant's concerns.

5.b.2 Allow traffic to stabilize and reevaluate traffic patters after six (6) months.

5.b.3 If Stage 1 impacts are unacceptable, then proceed to Stage 2 and reevaluate more restrictive traffic calming alternatives.

5.b.4 If Stage 1 impacts are acceptable, the applicant engages a licensed contractor to implement permanent traffic control measures.

or governmental agency as appropriate X

Technical Memorandum #3 describes those measures of effectiveness (MOE's) that must be analyzed when evaluating the traffic impacts and livability impacts of a traffic calming alternative plan. A sample evaluation of a traffic calming alternative plan has been provided in Appendix D.

6. Obtain Property Owner Approval to Implement Proposed Modification

The traffic calming flow alternatives derived as a result of the above steps must be supported by a minimum of two-thirds (67 percent) of the total number of citizens affected by the proposed changes in traffic flow, as determined by the County. The citizens (one per household) should include all property owners, tenants, and business owners within the "affected area" who might be significantly affected by the proposed traffic flow modifications or street closure. Applicants submitting petitions for closure or traffic flow modifications must attempt to contact all affected parties.

The following requirements shall be met:

6.a At a minimum, 90 percent of all citizens within the traffic study area must be contacted for the petition to be accepted by the County. The petition requirement will be satisfied by signatures from 75 percent of those contacted indicating support for the street closure or traffic flow modifications. This will ensure support by a two-thirds majority (90% x 75% = 67.5%) of affected citizens.

6.b All persons signing a petition requesting a street closure or traffic flow modification will acknowledge that they will be required to participate in all costs directly associated with the street closure or traffic flow modification.

6.c Any petition not complying with these requirements will not be accepted for consideration.

A sample "Traffic Calming Plan" petition is included in Appendix E.

7. Evaluate Impacts as a Result of Implemented Traffic Calming Alternatives

Once an application for street closure or traffic flow modification contains all of the required information and all of the matters described above have been completed, the Dade County Public Works Department will initiate and complete the environmental and traffic review process as follows:

7.a A public workshop organized by the applicant's traffic consultant will be held to which affected property owners, tenants, and business owners will be invited to participate. The purpose of the workshop will be an attempt to determine the alternative that has the greatest community support. The public workshop should include participation by Municipal, Metro-Dade County and State transportation officials.

FUNDING

Due to the wide range of activities that pertain to neighborhood traffic calming measures and their impacts on residential areas, a comprehensive listing of public funding sources for these activities is beyond the scope of this study. Some of the activities that have been described throughout this and previous Technical Memorandums include:

- Organization of Public Forums;
- "Before" Studies to Identify Potential Impacts;
- Planning & Design of Traffic Calming Alternative Plans;
- "After" Studies to Evaluate Real Impacts; and
- Construction of Temporary and/or Permanent Traffic Calming Devices.

It is anticipated that the applicant requesting a street closure or traffic flow modification will be required to participate in the funding of most activities described above. Applicants representing a Neighborhood Homeowner's Association or Municipality may have available funds for these activities from Association dues, Special Assessments, or in the case of a municipality, City funds. Unincorporated Dade County applicants may need to solicit funding from those property owners affected by the street closure or traffic flow modification.

It is conceivable that the Dade County Public Works Department will participate in the Planning, Design and Implementation of a Neighborhood Traffic Calming Plan. For example, the physical construction of signing, speed humps or semi-diverters may be coordinated with an ongoing Maintenance Program or roadway improvement projects. The County may be limited by available staff and budgeted funds allocated to its Traffic Engineering Division to perform any design functions.

As the procedures and guidelines contained in this Technical Memorandum evolve into a formal Neighborhood Traffic Management Program, federal funding could become available for those traffic calming plans that might affect the State Highway System. Subsequently, federal financial assistance for these local projects may be available through the Florida Department of Transportation. One such example of potential FHWA funding is possible through the following program:

- Federal-Aid Urban Systems. This program covers traffic improvements on Federal Aid System (FAU System) streets and streets leading to the FAU System. Federal share is 80%.

Information on these programs administered by the Federal Highway Administration (FHWA) can be obtained by contacting Mr. Robert Callan of FHWA in Tallahassee, Florida at (904) 942-9583.

These funds are typically used for traditional transportation & traffic related improvements, not normally for the types contained by this report. Also these funds are generally "not enough" to meet the demands as reflected by the MPO's Transp. Plans and would also have to "compete" against these traditional improvements.

HARRIS

SUMMARY

For this Technical Memorandum, the proper documentation of the issues (i.e., traffic intrusion, speeding, excessive noise, crime) needed to accompany any request for passive or active counter-measures to address perceived or real residential traffic problems is clearly defined. A variety of counter-measures to address these issues have previously been identified in Technical Memorandum #3; to provide an effective traffic calming response to neighborhood concerns without the negative effects that can occur by total restrictions of access to local streets.

Any traffic control alternative which may disrupt, divert or otherwise inconvenience vehicular traffic must have overwhelming support by all those private citizens, public agencies and local businesses that could be affected by its implementation. The planning, design, and implementation of these traffic calming alternatives, if accepted by the majority of those affected parties, shall only be implemented in accordance with the procedures outlined in this Technical Memorandum in combination with accepted engineering principals and prudent planning.

Those approved street closures or traffic flow modifications covered by this policy shall utilize only official traffic control devices authorized by the Manual on Uniform Traffic Control Devices (MUTCD), the Florida Department of Transportation, Dade County Standards and those recognized traffic calming devices presented in Technical Memorandum #3. Some of the traffic control measures authorized in particular circumstances might include traffic islands, curbs, traffic barriers, or other roadway design features, removing or relocating traffic signals and one-way traffic flow, as appropriate

Refer to comments on ITEM 4, page 9

STAGE 1 EVALUATION

a) Applicant's traffic consultant should verify actual problems through the application process and define objectives.

b) Applicant's traffic consultant should assess the needs of the community by inviting input via a selected number of designated representatives for the applicant. Familiarize community representatives with constraints and issues.

c) Citizens' consultant, County and Municipality will brainstorm ideas in conjunction with professional engineering and planning judgment to generate traffic calming alternatives.

d) Citizens' consultant, County and Municipality will select a traffic calming plan for public consensus via 2/3 petition approval. This plan should only include those passive and active devices identified in category Levels I through IV of Technical Memorandum #3.

e) If consensus is reached, the traffic consultant will design a combination of Level I through Level IV traffic calming measures to address the specific traffic problems identified during the application process. The County may participate in certain operational improvements by installing signs, pavement markings, etc. These designs must be approved by the County prior to implementation (Levels I through III only) by a licensed contractor hired by the applicant. Be prepared to identify implementation problems and make adjustments. If traffic calming plan is not approved by the majority of affected property owners, STOP.

f) The County and traffic consultant will monitor and evaluate the Stage 1 traffic calming plan after a period of six (6) months to allow traffic patterns to stabilize.

g) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

h) If measured impacts are acceptable, continue traffic calming measures and STOP. If measured impacts are unacceptable, proceed to Stage 2.

STAGE 2 EVALUATION

a) The applicant's licensed contractor will implement temporary Level IV traffic calming measures to address the specific traffic problems identified in the application process. Design plans for physical modifications to the roadway must be signed and sealed by a professional engineer registered in the State of Florida and approved by the County Public Works Department.

HARRIS

b) The County and traffic consultant will monitor and evaluate the Stage 2 traffic calming plan after a period of six (6) months to allow traffic patterns to stabilize.

c) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

Is this right? Are we not in Stage 2 ∴ Stage 1 did not work?

d) If measured impacts are acceptable, the applicant should continue Stage 1 traffic calming measures, implement permanent Stage 2 devices and STOP. If measured impacts are unacceptable, retain temporary Level IV devices and proceed to Stage 3.

STAGE 3 EVALUATION

a) Applicant's traffic consultant should re-assess the needs of the community through a select number of designated representatives for the applicant.

b) Citizens' consultant, County and Municipality will brainstorm additional ideas in conjunction with professional engineering and planning judgment to generate alternatives.

c) A traffic calming plan that incorporates Level V devices for street closure or traffic flow modifications will be developed by the applicant's consultant and petitioned for public consensus.

d) The applicant will procure the design and implementation of temporary Level V traffic calming devices to be used on a temporary basis in addition to or in lieu of those measures previously implemented under Stage 1 and Stage 2 plans. Design drawings for physical modifications to the roadway must be signed and sealed by a professional engineer registered in the State of Florida and approved by the County's Public Works Department. Contractors must be licensed in the State of Florida.

e) The County will monitor and evaluate the Stage 3 plan for a period of six (6) months to allow traffic patterns to stabilize.

f) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

g) If measured impacts are acceptable, the applicant's Contractor may implement permanent Level IV and Level V devices and STOP. If measured impacts are unacceptable, the applicant shall remove Level V devices and revisit needs assessment.

METRO DADE

Street Closure or Traffic Flow Modification
Applicant Questionnaire

Contact Name(s): _____ Phone: _____

1. Rank your neighborhood's traffic problems and provide a brief description of each (for instance, time when the problem is worst, or specific issue, such as a pothole).

   - ☐ Speeding _____
   - ☐ Cut-through traffic _____
   - ☐ Safety _____
   - ☐ Traffic volumes _____
   - ☐ Truck traffic _____
   - ☐ Other (please explain) _____

2. Please check the type of action requested.

   - ☐ Street Closure
   - ☐ Special Taxing District
   - ☐ Reverting the Right-of-Way
   - ☐ Other. Please specify: _____

add →

3. List locations where closure is requested and provide an area map showing closure.

4. How much funding is available for planning, design and implementation of the requested improvements.

   Current Funding $ _____
   Anticipated Future Funding $ _____

5. This request is made on behalf of homeowners by:

   Homeowners Association
   Individual
   Other (please specify) _____

Please attach additional sheets as necessary.

STREET CLOSURE STUDY
TECHNICAL MEMORANDUM NO. 4

CITY OF MIAMI COMMENTS

1. Draft Dade County Policy:
The City's residents and elected officials recognize that all persons have equal right to use public streets and highways, however, as stated in section 5 of the process, all roadways have an existing classification. The Dade County policy must be carefully worded to not imply that a local roadway can be upgraded in classification just because motorists utilize the local road as a "short cut" to avoid congestion on primary and arterial roads that are over capacity.

2. Application Procedure for Street Closure or Traffic Flow Modification:
A major portion of the costs associated in this process are contained in step 4. At the March 22, 1996 meeting, Mr. Hasan, D.C. Traffic, commented that possibly street closures and traffic calming should be separated. Can authority for some or most of the "traffic calming" alternatives be placed at municipal level without the detailed and costly requirements of step 4 that apply mainly to a street closure, possibly a cursory review by the County? This would provide

an alternative that is less costly and time consuming for residents and a municipality. Residents would know "up front" what the costs are associated with closures and be able to directly request a less restrictive alternative that would address their concerns.

Different review criteria should be established for the various alternatives in the "tool box". A "choker" should not be subject to the same review as a full closure. Full street closure requests may be reduced if the municipality can offer less costly and time consuming alternatives "up front" if authorized. If a citizen or municipality has to pay for a full closure review process, why should they settle for less? Elected officials need alternatives to offer the constituents. (Note: this option could be incorporated into step 2 of the review process and a check off box can be added to the Applicant Questionnaire under question 2).

CITIZENS FOR OPEN AND SAFE STREETS

Post Office Box 1706, Coral Gables, Florida 33134
Telephone #444-3696; Facsimile #445-2525

Michelle Bello (665-6674)Patricia Keon (448-5194)
Kathy Holmes (445-1737)Maria C. Velez (445-3482)
Elizabeth "Betsy" Hoover (661-2881) Marcia Mendiola, Treasurer (444-3696)

June 6, 1996 BY FACSIMILE #826-0560

Mr. Jim Reynolds
Frederic R. Harris, Inc.
15485 Eagle Nest Lane
M. Lakes, FL 33014

RE: Street Closures/MPO Study

Dear Mr. Reynolds:

Confirming our conversation of yesterday morning, I reviewed Technical Memo #4, which was recently provided by Mr. Castellone. COSS is very concerned about the loophole in the proposed process, which appears as Section 2.c, on page 8 of the Memo. This section allows for complete circumvention of any studied process before street closures/traffic modifications are undertaken.

It also provides a vehicle for continuation of the political playmanship that has occurred with regards to street closure applications in the past. It was our impression, and our hope, that a detailed process, such as that proposed, would eliminate back room dealing. However, Section 2.c allows for immediate approval of a closure, without regard to traffic counts or consideration of impact of the closure/modification on adjacent streets or possible diversion of traffic to those streets, or of the impact on emergency vehicle response.

This section also provides a vehicle for bypassing the implementation of less intrusive traffic calming devices, which in my humble view is a large purpose behind the study. It seems preposterous to put together a process that can be bypassed through the exercise of "engineering judgment...with minimal analysis".

I urge you to revisit Section 2.c of Technical Memo #4 at the earliest time and make the appropriate changes to remedy this situation. I ask that you provide Mr. Castellone with a copy of this letter.

Also, please advise whether the process outlined in the memorandum applies equally to "local" and county "collector" or "arterial" streets. We have run into situations in the past where the county has agreed to closures which impact other streets, with the reasoning that since it is a "local" street, the municipality has the final say as to whether the street(s) may be closed. This is another area that must

be reviewed.

Might you also provide the name of the contact person at the County Attorney's office who is reviewing the law as it applies to street closures?

Very truly yours,

Mari Vélez

Maria C. "Mari" Vélez

cc: Commissioner Maurice Ferre
Armando Vidal
Pedro Hernandez

- Metro-Dade Police Department,
- Affected Municipal Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- District VI office of the Florida Department of Transportation, and
- Any other agency affected by closure.

2.b If the request affects local streets within a chartered municipality, the City Manager's designated representative will request review of the application from the following agencies or departments:

- Municipal Fire Department,
- Metro-Dade Fire Department,
- Municipal Fire Department,
- Metro-Dade Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- Florida Department of Transportation (District VI),
- Dade County Public Works Department, Traffic Engineering, and
- Any other agency affected by closure.

These reviews should be relevant to the agency reviewing the proposed closure or traffic flow modification. The scope of the review should be determined by the reviewing municipality on a case-by-case basis.

2.c If engineering judgment can, with minimal analysis:

2.c.1.1 Determine that the request for closure or traffic flow modification affects an isolated location; and

2.c.1.2 Determine impacts on services or traffic operations to be insignificant;

then final determination concerning the approval or denial of the application for street closure or traffic flow modification can be made immediately.

2.d For Unincorporated Dade County applications, Public Works will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and extenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the County's Public Works Director.

- Metro-Dade Police Department,
- Affected Municipal Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- District VI office of the Florida Department of Transportation, and
- Any other agency affected by closure.

2.b If the request affects local streets within a chartered municipality, the City Manager's designated representative will request review of the application from the following agencies or departments:

- Municipal Fire Department,
- Metro-Dade Fire Department,
- Municipal Fire Department,
- Metro-Dade Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- Florida Department of Transportation (District VI),
- Dade County Public Works Department, Traffic Engineering, and
- Any other agency affected by closure.

These reviews should be relevant to the agency reviewing the proposed closure or traffic flow modification. The scope of the review should be determined by the reviewing municipality on a case-by-case basis.

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2.d For Unincorporated Dade County applications, Public Works will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and extenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the County's Public Works Director.

RESOLUTION NO. R96-5

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DADE LEAGUE OF CITIES, INC., TO THE METROPOLITAN DADE COUNTY COMMISSION AND THE METROPOLITAN DADE STREET CLOSURE COMMITTEE WHICH IS REVIEWING ALTERNATIVES AND POTENTIAL RECOMMENDATIONS FOR UNIFORM APPLICATIONS REGARDING STREET CLOSURES.

WHEREAS, the Metropolitan Dade County Commission and its committees will be reviewing proposals, alternatives, policies and practices regarding street closures; and

WHEREAS, numerous requests are generated by local residential neighborhoods and/or by their local governments; and

WHEREAS, many of these applications do not significantly impact any county roadway or emergency vehicle operation.

NOW, THEREFORE,

BE IT RESOLVED by the Board of Directors of the Dade League of Cities, Inc., that Metropolitan Dade County, its administration and committees adopt those policies and practices which support local self determination by local neighborhoods where adequate excessibility and arrangements for all life safety emergency vehicles are met and there is no significant impact on a county roadway.

Section 1. The foregoing recitals are true and correct.

PASSED AND ADOPTED this 21st day of May, 1996.

ATTEST:

COPY

HON. JOHN A. CAVALIER, JR.
SECRETARY

COPY

HON. PAUL VOGEL, D.C.
PRESIDENT

APPROVED AS TO FORM:

HOWARD B. LENARD
GENERAL COUNSEL

City of North Miami

Planning & Development - Office of City Engineer

776 NE 125th Street
P.O. Box 610850
North Miami, Fl 33161-0850

(305) 893-6511 ext. 205

FAX NO. 899-0497

Date: 6/25/96

To: Don Avery (Fredrick K. Harris)

Fax No.: 826-0560

From: Giovanni P. Batista

Re: Street Closures Tech. Memo #4 comments

File No.: City File "Street Closure"

Pages: ____ *pages total (including cover sheet)*

Message:

These are the comments for/on Tech. Memo #4. I have faxed these comments to Metro (Muhammed Hasan).

Street Closure Study
Technical Memorandum 4:

Application Procedures & Implementation Guidelines for Street Closure or Modification of Traffic Flow on Local Streets

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INTRODUCTION

Technical Memorandum 4 presents a standardized set of sequential procedures and guidelines for use by the public, local officials, or other private sector interests in considering any request for traffic flow modifications that may affect local neighborhood traffic patterns. The intent of these procedures is to provide Unincorporated Dade County and municipalities a pragmatic approach to facilitate government action in response to petitions to restrict local traffic access via street closures, other physical modifications or traffic calming alternatives. These procedures are also intended to ensure that such issues are given appropriate study and timely response and that the full range of traffic and community impacts are considered.

This Technical Memorandum also contains recommended guidelines and procedures for developing and implementing neighborhood traffic access and control measures. The procedures address traffic issues in an incremental fashion with the least restrictive measures tested first, then monitored and replaced with more stringent measures if ineffective. When non-traffic issues enter into the decision process, the procedures weigh fully both the traffic and non-traffic implications of a street closure or traffic flow modification. Although each citizen request will be unique, a process described herein shall apply equally to any residential traffic control situation. This process should be regarded as a minimum. An applicant who has followed the process is not guaranteed a street closure or traffic flow modification. Some other action or combination of actions may be found to be preferable to street closure or it may be found that no action is recommended.

What about cost of traffic study? Who determines?

HARRIS

Done!

DRAFT DADE COUNTY POLICY

Florida Statutes (Section 316) states that "no local authority shall enact or enforce any ordinance on matters covered by the Motor Vehicle Laws of Florida unless expressly authorized by statute". Accordingly, Metro Dade County should enforce the following policy as it relates to traffic flow restrictions on local streets within its municipalities and unincorporated areas:

> **It is the policy of Dade County, Florida that all persons have an equal right to lawful use of the public streets and highways within its boundaries. Chartered municipalities may regulate traffic in order to ensure public safety and health, but, absent express authority, may not determine which traffic shall and which shall not use local streets. Based upon this policy, and in the absence of specific State legislative authority to the contrary, a municipality or any organization within Dade County may not restrict the right to travel upon its public streets to its residents or to other exempted drivers.**

This proposed policy is modeled after the City of San Buenaventura, California's *"Policy Relative to Closure or Modification of Traffic Flow on Public Streets"* (as adopted by Resolution 93-130) which addresses the issue of traffic regulation within chartered municipalities.

The purpose of this policy is to set forth the process and criteria by which modification of traffic flow or closure of public streets may be considered by the Metro-Dade County Public Works Department and to identify the conditions under which street closures or traffic flow modifications may be enacted. This policy only applies to the closure or modification of traffic flow on public streets initiated by citizens or municipal officials. This policy will not apply to the closure or modification of traffic flow on public streets initiated by a municipality to address special events, emergency or traffic safety issues or to comply with State or Federal standards and warrants. This policy also will not apply to temporary changes in traffic that are needed to stage special events within Unincorporated Dade County.

Some examples of Florida Uniform Traffic Control Law of such specific authority given to Dade County to regulate travel upon streets are:

- If the Board of County Commissioners determines the street is no longer needed for vehicular traffic (§316.006);
- If a Special Taxing District is created to monitor traffic by security devices or personnel (§316.008);
- If a lane of a public roadway is designated as a "High Occupancy Vehicle (HOV) Lane" (§316.0741);
- If the street is within the boundary of any airport (§316.008);
- If roadway construction or maintenance is being performed (§316.008);
- If the street is designated as a one-way roadway (§316.008); and
- If a street has been designated as a "play street" or "safety zone" (§316.008, §316.1355).

While Florida statutes (Section 316.002) indicate that there are conditions which allow Dade County to pass certain traffic ordinances for the regulation of municipal traffic as noted above, State law explicitly disallows any local authority to regulate or control the movement of traffic outside such municipalities. This express delegation does not prevent local authorities from "restricting the use of streets" and "designating and regulating traffic on play streets", however, Florida statutes prohibit Dade County from installing or maintaining a traffic control device at any location that may regulate, control or impact the traffic on any State road, unless approval in writing has first been obtained from the Florida Department of Transportation.

The Dade County Attorney's office is currently reviewing State and County law relative to the closure of public streets and will render a final opinion prior to the resolution of this Draft Policy.

7

maybe they should have done this before this study was started.

POLICY OBJECTIVES

Consistent with State law, it is the general policy of Dade County to maintain the integrity of the regional roadway network and not allow the temporary or permanent closure of any public street to vehicular traffic. Requests for closure or modification of traffic flow on a public street will be considered, however, when based on a formal application meeting all the criteria and outlined in this Technical Memorandum.

The objective of this policy and corresponding procedures will be to:

- Address the issues thoroughly with participation by all affected parties whether directly or indirectly affected.

This is a rather broad statement. Use Caution?

- Allow local governments to prudently regulate traffic on streets under their jurisdiction by utilizing a variety of proven passive and active traffic calming measures; measures which enable streets to remain fully or partially open to traffic. The failure of alternative traffic calming measures may result in the closure or vacation of a public street.

This is an "a priori" determination against Street Closures

- Preserve emergency vehicle access and maintain an acceptable level of accessibility for all residents, customers of local businesses, and other services.

- Recognize that every local neighborhood is unique, and it is therefore desired to adopt and implement a policy that allows for a flexible process to be used when addressing petition requests for residential traffic control.

- Encourage cooperation and coordination among the Florida Department of Transportation, Dade County, Municipalities and private citizens in the planning and implementation of neighborhood traffic calming measures to avoid having residential traffic management actions by one jurisdiction impact another jurisdiction.

- Preserve the quality of life, safety and physical environment in residential neighborhood by reducing traffic intrusion, speeding, and excessive traffic volumes.

- Address residential traffic problems in the most effective manner feasible while:

  - Minimizing traffic control.
  - Minimizing public expenditures for capital improvements and maintenance.
  - Minimizing enforcement required.
  - Minimizing disruption to essential public service.

THE PROCESS

The process needed to achieve the outlined objectives is modeled after the City of San Buenaventura, California's *"Policy Relative to Closure or Modification of Traffic Flow on Public Streets"* (as adopted by Resolution 93-130) and from input received from the Street Closure Steering Committee.

The process of responding to a citizen request or proposal for a street closure or traffic flow modification will contain the following elements:

1. Receive Citizen Request or Proposal;
2. Preliminary Review by the appropriate government agency (County or Municipality);
3. Establish the type of request by defining the traffic problem or other perceived problems.
4. Identify the potential impacts associated with the proposal by means of a "before" traffic analysis to determine expected impacts of the proposed closure or traffic flow modification.
5. Identify alternative traffic calming and traffic control solutions. As a general rule, these solutions will give preference to actions which entail the least cost, disruption, etc., before selecting costlier, more disruptive solutions.
6. Obtain petitions from a majority of all affected property owners prior to implementing a series of traffic calming alternatives.
7. Perform "after" study to determine impacts of implemented alternative solutions and reevaluate if the study results are unacceptable.

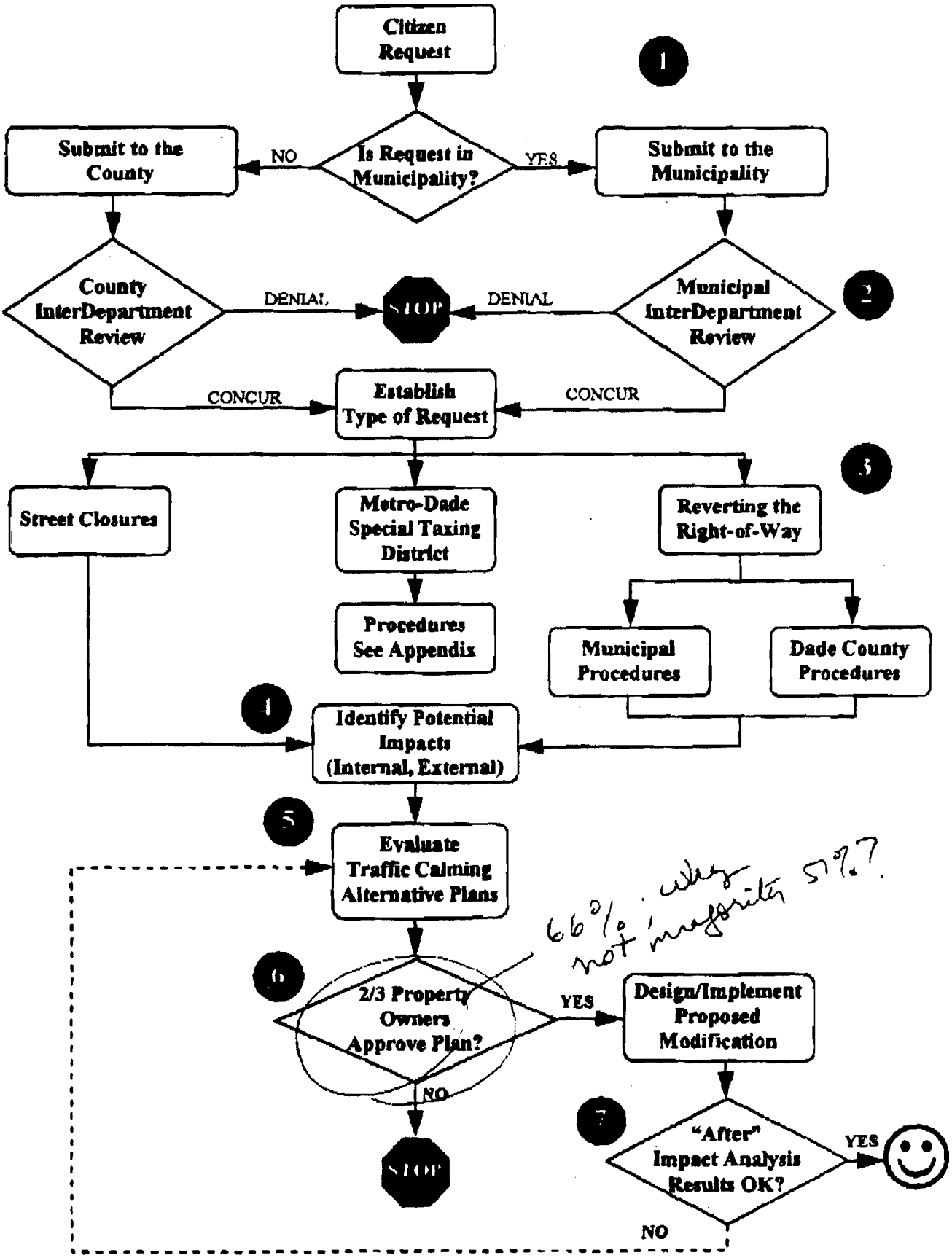
In addition to addressing existing neighborhood traffic problems, this process could serve as a resource for planning new neighborhoods, thereby avoiding future neighborhood traffic problems. Figure 1 represents a flow chart outlining the application process.

1. Consider Citizen Request for Street Closure or Traffic Flow Modification

A citizen request for the closure or modification of traffic flow on public streets, including reopening previously closed streets, will be considered by the County on a case-by-case basis for those streets meeting all of the following criteria:

- The street should be classified as a local street, shall be primarily residential in nature and shall not be a State roadway.
- A preliminary review by the appropriate agencies has not provided sufficient evidence of any major public safety or traffic concerns regarding the proposed street closure or traffic flow modification.

Figure 1. Application Procedure for Street Closure or Traffic Flow Modification



- The changes in traffic flow will not result in unreasonable liability exposure for the County.

The following procedures should be followed for submitting an application for a street closure or traffic flow modification:

1.a An official representative of an established Homeowner's Association or neighborhood group may submit a completed "Street Closure or Traffic Flow Modification" Application provided in Appendix A.

1.a.1 The application must include a statement that persons signing the application acknowledge that it is the County's policy that they may be required to participate in all costs directly associated with street closure or traffic flow modifications.

1.a.2 A sketch showing the proposed street closure or traffic flow modifications is required with the application.

1.b If the request affects local streets within Unincorporated Dade County, then the applicant must submit the application to the Director of Public Works at the following address:

- 111 NW 1st Street
  Stephen P. Clark Center,
  Suite 1610
  Miami, Florida 33128-1970

1.c If the request affects local streets within a chartered municipality, then the applicant must submit the application to the City Manager of the municipality where the closure or traffic flow modification is proposed.

2. Coordinate Interdepartmental Review

The following process will be used to review all applications associated with a proposed street closure or traffic flow modification:

2.a If the request for closure or traffic flow modification falls within Unincorporated Dade County, the Public Works Department's Traffic Engineering Section will coordinate a review of the application with the following agencies and departments:

- Metro-Dade Fire & Rescue,
- Affected Municipal Fire Department,

- Metro-Dade Police Department,
- Affected Municipal Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- District VI office of the Florida Department of Transportation, and
- Any other agency affected by closure.

2.b If the request affects local streets within a chartered municipality, the City Manager's designated representative will request review of the application from the following agencies or departments:

- Municipal Police Department
- Municipal Fire Department,
- Metro-Dade Fire Department,
- ~~Municipal Fire Department,~~
- Metro-Dade Police Department,
- Dade County Public Schools,
- Metro-Dade Transit Agency,
- Florida Department of Transportation (District VI),
- Dade County Public Works Department, Traffic Engineering, and
- Any other agency affected by closure.

} TO BE REVIEWED/Requested by Municipality

} DOT

} Review request to be conduc. by Metro.

These reviews should be relevant to the agency reviewing the proposed closure or traffic flow modification. The scope of the review should be determined by the reviewing municipality on a case-by-case basis.

2.c If engineering judgment can, with minimal analysis:

2.c.1.1 Determine that the request for closure or traffic flow modification affects an isolated location; and

2.c.1.2 Determine impacts on services or traffic operations to be insignificant;

then final determination concerning the approval or denial of the application for street closure or traffic flow modification can be made immediately.

2.d For Unincorporated Dade County applications, Public Works will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and extenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the County's Public Works Director.

2.e If the request affects local streets within a chartered municipality, the City Manager's designated representative will review all comments from the aforementioned agencies and departments. If these comments reveal concerns which cannot be resolved, or that the proposed location and attenuating circumstances do not meet all the criteria outlined in this policy and in State law, the application for closure or traffic flow modification will be denied and the applicant notified by the City Manager of the respective municipality.

2.f If all agencies and departments concur, proceed to the next step.

3. Evaluate Criteria Establishing Specific Type of Request

If the request is for:

3.a Street closure or other modification that would impact traffic flow, proceed to Step 4;

3.b A Special Taxing District, see the Special Taxing District Procedures listed in Appendix B;

3.c Reverting public right-of-way to adjacent property owners, then:

3.c.1 For Unincorporated Dade County, follow the Dade County Procedures listed in Appendix C.

3.c.2 For munic

Alleys should be exempt from this procedure.

F.Statute 336.10

Each type of req uidelines for the applicant to follo w modifications being described h

The affected area as determined will include, but not be limited to, those properties where normal travel routes to and from the affected area are to be altered by the street closure or traffic flow modification, and/or properties which are significantly impacted by traffic that is to be diverted.

4. Identify Potential Impacts of Street Closure or Traffic Flow Modification

A professional traffic engineering consultant should be engaged by the applicant to perform a detailed traffic study. This study must show that the closure or modification will not create unreasonable traffic impacts on the subject street or on streets which may be impacted by diverted traffic.

HARRIS

The following study elements may be required by the Dade County Public Works Department, depending on the type of residential traffic control problems identified above:

4.a Drawings showing the exact location of the proposed street closure or traffic flow modifications, intersection geometrics and the boundary of the area affected. This boundary will be determined by the Traffic Engineering Section of the Dade County Public Works Department.

4.b An origin-destination (O/D) study that identifies the percentage of "cut-through" versus neighborhood traffic, if the reason for the request is traffic intrusion. Cut-through traffic volumes as a result of diverted trip links can be measured according to the guidelines provided in the Institute of Transportation Engineer's Trip Generation Manual.

4.c A review of accident history for the prior three (3) years to identify any significant collision trends at locations identified with safety concerns, if the reasons for the request are safety related such as a high number of accidents. This data could be obtained from the County or affected Municipality.

4.d Spot speed studies for an application that indicates "speeding" as a typical neighborhood traffic control problem. A speeding problem can be verified when the 85th percentile speed of all vehicles is at least 10 mph greater than the posted speed limit. An initial survey of 100 vehicles will be considered an adequate sampling.

4.e Crime statistics for the study area, to be obtained from the jurisdictional law enforcement agency, for a period of one (1) year, if security and crime prevention are the primary reasons for a requested closure and formation of a Special Taxing District is unacceptable.

4.f An internal analysis of expected diverted traffic on those roadways within the study area. This will require:

4.f.1 7 day, 24 hour counts on those streets that are proposed to be closed or modified;

4.f.2 7 day, 24 hour counts on those streets that may be impacted by proposed closures or traffic flow modifications;

4.f.3 Future traffic volumes on a *Residential Collector* should not exceed 3,000 vehicles per day (300 vph during the peak hours) if a complete street closure is implemented. These threshold values define those limits when a residential collector begins to lose its livability and are for analysis purposes only. They do not guarantee that a closure will be approved.

Street Closi It should be designed and/or approved by the agency who has jurisdiction.

STAGE 1 EVALUATION

a) Applicant's traffic consultant should verify actual problems through the application process and define objectives.

b) Applicant's traffic consultant should assess the needs of the community by inviting input via a selected number of designated representatives for the applicant. Familiarize community representatives with constraints and issues.

c) Citizens' consultant, County and Municipality will brainstorm ideas in conjunction with professional engineering and planning judgment to generate traffic calming alternatives.

d) Citizens' consultant, County and Municipality will select a traffic calming plan for public consensus via 2/3 petition approval. This plan should only include those passive and active devices identified in category Levels I through IV of Technical Memorandum #3.

e) If consensus is reached, the traffic consultant will design a combination of Level I through Level IV traffic calming measures to address the specific traffic problems identified during the application process. The County may participate in certain operational improvements by installing signs, pavement markings, etc. These designs must be approved by the County prior to implementation (Levels I through III only) by a licensed contractor hired by the applicant. Be prepared to identify implementation problems and make adjustments. If traffic calming plan is not approved by the majority of affected property owners, STOP.

f) The County and traffic consultant will monitor and evaluate the Stage 1 traffic calming plan after a period of six (6) months to allow traffic patterns to stabilize.

g) Measures of effectiveness will be compared to defined objectives while identifying both positive and negative impacts.

h) If measured impacts are acceptable, continue traffic calming measures and STOP. If measured impacts are unacceptable, proceed to Stage 2.

STAGE 2 EVALUATION

a) The applicant's licensed contractor will implement temporary Level IV traffic calming measures to address the specific traffic problems identified in the application process. Design plans for physical modifications to the roadway must be signed and sealed by a professional engineer registered in the State of Florida and approved by the County Public Works Department. Recommendation could and should be made.

HARRIS

William Brown
1130 NW 60th Street
Miami Florida 33127

Monday, July 15, 1996

Pete Hernandez
Director
Dade County Public Works

Dear Mr. Hernandez,

I would like to contribute my thoughts on the issue of street closings. Barricading streets is unfair to the general population. The general population will have to bear the burden of more congested streets while some enjoy the benefits of a tranquil neighborhood.

It seems homeowners in different parts of our community are trampling the rights of others when barricades are implemented. When barricades are erected they block a neighbor from a surrounding community from enjoying unencumbered access to a street. No community should be allowed to band together to block public roads. Does not implementing barricades violates the public right to a public right-of-away? Barricade proponents are trying to address a crime issue at the expense of a public right.

The energies they are using should be directed at finding ways to stamp out crime. What about those of us who live in high crime areas? We cannot erect barricades. In most instances, it is unfeasible. Upscale neighborhoods can afford limited access to their streets, but this is not true for poorer communities.

These are some of the concerns you should consider when making decisions on this issue. More ways should be explored in the area of combating crime before we section off every enclave in Dade County.

Sincerely

William Brown

MICHAEL G. LAVIN
103 SANTANDER AVENUE
CORAL GABLES, FL. 33134
PHONE (305) 444-9306
FAX (305) 444-9077

JULY 15, 1996

MR. PETER HERNANDEZ - DIRECTOR
DADE COUNTY PUBLIC WORKS
101 NORTH WEST 1ST AVENUE
MIAMI, FLORIDA 33128

SUBJECT: SYMPOSIUM, STREETS CLOSING

DEAR MR. HERNANDEZ:

AS AN ADVOCATE FOR STREET CLOSING, I REGRET THAT I COULD NOT ATTEND YOUR SYMPOSIUM OF YESTERDAY, AS I FEEL I COULD HAVE CONTRIBUTED TO THE AUDIENCE WITH THE BENEFITS OF MY OWN EXPERIENCE ON THIS SUBJECT. I SINCERELY HOPE YOU MIGHT FIND MY COMMENTS SUBJECTIVE AND PERHAPS USEFUL IN THE PREPARATION OF YOUR GUIDELINES DEALING WITH STREET CLOSING. THEY ARE:

THE GOVERNMENT BODY THAT APPROVES A "STREET CLOSING" SHOULD:

1. PRODUCE A COMPLETE IMPACT STUDY BEFORE A REQUEST IS ACCEPTED.

2 NOT TO ERECT TEMPORARY BARRICADES AT THE PROPOSED SITE.

3. BE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE COST. OTHERWISE, AN ALTERNATIVE FORM OF PAYMENT TO INCLUDE A MECHANISM FOR COLLECTING FROM THE NEIGHBORS BOTH COST BE PROPOSED.

4. HAVE STANDARD SETS OF ***"CLOSING CONSTRUCTION PLANS"***.

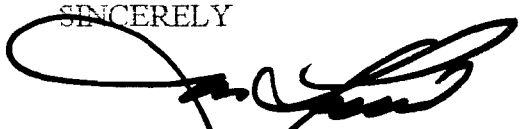
5. ENFORCE THAT THE ***CONSTRUCTION PLAN TO BE USED*** BE DISCUSSED IN AN OPEN COMMISSION HEARING AND SHALL BE REGULATED BY THE LOCAL GOVERNMENT PLANING AND ZONING ORDINANCES. THE ABUTTING NEIGHBORS OF THE ***SPECIFIC CLOSING SITE*** SHOULD BE GIVEN A VOICE TO EXPRESS THEIR CONCERN AS TO HOW THE CONSTRUCTION WILL AFFECT THEIR PROPERTY. THE CONSENTING ABUTTING NEIGHBORS TO THE STREET CLOSING SHOULD HAVE THE RIGHT TO CHOSE A CONSTRUCTION PLAN AND SHALL BE PERMITTED TO INFLUENCE THAT THE CLOSING SITE BE MOVED TO OTHER AREA WITHIN THE SAME STREET. IF NO CONSENSUS IS REACHED AMONG THE

CONSENTING (PETITIONERS) NEIGHBORS WITHIN THE BLOCK, THE STREET SHOULD NOT BE CLOSED. THE VOTE OF THE ABUTTING NEIGHBORS SHALL BE WEIGHTED HIGHER THAN THOSE OF THE OTHERS NEIGHBORS ON THE SAME BLOCK WHERE THE CLOSING IS TO BE CONSTRUCTED. THE WORDS OF NEIGHBOR AND OF PETITIONERSS IS INTENDED FOR ***RESIDENT/OWNER.***

6. ASCERTAIN THAT PARKING AND GREEN AREA SPACES ARE NOT SACRIFICED.

MR. HERNANDEZ, SHOULD YOU HAVE ANY QUESTIONS, PLEASE ADVISE. I THANK YOU VERY MUCH FOR YOUR CONSIDERATION TO THE ABOVE PERSONAL OBSERVATIONS.

SINCERELY



MICHAEL CLAVIN

July 19, 1996

Pedro G. Hernandez
Director of Public Works Dept.
Suite 1610
111 N. W. 1st Street
Miami Fl 33128-1970

Dear Pedro

Nell & I attended your *Street Access/Traffic Modification Symposium* which was excellent and very informative. I hope that it is approved as presented. I feel the most important change is requiring the approval of 2/3 of the property owners (not registered voters) and also requiring to first use progressive *traffic calming* programs.

I assume these changes will also be applied to groups wanting to turn an area into a guard house community since street closures are involved. Should a group succeed it may be because they stressed that the approval of the program would prevent crime and improve property values. Then if this is for personal gain, then those with more valuable assets should have to pay a proportional higher cost, or the cost to each property owner should be based on taxable value and not be a flat rate for all.

Thanks again for helping Dade County develop beneficial programs that are intended to benefit the community.

Sincerely Yours

F. Russell Specht
18655 N E 20th Ct.
No Miami Beach Fl. 33179

memo

TO: **Pete Hernandez, Acting Director**
Public Works
Guillermo Olmedillo, Director
Planning, Development and Regulation Department

FROM: **Silvia M. Unzueta**
Coral Gables Resident

RE: **"Street Closure Study: Implementation Procedure for Street Closure on Traffic Flow Modifications," prepared for Dade County Public Works and Metroplitan Planning Organization by Frederic R. Harris, Inc., Consulting Engineers.**

DATE: **August 9, 1996**

Attached please find my comments on the above draft study. It is important that Public Hearings be scheduled for residents to be able to understand and express their opinions regarding this process. The new approach drastically limits the options to residents and this cannot be implemented without further discussion and public scrutiny. The only meeting held to discuss this item with the general public took place during the morning of a working week. The audience was limited, because many individuals that work for a living could not take time during working hours. It is unfair to proceed with the implementation in absence of further input.

Attachment

cc

The Honorable Raul Valdes Fauli, Mayor, City of Coral Gables
The Honorable Dorothy Thomson, Vice Mayor, City of Coral Gables
The Honorable James Barker, Commisisoner, City of Coral Gables

"Street Closure Study: Implementation Procedures for Street Closure on Traffic Flow Modifications," prepared for Dade County Public Works and Metropolitan Planning Organization by Frederic R. Harris, Inc., Consulting Engineers.

My name is Silvia M. Unzueta. Let the record reflect that I offer my comments as a resident of the City of Coral Gables and a victim of crime.

Even though I have been very active in crime prevention and street closure concerns, I was aware of this draft only when Alfonso Chardy of *The Miami Herald* called asking for my opinion regarding the study. Up to that point, all I knew was that The Honorable Maurice Ferré, County Commissioner, had requested a study. Neither I nor most other residents had received formal notice of any of the proceedings.

Areas of concerns:

Emphasis seems to be focused primarily on eight areas of concern:

Over capacity of arterial streets
Changing traffic patterns
Cut-through traffic
Excessive speed on residential streets
Safety concerns
Accidents
Traffic noise and
Fear of crime

Listing fear of crime dead last is incorrect. If you ask residents, it ranks as priority one or two for most persons with whom I've spoken. Therefore, I worry about the solutions that this report addresses. They might or might not have any correlation with how we the residents view it, and thus the solutions might be skewed, or simply incorrectly positioned as it relates to the problem as perceived by residents vs. the perception of consultants and/or experts or that of elected or appointed officials.

What the study calls in the executive summary "microscopic problems" on the part of concerned residents, are, in fact, items of major importance to the general well being of a neighborhood, and essential to families. The notion of "perception of increasing crime and drug sales," listed as Item 4, is not studied or followed up in any way to ascertain if and when might that perception be correct and to what extent it is the driving force behind the concerns mobilizing residents toward requesting a closure. This report engaged traffic consultants, a limited perspective at best if we are to address the holistic concerns of neighbors, which frequently include dealing with very high levels of crime. There is no partnership recommended that would include specialists from other disciplines, beyond the traditional traffic consultants in the proposed recommendations.

The process modifies drastically how Metro Dade County will conduct its review of street closures. The development of "traffic calming" is wonderful for traffic, but it is only of doubtful value to those of us who regarded closures as a means to find relief from crime. In fact, your options to slow traffic down might be read by residents as allowing precisely longer time for

potential criminals to eyeball one's property legally even longer and the logistics of the neighborhood, prior to coming back and possibly committing a crime. It drops the miles per hour traffic might travel in a neighborhood from 40 to 20-22.

The requirement that 2/3 of the property owners agree to an action is a problem. Are these residents or owners? Why go as high as 2/3? Major lending action by elected bodies does not take 2/3, isn't it unfair to raise the odds from the traditional majority used up to this point?

Access to essential, safety-related public services and fixtures, can be used as an excuse, such as lack of fire hydrants, for instance. This was not mentioned as a major concern in the City of Coral Gables until the issue of closing streets along Tamiami Trail came up. From the beginning, City Fathers and Mothers and Fire Rescue officials have known that there is no access to fire hydrants in the North End of Coral Gables. Water for fire fighting has always been provided by a fire truck. Otherwise, connecting to hydrants requires laying long hose lines across four lanes of very heavy traffic - Calle Ocho -- to reach the neighboring City of Miami hydrants and bring water to the North End.

The five critical questions posed for consideration in Page 2 of the Introduction make only vague mention of the question of crime as a legitimate concern for closing streets:

> Do volume, speed, accident, crime problems actually exist to warrant street closure?
> Will diverted traffic adversely impact other streets (and create additional requests)?
> How will proposed improvements affect emergency vehicle access?
> What other less restrictive measures are available to address residents' concerns?
> Who will pay for and maintain the requested installations?

The introduction goes on to say that these questions must be answered before requests for street closure or traffic calming modifications are put into place. But there is no systematic approach to engage those professionals on how to ascertain the facts.

When you turn to Appendix F- Application for Street Closure or Traffic Flow Modification, Applicant Questionnaire, only these appear:

> Speeding
> Cut-through traffic
> Safety
> Traffic Volumes
> Truck Traffic
> Other (please explain)
>
> Once again, crime is not specifically listed. Why?

As you turn to Appendix G - 1, Stage 1-Evaluation, you encounter more of the same:

a) Applicant's traffic consultant should verify actual problems through the application process and define objectives.

Clearly, a traffic consultant alone is not able to assess, document or offer to remedy crime/safety related concerns. The process continues to remain silent on crime concerns. Of course, this is a traffic study for Public Works and MPO, prepared by a Traffic Consultant. None of these have any credentials in law enforcement or crime prevention and cannot propose solutions for crime related concerns. The whole study remains mute on the concerns of crime by residents, yet it proposes to alter the existing system drastically and totally move away from closures as a valid alternative.

Some of the Traffic Calming Initiatives discussed on page 4 would also impact negatively on crime.

To take one as an example, consider: Traffic Circles and Roundabouts

It would drop the average speed of cars 40 mph to approximately 20-22 mph on roads with traffic circles. That would double the time criminals would have to "case" your property and come back later for it. Forgive me for being so blunt, but this is precisely the opposite effect local residents want when they are concerned about reducing crime. You would *de facto* allow potential criminals longer to survey your property and understand the logistics of the neighborhood.

Another consideration regarding traffic calming, is efficiency of access for emergency vehicles and the speeds at which they can travel in emergency situations--to reach a fire before it gets out of control, for example, or stop a crime in progress, or reach someone who is critically ill or injured. Traffic calming does not allow faster access.

Item 5 - Street Closure Survey - Page 25.

The consultant, Frederic R. Harris, Inc. developed a questionnaire in cooperation with Public Works, after reviewing the Department's correspondence files. The purpose was to contact all municipal agencies within the County. It advised them of the Street Closure Study and requested input concerning neighborhood traffic control issues and perspective. The main topics, according to the study:

- The status of existing or pending street closures;
- Typical traffic control measures requested by citizens;
- Identification of typical residential traffic problems;
- Funding methods; and
- Perception of street closure performance

Again, not a word about crime.

The questionnaire was sent to 25 towns and cities in Metro Dade County. Seventeen were returned, representing 14 of the County's municipalities, with a response rate of 56%. Only two were answered by municipal departments such as Fire, Rescue, or Police. One questionnaire was returned by Metro Dade Fire Rescue.

In addition, the consultants conducted several personal interviews of Metro Dade officials and FDOT (6), as well as representatives of local neighborhood associations, street closure activists, and professional engineers. In Coral Gables, only Citizens for Open and Safe Streets, listing three indivuduals:

Pat Keon
Martin Mendiola
Maria Velez

as having been interviewed.

All three are well-known for their opposition to closures in our City; yet only these were chosen for interviews. No interviews with other neighbors or supporters of closures were included.

In fact, in the report, there is correspondence, as late as June 6, 1996, from COSS, commenting at great length on Technical Memo #4. This memo, even today, as I prepare these comments, is totally unknown to most organizations, individuals, and a substantial majority of our residents. In this text, Ms. Velez expresses a desire to eliminate "political playmanship" and "back room dealing." Very candidly, just reading this correspondence makes me wonder again why there has been so much of the consultant's attention directed to a group that is against closing streets and the effort to elicit input has not been a bit more balanced. COSS comments are listed side by side with those submitted from municipalities and other public officials.

The City of Coral Gables had a duly appointed North Gables Advisory Committee, a group that I had the pleasure to chair, made up of residents of the North End. The Advisory Committee studied the issue and time and time again, went on record officially recommending closures in specific cases in the North End. At no point were any of the former members of this group contacted. Let the record reflect that all recommendations regarding closures submitted by this group received the support of the Coral Gables City Commission.

As City Commission action would show, the consultant used to halp and co-sponsor this study, Ms. Elizabeth Plater-Zyberk, Dean of Architecture of UM, has gone on record repeatedly as being totally opposed to closures. Yet this same individual, along with her husband, Andres Duany, has received national acclaim for their innovative designs that include completely closed communities. They seem to disregard their own advice and they understand the advantages of offering secure communities to those in the market for real estate today.

Only one member of the Board of County Commissioners was chosen to be interviewed. Why only one, since this is an issue that affects the entire County?

Unfortunately, this apparant carelessness makes the process appear suspect and makes people like me, who have been involved in trying to find a way to not be a victim in my own home, very suspicious.

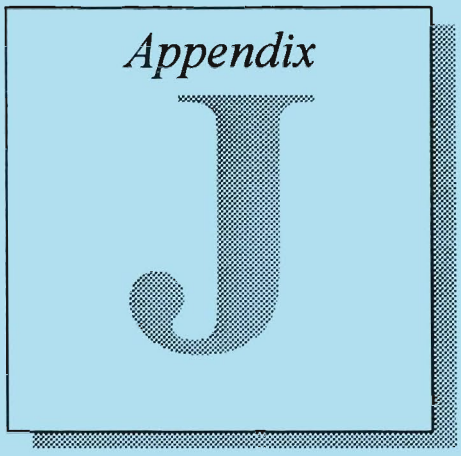
Frankly, my intent is not to put the entire process down. I do concur with Ms. Plater-Zyberk, we must find a common ground as a community to allow us to move forward. We know all streets cannot and should not be closed. But you must understand that in spite of assurances to the contrary, residents are tired of feeling consistently left out, as if their opinions were not important.

This study appears to have missed a number of steps before coming to the conclusion that closures should be avoided at all costs. That is most unfortunate. It is recommended that you regroup and find ways to convene public hearings throughout this entire community to hear what residents have to say. You owe residents that much, particularly if you are serious about trying to change the limits and rules. Given that the information only appeared in *The Miami Herald*, and it is unlikely that many could come to the hearing held during working hours at the Downtown Library. Also, if you are truly interested in hearing what residents have to say, you should not choose a location downtown, where parking is difficult and expensive, and a week-day, when those of us who came had to take time off from work to be there.

I would suggest that the process be revised to include more that the traffic consultant's conclusions. Multiple perspectives are needed. Specifically, I recommend the following:

- Request that public hearings be held in municipalities to allow for citizen review, since it departs drastically from existing rules. There is insufficient information available to the public and insufficient review upon which to base a sound decision recently.
- Give more weight to decisions by the municipalities, actually more in touch with the concerns within their boundaries.
- Expand existing approach to include Police Department input regarding safety-related concerns.
- Include Fire Rescue when emergency access is a concern.
- Solicit input from an urban planner.

MPO, as a County agency, should not adopt policies in this area without a full review by the Board of County Commissioners.



Symposium

THE UNIVERSITY OF MIAMI

invites you to participate in a

STREET ACCESS/TRAFFIC MODIFICATION
SYMPOSIUM

in conjunction with the County report in progress

Monday, July 15, 1996

8:30 a.m. - 12:00 noon

Miami Dade Public Library
101 West Flagler Street
Miami, FL

RSVP 284-5002

co-sponsored by

Metropolitan Dade County
Metropolitan Planning Organization
Frederic R. Harris, Inc. Consulting Engineers
The University of Miami School of Architecture
The University of Miami College of Engineering

STREET ACCESS/TRAFFIC MODIFICATION SYMPOSIUM

Monday, July 15, 1996
8:30 a.m. - 12:00 noon

AGENDA

8:30 a.m.	Continental Breakfast	
9:00 a.m.	WELCOME	Elizabeth Plater-Zyberk University of Miami
9:15 a.m.	BACKGROUND FOR STUDY	Pedro G. Hernandez Metropolitan Dade County
9:30 a.m.	PUBLIC ACCESS MODIFICATION	Walter Kulash Glatting Jackson
10:00 a.m.	CRIME RELATED ISSUES	Sherry P. Carter Carter and Carter
10:30 a.m.	Break	
10:40 a.m.	METRO-DADE STUDY	Anthony J. Castellone Frederic R. Harris, Inc.
11:00 a.m.	LAND USE, TRANSIT & THE FUTURE	Guillermo Olmedillo Metropolitan Dade County
11:20 a.m.	DISCUSSION	Elizabeth Plater-Zyberk University of Miami
12:00 p.m.	Adjourn	

Frederic R. Harris, Inc.
One Gateway Center, 9 North
Pittsburgh, PA 15222-1416
412-644-5500
Fax: 412-644-5501

HARRIS

Metro Dade County

Street Access / Traffic Modification Symposium

July 15, 1996

An educational symposium was held on this date, beginning at 9:00 AM. A list of attendees is included in this Appendix.

The symposium was co-sponsored by Metropolitan Dade County's Public Works Department and Metropolitan Planning Organization as well as Frederic R. Harris, Inc. Consulting Engineers, the University of Miami (UM) School of Architecture and UM's College of Engineering. The event was held as part of Harris' effort to obtain public and private input for a Street Closure/Traffic Flow Modification Study commissioned by the County.

Ms. Elizabeth Plater-Zyberk mediated the symposium agenda which included two (2) guest speakers, Mr. Walter Kulash and Ms. Sherry P. Carter. A biography for each of these speakers can be found in this Appendix along with the scheduled Agenda. Mr. Pedro Hernandez of Metro-Dade County provided background information leading to the aforementioned study and Mr. Anthony Castellone of Frederic R. Harris, Inc. presented the work completed to date by the Street Closure Steering Committee. Mr. Guillermo Olmedillo of Metro-Dade County completed the presentations with a look at the big picture; reducing congestion via better land use planning and increased mass transit use.

An informal panel discussion mediated by Ms. Plater-Zyberk closed out the meeting as audience members were invited to submit written questions to the various speakers. Audience participation included a number of open questions to the panel. These questions are included in Attachment A.

Copies of Harris' final report will be available at each municipality and the County Public Works Department by the first week in August. It is anticipated that through the use of recommended procedures for prototype projects, comments generated by users will eventually be incorporated into the study. Formal adoption of the study as Dade County's Street Access Policy may be considered at that time.

A formal record of this meeting was provided in the form of a videotaped recording. The symposium adjourned at 12:30 PM.

ATTACHMENT 1

1. **Question: Has a legal opinion from the County Attorney been rendered regarding street closures or restricting local street access?**

   Hernandez: Our consultant collected legal documentation and case histories that is currently being reviewed by our attorney. A legal opinion should be ready by the final report.

2. **Question: Why has the role of municipalities been (almost) disregarded in the new policy? Will the County be hosting public hearings in diverse geographical areas during the evening?**

   Hernandez: We feel that municipalities have not been ignored in the process and are encouraged to adopt and utilize these traffic calming tools. If the procedures recommended herein are effectively adopted by the municipalities, neighborhood traffic management will be effective County-wide. In response to the second question, public hearings are not scheduled at this time. The final report will go to the MPO first for further review and approval.

3. **Question: What is the County doing to ensure that we are not creating the same problems in the western subdivisions?**

   Olmedillo: Subdivision regulations currently incorporate many urban design elements in addition to zoning requirements. These regulations are inherent within subdivision applications. Some of the techniques presented here today are currently being utilized in many new subdivisions.

4. **Question: How can we accelerate the study and implementation process? If my city wants to close a street, can the County stop the closure? What are the proposed time lines for the study process?**

   Hernandez: The study took slightly longer than anticipated, however the final version will incorporate any significant comments resulting from this symposium and will be presented to the MPO for final approval. It is recommended that the traffic calming devices presented in the study be used on test basis initially. As far as a time line is concerned, we anticipate the final report being presented to the MPO in September..

5. **Question: When is the report due to the Board of County Commissioners?**

   Castellone: The (draft) final report should be submitted by the end of July to all municipalities. Major revisions are not anticipated, however comments from the municipalities and from this symposium could be incorporated in the final report presented to the MPO.

6. **Question: Why should I give up my car? Why should I, as a homeowner, worry about what other people think and do if this is my street and there are too many cars going too fast? After all, many new developments have cul-de-sacs and single entrances.**

   Olmedillo: The issues are different for the resident of the neighborhood street and those traveling through the neighborhoods to save time; those that desire isolation vs. those that desire free access. The problem eventually is blamed on congested arterials. For example, along Kendall Drive, the same people that are saying "Don't put traffic on my street, put it on someone else's..." are the same people cutting through other neighborhoods to save commuting time. There is no easy solution for all residents, however long-term answers may lie with mass transit.

7. **Question: Are the street closings legal within the master plan framework of Dade County and within each City? Does the County's comprehensive plan need to be amended?**

Olmedillo: The Master Plan can be interpreted differently, like the Bible has so many interpretations, depending upon who is doing the reading. It is my opinion that it does not have to be amended to address street closures or other modifications to traffic flow, since it does not prohibit these actions.

8. **Question: How much has this exercise/study cost?**

Hernandez: Approximately $85,000 including the cost of running this symposium, bringing in our guest speakers and catering the event.

9. **Question: What has happened to recently approved street closures that occurred with little or no guidelines? Can these areas be restudied to determine if they should be permanent? Have any street closures been re-opened? What is the procedure for getting a street closure reversed?**

Hernandez: The process to re-open an existing closed street would be the same. It is possible that some existing municipalities may have approved street closures via their city councils/commissions without county input. Based on the new procedure recommended in our study, it would be possible to re-open a closed street.

10. **Question: How were those interviewed by Frederic R. Harris selected? What criteria was used?**

Castellone: With the County's input, a list was developed that would contain a homogeneous mix of government officials and private citizens involved with the street closure issue. As part of our survey questionnaire, all 25+ municipalities were contacted. The Contact list will be included in the final report.

11. **Question: Dade County has only acted to approve street closures based on a particular closures' impact on collectors or arterials. Will the County not extend their analysis to local roads? Within municipalities?**

Hernandez: It appears that this question refers to past street closure policy.

Castellone: The analysis proposed concentrates on nontraditional approaches to before and after traffic studies. Impacts on adjacent local roads and community as a whole is stressed and these impacts are the focal point of these studies. The Application Process defines the basis of analysis.

Hernandez: Overall impacts goes beyond that of a single closure. The new process recommended in our study requires comprehensive planning, citizen participation, and innovative problem solving techniques prior to review by Public Works.

12. **Question: Since this kind of design solution covers new ground for most engineers, shouldn't we put urban designer's in charge of working with neighborhoods? What is the County doing to educate planners about these problems and new solutions? What about environmental concerns?**

Plater-Zyberk: In addition to FRH's detailed study, this symposium is an educational tool.

Olmedillo: Urban design elements will need to be incorporated into a future updates of the County's Landscaping Ordinance.

13. **Question: Why not put in gates instead of street closures?**

Panel: Gates significantly restrict access to the community and may still cause other traffic problems on adjacent streets. This has been shown in Coral Gables.

14. **Question: What about privatized, public transportation (e.g,, jitney's) in terms of future transportation planning in Dade County?**

County: There is no easy solution when working with private jitney's. At Dadeland South, Metrorail is currently involved in a cooperative trial program using jitney's for transfer service.

15. **Question: What about staggered work schedules to reduce congestion at peak times?**

Olmedillo: Many County employees currently have "flex time", but to implement staggered work schedules universally would require some type of legislation.

Plater-Zyberk: Businesses that provide showers may encourage more commuting by bicycle.

16. **Question: Is there a legal method to close a street connected to a State highway?**

Hernandez: FDOT needs to be consulted in this case and will have significant say in the decision process. While this closure may improve access management, it could have adverse impacts on the local street system.

17. **Question: Please clarify the slide that referenced "2/3 majority approval" and explain the petition process.**

Castellone: The Steering Committee concurred with our recommendation that at least 2/3 of all affected property owners must sign a petition approving a particular traffic calming plan before approval will be given for implementation. The petition process actually starts with a formal application by a neighborhood group and ends with a carefully planned traffic calming plan to address local traffic problems. This plan is developed through the County's Public Works Department, in cooperation with municipal agencies and the neighborhood citizens; with the intent to avoid referendums and politics.

18. **Question: Why have some street closures been implemented despite objections among municipality staff? Will the County reevaluate these closures?**

Plater-Zyberk: I don't know the particulars of the referenced closures.

Hernandez: The new process allows an avenue to correct previous deficiencies, however commission action may be required to legally reverse existing approved closures. Using the process presented today, as a citizen of Dade County, you have the right to implement change. Citizen participation is key in making the process and techniques work.

19. **Question: It seems as if the study completely ignored the use of emergency vehicle gates, such as those used in Coral Gables, to allow for emergency access.**

Castellone: The issue was not ignored and in fact often discussed at Steering Committee meetings with Mr. Albert Delgado . The use of gates for partial access is a better alternative to complete closure, however local traffic and services will still be adversely affected. The study also suggests that the degree of impact needs to be carefully analyzed by all affected parties prior to the implementation of any device that would modify traffic flow. The recommendations and traffic calming techniques presented today do not provide a catch-all solution to neighborhood traffic problems, just a step in the right direction. Use of the traffic calming procedures by local governments will encourage continuous improvement and perhaps a formally adopted Neighborhood Traffic Management Program accepted throughout Dade County .

Kulash: The mental intersection of both urban designers and engineers will be required in solving local traffic problems.

Carter: Community planners need to be involved in the process to facilitate citizen input and problem solving.

20. **Question: Why revert a decision to local municipalities when the County determines that there is no further impacts?**

Hernandez: The only time this may occur is when it has been determined by the County that there will be no negative impacts on the County or State system.

21. **Question: What about potential environmental effects (stormwater, air pollution, noise, etc.) of street closures or any other modification?**

Hernandez: These effects may be negligible or complicated and should be identified and evaluated during the design process for each individual application.

22. **Comment: Crime is a major concern of those citizens seeking street closure. This issue needs to be addressed further as today's discussion has been geared more towards traffic intrusion. In addition, the County has failed miserably in addressing the mass transit needs of sprawling growth areas.**

BIOGRAPHICAL STATEMENT

Sherry Plaster Carter, AICP
Partner/Community Planner
Carter & Carter Associates
3760 Maple Hollow Court
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(941) 358-9888

Ms. Carter is the former Chief Planner for the City of Sarasota. She oversaw comprehensive planning, special studies and co-chaired the City's Administrative Crime Prevention Through Environmental Design (CPTED) Task Force. She was the project manager for the City's "50 Year Vision Plan," which won the 1995 Florida Planning and Zoning award for "Outstanding Public Project." Before leaving the city she directed the completion of the State mandated draft Evaluation and Appraisal Report.

Before joining the City in 1990, Ms. Carter worked in the private sector for 16 years in land use planning and the related fields of real estate, banking and land development. She holds a Masters in Urban and Regional Planning from the School of Architecture, University of Virginia and received her CPTED training from the Florida Crime Prevention Training Institute.

Ms. Carter, with the assistance of Officer Art Walls and Captain Stan Carter, initiated the City's Administrative CPTED Task Force. The Task Team won the 1992 "Outstanding New Crime Prevention Program Award" from the Florida Crime Prevention Association and was among the top 25 finalists for the 1993 Webber Seavey Award from the International Association of Chiefs of Police.

In close association with the Sarasota CPTED Team, Ms. Carter developed a zoning district which requires a CPTED review and incorporates CPTED design principles. The effort was the subject of a monograph titled "Planning for Prevention: Sarasota, Florida's Approach to Crime Prevention Through Environmental Design," authored by Ms. Carter and her husband, Police Captain Stan Carter, published by the Florida Criminal Justice Executive Institute, 1993. Additional references to the city's program have appeared in numerous publications and the ordinance has served as a model for other communities. For her work in incorporating public safety elements into land use planning she received the prestigious 1995 "Award of Excellence" from *Engineering News-Record*, a publication of The McGraw-Hill Companies.

Ms. Carter, with her husband Captain Stan Carter, gave the opening session for the 1995 U.S. Conference of Mayors "National Conference on Crime Prevention

Through Environmental Design" She was also a presenter and moderator at the "Secure and Livable Communities: Crime Prevention Through Environmental Design" conference hosted by the National Institute of Justice and the AIA Council on Architectural Research in Washington, D.C. She has been a guest lecturer for the National Crime Prevention Institute and the University of Miami. She has presented at annual conferences of National Main Street, Florida Planning and Zoning Association, Florida Crime Prevention Association, Florida Redevelopment Association and Tampa Bay Chief's/Stetson's College annual "Legal Issues for Law Enforcement." In addition to coauthoring "Planning for Prevention," noted above, Ms. Carter is the author of "Crime Prevention Through Environmental Design" Main Street News, National Trust for Historic Preservation, October 1992 and coauthor of "Crime Prevention Through Environmental Design in Sarasota, Florida," Planning Commissioners Journal, Fall 1994.

WALTER KULASH, P.E.

Walter Kulash, a licensed Professional Engineer, is a Principal/Senior Transportation Planner with Glatting Jackson, an Orlando-based community planning firm. Mr. Kulash's 20 years of engineering experience have been in traffic planning for new private development, planning public street systems and developing public transit.

For the past several years, Mr. Kulash has focused on the challenges of restoring livability to our streets, improving not only their performance for vehicular traffic but also their livability and appeal for non-motorized travel, as good environments for business, and as focal points of civic pride and enthusiasm. These efforts, now included in the "new urbanism" approach to city design, have included the design of new communities and, the "retro-fitting" of existing damaged areas, such as strip commercial and early-generation shopping malls, and the addition of "missing" transportation elements, such as Light Rail Transit and self-propelled modes of travel, into existing streets.

Mr. Kulash's approach to transportation planning is based on "lateral thinking" problem solving, an approach similar to the "holistic" approach advocated in other fields, such as education, health care and environmental protection.

Walter Kulash received a B.S. in industrial engineering from North Carolina State University and has also pursued postgraduate work at Northwestern University in civil engineering, focusing on transportation planning and systems analysis.

Mr. Kulash works frequently with design teams involved in the "new urbanism," a broad field of activity dealing with restoration of quality to new and existing urban areas.

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