

Neighborhood Traffic Management Program

City of Dixon

February 2004

Neighborhood Traffic Management Program

Engineering Department City of Dixon

February 2004

A. PURPOSE

To provide and maintain liveable residential neighborhoods by reducing noise and air pollution, discouraging pass-through traffic, minimizing traffic accidents, and promoting lower speeds.

B. INTRODUCTION

Every city experiences neighborhood traffic problems, whether real or perceived. In addressing these neighborhood traffic issues, this proactive Neighborhood Traffic Management Program (Program) outlines standard procedures to be used from the time of the initial request through implementation of traffic calming techniques. The techniques to be considered as part of the Program are primarily those shown in Appendix A. Other measures may be considered and include those compiled by the North Central Section of the Institute of Transportation Engineers (NCITE) as listed in the booklet titled *Neighborhood Traffic Control* published by the institute. The booklet includes a variety of alternatives to creatively address traffic issues in partnership with neighborhood residents. The booklet also contains a description of each alternative's effects on traffic volumes, speed, environment, and safety.

In developing possible solutions, an awareness of steps taken must be maintained. The Program process is summarized as follows:

1. Initiate Neighborhood Traffic Management Study Process
2. Conduct initial neighborhood meeting to identify issues
3. Develop possible solutions:
 - a. Perform Engineering Analysis
 - b. Conduct subsequent neighborhood meeting(s), if necessary
 - c. Present Plan to Traffic Advisory Committee for review and recommendation
4. Present Traffic Advisory Committee recommendations to City Council for consideration
5. Implement plan
6. Analyze impacts

Although generally aimed at motor vehicles, the plan may also affect pedestrians, bicyclists, disabled persons, emergency vehicles, school buses, and utilities. These impacts must be considered as part of the analysis. Traffic calming is a useful tool to encourage efficient use of the street system and discourage infiltration of through traffic on

neighborhood streets. The goal of this Program is to maintain liveable residential areas and useable streets with a minimal impact to all uses and modes of transportation.

C. PROCESS

1. Initiate Neighborhood Traffic Management Study Process

Study may be initiated by any one of the following:

- a. Petition- a study may be implemented upon receipt by the City Clerk's Office of a petition.
- b. Traffic Advisory Committee Request- a study may be initiated at the direction of the Traffic Advisory Committee.
- c. City Council Request- a study may be initiated at the direction of the City Council.
- d. Engineering Department Request- a study may be initiated in existing neighborhoods by the City Engineer. The City Engineer may also recommend new developments be required to implement traffic management improvements by conditioning the development with Planning Commission and City Council approval.

2. Conduct Initial Neighborhood Meeting

A neighborhood meeting is arranged by the Engineering Department to begin the process of communication and identify all neighborhood traffic issues. Experience has shown the initial issue is only a small part of the area's overall traffic issues. A letter is mailed to all affected property owners and residents indicating the time, place, and location of the meeting. Newspapers are also notified of the meeting.

At the meeting, the residents provide their views and concerns. Any issues which can be resolved during the course of the meeting should be addressed. If more data and information is needed, it will be gathered following the meeting. A representative may be selected by the neighborhood to represent the neighborhood and act as the direct contact between the City and the neighborhood.

3. Develop Possible Solution(s)

a. Following the initial neighborhood meeting, an engineering analysis is completed and alternative solutions are developed for discussion with the neighborhood. A plan is developed showing the neighborhood boundaries to consider impacts of specific measures on other areas within the neighborhood. The plan is routed through other City Departments including Police, Fire, Community Development and Public Works Operations and Maintenance for comments.

b. A second meeting is held to present findings of the engineering analysis. A letter is sent to the neighborhood representative(s) and/or affected residents indicating the time, place, and location of the meeting. Newspapers will be notified of the meeting. Subsequent meetings, if necessary, will be scheduled following the same notification process until a satisfactory plan is developed. This plan may be as simple as increased police enforcement or a more formal plan requiring recommendation from the Traffic Advisory Committee and City Council approval.

c. The plan is presented to the Traffic Advisory Committee for consideration. The Committee makes a formal recommendation to the City Council. The recommendation of the Traffic Advisory Committee is presented to the City Council regardless of whether or not the TAC recommendation is supportive of or recommends against specific measures.

4. TAC Recommendation Presented to the City Council

The City Council can adopt, modify or reject the proposed plan. They can also refer the proposed plan back to TAC for further review and modifications. A funding source must also be approved by City Council unless the measures can be included in the current operating budget (ie. signage, enforcement). The City Council meeting is also the public forum for the neighborhood to appeal a negative recommendation from TAC, if necessary.

5. Implement Plan

The plan shall be scheduled for implementation by the City Engineer upon identification of a funding source and approval of the City Council. Work order(s) shall be prepared and forwarded to Public Works Operations & Maintenance for installation of signage or striping or a contractor shall be hired by the City for major improvements. Completion of the project shall be subject to work crew schedules, purchasing constraints, contracts and appropriate weather conditions.

6. Analyze/Evaluate Impacts

City staff shall evaluate the effectiveness of the measures within a one-year period after installation. The evaluation shall include, at a minimum, a review of traffic volumes, vehicle speeds and accidents. Upon finding any negative impacts created by the implemented measures, such impacts shall be corrected through modification or removal of the measures.

D. STREET REQUIREMENTS AND DESIGN CRITERIA

- a. The following criteria must be met in order for a residential neighborhood study to be conducted:
 1. Street type- classified as a minor collector street or local street in the City of Dixon General Plan.
 2. Speed related measures- based on a speed zone survey, at least (30) percent of the traffic is exceeding the speed limit by at least five (5) miles

per hour and it has been determined increasing the speed limit is not acceptable.

3. Lanes of traffic- limited to streets having only one travel lane of in each direction
 4. Sight distance- certain measures should not be used if curves or obstacles would create an unsafe condition for motorists driving at the 85th percentile speed under average driving conditions.
 5. Speed limit- the prima facie or posted speed limit may not exceed thirty (30) miles per hour.
 6. Pedestrian/bicycle safety- the measures shall not negatively impact pedestrian or bicycle safety.
 7. Emergency routes- the plan shall not negatively impact fire or rescue equipment as determined by the Fire Department.
 8. Drainage- the measures must not adversely affect street drainage.
- b. Design Criteria and approved Traffic Control Devices- Refer to Appendix A and *Neighborhood Traffic Control* published by the North Central Section of the Institute of Transportation Engineers.

Appendix A

Traffic Management Categories and Implementation Measures

Neighborhood Traffic Management Program

City of Dixon

To avoid the potential unnecessary expenditure of funds, traffic management implementation measures have been divided into four categories. It is recommended that each Neighborhood Traffic Management Plan begin with Category 1 and proceed sequentially through the various categories until the measures have become effective. In most cases the issues will be resolved using Categories 1, 2 and 3. Only in the most severe situations would Category 4 measures be considered. The following is a summary of typical measures for each of the Categories:

Category 1 Education and Enforcement

1. Neighborhood Watch Meetings
2. Neighborhood Flyers
3. Police Enforcement
4. Radar Trailer
5. School Meetings (if applicable)

Category 2 Operational Improvements

1. Stop Signs
2. School/ Pedestrian Crossing Signs (High Intensity)
3. High Visibility Crosswalk Striping
4. No Parking Signs/ Red Curbs
5. Speed Limit Signs/ Speed Limit Pavement Marking
6. Centerline Striping
7. Bike Lane Striping
8. Rumble Strips
9. Channelizers
10. Turn Restriction Signs

Category 3 Minor Construction Improvements

1. Speed Humps/ Undulations
2. Raised Crosswalks
3. Center Island Narrowing
4. Forced Turn Restrictions – Small Medians
5. Lighted Crosswalks

Category 4 Major Construction Improvements

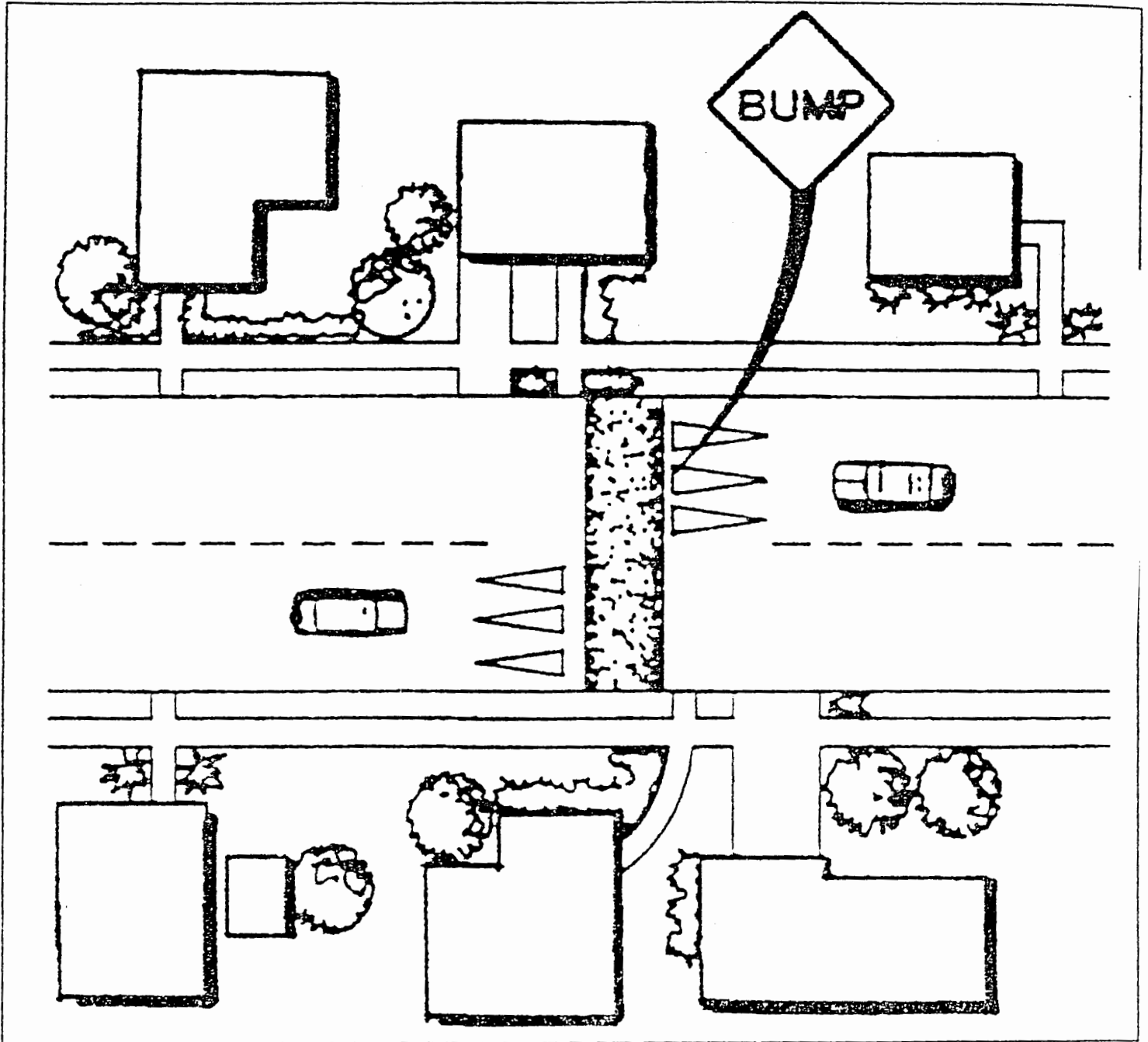
1. Traffic Signals
2. One-Way Streets
3. Diverters
4. Chokers
5. Median Barriers
6. Traffic Circles/ Roundabouts
7. Neckdowns
8. Textured Pavement

Radars Speed Trailer



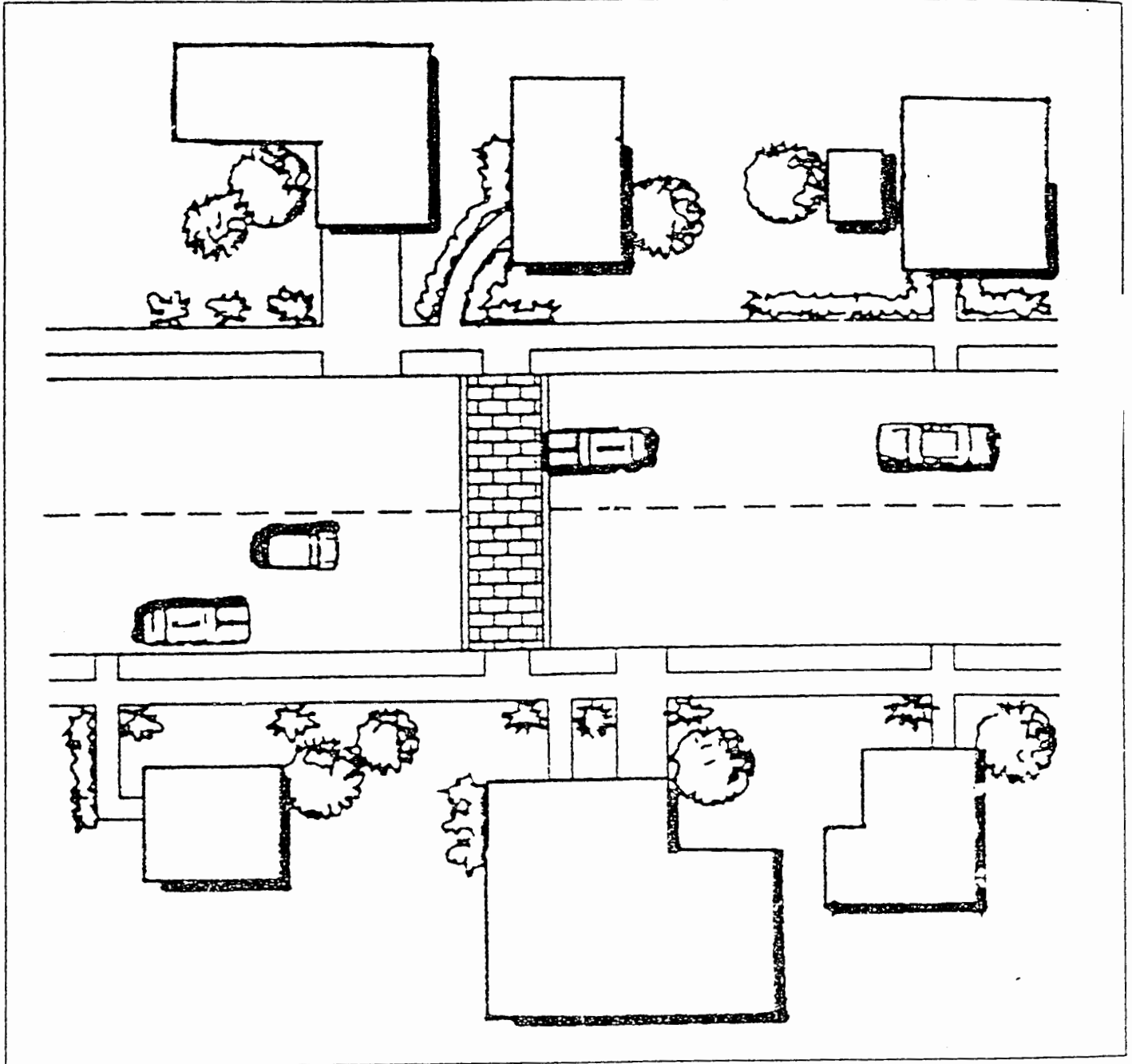
(Picture above) Shows Dixon's Radar Speed Trailer in the field.

SPEED HUMPS (road humps, undulations)



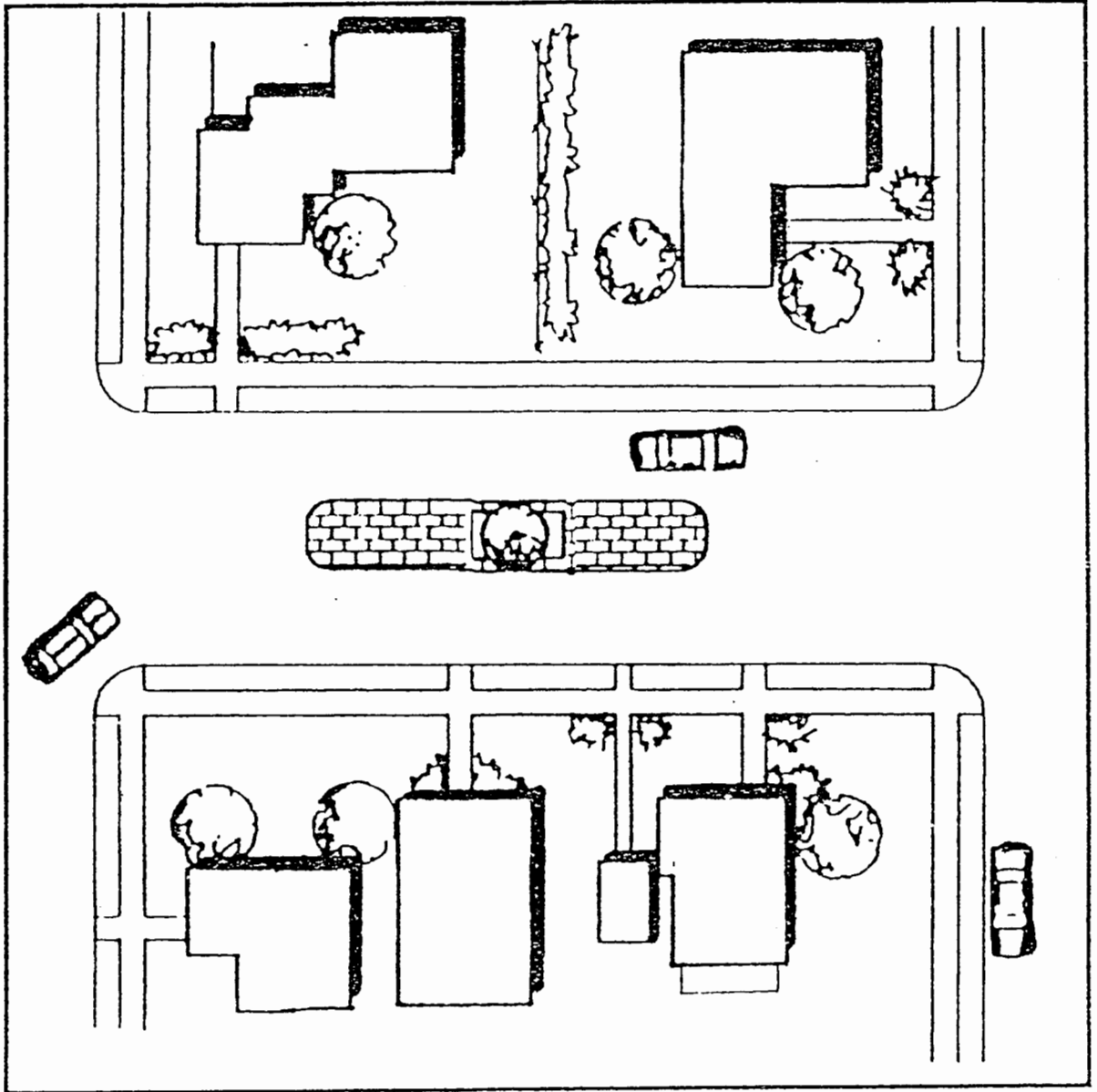
RAISED CROSSWALKS

raised crossings, sidewalk extensions



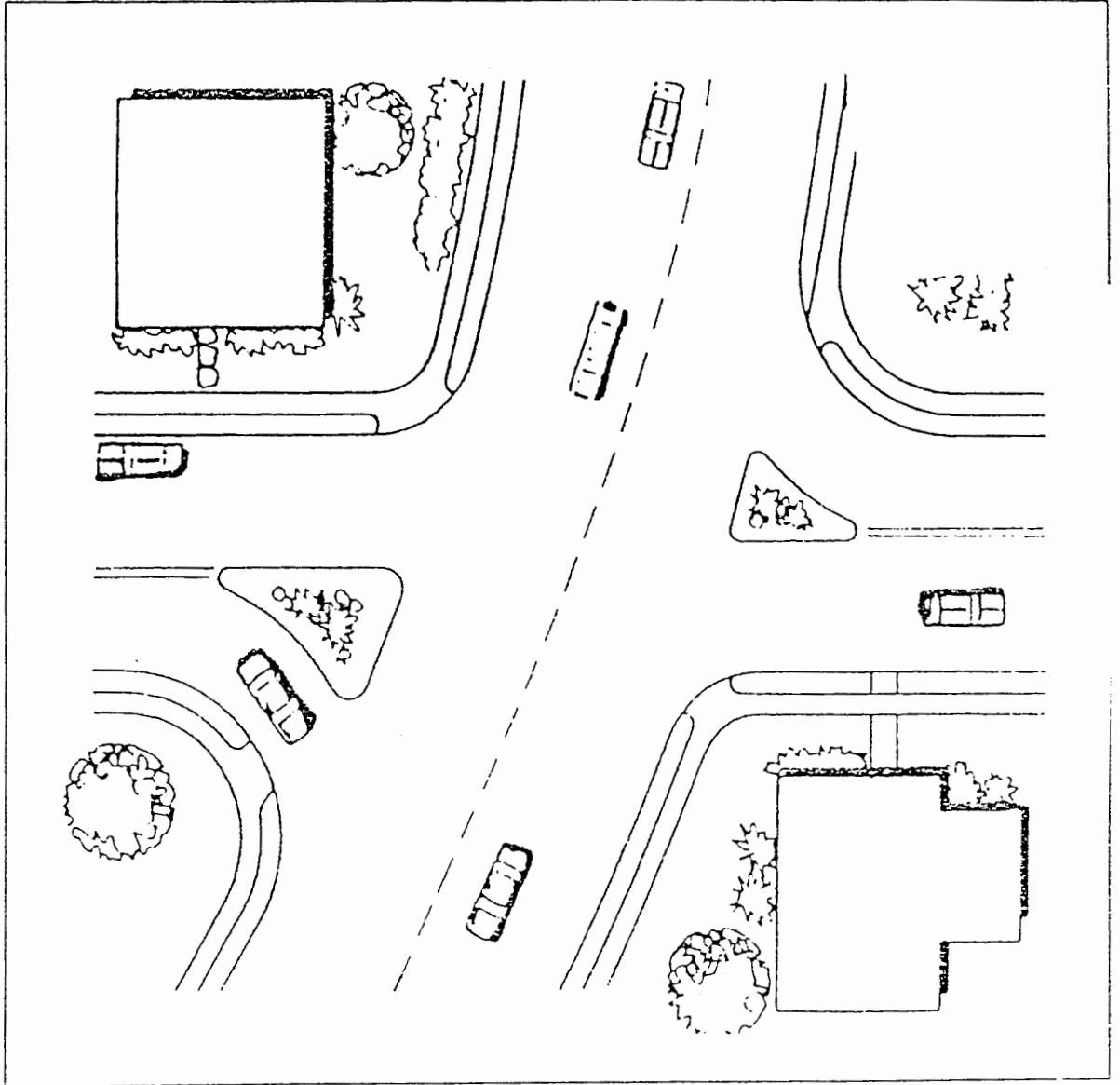
CENTER ISLAND NARROWINGS

(midblock medians, median slowpoints, median chokers)



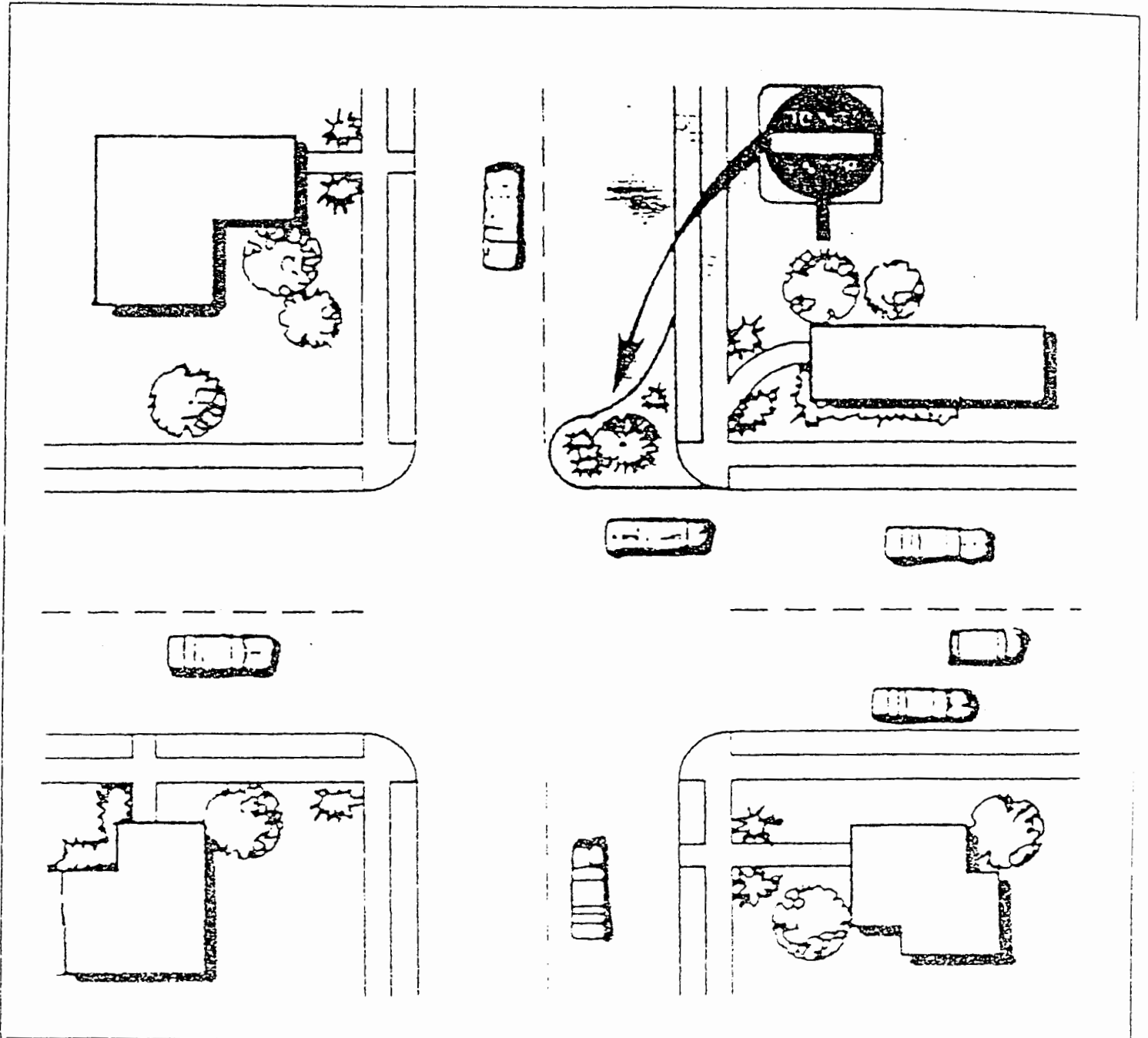
FORCED TURN ISLANDS

(forced turn channelizations, pork chops, right turn islands)

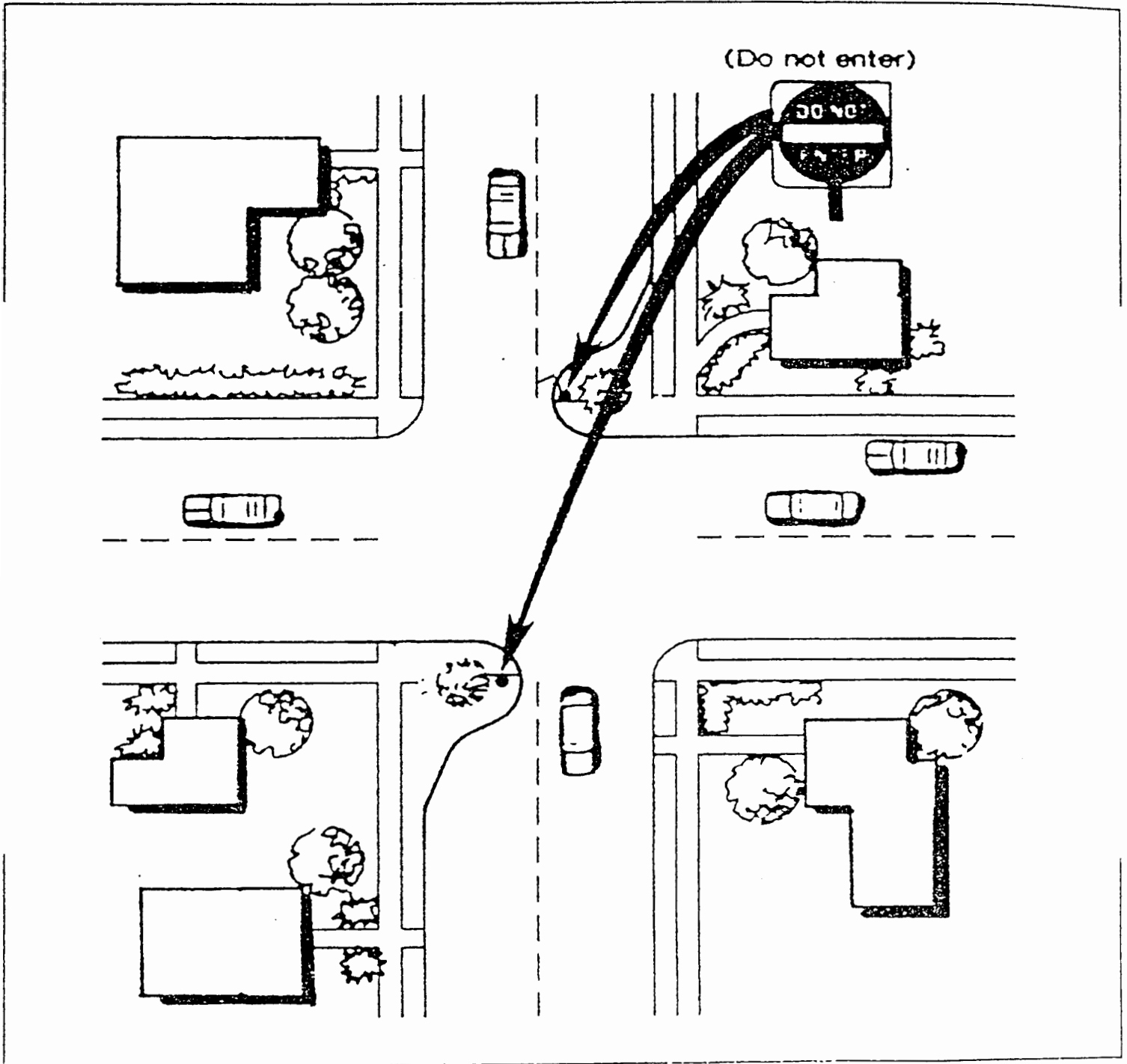


HALF CLOSURES

(partial closures, one-way closures)

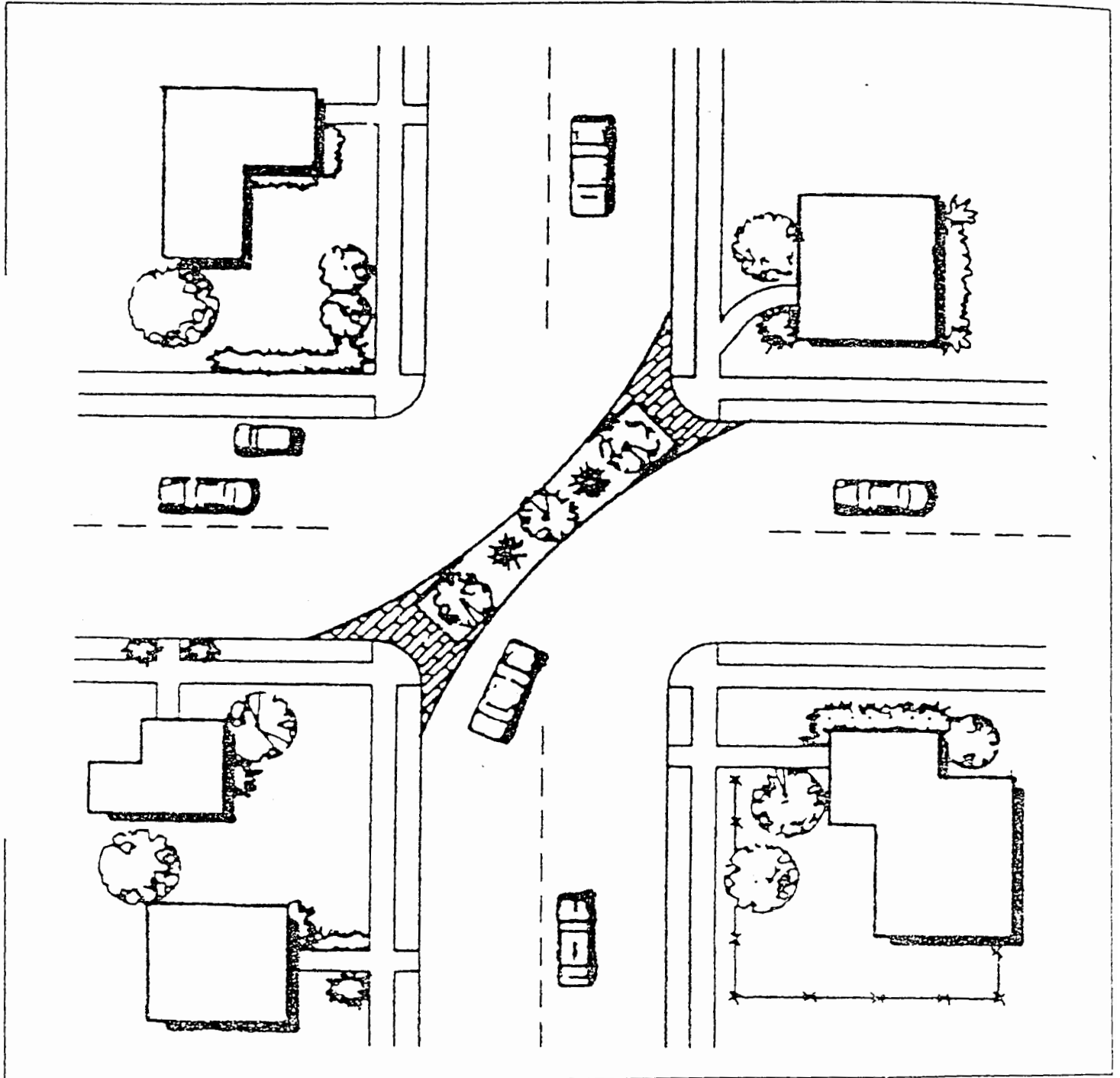


SEMI-DIVERTERS



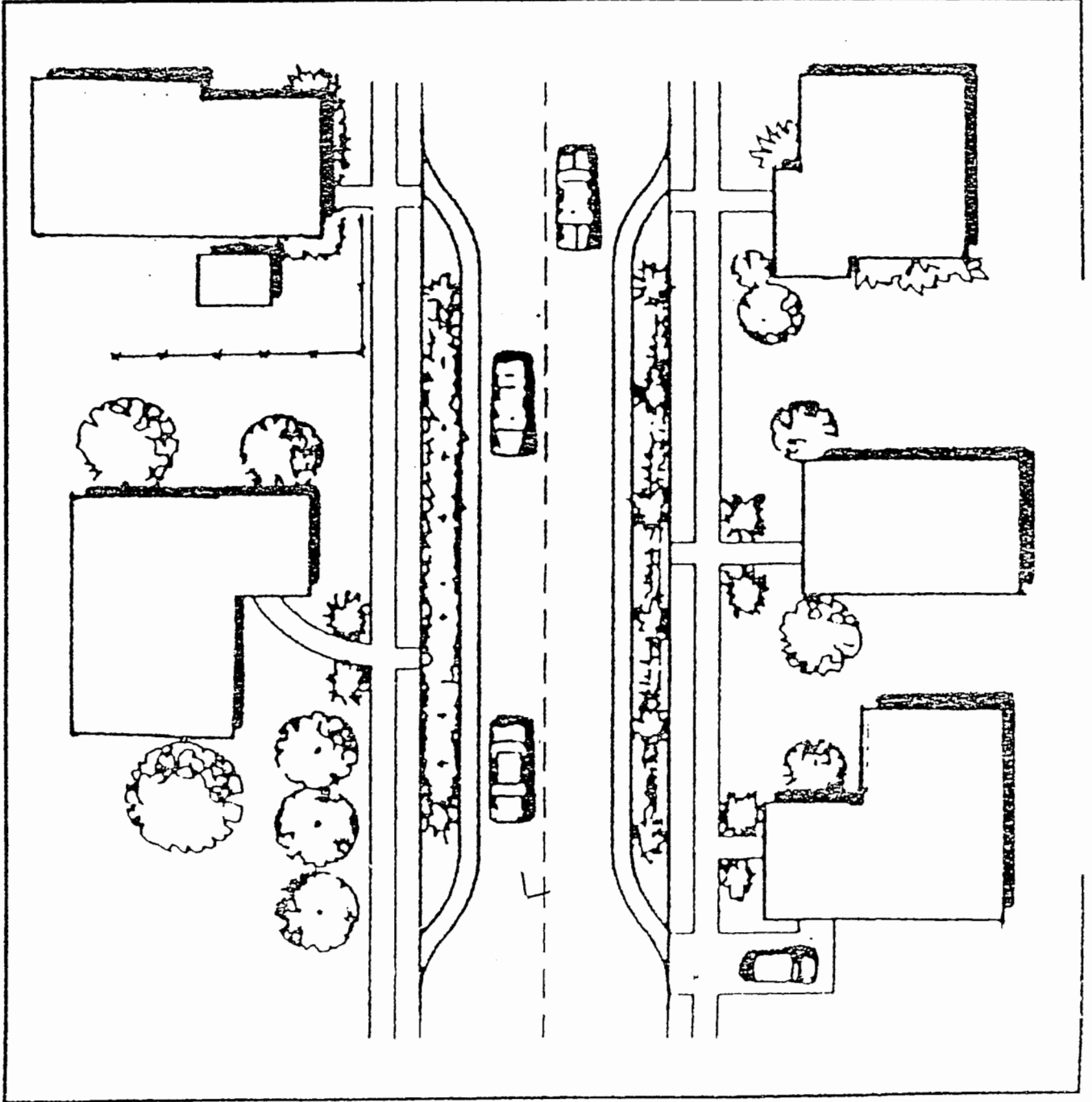
DIAGONAL DIVERTERS

(full diverters, diagonal road closures)

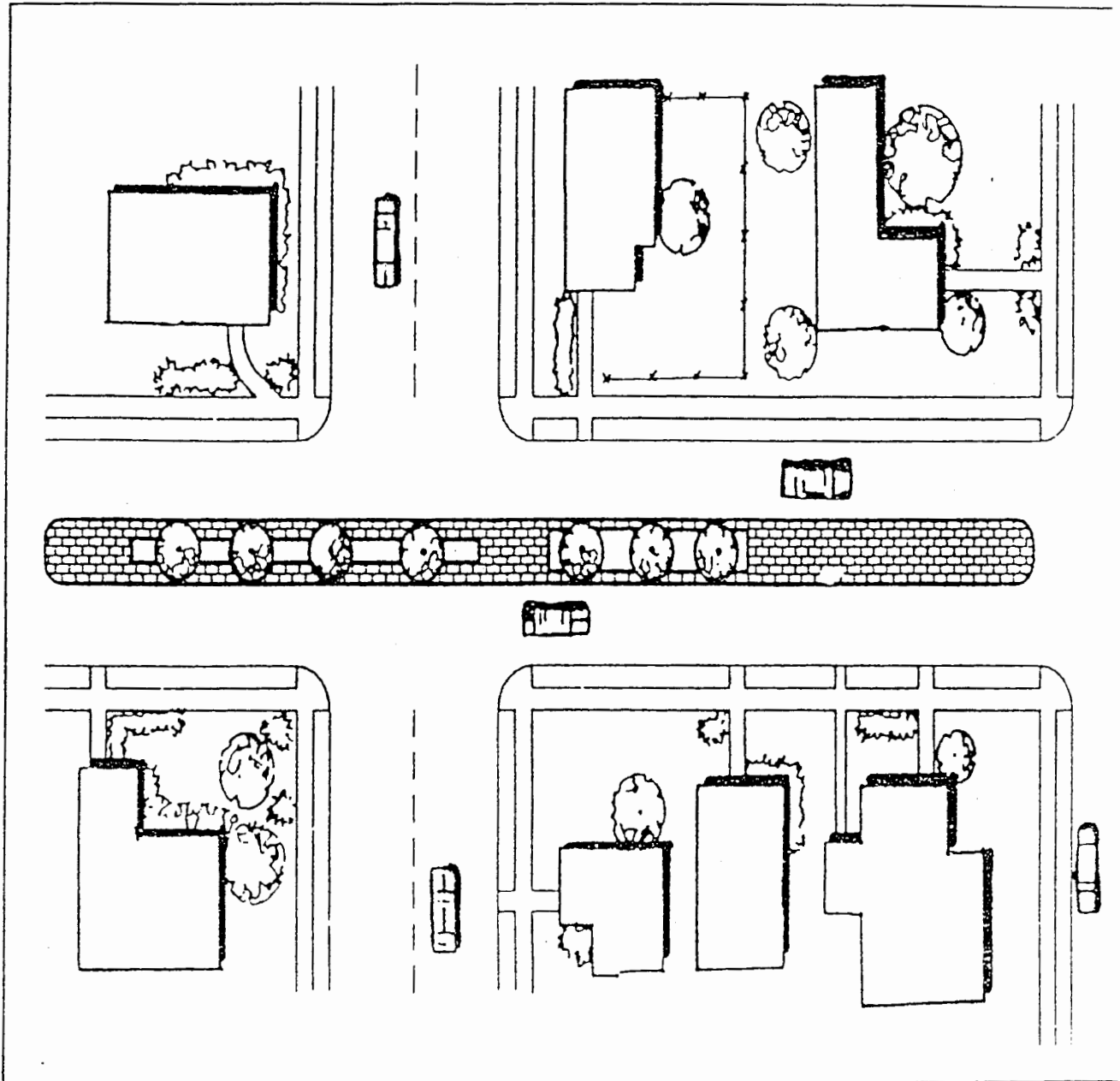


CHOK_RS

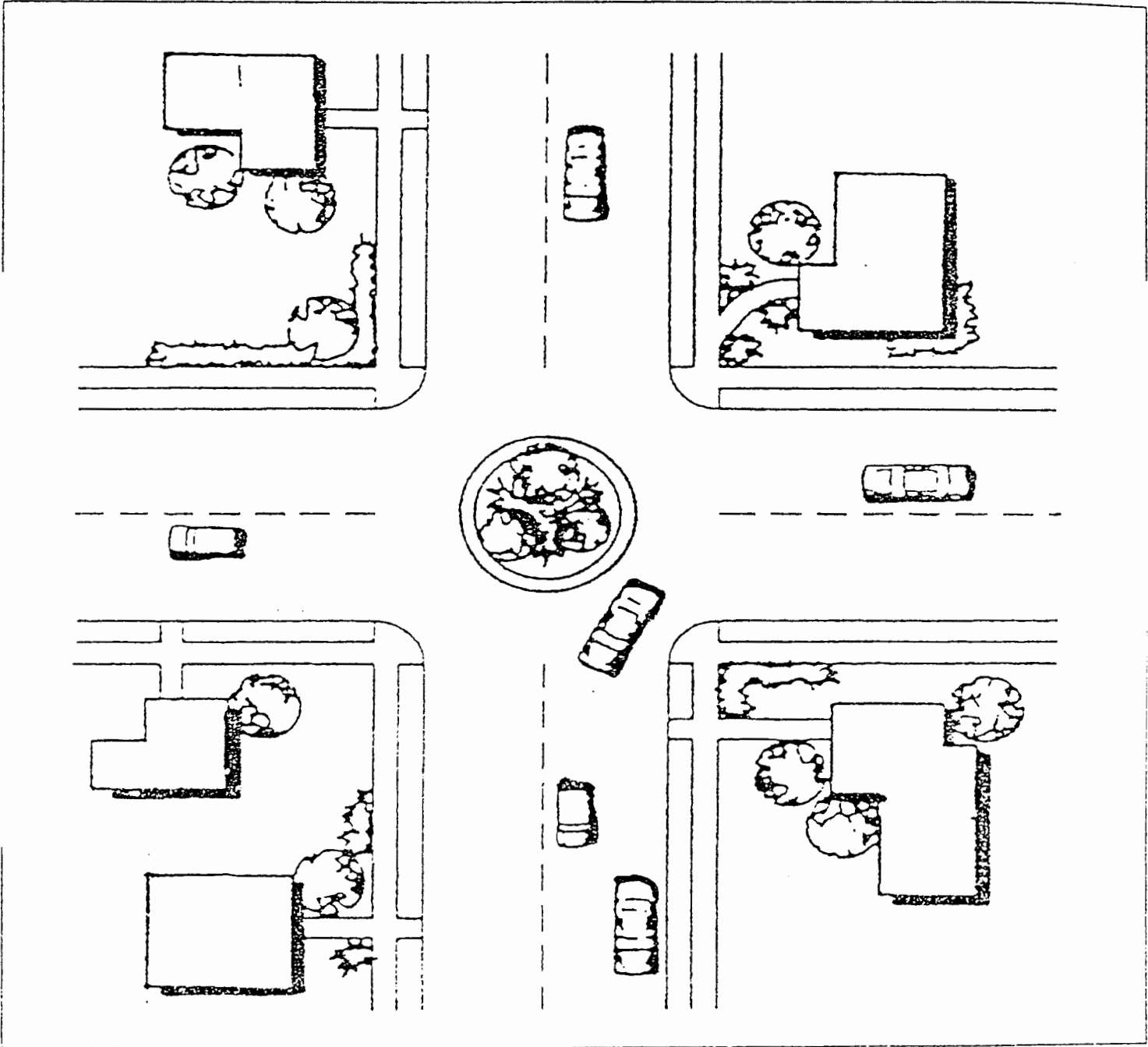
(pinch points, midblock narrowings, midblock yield points, constrictions)



MEDIAN BARRIERS (median diverters, forced turn islands, island diverters)

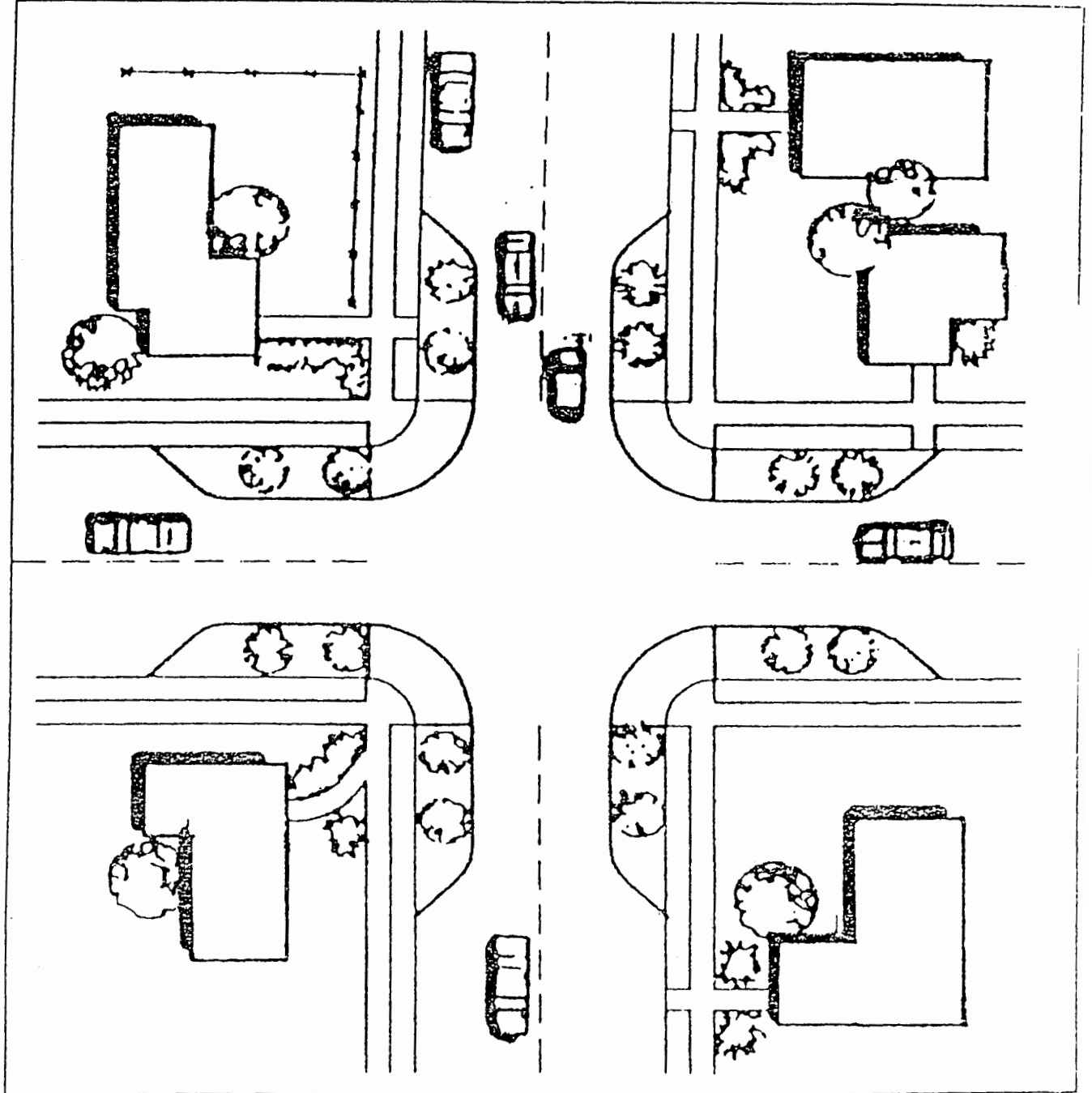


NEIGHBORHOOD TRAFFIC CIRCLES *(intersection islands)*

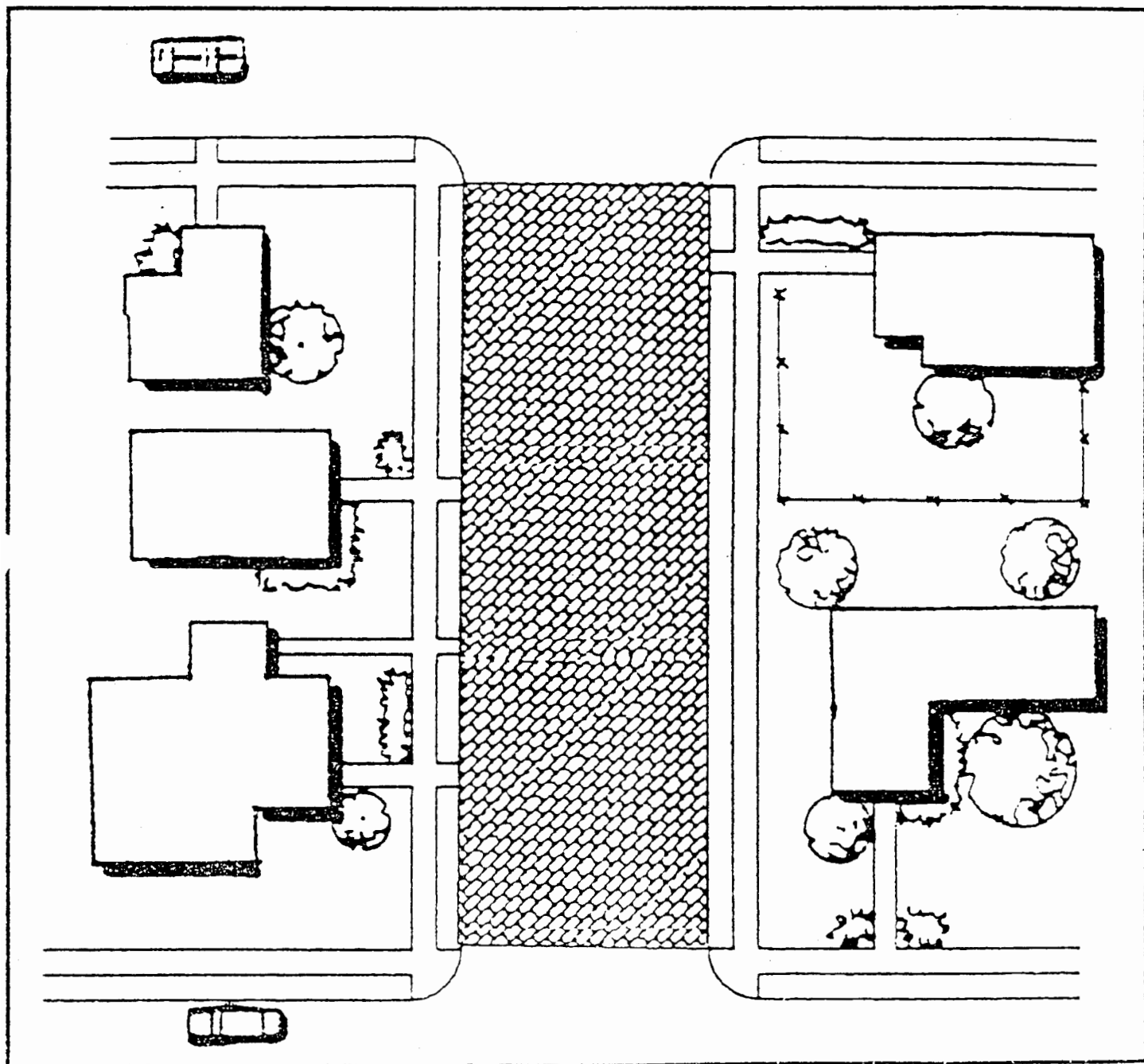


NECKDOWN

(nubs, bulbouts, knuckles, intersection narrowings, corner bulges, corner bulges, safe crosses)



TEXTURED PAVEMENTS



RESOLUTION NO. T- 17-010

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DIXON AMENDING THE
CITY OF DIXON NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM TO
INCLUDE RESIDENTIAL SPEED HUMP GUIDELINES**

WHEREAS, the City of Dixon regularly receives requests for traffic calming on residential public streets; and

WHEREAS, the City of Dixon adopted a Neighborhood Traffic Management Program (NTMP) in 2004; and

WHEREAS, the NTMP includes a toolbox of traffic calming measures such as residential speed humps; and

WHEREAS, there is a need to establish guidelines for the placement, prioritization and design of residential speed humps; and

WHEREAS, Residential Speed Hump Guidelines have been developed as an amendment to the NTMP; and

WHEREAS, the Transportation Advisory Commission considered the request at their meeting on December 14, 2016 and voted to recommend City Council approval; and

WHEREAS, the implementation of the Guidelines and resulting proposed project will consist of only the installation of residential speed humps on public streets within the City and will not involve removal of a scenic resource or a historic building; and will not have a significant effect upon the environment because of unusual circumstances; and

WHEREAS, the project would be considered to be within the scope of projects not having a significant effect upon the environment that are authorized to be performed by the City without environmental review as Class 1 categorically exempt public projects provided for under the California Environmental Quality Act as implemented by the provisions of Section 15301(c) of the CEQA Guidelines.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Dixon as follows:

- 1) It is hereby found and determined by the City Council the implementation of the above-described Guidelines and corresponding public project will not have a significant effect upon the environment and is a Class 1 categorically exempt public project as provided for under the provisions of Section 15301(c) of the CEQA Guidelines; and

- 2) The City Clerk is hereby authorized to file a Notice of Exemption for the above project with the County Clerk of Solano County in conformance with the procedures provided for the filing of such notices in the California Environmental Quality Act and the CEQA Guidelines.

BE IT FURTHER RESOLVED, by the City Council of the City of Dixon that the City of Dixon Neighborhood Traffic Management Program is hereby amended to include Residential Speed Hump Guidelines as provided in Exhibit A.

PASSED AND ADOPTED AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF DIXON ON THE 24TH DAY OF JANUARY 2017 BY THE FOLLOWING VOTE:

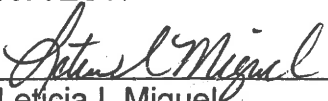
AYES: Bird, Hickman, Minnema, Pederson, Bogue

NOES: None

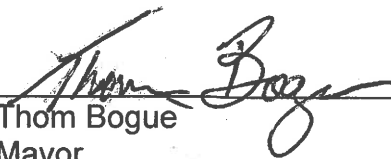
ABSTAIN: None

ABSENT: None

ATTEST:



Leticia I. Miguel
City Clerk



Thom Bogue
Mayor

RESOLUTION NO.: 17-010
DATE: JAN 24 2017

Residential Speed Hump Guidelines

City of Dixon

January 2017

RESOLUTION NO.: 17-010

DATE: JAN 24 2017

EXHIBIT A

PURPOSE:

The City of Dixon Residential Speed Hump Guidelines have been established to provide a consistent, fair and cost-effective process to evaluate requests for speed humps within the City. Speed humps are used to encourage a reduction in vehicle speed on residential streets while preserving the intended efficiency of the roadway for emergency response and routine travel.

The City of Dixon Police Department has primary responsibility for enforcing the provisions of the California Vehicle Code on streets within the City. Speed humps are considered traffic law enforcement tools. In addition, the City of Dixon Fire Department is responsible for minimizing emergency response times to calls for service. In the interest of public safety, speed hump installations require the approval of the Police and Fire Departments.

DEFINITIONS:

Speed Hump – A single parabolic undulation, constructed of asphalt concrete or other suitable material, 12 foot in length (in the direction of travel) and covering the full width of the roadway with a maximum height between 3 and 4 inches. Speed humps are not installed on primary emergency response routes.

Speed Survey – A 24 hour survey of traffic speeds and volumes conducted by the use of approved traffic data collection equipment including, but not limited to, radar devices, air pressure hoses and/or magnetic sensors, to determine traffic volumes and percentage of vehicles exceeding the speed limit. The speed survey must be conducted between Tuesday and Thursday when school is in session and must avoid holidays and special events.

85th Percentile Speed – Otherwise known as the critical speed, the 85th percentile speed is the speed at or below which 85% of the vehicles are traveling. The 85th percentile speed is commonly used by traffic engineers to determine posted speed limits and is one of the criteria to determine if a street qualifies for speed humps.

Residential Street Segment – The residential street segment includes the length of roadway between two intersections. Where a street extends beyond an intersection, the entire length of the street shall be considered for the placement of speed humps however speed humps may be installed on individual blocks based on traffic characteristics at the discretion of the City Engineer/Director of Public Works.

Qualifying Criteria:

In order for a residential street to be studied for speed humps, a petition must first be submitted. The petition must include signatures from individuals over the age of 18 from a minimum of 67% of the properties immediately adjacent to the street. The petition shall include the description of the request, names, addresses and signatures of

petitioners. Individuals signing the petition shall either be property owners or have authority from the property owner to sign on their behalf.

A residential street segment qualifies for the installation of speed humps when the result of a speed survey and investigation demonstrate that the criteria included in Exhibit A have been met. Once a street has qualified, the location will be added to a list of qualified locations maintained by the City Engineer/Public Works Department. A residential street segment that does not meet the criteria based on traffic volumes or 85th percentile speed may not be reconsidered for resurvey for a period of 18 months.

Priority Ranking System:

The list is prioritized by traffic volume and 85th percentile vehicle speed as provided below:

Traffic Volume: One point for every 50 vehicles traveling the street in a 24-hour period.

Number of Properties: One point for each residential unit immediately adjacent to the street, plus one point for each 25 feet of apartment frontage, park or school.

Vehicle Speed: Two points for every mile per hour (mph) the 85th percentile speed exceeds the speed limit (prima facie of posted).

Location Selection Guidelines:

In selecting the precise locations for speed hump installation, the following guidelines shall be adhered to:

- Speed humps shall not be located over manholes, water valves, street monuments or within 10 feet of a fire hydrant as they may prevent/impede access to these facilities.
- Speed humps shall be located a minimum of five feet from driveways, wherever possible, to minimize their effect on driveway access.
- Speed humps shall be located on or near property lines, wherever possible, to minimize impact on individual properties.
- Speed humps shall be located near streetlights, wherever possible, to enhance visibility at night.
- Speed humps shall be located a minimum of 100 feet from the end of a street segment, wherever possible, and shall never be located on a corner radius.
- Speed humps shall not be located on any horizontal curve with a centerline radius less than 250 feet.
- Speed humps shall be spaced at a minimum interval of 250 feet and maximum interval of 600 feet on a street segment.

Signs and Markings:

Warning signs and markings shall be installed in accordance with the latest edition of the California Manual on Uniform Traffic Controls as well as all State and Federal laws.

Fire Department Emergency Response:

All speed hump locations shall be reviewed by the City of Dixon Fire Department. The City will maintain a map of priority emergency response routes. Speed humps shall not be placed on these routes.

Funding:

Speed humps will be installed based on available funding and the priority ranking list at the time funding becomes available.

Speed Hump Removal:

The City of Dixon at any time may alter or remove a speed hump if it is deemed to interfere with public safety.

Removal of a speed hump from a street may also be considered when:

- The 85th percentile speed is not more than 2 mph below the speed demonstrated prior to the installation of the speed hump;
- The placement of the speed hump has been found to reduce traffic volumes on the street by more than 10% and traffic volumes on adjacent streets have experienced increase in traffic volumes;
- A petition has been submitted with signatures of residents over the age of 18 representing 67% of the immediately adjacent properties requesting removal of the speed hump;
- The City Council adopts a resolution authorizing staff to remove the speed hump.

Exhibit A Speed Hump Criteria December 2016

Criteria	
1	Must be a local street with at least 75% of the adjacent properties being residential, park or school.
2	Must have a prima facie or posted speed limit of 30mph or lower.
3	Must have an 85 th percentile speed greater than 5mph above the prima facie or posted speed limit.
4	Must have traffic volume greater than 400 vehicles per day.
5	Must be located a minimum of 200 feet from nearest traffic control device.
6	Must not be located on a curve with a centerline radius less than 250 feet.
7	Speed humps will not be installed on cul-de-sac streets.
8	Must have no more than one travel lane in each direction and be no wider than 50 feet measured between curb faces.
9	Must be crowned to drain from the centerline to the gutter.
10	Must have curb and gutter on both sides of street.
11	Must be initiated by a petition signed by residents over the age of 18 from 67% of the immediately adjacent properties
12	Street segments not meeting the traffic volume and/or 85 th percentile speed criteria will not be resurveyed for a period of 18 months
13	Must not be on a primary emergency response route as determined by the Fire Department
14	Must be approved by the Transportation Advisory Commission and City Council.
15	Installation is subject to available funding.
16	Specific location of the speed hump must meet the requirements provided in the Residential Speed Hump Guidelines