

THE CITY OF REDLANDS

**TRAFFIC CALMING
RESIDENTIAL DISTRICT TRAFFIC
MANAGEMENT STUDY**



Approved
May 18, 2010

TABLE OF CONTENTS

INTRODUCTION

A. GOALS AND OBJECTIVES

B. TRAFFIC CALMING MEASURES

Usage Guide Tables

Education and Enforcement

Roadway Striping and Crosswalk Treatment

Lane Narrowing or Neckdowns

Raised Median or Pedestrian Refuge

Diagonal Diverters

Speed Humps

Roundabout

Cul-De-Sac or Street Closure

Semi-Diverters or Half Closures

C. RANKING METHODOLOGY

D.RANKING MATRIX – Sorted by Street Name

E. RANKING MATRIX – Sorted by Score

F. RANKING MATRIX - Top 15 with Alternative Treatments and Costs

MAPS

INTRODUCTION

The City of Redlands Residential District Traffic Management Study for Traffic Calming has been developed to assist City Officials in identifying neighborhood traffic calming measures that can serve to alleviate local neighborhood concerns. Final traffic calming measures must be reviewed by the City's Traffic and Parking Commission and approved by the City Council. The level of traffic control measures which may be implemented is subject to available funding.

OBJECTIVE

The objective of the City of Redlands Residential District Traffic Management Study is to serve as a tool to help improve the livability of neighborhoods and to minimize adverse impacts of vehicular traffic on residential streets through a system of education, enforcement, and engineering.

GOALS

- Reduce the speed of vehicles on residential streets with demonstrated speeding problems to levels consistent with speeds on more typical City of Redlands residential streets.
- Increase safety by reducing demonstrated accident patterns on impacted residential streets to levels consistent with those of typical City of Redlands residential streets.
- Develop and emphasize focused neighborhood educational programs which address residential traffic problems.
- Implement selective enforcement actions in neighborhoods with demonstrated traffic-related problems.

In implementing the Program Goals, care will be taken to:

- Encourage citizen participation throughout the Program by seeking the input of affected residents and non-resident property owners through neighborhood meetings, written communication and open forum opportunities with the Traffic and Parking Commission and with City Council.
- Minimize impacts on emergency vehicle response times caused by implementation of neighborhood traffic calming measures.
- Limit the potential for shifting traffic problems from one residential neighborhood to another when implementing traffic calming measures.
- Respond to complaints in a timely manner.

TRAFFIC CALMING MEASURES

There are a wide variety of potential traffic calming measures that can be implemented to achieve the desired objective of “getting drivers to slow down.” As would be expected, the costs of the differing methods varies greatly. Each measure also has advantages and disadvantages.

Here again is a listing of potential traffic calming measures to be considered:

Education and Enforcement

Roadway Striping and Crosswalk Treatment

Lane Narrowing or Neckdowns

Raised Median or Pedestrian Refuge

Diagonal Diverters

Speed Humps

Roundabout

Cul-De-Sac or Street Closure

Semi-Diverters or Half Closures

Following this page is a detailed description of each potential traffic calming measure that also outlines the costs, pros and cons for that method.

	Roadway Width		Roadway Classification			EMS/Bus Routes		Desired Results			Potential Impacts			
	Under 26'	Over 26'	Local	Collector	Arterial	Not Considered for Primary Routes	Needs PSC Approval to be used on EMS route?	Speed Reduction	Volume Reduction	Ped/Bicycle Safety	Loss of Parking	Access Restrictions	Increase EMS Response Time	Noise/Pollution
Speed Limit Signs *	✓	✓	✓	✓	✓									
Stop Signs **	✓	✓	✓	✓					✓	✓		✓	✓	
Warning Signs	✓	✓	✓	✓	✓									
Neighborhood Signs	✓	✓	✓	✓	✓									
Striping	✓	✓	✓	✓	✓				✓	✓				
Radar Speed Trailer	✓	✓	✓	✓	✓									
Traditional Enforcement	✓	✓	✓	✓	✓									
Operational Improvements	✓	✓	✓	✓	✓			✓			✓			

✓ = Available Option

* = Speed limits are determined by an engineering survey

** = Installation of stop sign is based on traffic engineering standards and warrants

	Roadway Width		Roadway Classification			EMS/Bus Routes		Desired Results			Potential Impacts			
	Under 26'	Over 26'	Local	Collector	Arterial	Not Considered for Primary Routes	Needs Public Safety Commission Approval?	Speed Reduction	Volume Reduction	Ped/Bicycle Safety	Loss of Parking	Access Restrictions	Increase EMS Response Time	Noise/Pollution
ROADWAY NARROWING TOOLS														
Bulbouts/Curb Extensions		✓	✓	✓	✓			✓		✓	✓			
Chicanes	✓	✓	✓	✓			✓	✓			✓		✓	
Angled Slow Points		✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	
Chokers	✓	✓	✓	✓				✓		✓	✓			
MEDIAN TOOLS														
Median Barrier		✓	✓	✓		✓			✓			✓	✓	
Raised Median/Pedestrian Refuge		✓	✓	✓						✓	✓			
Median on Curve		✓	✓	✓	✓			✓			✓			
Short Intersection Median		✓	✓	✓				✓		✓	✓			
INTERSECTION TOOLS														
Speed Humps	✓		✓			✓		✓			✓	✓	✓	✓
Speed Table	✓	✓	✓	✓		✓		✓			✓		✓	✓
Raised Crosswalk		✓	✓	✓		✓		✓		✓			✓	✓
Intersection Table/Raised Intersection	✓	✓	✓	✓		✓		✓	✓	✓			✓	✓
DIVERSION TOOLS														
Partial Street Closures	✓	✓	✓	✓					✓			✓	✓	
Full Street Closure/Cul-De-Sac	✓	✓	✓			✓			✓			✓	✓	
Diagonal Diverters	✓	✓	✓			✓		✓				✓	✓	
OTHER TOOLS														
Curb Radius Reduction	✓	✓	✓	✓	✓			✓	✓	✓			✓	
Right-In/Right-Out Island		✓	✓											
Traffic Circles	✓	✓	✓											
Modified T-Intersection	✓	✓	✓	✓				✓			✓			
Gateway/Entrance Treatment		✓	✓	✓				✓	✓	✓	✓			

✓ = Available Option

EDUCATION AND ENFORCEMENT

DESCRIPTION:

Education and enforcement are traffic calming measures that include signing, workshops, speed trailer, solar powered speed feedback signs, electronic message trailer, Stealth Stat equipment, cable television channel 3 for messages, educational checkpoints in trouble areas, Market Nite information booth, mailings in trouble areas, and traditional enforcement along with hazardous citation enforcement, use of the City's plane for hazardous enforcement observations, and grant funded traffic motor officers for greater enforcement in surveyed areas.

PURPOSE:

The primary purpose is to inform and educate citizens and motorists of traffic calming measures.

EFFECTIVENESS:

Education is very effective in developing a better understanding of neighborhood traffic calming, and enforcement is effective in compliance with traffic calming.

COST:

Costs for education and enforcement varies from \$200 to \$2,000, and is generally measured by manhours.

PARKING IMPACTS:

None

TRANSIT SERVICE IMPACTS:

None

EMERGENCY SERVICE IMPACTS:

None

NOISE IMPACTS:

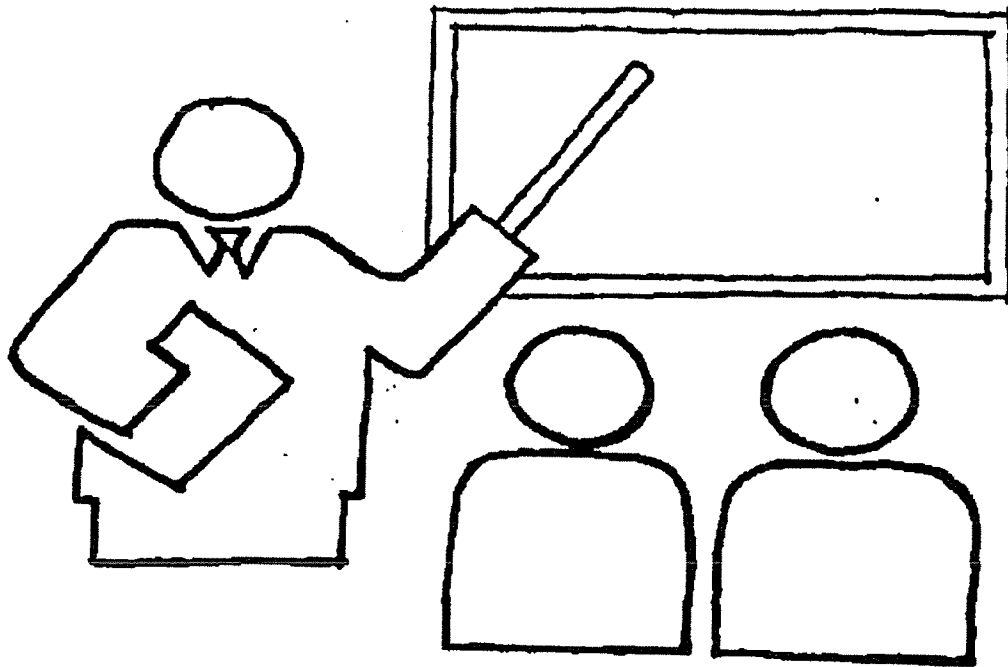
None

OTHER CONSIDERATIONS:

Depending on the effectiveness during the initial process, ongoing reinforcement may be required.

Education

Definition: Activities that inform and seek to modify driver behavior. Techniques include printed information, meetings and workshops with staff, interaction with neighbors, signing campaign, enforcement activities, neighborhood speed watch, school programs, parent outreach, etc..



Advantages	Disadvantages
<ul style="list-style-type: none">• Can be relatively effective, and relatively inexpensive.• Involves and empowers citizens.• Works well with other mitigation tools.	<ul style="list-style-type: none">• Not likely to be as effective on non-neighborhood traffic.• May be difficult to measure effectiveness.• Can be expensive and/or time consuming.• May take time to be effective.• Effectiveness may decrease over time.

Radars Speed Monitoring Trailer

Definition: Mobile radar display advises motorists of their speed.



Advantages	Disadvantages
<ul style="list-style-type: none">• Educational tool.• Very good public relations tool.• Useful especially in school and construction zones where spot speed reduction is important.	<ul style="list-style-type: none">• Requires periodic enforcement.• Effective for limited duration.• Unit moves frequently which requires personnel..

Traffic Calming Sign

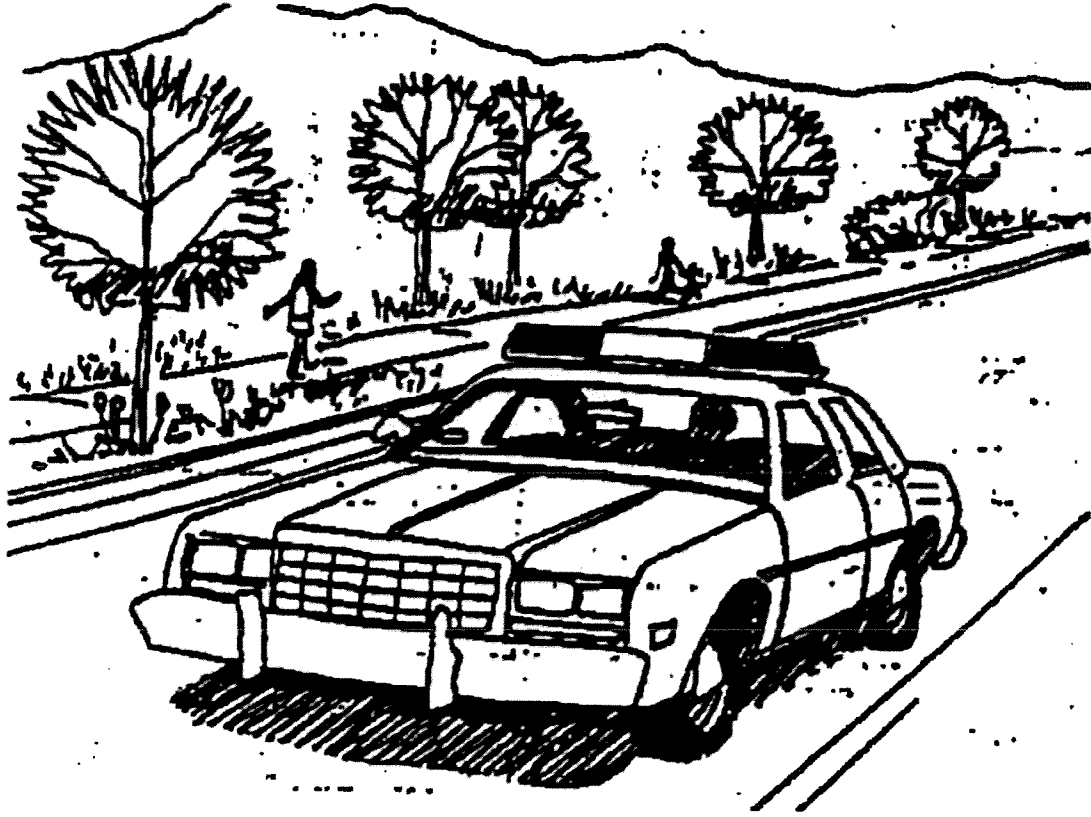
Definition: Sign informing public that a traffic calming device(s) has been installed in the area.



Advantages	Disadvantages
<ul style="list-style-type: none">• Informs and alerts driver of oncoming device(s).• Improves safety of the technique/device being used.• Improves effectiveness of technique/device.	<ul style="list-style-type: none">• More signage on the street, sometimes considered unsightly.

Traditional Enforcement

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



Advantages	Disadvantages
<ul style="list-style-type: none">• Good temporary public relations tool.• Serves to inform public that speeding is undesirable behavior for which there are consequences.	<ul style="list-style-type: none">• Effect is not permanent.• Enforcement is an expensive tool.

ROADWAY STRIPING AND CROSSWALK TREATMENT

DESCRIPTION:

Roadway striping is used to narrow the street lanes by installing an edge stripe 10 feet from the centerline of the street, a Class II, 4 foot wide, bike path stripe, or striping a continuous left turn median lane. This gives drivers the feel of a narrow street that does not lend itself to high speeds. Higher visibility crosswalks are designed to increase driver recognition by using contrasting color concrete or painting the crosswalks with “zebra” stripes between the outer boundary stripes.

PURPOSE:

The primary purpose is to slow down motorists with the reduced traffic lane widths and to make crosswalks more visible to drivers.

EFFECTIVENESS:

Single lane narrowing reduces vehicle speed and through traffic. Higher visibility crosswalks are more apparent to drivers than traditional crosswalks.

COST:

The costs vary depending on the length of street for striping, but are shown on the attached typical sections and are not anticipated to exceed \$3,000 per mile. Crosswalk treatments will vary depending upon the method utilized, but will vary from \$2,000 to \$3,000 per intersection.

PARKING IMPACTS:

Parking impacts are minimal since curbside parking would still be allowed within local residential streets that have a minimum 36 foot wide roadway.

TRANSIT SERVICE IMPACTS:

None

EMERGENCY SERVICE IMPACTS:

None

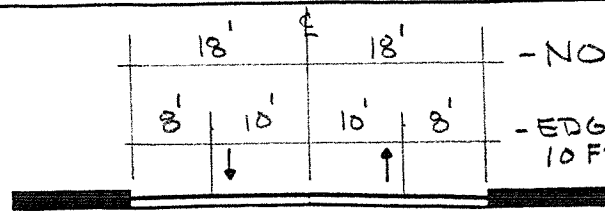
NOISE IMPACTS:

None

OTHER CONSIDERATIONS:

Regular striping maintenance is required along with an increase in the cost of resurfacing residential streets.

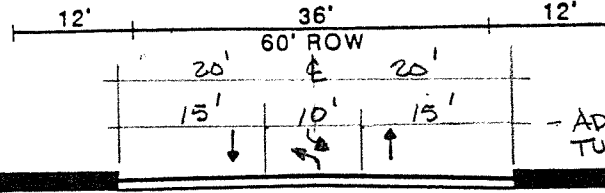
LOCAL



- NO CHANGE -

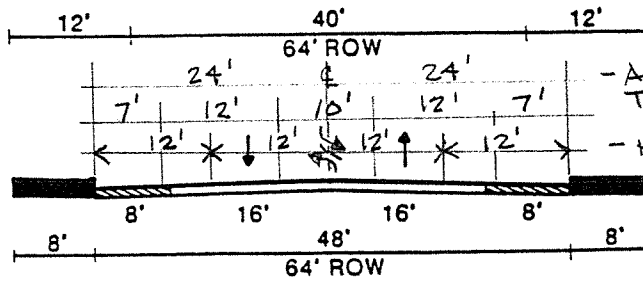
- EDGE STRIPE - 10 FT OFF C.L. - \$0.19 PER L.F. BOTH SIDES

COLLECTOR - Residential



- ADD CENTER TURN LANE - \$0.15 PER L.F. PER SIDE

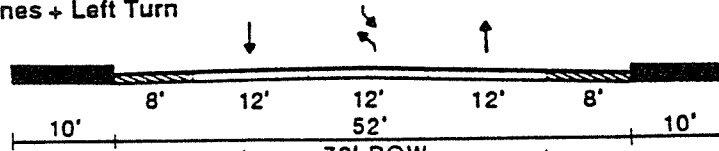
COLLECTOR - Industrial



- ADD CENTER TURN LANE - \$0.15 PER L.F. PER SIDE

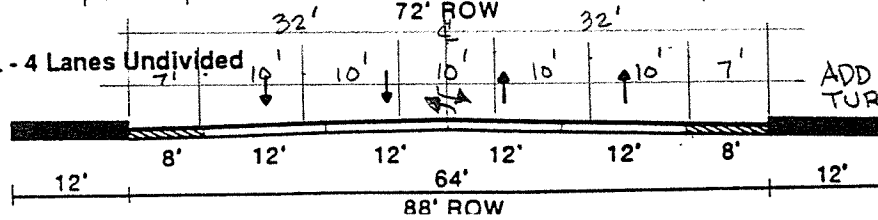
- NARROW LANE TO 12' W/ 12' PARKING LANE - \$0.19 PER L.F. BOTH SIDES

MINOR ARTERIAL - 2 Lanes + Left Turn



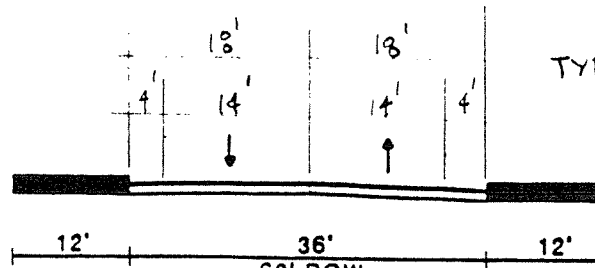
- NO CHANGE

MINOR ARTERIAL - 4 Lanes Undivided

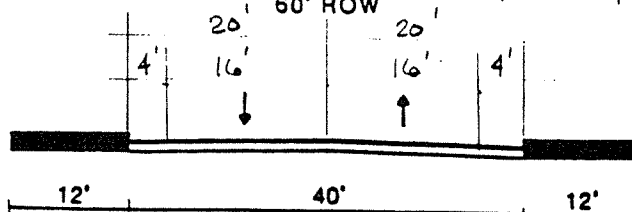


- ADD CENTER TURN LANE - \$0.15 PER L.F. PER SIDE

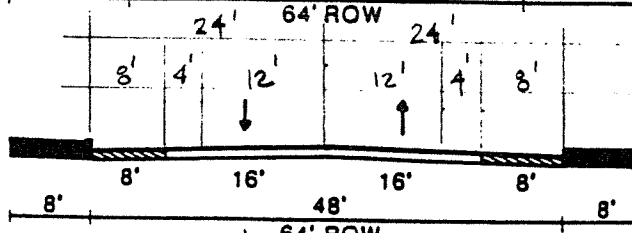
LOCAL



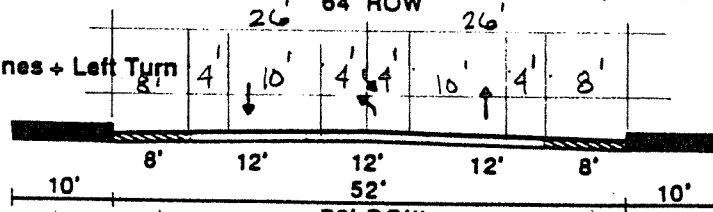
COLLECTOR - Residential



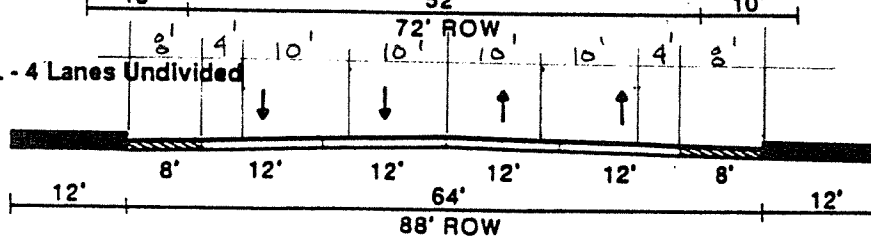
COLLECTOR - Industrial



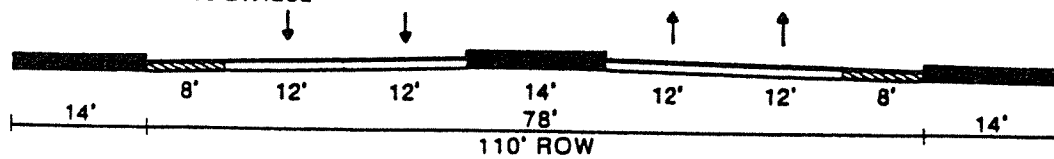
MINOR ARTERIAL - 2 Lanes + Left Turn



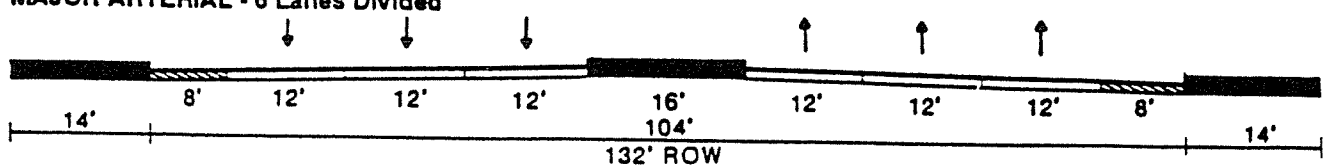
MINOR ARTERIAL - 4 Lanes Undivided



MAJOR ARTERIAL - 4 Lanes Divided

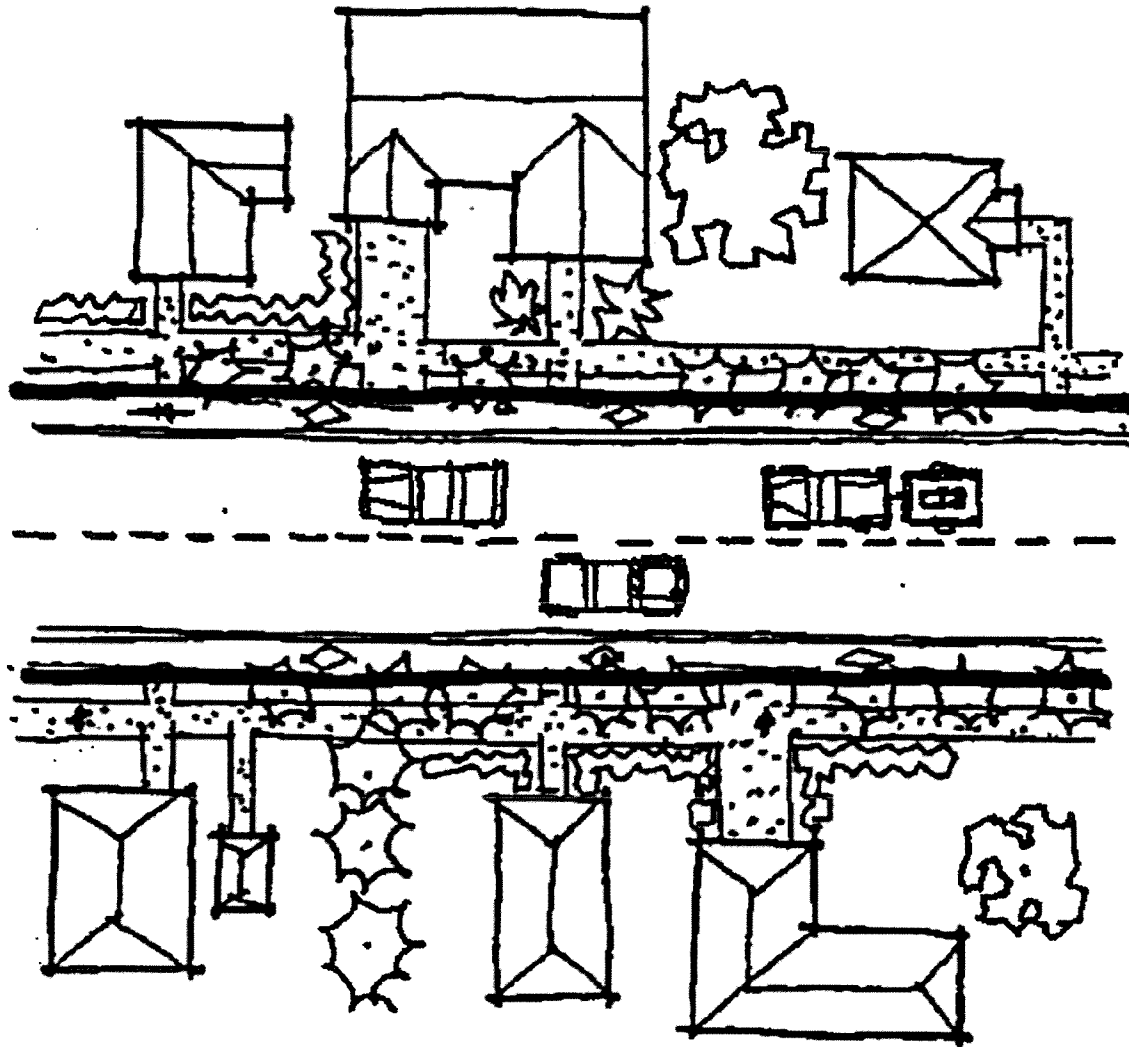


MAJOR ARTERIAL - 6 Lanes Divided



Road Striping

Definition: Highlighting various areas of the road to increase the driver's awareness of certain conditions (e.g., edge of road striping to create a narrowing/slowing effect while defining space for cyclists).



Advantages	Disadvantages
<ul style="list-style-type: none">• Inexpensive.• May reduce speed.• Edge treatment increases safety of cyclists and pedestrians.• Low maintenance.	<ul style="list-style-type: none">• May not be as effective as other more structured techniques.

Higher Visibility Crosswalks

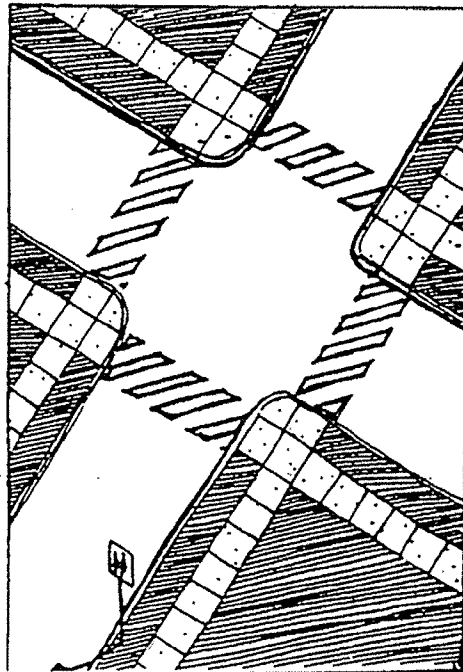
Description: The crosswalk is designed to increase driver recognition by using one of the following techniques: raising the crosswalk to a grade higher than the roadway, designing the crosswalks with paving blocks or contrasting color concrete or painting the crosswalks with "zebra" stripes between the outer boundary stripes. Higher visibility crosswalks would only be used at uncontrolled crosswalks. Some cities have tried using large "dot" markers (similar to the ones found on the internal crosswalks at the Factory Stores) or reflectorized pavement markers. At this time staff is not recommending either technique be used on residential streets.

Positive Aspects:

- Indicates to pedestrians an acceptable or preferred crossing location.
- More visible to drivers than traditional crosswalks.

Negative Aspects:

- Pedestrians may place too high a level of reliance on the ability of a crosswalk to control driver behavior.
- More maintenance required than with traditional crosswalks.



LANE NARROWING OR NECKDOWNS

DESCRIPTION:

Lane narrowing or neckdowns narrow the street by widening the sidewalk or the landscaped parking strip.

PURPOSE:

These devices are employed to make pedestrian crossings easier, to narrow the roadway, and/or to slow traffic.

EFFECTIVENESS:

Curb extensions effectively improve pedestrian safety by reducing the street crossing distance and improving sight distance. They also influence driver behavior by changing the appearance of the street.

COST:

Curb extensions cost \$7,000 to \$10,000.

PARKING IMPACTS:

Parking impacts are minimal. However, each curb extension occupies street area that might otherwise be available for curbside parking.

TRANSIT SERVICE IMPACTS:

Curb extensions do not adversely impact transit service. Curb extensions at transit stops enhance service by moving the curb so riders step directly between the sidewalk and bus door.

EMERGENCY SERVICE IMPACTS:

None

NOISE IMPACTS:

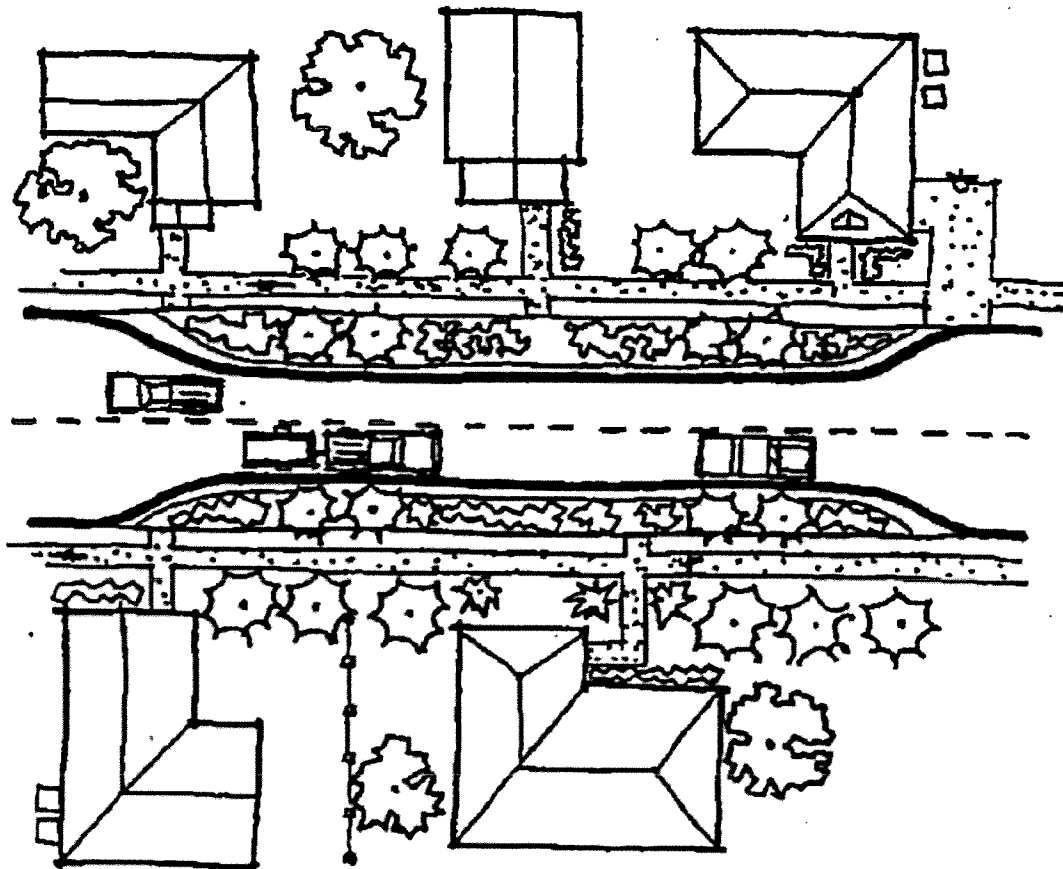
None

OTHER CONSIDERATIONS:

Where the crowns of the street are steep, curb extensions may actually go “uphill” because the new curb is higher than the original curb. If poorly designed, this can result in puddles on the sidewalk.

Lane Narrowing

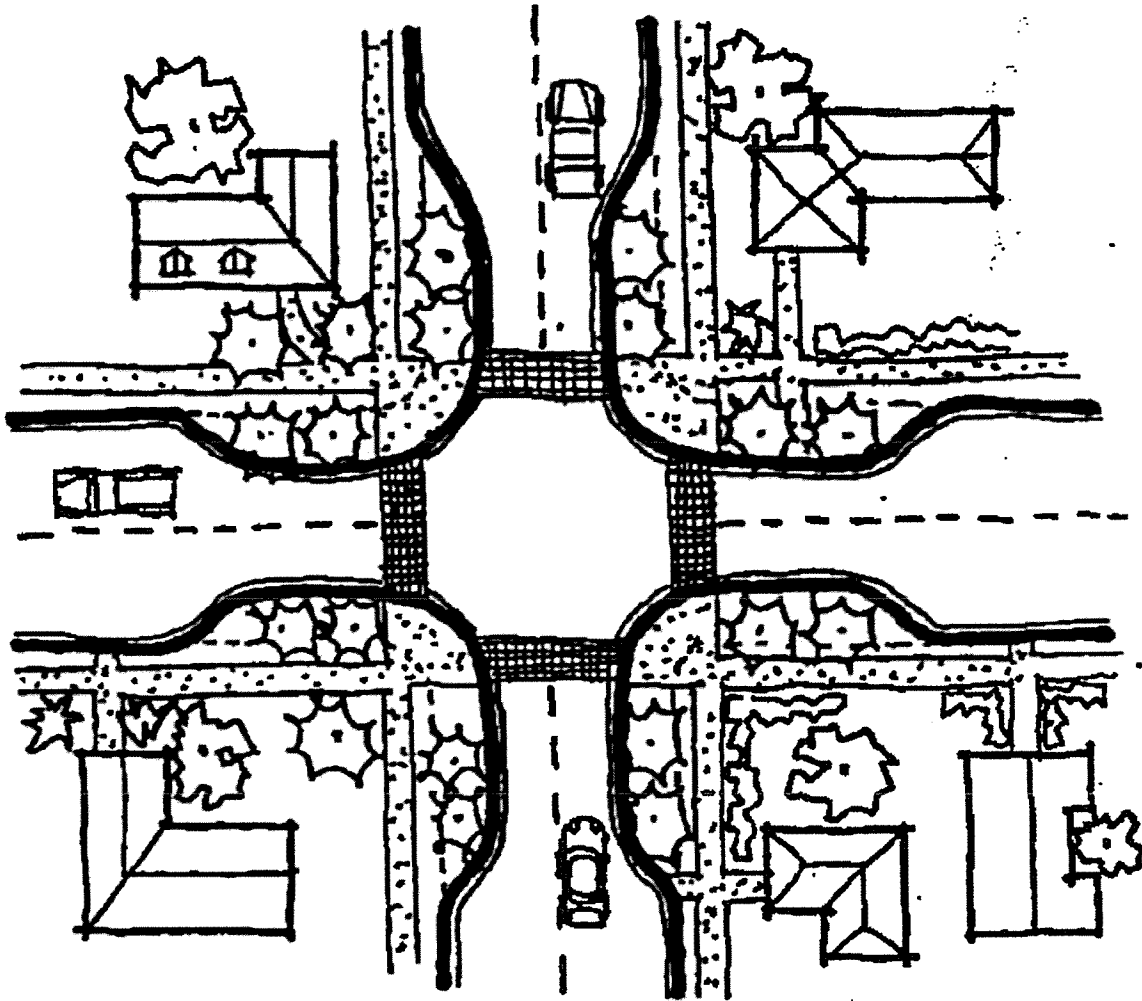
Definition: Street physically narrowed to expand sidewalks and landscaped areas; possibly adding medians, on street parking, etc. (Similar to Neckdowns but used at mid-block).



Advantages	Disadvantages
<ul style="list-style-type: none">• Minor inconveniences to drivers.• Minimal inconveniences to local traffic.• Good for pedestrians due to shorter crossing distance.• Provides space for landscaping.• Slows traffic without seriously affecting emergency response time.• Effective when used in a series.• Single lane narrowing reduces vehicle speed and through traffic.	<ul style="list-style-type: none">• Double lane narrowing not very effective at reducing speeds or diverting through traffic.• Only partially effective as a visual obstruction.• Unfriendly to cyclists unless designed to accommodate them.• Conflict between opposing drivers arriving simultaneously could create problems.

Neckdown(s)

Definition: Physical curb reduction of road width at intersections. Similar to lane narrowing but used at intersection(s). Widening of street corners at intersections to discourage cut-through traffic and to help define neighborhoods. (Multiple application shown below.)



Advantages	Disadvantages
<ul style="list-style-type: none">• May be aesthetically pleasing, if landscaped.• Good for pedestrian due to shorter crossing distance.• Can be used in multiple applications or on a single segment of roadway.	<ul style="list-style-type: none">• Unfriendly to cyclists unless designed to accommodate them.• Landscaping may cause sight line problems.• Increased maintenance if landscaped.

RAISED MEDIAN OR PEDESTRIAN REFUGE

DESCRIPTION:

Raised medians or pedestrian refuges are used on wide streets to narrow the travel lanes which shortens a pedestrians crossing distance. These devices are typically installed at existing crosswalks. After a pedestrian crosses one lane of traffic, they may wait in the median area before crossing the other lane of traffic.

PURPOSE:

These devices are employed to make pedestrian crossings easier, to narrow the roadway, and/or to slow traffic.

EFFECTIVENESS:

Raised medians or pedestrian refuges effectively improve pedestrian safety by reducing the street crossing distance and improving sight distance. They also influence driver behavior by changing the appearance of the street.

COST:

Raised medians or pedestrian refuges cost \$7,000 to \$10,000 at an intersection, depending upon length and landscaping.

PARKING IMPACTS:

Parking would either be eliminated or reduced depending on the total street width at the raised median or pedestrian refuge.

TRANSIT SERVICE IMPACTS:

None

EMERGENCY SERVICE IMPACTS:

None

NOISE IMPACTS:

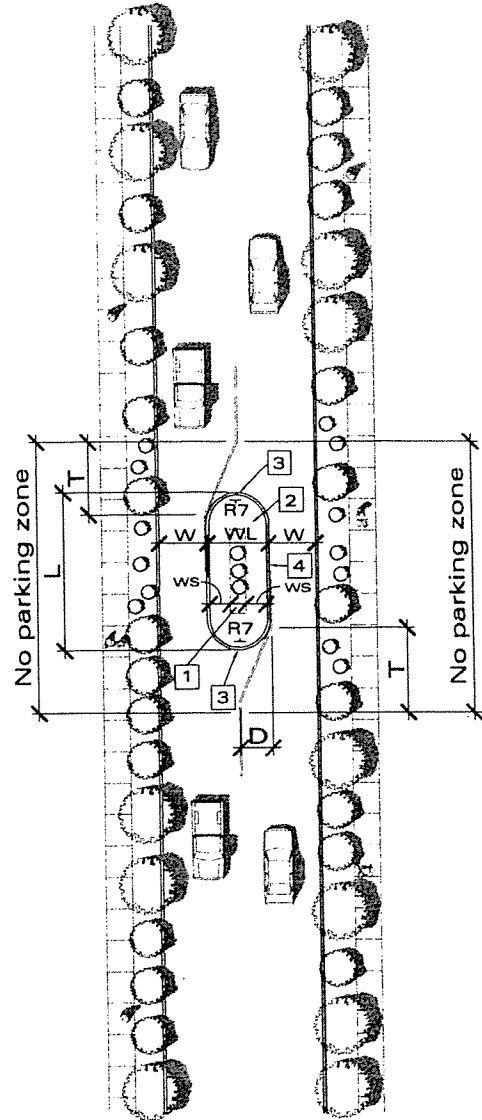
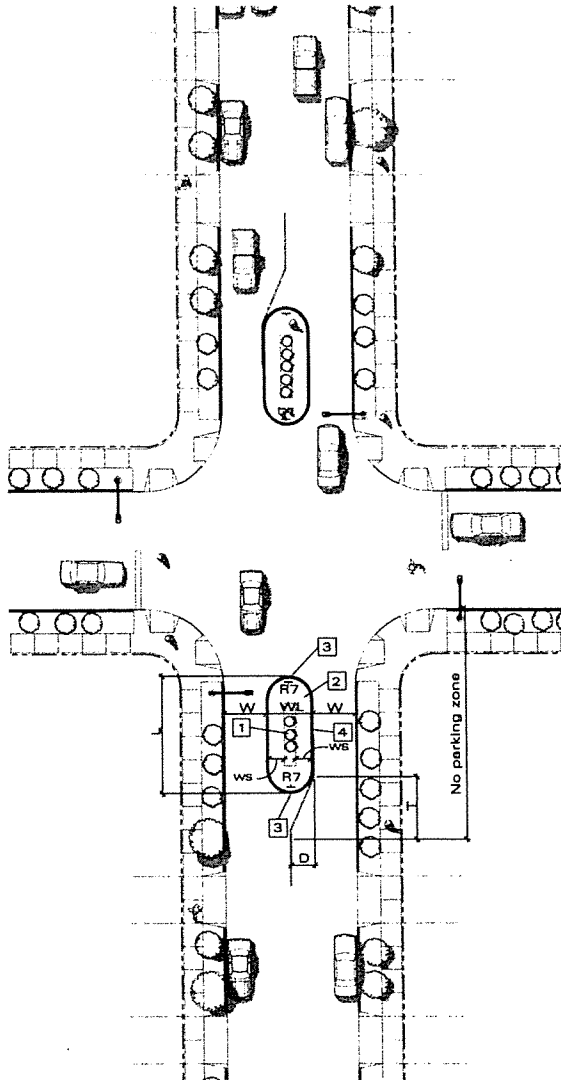
None

OTHER CONSIDERATIONS:

These raised medians can be landscaped to break up the site line of the driver and enhance the neighborhood. Landscaping also increases the visibility of the tool.



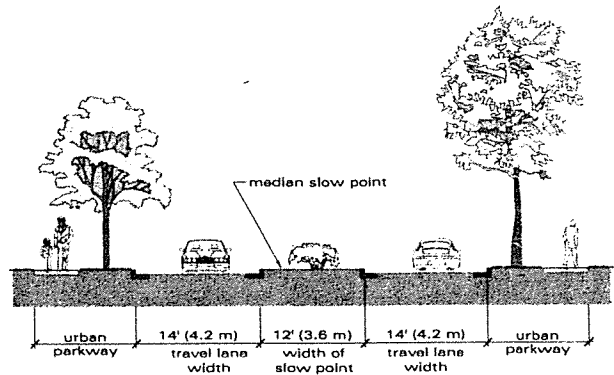
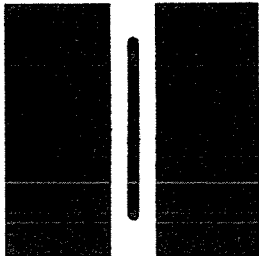
Traffic Calming -Median Slow Point



Legend

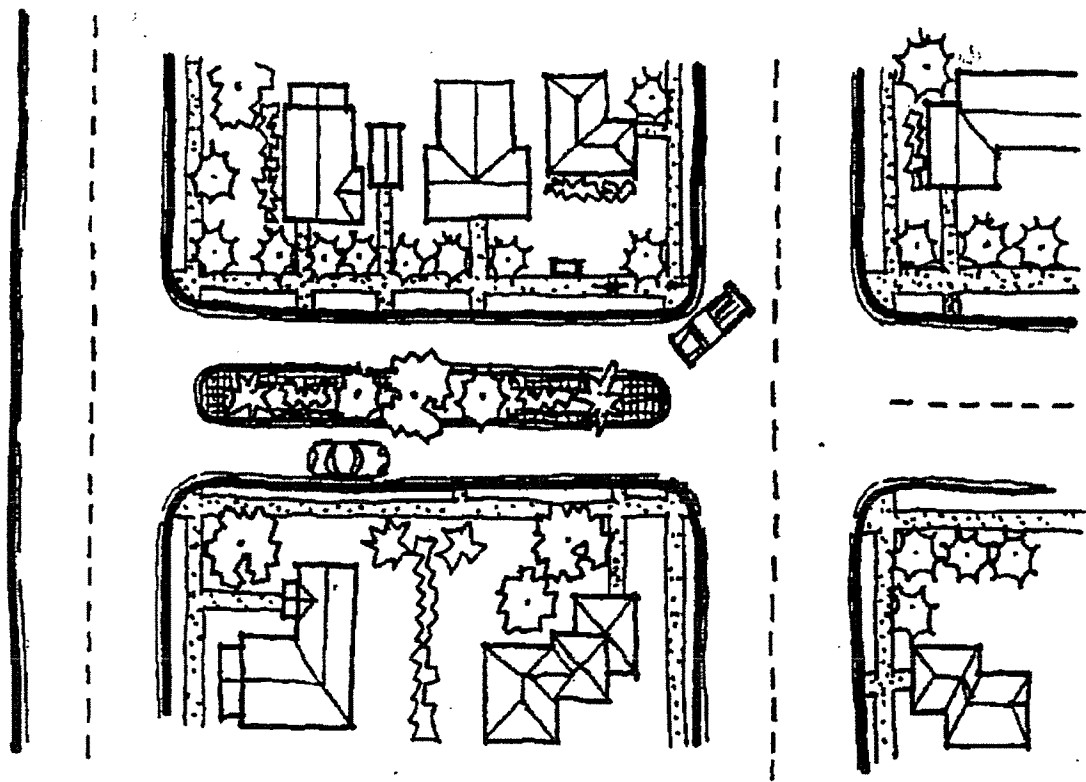
- 1 area that may be landscaped (landscape, irrigation, and long term maintenance must be considered by a maintenance assessment district or other agreements with the City of San Diego.)
- 2 stamped concrete
- 3 yellow painted island nose
- 4 6" curb

W - travel lane width - 14'
 WL- Width of slow point
 (varies depending on street width-
 12' minimum)
 Ws - For landscaped slow point, 2' typical
 L - Length of slow point, varies
 depending on parking and driveways
 D - horizontal deflection, 6' minimum
 T - Transition, calculated as follows:
 $T = (D \times S^2) / 120$ - minimum
 Where: D= deflection in feet
 S= 85th percentile speed
 in mph



Mid-block Median

Definition: An island or barrier in the center of a street that serves to segregate traffic.



Advantages	Disadvantages
<ul style="list-style-type: none">• Provides a refuge for pedestrians and cyclists.• May improve streetscape if landscaped.• Provides barrier between lanes of traffic.• May produce a limited reduction in vehicle speeds.	<ul style="list-style-type: none">• May reduce site lines if over landscaped.• Increased maintenance.

DIAGONAL DIVERTERS

DESCRIPTION:

Diagonal diverters place a barrier diagonally across an intersection, disconnecting the legs of the intersection.

PURPOSE:

Strategically located diagonal diverters reduce traffic volumes on a street. Diagonal diverters prevent all through moves at an intersection.

EFFECTIVENESS:

Diagonal diverters are very effective in reducing volumes.

COST:

Diagonal diverters cost approximately \$10,000 to \$30,000.

PARKING IMPACTS:

None

TRANSIT SERVICE IMPACTS:

Diagonal diverters should not be considered on transit streets.

EMERGENCY SERVICE IMPACTS:

Generally, the turn restrictions imposed by a diagonal diverter would apply to emergency vehicles as well and are typically not used on primary fire response routes. However, diagonal diverters can be designed and installed to provide for emergency vehicle access.

NOISE IMPACTS:

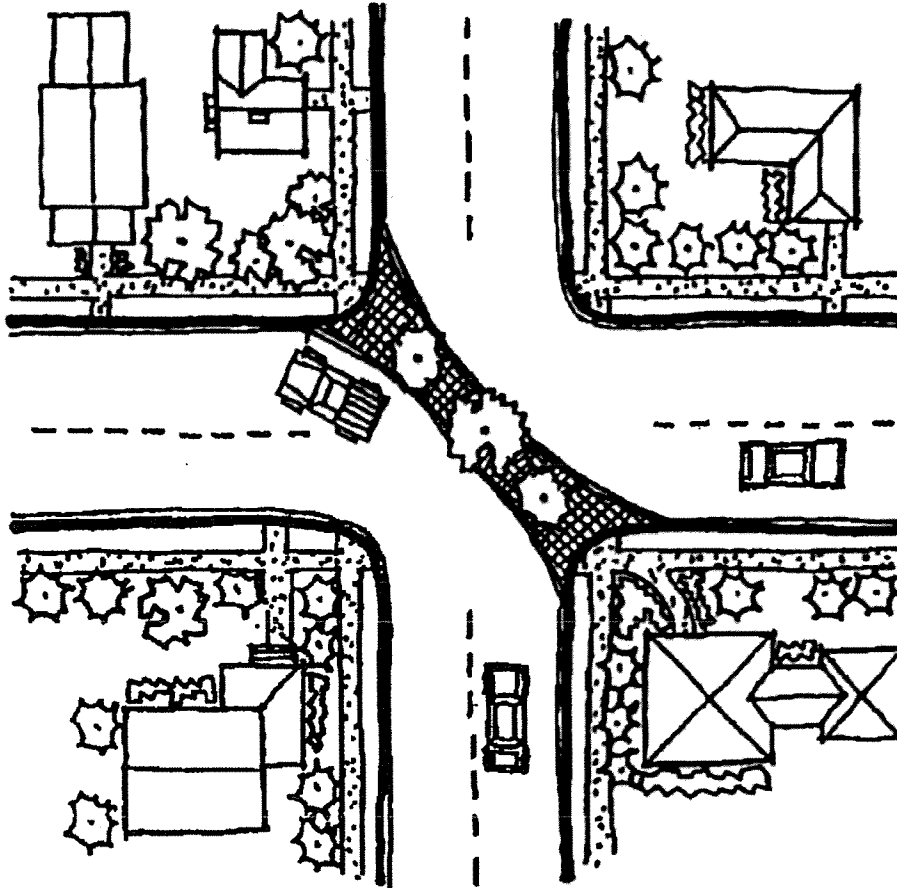
None

OTHER CONSIDERATIONS:

Diagonal diverters apply to all drivers, including local residents. Very special care must be taken to consider the availability, capacity, and appropriateness of the alternative routes drivers might use if a diagonal diverter is constructed. Provisions should be made to make diagonal diverters passable for pedestrians and bicyclists.

Diagonal Road Closures

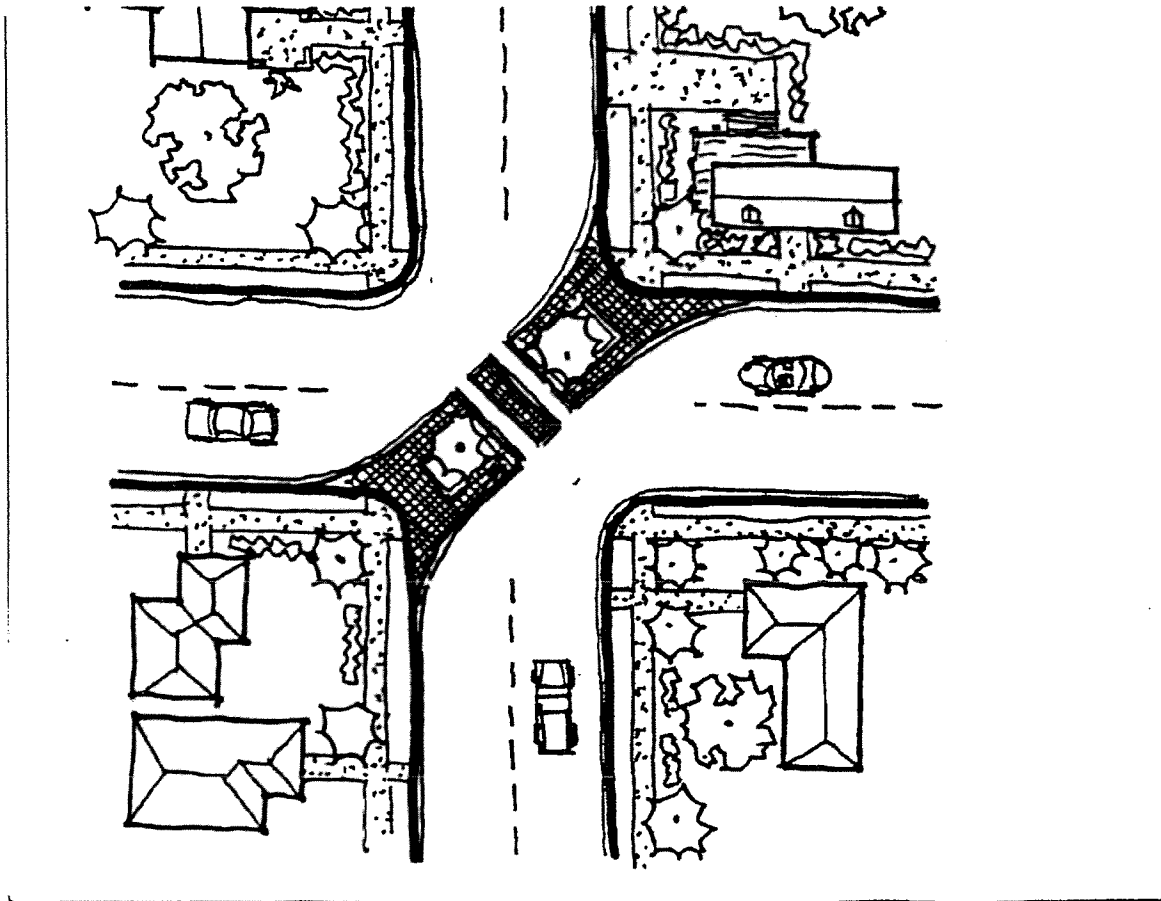
Definition: A barrier placed diagonally across a four-legged intersection, interrupting traffic flow across the intersection. This type of barrier may be used to create a maze-like effect in a neighborhood.



Advantages	Disadvantages
<ul style="list-style-type: none">• Eliminates through traffic.• Provides area for landscaping.• Reduces traffic conflict points.• Increases pedestrian safety.• Can include bicycle path connection.	<ul style="list-style-type: none">• May inconvenience residents gaining access to their properties.• May inhibit access by emergency vehicles.• May divert through traffic to other local streets.• Altered traffic patterns may increase trip length.

Traversable Barriers

Definition: A barrier placed across any portion of a street that is traversable by bikes, pedestrians, in-line skaters, and emergency vehicles, but not by motor vehicles.



Advantages	Disadvantages
<ul style="list-style-type: none">• Reduces or eliminates cut-through traffic.	<ul style="list-style-type: none">• May inconvenience residents gaining access to their properties.• Depending on design may be subject to violation by unauthorized vehicles.• Altered traffic patterns may increase trip length.

SPEED HUMPS

DESCRIPTION:

Speed humps are pavement undulations installed along a roadway for the purpose of regulating traffic speed. There is a significant difference between speed humps and speed bumps, which are devices commonly used in shopping center parking lots. A speed bump is an abrupt pavement feature, three or four inches high and only one to three feet in length at the base (measured in the direction of vehicle travel). A speed hump, on the other hand, is generally 3 inches in height, but much gentler in configuration, with a length of at least 12 feet at the base. Speed humps properly designed and placed in appropriate locations control speed without the “jarring” effect of speed bumps. Each installation should consist of a minimum of three humps, spaced at 300-400 feet apart. Because visibility of the speed humps is very important, they will be identified with appropriate signs and markings. Speed humps can also be applied to intersections for improved intersection recognition, as well as for controlling speeds.

PURPOSE:

Speed humps are intended to reduce vehicle speeds and/or divert traffic.

EFFECTIVENESS:

Twelve-foot wide speed humps may be effective at encouraging 25 mph vehicle speed.

COST:

Speed humps cost approximately \$2,000 to \$2,500 each (minimum \$6,000 for a series). Intersection humps cost approximately \$5,000 to \$10,000 depending on intersection size.

PARKING IMPACTS: None

TRANSIT SERVICE IMPACTS:

Like other vehicles, buses must cross a speed hump at reduced speeds. Transit service representatives have an opportunity to review all speed humps that are proposed.

EMERGENCY SERVICE IMPACTS:

Like other vehicles, emergency response vehicles must cross a speed hump at reduced speeds. The speed hump design selected for a street takes into consideration whether it is used as a primary response route. The Fire Department has an opportunity to review all speed humps that are proposed. An opportunity to comment on proposed speed humps must be provided to appropriate emergency service agencies and transportation service agencies. These comments will be considered by the Traffic and Parking Commission and the City Council in their review.

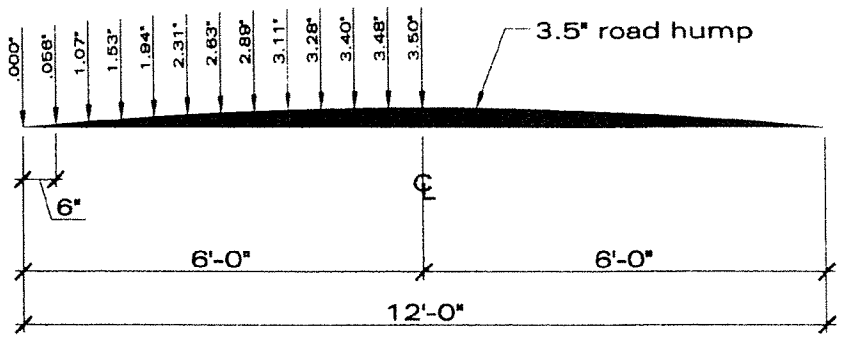
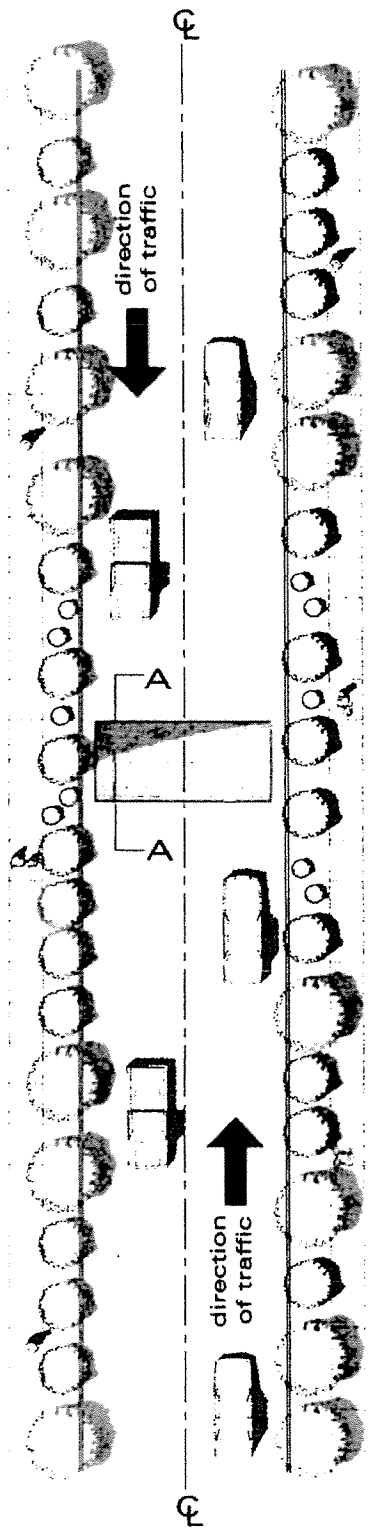
NOISE IMPACTS:

Speed humps generate some noise. The only mitigation is to consider a hump's proximity to homes when determining where humps might be located.

OTHER CONSIDERATIONS:

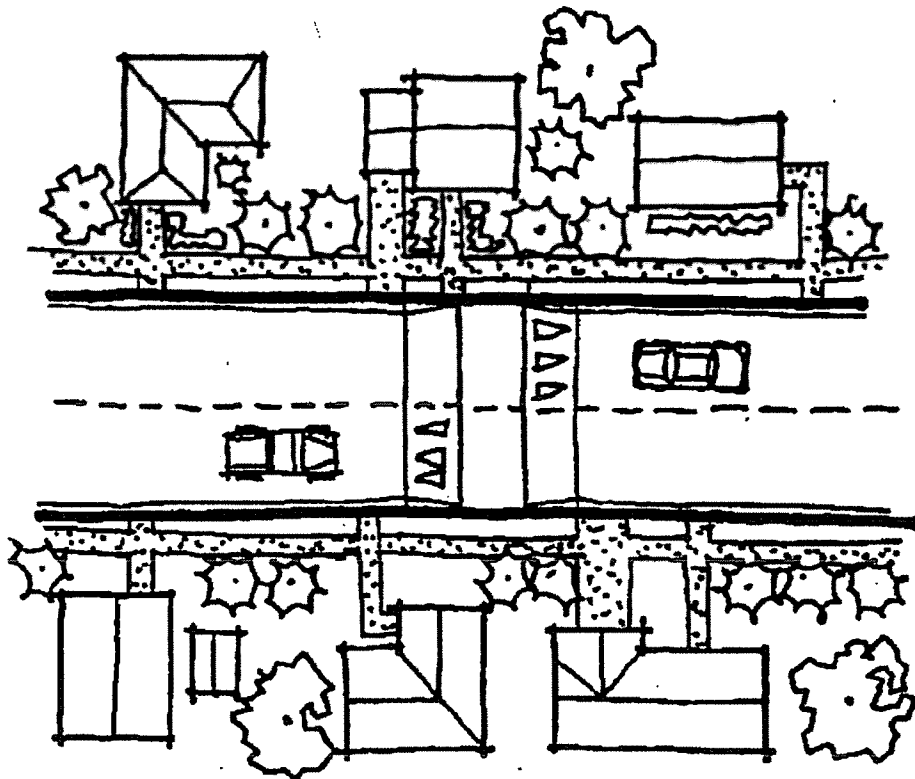
Traffic volumes typically decrease slightly after speed humps are constructed. Additional signage may be objectionable to residents.

Traffic Calming -Road Humps



Speed Humps

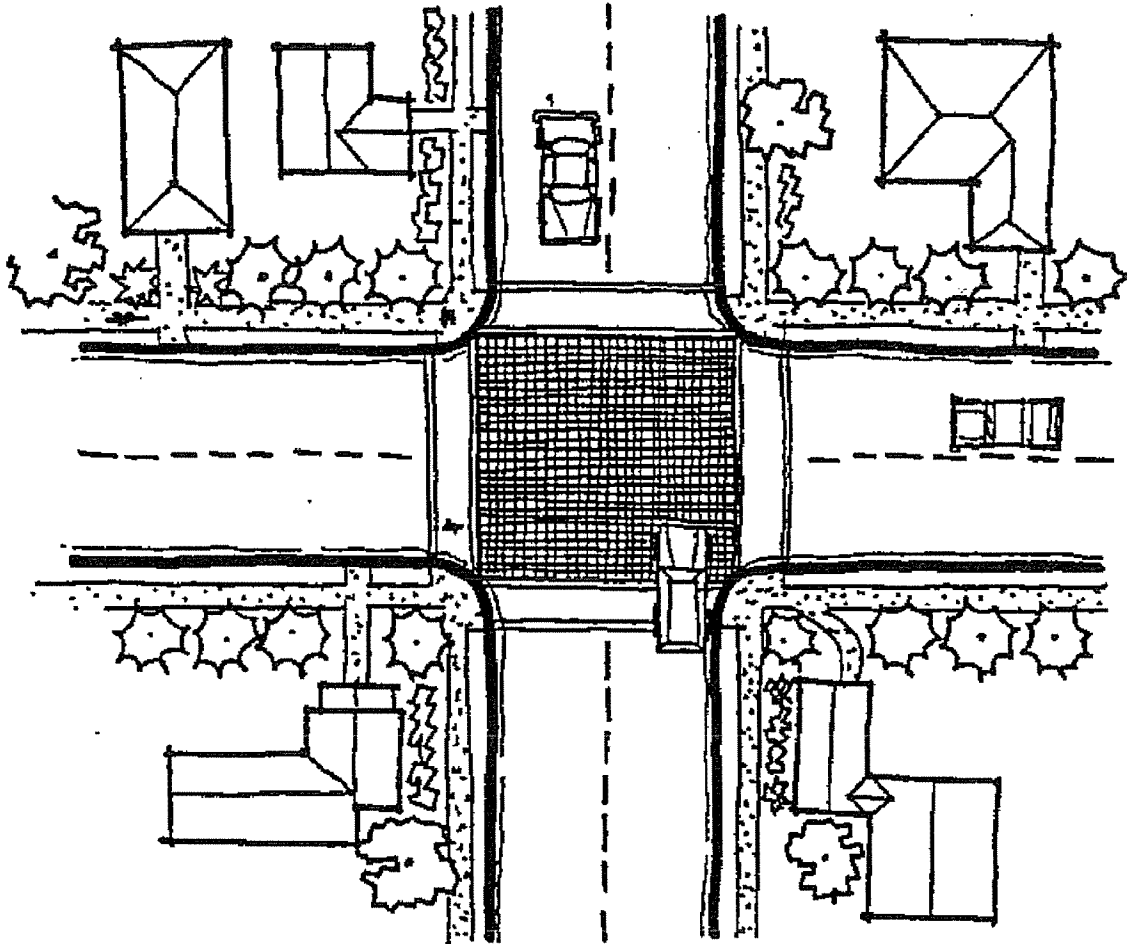
Definition: Speed Humps are wave-shaped paved humps in the street. The height of the speed hump determines how fast it may be navigated without causing discomfort to the driver or damage to the vehicle. Discomfort increases as speed over the hump increases. Typically speed humps are placed in a series rather than singularly.



Advantages	Disadvantages
<ul style="list-style-type: none">• Reduced vehicle speeds in the vicinity of the hump without increasing crashes. Better if used in a series at 300' to 500' spacing.• Self enforcing.• Relatively inexpensive.	<ul style="list-style-type: none">• May create noise particularly if there are loose items in the vehicle or trailer.• If not properly designed, drivers may try to skirt around to avoid impact.• May be a problem for emergency vehicles.• May impact drainage.• Drivers may speed up between humps.• Difficult to properly construct.• Requires signage that may be considered unsightly.

Intersection Hump

Definition: A raised plateau where roads intersect. The plateau is generally 4" above the surrounding street.



Advantages	Disadvantages
<ul style="list-style-type: none">• Slows vehicle in the most critical area and therefore helps to make conflict avoidance easier.• Highlights intersection.• Excellent pedestrian safety treatment.• Aesthetically pleasing if well designed.• Effective speed reduction, better for emergency vehicles than speed humps.	<ul style="list-style-type: none">• Increases difficulty of making a turn.• Increased maintenance.• Requires adequate signage and driver education.

ROUNDABOUT

DESCRIPTION:

A roundabout is a modern version of a traffic circle with approach diverter islands. A circular island is placed in the center of an existing local street intersection. Traffic approaching the intersection is guided around the circular island. Roundabouts are generally designed to require approaching traffic to slow down when entering the intersection, while allowing a relatively easy exit movement for traffic exiting the intersection.

PURPOSE:

The purpose of a roundabout is to reduce intersection approach speeds and reduce the potential for angle and turning-type accidents, while maintaining or possibly increasing the capacity of an intersection.

EFFECTIVENESS:

Roundabouts are very effective at lowering speeds in their immediate vicinity. They are also very effective at reducing turning-type collisions; however, the potential for accidents could increase initially until drivers become accustomed to the change.

COST:

Roundabouts cost approximately \$30,000 to \$70,000 each or more depending on other aspects.

PARKING IMPACTS:

Due to the approach diverter islands associated with a roundabout, 30-50 feet of curbside parking prohibitions may be required at all four corners of an intersection.

TRANSIT SERVICE IMPACTS:

Buses can maneuver around roundabouts at slow speeds, provided that vehicles are not illegally parked near the roundabout.

EMERGENCY SERVICE IMPACTS:

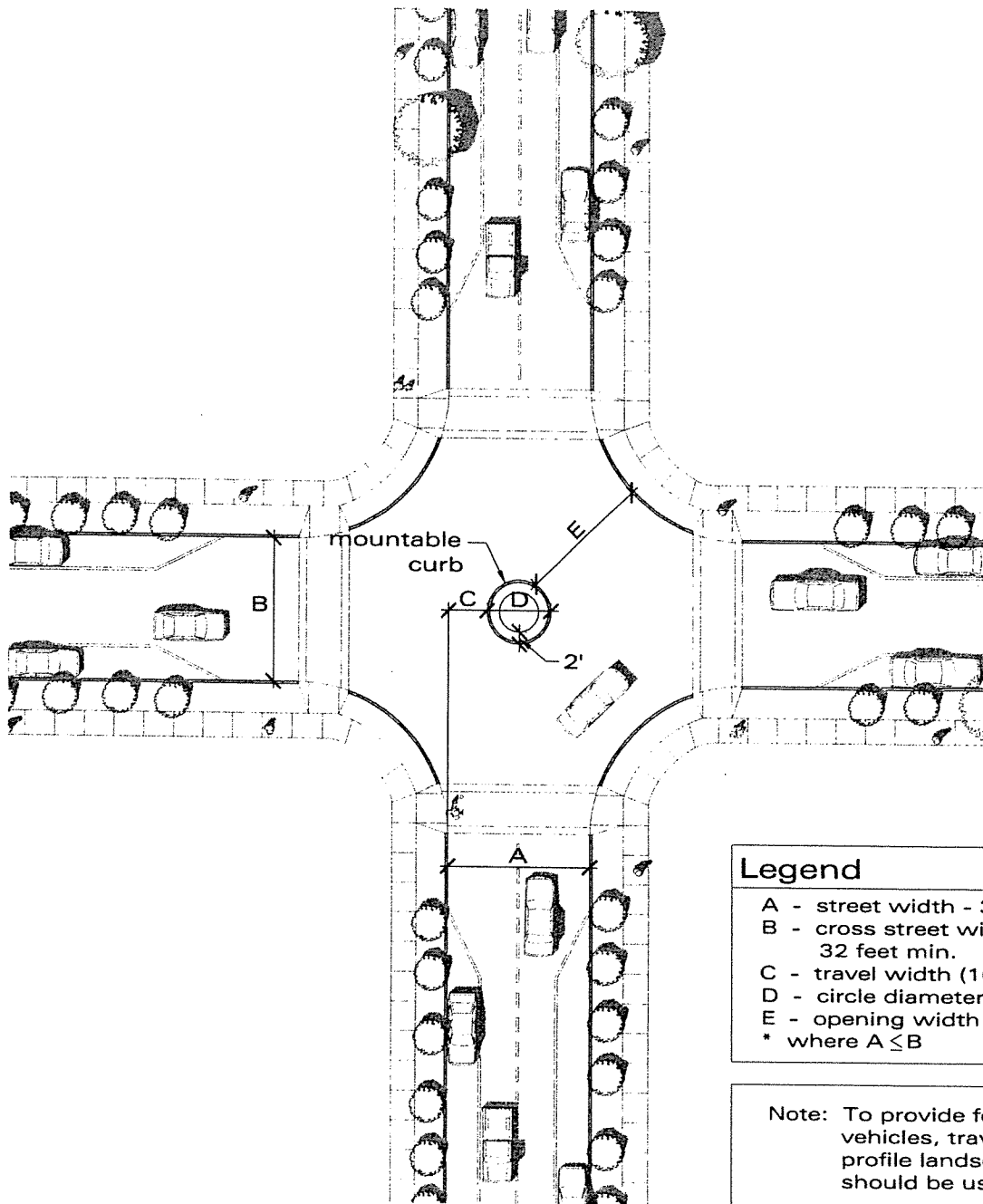
Emergency service response times can be reduced by the installation of a roundabout at an intersection.

NOISE IMPACTS:

Noise impacts are minimal. There may be some noise related to vehicles decelerating near a roundabout.

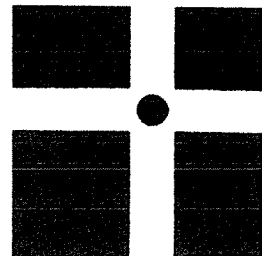
OTHER CONSIDERATIONS:

If well maintained, roundabouts can be very attractive. However, there are also a lot of traffic control signs and pavement markings associated with roundabouts that would likely be unattractive. Roundabouts are very difficult to design at T-intersections, skewed intersections, and offset intersections.



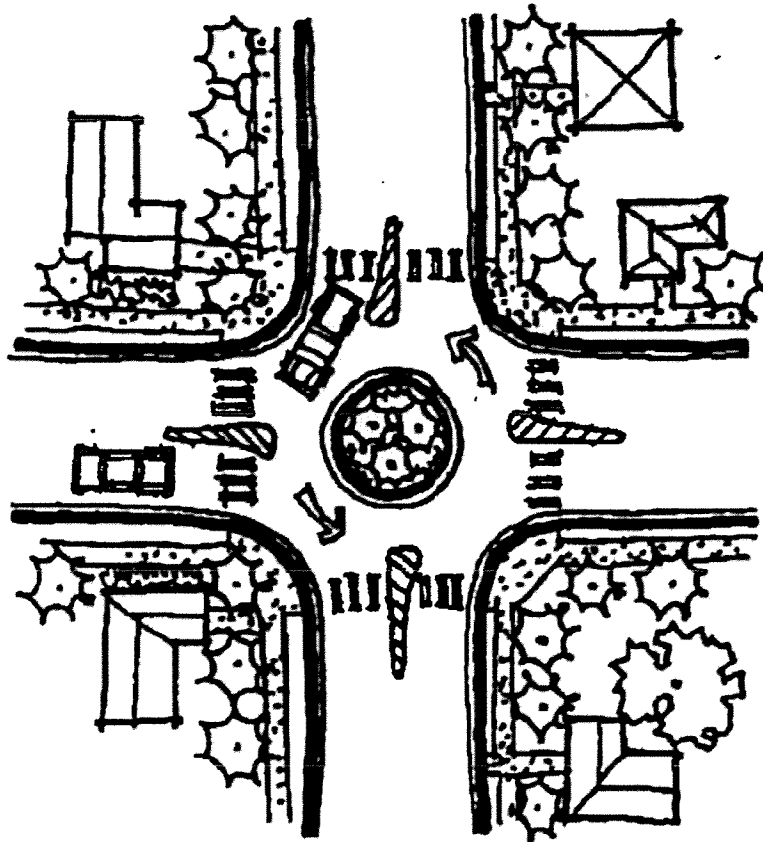
Legend	
A	- street width - 32 feet min.
B	- cross street width (varies) 32 feet min.
C	- travel width (10'*)
D	- circle diameter (12' minimum)
E	- opening width (18' minimum)
* where $A \leq B$	

Note: To provide for emergency vehicles, traversable low profile landscaping should be used.



Roundabouts

Definition: Roundabouts are raised circular areas (similar to medians) placed at intersections. Drivers travel in a counter-clockwise direction around the circle. Modern roundabouts are "yield upon entry," meaning that cars in the circle have the right-of-way and cars entering the circle must wait to do so until the path is clear. When a roundabout is placed in an intersection, vehicles may not travel in a straight line.



Advantages	Disadvantages
<ul style="list-style-type: none"> • Reduces crashes by 50 to 90 percent when compared to 2-way, 4-way stop signs and traffic signals by reducing the number of conflict points at intersections. • Reduces speed at intersection approach. • Longer speed reduction influence zones. • Provides space for landscaping. • Cheaper to maintain than a traffic signal. • Effective at multi-leg intersections. • Provides equal access to intersections for all drivers. • Provides a good environment for cyclists. • Does not restrict movements, but makes them more difficult. 	<ul style="list-style-type: none"> • May be restrictive for larger vehicles if designed to a low speed. Providing a mountable apron minimizes this limitation. • May require additional lighting and signage. • If left turns by large vehicles are to be accommodated then right of way may have to be purchased. • Initial safety issues as drivers adjust. • May increase volumes on adjacent streets. • Maintenance responsibility if landscaped.

CUL-DE-SAC OR STREET CLOSURE

DESCRIPTION:

Cul-de-sacs are created by either closing a street at an intersection or at a mid-block location. Pedestrian access is provided across a landscaped island. The closure must be located away from driveways.

PURPOSE:

The purpose of a cul-de-sac is to eliminate through-traffic and/or reduce speeding on long uninterrupted sections of roadway.

EFFECTIVENESS:

Cul-de-sacs are very effective at reducing traffic volumes on the cul-de-sac roadway; however, diverted traffic can increase traffic volumes on adjacent roadways.

COST:

Installing cul-de-sacs on a roadway could cost approximately \$10,000 to \$30,000.

PARKING IMPACTS:

Up to 150 feet of curb-side parking must be prohibited at the location where cul-de-sacs are being installed.

TRANSIT SERVICE IMPACTS:

Cul-de-sacs can block transit service routes, necessitating the rerouting of transit services.

EMERGENCY SERVICE IMPACTS:

Cul-de-sacs can negatively affect response times for emergency services, particularly if they are installed on primary emergency service access routes. The landscaped island that forms the cul-de-sac can be designed as a traversable island for emergency purposes. An opportunity to comment on a proposed cul-de-sac or street closure must be provided to appropriate emergency service agencies and transportation service agencies. These comments will be considered by the Traffic and Parking Commission and the City Council in their review.

NOISE IMPACTS:

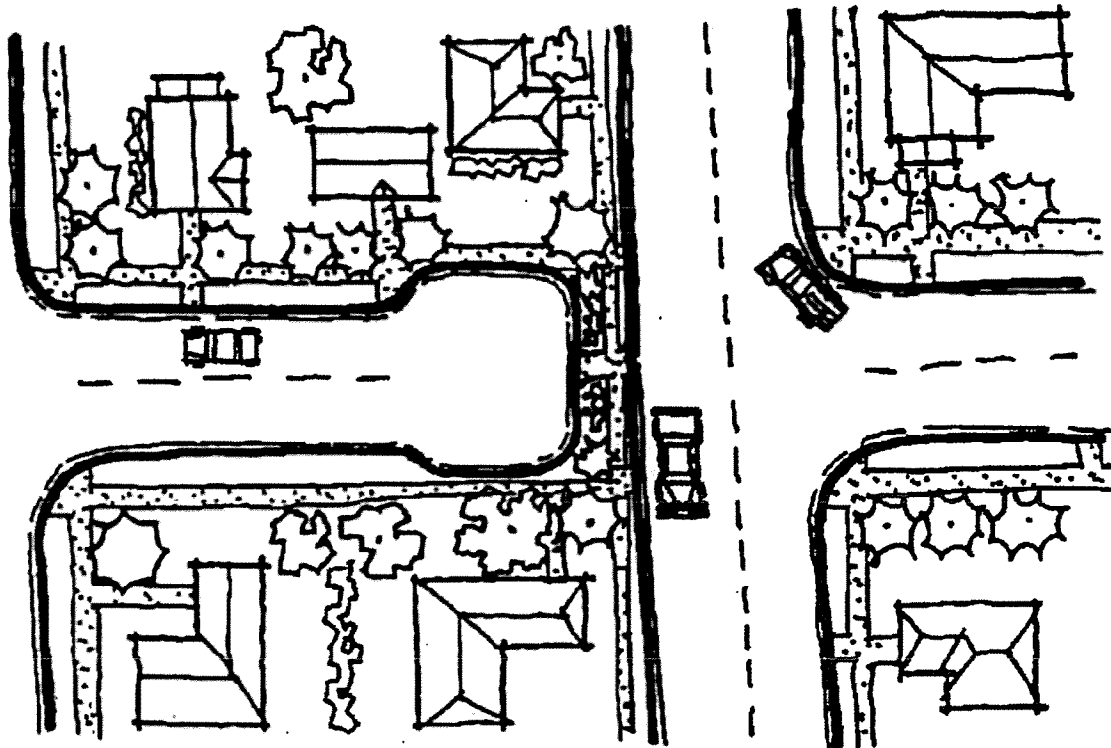
Noise impacts are minimal. In fact, there may be a reduction in noise levels due to decreased traffic volume at the cul-de-sac location.

OTHER CONSIDERATIONS:

In large neighborhoods, installing a cul-de-sac on a roadway could shift a problem elsewhere, unless a strategic pattern of neighborhood traffic-calming tools are used. Cul-de-sacs can also generate confusion on the part of users searching for an address along a street. This can be resolved by renaming a portion of the street on one side of the cul-de-sac. Provisions should be made to make the cul-de-sacs passable for pedestrians and bicycles.

Cul-De-Sac

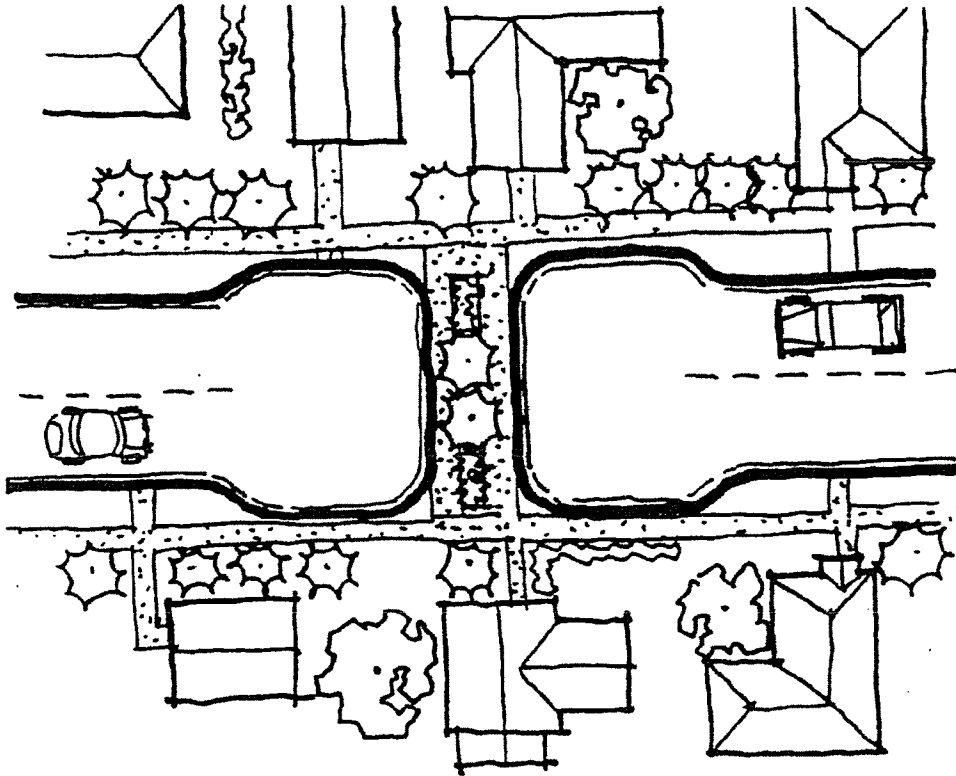
Definition: Street closed to motor vehicles using planters, bollards, or barriers, etc.



Advantages	Disadvantages
<ul style="list-style-type: none">• Eliminates through traffic.• Reduces speed of the remaining vehicles.• Improves safety for all the street users.• Pedestrian and bike access maintained.	<ul style="list-style-type: none">• Reduces emergency vehicle access.• Reduces access to properties for residents.• May be perceived as inconvenience by some neighbors and an unwarranted restriction by the general public.• May increase trip lengths.• May increase volumes on other streets.

Street Closure

Definition: Street closed to motor vehicles using planters, bollards, or barriers, etc.



Advantages	Disadvantages
<ul style="list-style-type: none">• Eliminates through traffic.• Reduces speed of the remaining vehicles.• Improves safety for all the street users.• Pedestrian and bike access maintained.	<ul style="list-style-type: none">• Reduces emergency vehicle access.• Reduces access to properties for residents.• May be perceived as inconvenience by some neighbors and an unwarranted restriction by the general public.• May increase trip lengths.• May increase volumes on other streets.

SEMI-DIVERTERS OR HALF CLOSURES

DESCRIPTION:

Semi-diverters or half closures are located at intersections and limit access to a street by blocking the “receiving” lane of the street. They prevent drivers from entering certain legs of an intersection.

PURPOSE:

Strategically located semi-diverters can effectively reduce traffic volumes on a street.

EFFECTIVENESS:

Semi-diverters are very effective in reducing volumes.

COST:

Semi-diverters cost approximately \$7,000 to \$15,000.

PARKING IMPACTS:

Semi-diverters do not significantly impact curbside parking opportunities.

TRANSIT SERVICE IMPACTS:

Semi-diverters are typically only considered on non-transit streets.

EMERGENCY SERVICE IMPACTS:

Semi-diverters allow a higher degree of emergency vehicle access than cul-de-sacs or diagonal diverters. Semi-diverters can be designed to allow emergency vehicle access, but careful consideration needs to be given to their use on primary fire response routes. An opportunity to comment on proposed semi-diverters or half closures must be provided to appropriate emergency service agencies and transportation service agencies. These comments will be considered by the Traffic and Parking Commission and the City Council in their review.

NOISE IMPACTS:

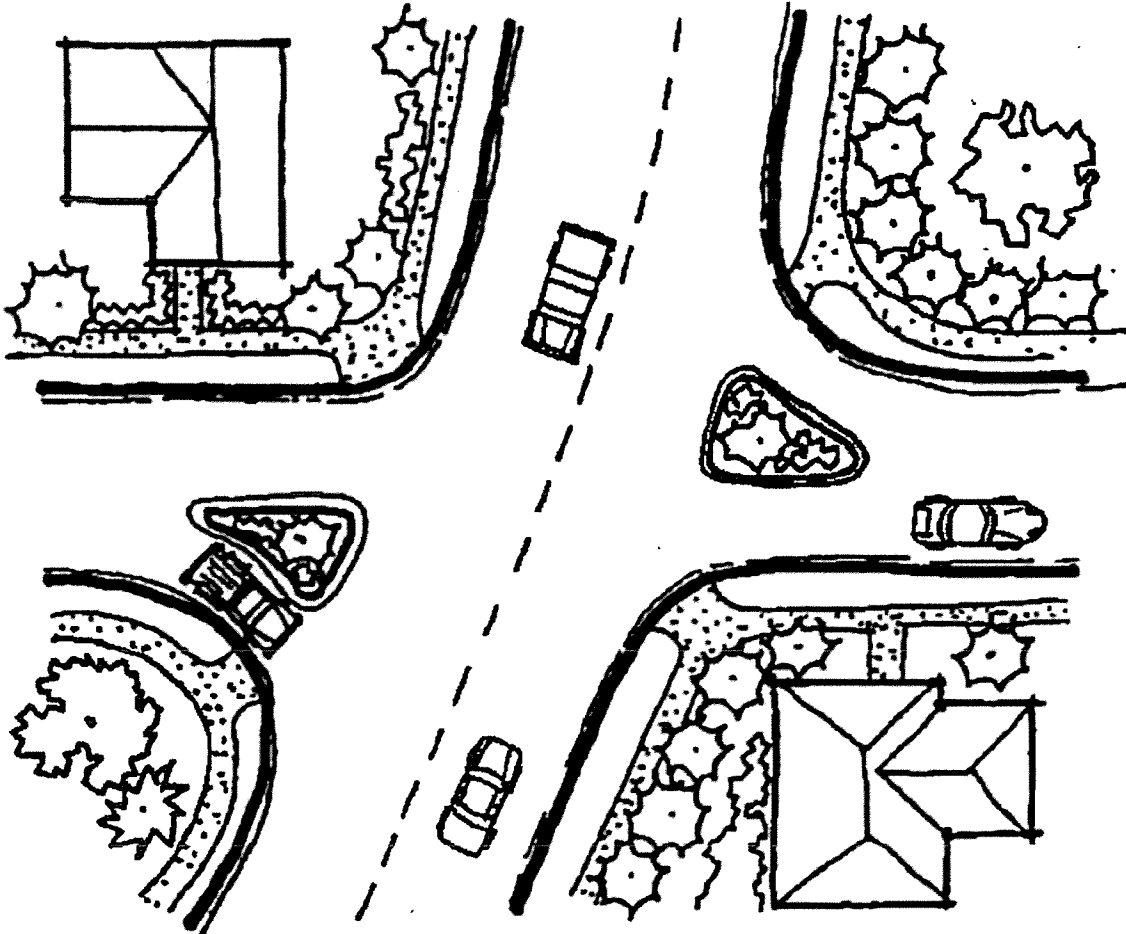
None.

OTHER CONSIDERATIONS:

Semi-diverters apply to all drivers, including local residents. Very special care must be taken to consider the availability, capacity, and appropriateness of the alternative routes drivers might use if a semi-diverter is constructed.

Forced Turn Barriers Diverters

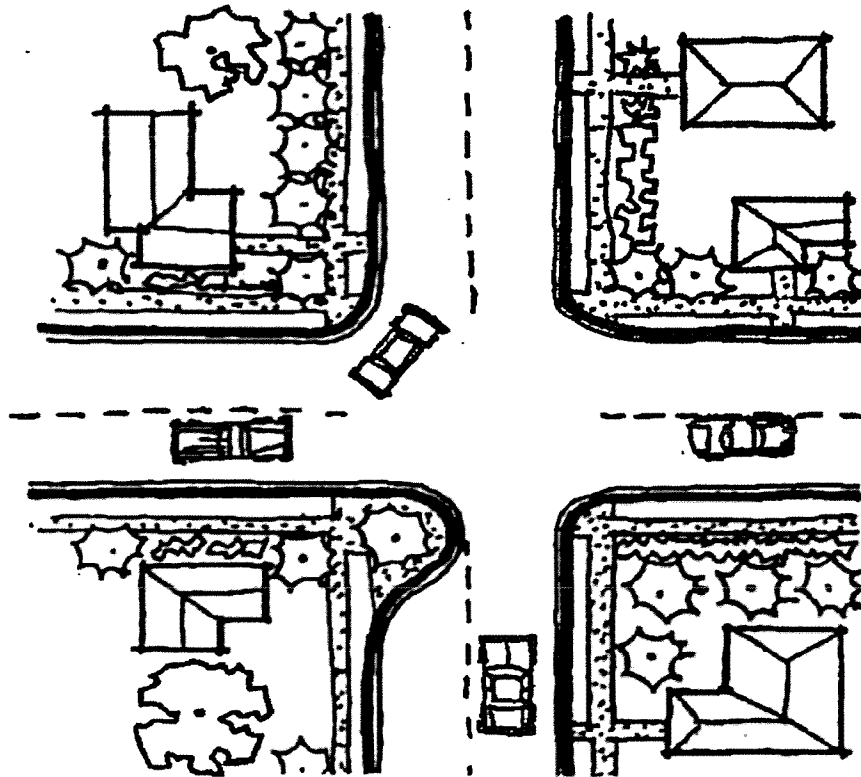
Definition: Small traffic islands installed at intersections to channel turning movements.



Advantages	Disadvantages
<ul style="list-style-type: none">• Changes driving patterns.• May reduce cut through traffic.• May be attractive if landscaped.	<ul style="list-style-type: none">• May increase trip lengths for some drivers.• Can be aesthetically unattractive if not landscaped.• May increase response times for emergency vehicles.• Maintenance responsibility if landscaped.

Partial Street Closure

Definition: Physical blockage of one direction of traffic on a two-way street. The open lane of traffic is signed "One way," and traffic from the blocked lane is not allowed to go around the barrier through the open lane.



Advantages	Disadvantages
<ul style="list-style-type: none"> • Reduces through-traffic in one direction and possibly in the other. • Allows two-way traffic in the remainder of the street. • Good for pedestrians due to shorter crossing distance. • Provides space for landscaping. • Can be designed to provide two-way access for bicycles. 	<ul style="list-style-type: none"> • Reduces access for residents. • Emergency vehicles are only partially affected as they have to drive around partial closure with care. • Compliance with semi-diverters is not 100%. • May increase trip length for some residents. • Maintenance responsibility if landscaped.

RANKING METHODOLOGY

To assist in the analysis of City of Redlands streets, a ranking method was employed which consisted of five categories of concern. These categories were then scaled in order of importance and assigned a range of values as follows:

1. Speed Increases – value from 0 – 25
2. Street Type – value from 0 – 25
3. Pedestrian & Bicycle Accidents – value from 0 - 10
4. Proximity to Schools – value from 0 – 20
Proximity to Hospital or medical facility – value from 0 - 5
Proximity to Senior Care Facility – value from 0 - 5
Proximity to Public Park – value from 0 - 5
5. Public Requests for traffic calming or stop signs – value from 0 – 10
6. Traffic Violations & Accidents – value from 0 – 10

The maximum value for identification of the need for speed calming measures was 100.

SORTED BY ALPHABET STREET NAME		GENERAL INFO						CRITERIA						WEIGHTED VALUES							
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Max Value	Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#		25	25	20	10	10	10	100
Alabama Street																	0				
	Barton Road to Redlands Blvd	5600		45	Yes	Yes	6L-Arterial	1	2							5	5	4			14
	Redlands Blvd to Lugonia Ave	2600	30	40		Yes	6L-Arterial		2	1		69	10		25	5		3	2	8	43
Alessandro Road																					
	Crescent St to Sunset Dr	2700		45		Yes	Res Collector					8				25				1	26
	Sunset Dr to San Timoteo Canyon Rd	5400		45		Yes	Res Collector					68	6			25				8	33
Alta Vista Drive																					
	Florida St to Sunset Dr	4000		35		Yes	Res Collector		1	1						25		2	2		29
Barton Road																					
	W. City Limit to Terracina Blvd	1400	35	55	Yes	Yes	4L-Arterial		1						25	8	5	2			40
	Terracina Blvd to Lakeside Ave	3800	35	45/40	Yes	Yes	4L-Arterial	1	3						15	8	5	6			34
Brockton Avenue																					
	New York St to Texas St	1200	25	30		No	Res Collector								15	25					40
	Texas Street to Orange St	2600		30		No	Res Collector				1	12				25			2	2	29
	Orange St to Church St	2600		30		No	Res Collector				1	13				25			2	2	29
	Church St to University St	2000	30	35		Yes	Res Collector		3	5		3			15	25		4	5	1	50
	University St to Grove St	2000	30	35		Yes	Res Collector								15	25					40
	Grove St to Dearborn St	4000	30	35		Yes	Res Collector	1			1	3			15	25		2	2	1	45
	Dearborn St to Wabash Ave	2400	30	35		No	Res Collector					2			15	25				1	41
Brookside Avenue																					
	Lakeside Ave to Center St	3900		35	Yes	Yes	4L-Arterial	1	2	1		3				8	5	4	2	1	20
	Center St to Eureka St	1900	30	35	Yes	Yes	4L-Arterial	1	4	1		24	2		15	8	5	8	2	5	43
Cajon Street																					
	Citrus Ave to Fern Avenue	2200		25	Yes	No	4L-Minor Arterial	4	1			15	4			15	5	8		3	31
	Fern Avenue to Highland Ave	3900	25	30	Yes	No	4L-Minor Arterial		1			17			15	15	5	2		2	39
	Highland Ave to Garden St	1300		30	Yes	No	Res Collector		1							25	5	2			32
California Street																					
	Redlands Blvd to Lugonia Ave	2600		40		Yes	6L-Arterial		1	1		37	5			5		2	2	8	17
	Lugonia Ave to San Bernardino Ave	2600		40		Yes	6L-Arterial					4	2			5				2	7
Center Street																					
	Redlands Blvd to Brookside Ave	2200	30	35		No	4L-Minor Arterial		1		1	2	3		15	15		2	2	2	36
	Brookside Ave to Fern Ave	2600	30	35		No	2L-Minor Arterial	1	2			10	4		15	15		4		3	37
	Fern Ave to Palm Ave	2600	30	35		No	2L-Minor Arterial					3			15	15				1	31
	Palm Ave to Crescent Ave	2100		35		Yes	2L-Minor Arterial		1			30				15		2		6	23
	Crescent Ave to Ridge St	3900		35		No	Res Collector			1	2					25			5		30
Central Avenue																					
	University St to Judson St	3100		30		No	Local Res	1	1			3	2			25		3		2	30

GENERAL INFO							CRITERIA							WEIGHTED VALUES								
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Max Value	Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#		25	25	20	10	10	10	100	
Church Street																						
	Redlands Blvd to Central Ave	1400		30		Yes	Res Collector		1			16	5			25					3	30
	Central Ave to Colton Ave	1900		30	Nearby	Yes	Res Collector	1				6	4			25	10				2	39
	Colton Ave to Lugonia Ave	2600		30	Yes	Yes	Res Collector	1	3	1		23	5			25	20		2		5	58
	Lugonia Ave to San Bernardino Ave	2600		30	Yes	Yes	Res Collector	1	1			6	2			25	20				2	50
	San Bernardino Ave to Riverview Dr	2500		25		Yes	Res Collector	1								25						27
Citrus Avenue																						
	Nevada St to Alabama St	2600		25		No	Res Collector				2					25			2			27
	Alabama St to Tennessee St	2600		25		No	Res Collector					5	3			25					2	27
	Eureka St to Redlands Blvd	2900		25		Yes	4L-Minor Arterial	7	1		1	153	10			15			2		8	35
	Redlands Blvd to University St	2600		25	Yes	Yes	4L-Minor Arterial	3	2	1		130	18			15	20		2		10	55
	University St to Judson St	3100	35	40	Nearby	Yes	4L-Minor Arterial	1	2			39	2		15	15	10				7	51
	Judson St to Dearborn St	2600	35	40		Yes	4L-Minor Arterial		1			3			15	15					1	33
	Dearborn St to Wabash Ave	2600		40		Yes	4L-Minor Arterial		1							15						17
Colton Avenue																						
	Redlands Blvd to Tennessee St	1900		35		Yes	4L-Minor Arterial		2			43	5			15					7	25
	Tennessee St to Texas St	2600	30	35		Yes	4L-Minor Arterial		2			16	3		15	15					3	36
	Texas St to Orange St	2600	30	35		Yes	4L-Minor Arterial	2	1	1		22	4		15	15			2		5	41
	Orange St to Church St	2600	30	35	Nearby	Yes	2L-Minor Arterial	3	2			26	3		15	15	10				5	53
	Church St to University St	2000		30	Yes	Yes	2L-Minor Arterial	1	1			5	4			15	20				2	40
	University St to Grove St	2000		30	Yes	Yes	2L-Minor Arterial		1							15	20					37
	Grove St to Dearborn St	3900		35		Yes	2L-Minor Arterial					5				15					1	16
	Dearborn St to Wabash Ave	2600	35	45	Nearby	Yes	2L-Minor Arterial	1							25	15	10					52
Crescent Avenue																						
	Ramona Dr to Alessandro Rd	2400		35		Yes	Res Collector				1					25			2			27
	Alessandro Rd to Serpentine Dr	2800		35		No	Res Collector					7				25					1	26
Cypress Avenue																						
	Terracina Blvd to San Mateo St	3800	40	45	Yes	Yes	4L-Minor Arterial				1	3			15	15	20		2		1	53
	San Mateo St to Center St	2600	40	45	Yes	No	4L-Minor Arterial			1		2			15	15	20		2		1	53
	Center St to Cajon St	2600	40	45	Yes	No	4L-Minor Arterial					3			15	15	20				1	51
	Cajon St to Redlands Blvd	1900	40	45	Nearby	No	4L-Minor Arterial					5			15	15	10				1	41
	Redlands Blvd to Citrus Ave	3400	40	45	Yes	No	4L-Minor Arterial				1				15	15	20		2			52
Dearborn Street																						
	Fifth Avenue to Citrus Ave	2600		30		Yes	Res Collector					3				25					1	26
	Citrus Ave to Colton Ave	2600		30		Yes	Res Collector	1								25					2	27
	Colton Ave to Lugonia Ave	2700		30		Yes	Res Collector	1				5	3			25					2	29
	Lugonia Ave to San Bernardino Ave	2600		25		No	Res Collector									25						25
	San Bernardino Ave to Sessums Dr	1800		30	Yes	No	Res Collector			1						25	5		2			32
Elizabeth Street																						
	Garden St to Crescent Ave	5000	30	35	Yes	No	Res Collector				2	2			15	25	20		2		1	63

GENERAL INFO								CRITERIA						WEIGHTED VALUES								
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Max Value	Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#		25	25	20	10	10	10	100	
Fern Avenue																						
	San Timoteo Canyon Rd to Terracina	1700		25		Yes	Res Collector		1				2			25		2			1	28
	Terracina Blvd to San Mateo St	3700		35	Yes	No	Res Collector		1			3				25	5	2			1	33
	San Mateo St to Center St	2600		40	Yes	Yes	Res Collector	1				25				25	20	2			4	51
	Center St to Cajon St	2600		40	Yes	Yes	Res Collector	2		1						25	5	3	2			35
	Cajon St to Redlands Blvd	1800		40	Yes	Yes	Res Collector	2	2				2			25	20	6			1	52
Fifth Avenue																						
	Ford Street to Dearborn Street	2700	35	45	Yes	Yes	2L-Minor Arterial				1				25	15	20		2			62
	Dearborn St to Wabash Ave	2600		45	Nearby	Yes	2L-Minor Arterial				5					15	10		5			30
Ford Street																						
	Garden Hill Dr to Sunset Dr	3200	30	35	Yes		Local Res		1	1		5			15	25	20	2	2		1	65
	Sunset Drive to Redlands Blvd	1800	35	40		Yes	2L-Minor Arterial			2					15	15			2			32
	Redlands Blvd to 5th St	3400	35	40		No	2L-Minor Arterial				1				15	15			2			32
	5th St to Citrus Ave	2200	35	40		Yes	2L-Minor Arterial	1	1		1	3	2		15	15		3	2		2	37
Garden Street																						
	Cajon St to Elizabeth St	3600		35		No	Res Collector				1	3				25			2		1	28
	Elizabeth St to Mariposa Dr	2900		35		No	Res Collector				1					25			2			27
Grove Street																						
	Highland Ave to Citrus Ave	2500		30		No	Local Res					11				25					2	27
	Citrus Ave to Colton Ave	2600		25		No	Res Collector	1	1			3				25		3			1	29
	Colton Ave to Brockton Ave	1300		25		No	Res Collector									25						25
	Cornell St to San Bernardino Ave	3200		25		No	Local Res					9				25					1	26
Highland Avenue																						
	Serpentine Dr to Center St	4300		25/35		Yes	Res Collector	1			1	30				25		2	2		6	35
	Center St to Cajon St	2600		35	Yes	Yes	Res Collector		2			24				25	5	3			4	37
	Cajon St to Redlands Blvd	2100		40	Yes	Yes	Res Collector		1							25	5	2				32
	Redlands Blvd to Ford St	3300		40	Yes	Yes	2L-Minor Arterial				1					15	5		2			22
Iowa Street																						
	Barton Rd to Citrus Ave	2700		25		No	Indust Collector				2					15			2			17
	Citrus Ave to Redlands Blvd	2500		25		No	Indust Collector	1			1	5				15		2	2		1	20
Judson Street																						
	Citrus Ave to Colton Ave	2600	35	40		No	2L-Minor Arterial		2			3	2		15	15		3			2	35
	Colton Ave to Lugonia Ave	2600	35	40		No	2L-Minor Arterial		1			8	2		15	15		2			2	34
	Lugonia Ave to San Bernardino Ave	2600		35	Yes	No	2L-Minor Arterial		1							15	20	2				37
	San Bernardino Ave to Sessums Dr	1300		35		No	2L-Minor Arterial									15						15
Kansas Street																						
	Barton Rd to Orange Ave	1900		25		No	Indust Collector		1							15		2				17
	Citrus Ave to Redlands Blvd	3300		25		No	Indust Collector									15						15
Live Oak Canyon Rd																						
	1500 ft e/o San Timoteo Canyon Rd to	9000		50		Yes	2L-Minor Arterial									15						15
	2300ft w/o bridge to 5500 ft east of	8000		45		Yes	2L-Minor Arterial									15						15

GENERAL INFO							CRITERIA							WEIGHTED VALUES								
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Max Value	Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#		25	25	20	10	10	10	100	
Lugonia /RTE 38																						
	Mountain View Ave to California St	4600		45		No	4L-Arterial	1		1		3	2			8		2	2	2	14	
	e/b California St to Alabama St	5300		45	Yes	No	4L-Arterial	1				21				8	5	2		4	19	
	e/b Alabama St to Tennessee St	2800		45		No	4L-Arterial					11	4			8				3	11	
	Tennessee St to Texas St	2400		40	Yes	No	4L-Arterial		1			12	2			8	5	2		3	18	
	Texas St to Orange St	2600		40	Yes	No	4L-Arterial	2	2		2	10	4			8	5	6	2	2	23	
	Orange St to Church St	2600		40		No	4L-Minor Arterial	2	1			14	5			15		4		3	22	
	Church St to University St	1900		40	Yes	No	4L-Minor Arterial	1	5	1		12	3			15	5	10	2	3	35	
	University St to Judson St	2600		50	Yes	No	4L-Minor Arterial		2			9	2			15	5	3		2	25	
	Judson St to Dearborn St	2600		50		No	4L-Minor Arterial	1				6				15		2		1	18	
	Dearborn St to Wabash Ave	2600		40		No	4L-Minor Arterial	1				3				15		2		1	18	
Mariposa Drive																						
	Garden St to Country Club Dr	2900	30	35		No	Res Collector								15	25					40	
	Country Club Dr to Wabash Ave	2300		25		No	Res Collector									25					25	
Mountain View Ave																						
	n/b Lugonia Ave to San Bernardino Ave	1200		45		Yes	6L-Arterial									5					5	
Nevada Street																						
	Barton Rd to Citrus Ave	2700		35	Yes	No	4L-Minor Arterial	2			2					15	20	3	2		40	
	Citrus Ave to Redlands Blvd	2600		35	Nearby	No	4L-Minor Arterial	1				3				15	10	2		1	28	
	Redlands Blvd to Lugonia Ave	2600		35		No	4L-Minor Arterial	1				12	3			15		2		3	20	
New Jersey Street																						
	Citrus Ave to Redlands Blvd	3300		25		No	Indust Collector				2	2				15			2	1	18	
New York Street																						
	Pine Ave to State St	1300		25		No	Indust Collector									15					15	
	ESRI Campus	1000		25	Yes	No	Indust Collector					3				15	5			1	21	
	Stuart St to Lugonia Ave	3500	25	35		No	Indust Collector	1	1			5	2		25	15		3		2	45	
Olive Avenue																						
	Terracina Blvd to San Mateo St	4200		35	Yes	No	Res Collector				1	5				25	5		2	1	33	
	San Mateo St to Center St	2600		30	Nearby	No	Res Collector		1			2	2			25	10	2		2	39	
	Center St to Cajon St	2600		30	Yes	No	Res Collector				7	23				25	20		10	4	59	
	Cajon St to Citrus Ave	1300		30	Yes	No	Res Collector	1				13				25	5	2		2	34	
Orange Tree Lane																						
	California St to Nevada St	2800		30		No	Indust Collector			1		10	2			15			2	2	19	
	Nevada St to Alabama St	2800		30		No	Indust Collector			1		4				15			2	1	18	
Orange Street																						
	Citrus Ave to Colton Ave	2600		25		Yes	4L-Minor Arterial	6	2	1		74	16			15		10	2	10	37	
	Colton Ave to Lugonia Ave	2600	30	35	Nearby	Yes	4L-Minor Arterial	5				60	9		15	15	10	8		8	56	
	Lugonia Ave to San Bernardino Ave	2600		40	Yes	Yes	4L-Minor Arterial	3	1			12	8			15	20	6		5	46	
	San Bernardino Ave to Riverview Dr	2600		50	Yes	Yes	2L-Minor Arterial		3			14	4			15	5	4		3	27	
Orange Avenue																						
	Nevada St to Alabama St	3200		25		No	Indust Collector				2					15			2		17	
	Alabama St to Tennessee St	2600		25		No	Indust Collector					8				15				1	16	

GENERAL INFO								CRITERIA						WEIGHTED VALUES								
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents		Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	Max Value	25	25	20	10	10	10	100	
Pacific Street																						
	Crescent Ave to Ridge St	4400	20	25		No	Local Res								15	25						40
Palm Avenue																						
	Serpentine Dr to Center St	4200	35	30/40		No	Res Collector	1							15	25		2				42
	Center St to Cajon St	2600	35	40	Yes	No	Res Collector								15	25	20					60
	Cajon St to Redlands Blvd	1800	35	40	Yes	No	Res Collector	1							15	25	5	2				47
	Redlands Blvd to Lytle St	1500	35	40		No	Res Collector								15	25						40
	Lytle St to Ford St	3000	35	40		No	Res Collector				1				15	25			2			42
Palmetto Avenue																						
	w/b Nevada St to Marigold Ave	4600		30		No	Indust Collector									15						15
Palo Alto Drive																						
	Country Club Dr to Sunset Dr	5000	30	35	Yes	No	Res Collector					5			15	25	20				1	61
Park Avenue																						
	New Jersey St to Alabama St	4700		25	Yes	Yes	Indust Collector	1			2					15	5	2	2			24
	Alabama St to Tennessee St	2600		25		Yes	Indust Collector	1	2			7	2			15		4		2		21
	Tennessee St to New York St	1300		25		No	Indust Collector	1	2			5				15		4		1		20
Pennsylvania Avenue																						
	Karon Street to Orange St	3600	25	30	Nearby	No	Res Collector	1	1			5			15	25	10	3		1		54
	Orange St to Church St	2600	25	30	Yes	No	Res Collector		1						15	25	20	2				62
	Church St to University St	1900	25	35	Nearby	No	Res Collector								25	25	10					60
	University St to Judson St	3300	25	35	Yes	No	Res Collector		1	33	8				25	25	20	2	10			82
Pioneer Avenue																						
	Tennessee St to Texas St	2600		30	Yes	No	Res Collector									25	20					45
	Texas St to Orange St	2600	30	35	Nearby	No	Res Collector		1		1		4		15	25	10	2	2	1		55
	Orange St to Church St	2600	30	35		No	Res Collector		1						15	25		2				42
	Church St to Judson St	5200		35		No	Res Collector									25						25
	Judson St to Sessums Dr	1500		35		No	Res Collector									25						25
Redlands Blvd																						
	California St to Alabama St	5200		40		Yes	6L-Arterial	5	1			29	11			5		10		8		23
	Alabama St to Tennessee St	2600		40		No	6L-Arterial		1	1		25	3			5		2	2	5		14
	Tennessee St to Texas St	2800		40	Yes	No	6L-Arterial	1	1	1		6	3			5	5	3	2	2		17
	Texas St to Orange St	2600	30	35/30		No	4L-Arterial	1				28			15	8		2		4		29
	Orange St to Citrus Ave	2300	25	30	Yes	No	4L-Arterial	1	2	2		54	13		15	8	20	4	2	10		59
	Citrus Ave to Cypress Ave	2300	25	30	Yes	Yes	4L-Arterial	3	4			5	2		15	8	20	10		2		55
	Cypress Ave to Highland Ave	2600		35		Yes	4L-Arterial									8						8
	Highland Ave to Ford St	3200		50	Yes	No	4L-Arterial			1						8	5		2			15
Reservoir Road																						
	Ford St to Wabash Ave	5600		45		No	Local Res				1					25			2			27
Rossmont Drive																						
	Sunset Dr to Garden St	2400		25		No	Local Res									25						25

GENERAL INFO								CRITERIA						WEIGHTED VALUES							
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents		Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	Max Value	25	25	20	10	10	10	100
San Bernardino Ave																					
	Mountain View Ave to California St	5200		45		Yes	6L-Arterial		1							5		2			7
	Tennessee St to Texas St	2600		45		Yes	6L-Arterial					3				5				1	6
	Texas St to Orange St	2600		45		Yes	6L-Arterial	1	1			13	8			5		3		5	13
	Orange St to Church St	2600		35	Yes	Yes	4L-Minor Arterial	1	1			6	2			15	5	3		2	25
	Church St to Judson St	5300		35/45		No	4L-Minor Arterial	1								15		2			17
	Judson St to Dearborn St	2300		45		No	4L-Minor Arterial									15					15
	Dearborn St to Wabash Ave	2900		45	Yes	No	4L-Minor Arterial									15	5				20
San Mateo Street																					
	Brookside Ave to Fern Ave	2600		35		Yes	4L-Minor Arterial			1		9				15			2	1	18
	Fern Ave to Cypress Ave	1300		30	Yes	Yes	4L-Minor Arterial					7				15	20			1	36
	Cypress Ave to Highland Ave	2600		30		Yes	4L-Minor Arterial									15					15
San Timoteo Canyon Road																					
	Barton Rd to Fern Ave	6900	40	45	Yes	Yes	4L-Minor Arterial								15	15	5				35
	Fern Ave to Alessandro Rd	11800		55		Yes	4L-Minor Arterial					18	7			15				5	20
	Alessandro Rd to City Limits	5400		55		Yes	4L-Minor Arterial									15					15
Sunset Drive																					
	Alessandro Rd to Ridge St	3700		25		Yes	Res Collector									25					25
	Ridge St to Rossmont Dr	5100		25	Yes	Yes	Res Collector									25	5				30
	Rossmont Dr to Palo Alto Dr	8700		25/30		Yes	Res Collector									25					25
	Palo Alto Dr to Wabash Ave	6400		30		Yes	Res Collector									25					25
	Wabash Ave to Ford St	6400		25		Yes	Res Collector					5				25				1	26
Tennessee Street																					
	Brookside Ave to State St	2700		40	Yes	Yes	4L-Minor Arterial		1	1		17				15	20	2	2	2	41
	State St to Redlands Blvd	1800		40	Nearby	Yes	4L-Minor Arterial		2	1		15	8			15	10	3	2	5	35
	Redlands Blvd to Lugonia Ave	3500		40		No	4L-Minor Arterial		1			47	3			15		2		7	24
	Lugonia Ave to San Bernardino Ave	2600		40		No	4L-Minor Arterial					2				15				1	16
Terracina Blvd																					
	Barton Rd to Olive Ave	4000		45	Yes	Yes	4L-Minor Arterial		1							15	5	2			22
	Olive Ave to Cypress Ave	2700		35	Yes	Yes	4L-Minor Arterial		1	1			2			15	5	2	2	1	25
Texas Street																					
	Redlands Blvd to Colton Ave	1800	35	40	Yes	Yes	4L-Minor Arterial		2			18	4			15	15	20	3	3	56
	Colton Ave to Lugonia Ave	2600	35	40		Yes	4L-Minor Arterial	1	1			2				15	15	3		1	34
	Lugonia Ave to San Bernardino Ave	2600	35	40	Yes	Yes	4L-Minor Arterial		1							15	15	5	2		37
	San Bernardino Ave to Domestic St	2600		30		No	4L-Minor Arterial									15					15

GENERAL INFO								CRITERIA						WEIGHTED VALUES								
Street	Segment	Segment Length	Prior Speed	Current Speed	Schools Special Care Medical Parks	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents		Speed Increase	Street Type	Schools Special Care Medical Parks	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	Max Value	25	25	20	10	10	10	100	
University Street																						
	Cypress Ave to Citrus Ave	950		30		No	4L-Minor Arterial		3	1		3	6			15		4	2	3	24	
	Citrus Ave to Colton Ave	2600		30	Yes	No	4L-Minor Arterial		3			14	7			15	5	4		5	29	
	Colton Ave to Lugonia Ave	2600		30		No	2L-Minor Arterial		5			16	2			15		8		3	26	
	Lugonia Ave to San Bernardino Ave	2600	25	30		No	2L-Minor Arterial		2		8				15	15		3	10		43	
Wabash Avenue																						
	Palo Alto Dr to Sunset Dr	2800		25		No	Res Collector									25					25	
	Sunset Dr to Reservoir Rd	2300		45		No	2L-Minor Arterial				1					15			2		17	
	7th St to 5th St	2600		25		No	2L-Minor Arterial									15					15	
	5th St to Citrus Ave	2600	35	45	Nearby	No	2L-Minor Arterial		1						25	15	10	2			52	
	Citrus Ave to Colton Ave	2600	30	40	Yes	No	2L-Minor Arterial		1	1	1				25	15	20	2	2		64	
	Colton Ave to Lugonia Ave	2600	35	40	Nearby	No	2L-Minor Arterial					6			15	15	10			1	41	
	Lugonia Ave to Sessums Dr	4800		35	Yes	No	2L-Minor Arterial									15	5				20	

SORTED BY TOTAL WEIGHTED VALUE		GENERAL INFO						CRITERIA						WEIGHTED VALUES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100
Pennsylvania Ave																				
	Karon Street to Orange St	3600	25	30	Nearby	No	Res Collector	1	1			5		15	25	10	3		1	54
	Orange St to Church St	2600	25	30	Yes	No	Res Collector		1					15	25	20	2			62
	Church St to University St	1900	25	35	Nearby	No	Res Collector							25	25	10				60
	University St to Judson St	3300	25	35	Yes	No	Res Collector		1	33	8			25	25	20	2	10		82
Ford Street																				
	Garden Hill Dr to Sunset Dr	3200	30	35	Yes		Local Res		1	1		5		15	25	20	2	2	1	65
Wabash Avenue																				
	5th St to Citrus Ave	2600	35	45	Nearby	No	2L-Minor Arterial		1					25	15	10	2			52
	Citrus Ave to Colton Ave	2600	30	40	Yes	No	2L-Minor Arterial		1	1	1			25	15	20	2	2		64
Elizabeth Street																				
	Garden St to Crescent Ave	5000	30	35	Yes	No	Res Collector				2	2		15	25	20		2	1	63
Fifth Avenue																				
	Ford Street to Dearborn Street	2700	35	45	Yes	Yes	2L-Minor Arterial				1			25	15	20		2		62
Palo Alto Drive																				
	Country Club Dr to Sunset Dr	5000	30	35	Yes	No	Res Collector					5		15	25	20			1	61
Palm Avenue																				
	Serpentine Dr to Center St	4200	35	30/40		No	Res Collector	1						15	25		2			42
	Center St to Cajon St	2600	35	40	Yes	No	Res Collector							15	25	20				60
	Cajon St to Redlands Blvd	1800	35	40		No	Res Collector	1						15	25		2			42
	Redlands Blvd to Lytle St	1500	35	40		No	Res Collector							15	25					40
	Lytle St to Ford St	3000	35	40		No	Res Collector				1			15	25			2		42
Olive Avenue																				
	Center St to Cajon St	2600		30	Yes	No	Res Collector				7	23			25	20		10	4	59
Redlands Blvd																				
	Orange St to Citrus Ave	2300	25	30	Yes	No	4L-Arterial	1	2	2		54	13	15	8	20	4	2	10	59
	Citrus Ave to Cypress Ave	2300	25	30	Yes	Yes	4L-Arterial	3	4			5	2	15	8	20	10		2	55
Church Street																				
	Colton Ave to Lugonia Ave	2600		30	Yes	Yes	Res Collector	1	3	1		23	5		25	20	6	2	5	58
	Lugonia Ave to San Bernardino Ave	2600		30	Yes	Yes	Res Collector	1	1			6	2		25	20	3		2	50
Orange Street																				
	Colton Ave to Lugonia Ave	2600	30	35	Nearby	Yes	4L-Minor Arterial	5				60	9	15	15	10	8		8	56
	Lugonia Ave to San Bernardino Ave	2600		40	Yes	Yes	4L-Minor Arterial	3	1			12	8		15	20	6		5	46
Texas Street																				
	Redlands Blvd to Colton Ave	1800	35	40	Yes	Yes	4L-Minor Arterial		2			18	4	15	15	20	3		3	56
Citrus Avenue																				
	Redlands Blvd to University St	2600		25	Yes	Yes	4L-Minor Arterial	3	2	1		130	18		15	20	8	2	10	55
	University St to Judson St	3100	35	40	Nearby	Yes	4L-Minor Arterial	1	2			39	2	15	15	10	4		7	51

GENERAL INFO								CRITERIA						WEIGHTED VALUES							
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total	
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100	
Pioneer Avenue																					
	Tennessee St to Texas St	2600		30	Yes	No	Res Collector								25	20				45	
	Texas St to Orange St	2600	30	35	Nearby	No	Res Collector		1		1		4	15	25	10	2	2	1	55	
	Orange St to Church St	2600	30	35		No	Res Collector		1					15	25		2			42	
Colton Avenue																					
	Texas St to Orange St	2600	30	35		Yes	4L-Minor Arterial	2	1	1		22	4	15	15		4	2	5	41	
	Orange St to Church St	2600	30	35	Nearby	Yes	2L-Minor Arterial	3	2			26	3	15	15	10	8		5	53	
	Church St to University St	2000		30	Yes	Yes	2L-Minor Arterial	1	1			5	4		15	20	3		2	40	
Cypress Avenue																					
	Terracina Blvd to San Mateo St	3800	40	45	Yes	Yes	4L-Minor Arterial				1	3		15	15	20		2	1	53	
	San Mateo St to Center St	2600	40	45	Yes	No	4L-Minor Arterial			1		2		15	15	20		2	1	53	
	Center St to Cajon St	2600	40	45	Yes	No	4L-Minor Arterial					3		15	15	20			1	51	
	Cajon St to Redlands Blvd	1900	40	45	Nearby	No	4L-Minor Arterial					5		15	15	10			1	41	
	Redlands Blvd to Citrus Ave	3400	40	45	Yes	No	4L-Minor Arterial				1			15	15	20		2		52	
Colton Avenue																					
	Dearborn St to Wabash Ave	2600	35	45	Nearby	Yes	2L-Minor Arterial	1						25	15	10	2			52	
Brockton Avenue																					
	Church St to University St	2000	30	35		Yes	Res Collector		3	5		3		15	25		4	5	1	50	
	University St to Grove St	2000	30	35		Yes	Res Collector							15	25					40	
	Grove St to Dearborn St	4000	30	35		Yes	Res Collector	1			1	3		15	25		2	2	1	45	
	Dearborn St to Wabash Ave	2400	30	35		No	Res Collector					2		15	25				1	41	
Fern Avenue																					
	San Mateo St to Center St	2600		40	Yes	Yes	Res Collector	1				25			25	20	2		4	51	
	Cajon St to Redlands Blvd	1800		40	Yes	Yes	Res Collector	2	2				2		25	20	6		1	52	

GENERAL INFO								CRITERIA						WEIGHTED VALUES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100
New York Street	Stuart St to Lugonia Ave	3500	25	35		No	Indust Collector	1	1			5	2	25	15		3		2	45
Alabama Street	Redlands Blvd to Lugonia Ave	2600	30	40		Yes	6L-Arterial		2	1		69	10	25	5		3	2	8	43
University Street	Lugonia Ave to San Bernardino Ave	2600	25	30		No	2L-Minor Arterial		2		8			15	15		3	10		43
Tennessee Street	Brookside Ave to State St	2700		40	Yes	Yes	4L-Minor Arterial		1	1		17			15	20	2	2	2	41
Wabash Avenue	Colton Ave to Lugonia Ave	2600	35	40	Nearby	No	2L-Minor Arterial					6		15	15	10			1	41
Brockton Avenue	New York St to Texas St	1200	25	30		No	Res Collector							15	25					40
Mariposa Drive	Garden St to Country Club Dr	2900	30	35		No	Res Collector							15	25					40
Nevada Street	Barton Rd to Citrus Ave	2700		35	Yes	No	4L-Minor Arterial	2			2				15	20	3	2		40
Pacific Street	Crescent Ave to Ridge St	4400	20	25		No	Local Res							15	25					40
Church Street	Central Ave to Colton Ave	1900		30	Nearby	Yes	Res Collector	1				6	4		25	10	2		2	39
Olive Avenue	San Mateo St to Center St	2600		30	Nearby	No	Res Collector		1			2	2		25	10	2		2	39
Brookside Avenue	Center St to Eureka St	1900	30	35		Yes	4L-Arterial	1	4	1		24	2	15	8		8	2	5	38
Center Street	Brookside Ave to Fern Ave	2600	30	35		No	2L-Minor Arterial	1	2			10	4	15	15		4		3	37
Colton Avenue	University St to Grove St	2000		30	Yes	Yes	2L-Minor Arterial		1						15	20	2			37
Ford Street	5th St to Citrus Ave	2200	35	40		Yes	2L-Minor Arterial	1	1		1	3	2	15	15		3	2	2	37
Judson Street	Lugonia Ave to San Bernardino Ave	2600		35	Yes	No	2L-Minor Arterial		1						15	20	2			37
Orange Street	Citrus Ave to Colton Ave	2600		25		Yes	4L-Minor Arterial	6	2	1		74	16		15		10	2	10	37
Center Street	Redlands Blvd to Brookside Ave	2200	30	35		No	4L-Minor Arterial		1		1	2	3	15	15		2	2	2	36
Colton Avenue	Tennessee St to Texas St	2600	30	35		Yes	4L-Minor Arterial		2			16	3	15	15		3		3	36
San Mateo Street	Fern Ave to Cypress Ave	1300		30	Yes	Yes	4L-Minor Arterial					7			15	20			1	36
Barton Road	W. City Limit to Terracina Blvd	1400	35	55		Yes	4L-Arterial		1					25	8		2			35
Citrus Avenue	Eureka St to Redlands Blvd	2900		25		Yes	4L-Minor Arterial	7	1		1	153	10		15		10	2	8	35
Highland Avenue	Serpentine Dr to Center St	4300		25/35		Yes	Res Collector	1			1	30			25		2	2	6	35
Judson Street	Citrus Ave to Colton Ave	2600	35	40		No	2L-Minor Arterial		2			3	2	15	15		3		2	35
Tennessee Street	State St to Redlands Blvd	1800		40	Nearby	Yes	4L-Minor Arterial		2	1		15	8		15	10	3	2	5	35
Cajon Street	Fern Avenue to Highland Ave	3900	25	30		No	4L-Minor Arterial		1			17		15	15		2		2	34
Judson Street	Colton Ave to Lugonia Ave	2600	35	40		No	2L-Minor Arterial		1			8	2	15	15		2		2	34
Texas Street	Colton Ave to Lugonia Ave	2600	35	40		Yes	4L-Minor Arterial	1	1			2		15	15		3		1	34
Alessandro Road	Sunset Dr to San Timoteo Canyon Rd	5400		45		Yes	Res Collector					68	6		25				8	33
Citrus Avenue	Judson St to Dearborn St	2600	35	40		Yes	4L-Minor Arterial		1			3		15	15		2		1	33
Ford Street	Sunset Drive to Redlands Blvd	1800	35	40		Yes	2L-Minor Arterial			2				15	15			2		32
Ford Street	Redlands Blvd to 5th St	3400	35	40		No	2L-Minor Arterial				1			15	15			2		32
Highland Avenue	Center St to Cajon St	2600		35		Yes	Res Collector		2			24			25		3		4	32
Texas Street	Lugonia Ave to San Bernardino Ave	2600	35	40		Yes	4L-Minor Arterial		1					15	15		2			32
Center Street	Fern Ave to Palm Ave	2600	30	35		No	2L-Minor Arterial					3		15	15				1	31
Center Street	Crescent Ave to Ridge St	3900		35		No	Res Collector			1	2				25			5		30

GENERAL INFO								CRITERIA						WEIGHTED VALUES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100
Central Avenue	University St to Judson St	3100		30		No	Local Res	1	1			3	2		25		3		2	30
Church Street	Redlands Blvd to Central Ave	1400		30		Yes	Res Collector		1			16	5		25		2		3	30
Fern Avenue	Center St to Cajon St	2600		40		Yes	Res Collector	2		1					25		3	2		30
Fifth Avenue	Dearborn St to Wabash Ave	2600		45	Nearby	Yes	2L-Minor Arterial				5				15	10		5		30
Lugonia /RTE 38 Canyon Road	Church St to University St	1900		40		No	4L-Minor Arterial	1	5	1		12	3		15		10	2	3	30
	Barton Rd to Fern Ave	6900	40	45		Yes	4L-Minor Arterial							15	15					30
Alta Vista Drive	Florida St to Sunset Dr	4000		35		Yes	Res Collector		1	1					25		2	2		29
Barton Road	Terracina Blvd to Lakeside Ave	3800	35	45/40		Yes	4L-Arterial	1	3					15	8		6			29
Brockton Avenue	Texas Street to Orange St	2600		30		No	Res Collector				1	12			25			2	2	29
Brockton Avenue	Orange St to Church St	2600		30		No	Res Collector				1	13			25			2	2	29
Dearborn Street	Colton Ave to Lugonia Ave	2700		30		Yes	Res Collector	1				5	3		25		2		2	29
Grove Street	Citrus Ave to Colton Ave	2600		25		No	Res Collector	1	1			3			25		3		1	29
Olive Avenue	Cajon St to Citrus Ave	1300		30		No	Res Collector	1				13			25		2		2	29
Redlands Blvd	Texas St to Orange St	2600	30	35/30		No	4L-Arterial	1				28		15	8		2		4	29
Fern Avenue	San Timoteo Canyon Rd to Terracina	1700		25		Yes	Res Collector		1				2		25		2		1	28
Fern Avenue	Terracina Blvd to San Mateo St	3700		35		No	Res Collector		1			3			25		2		1	28
Garden Street	Cajon St to Elizabeth St	3600		35		No	Res Collector				1	3			25			2	1	28
Nevada Street	Citrus Ave to Redlands Blvd	2600		35	Nearby	No	4L-Minor Arterial	1				3			15	10	2		1	28
Olive Avenue	Terracina Blvd to San Mateo St	4200		35		No	Res Collector				1	5			25			2	1	28
Cajon Street	Highland Ave to Garden St	1300		30		No	Res Collector		1						25		2			27
Church Street	San Bernardino Ave to Riverview Dr	2500		25		Yes	Res Collector	1							25		2			27
Citrus Avenue	Nevada St to Alabama St	2600		25		No	Res Collector				2				25			2		27
Citrus Avenue	Alabama St to Tennessee St	2600		25		No	Res Collector					5	3		25				2	27
Crescent Avenue	Ramona Dr to Alessandro Rd	2400		35		Yes	Res Collector				1				25			2		27
Dearborn Street	Citrus Ave to Colton Ave	2600		30		Yes	Res Collector	1							25		2			27
Dearborn Street	San Bernardino Ave to Sessums Dr	1800		30		No	Res Collector			1					25			2		27
Garden Street	Elizabeth St to Mariposa Dr	2900		35		No	Res Collector				1				25			2		27
Grove Street	Highland Ave to Citrus Ave	2500		30		No	Local Res					11			25				2	27
Highland Avenue	Cajon St to Redlands Blvd	2100		40		Yes	Res Collector		1						25		2			27
Reservoir Road	Ford St to Wabash Ave	5600		45		No	Local Res				1				25			2		27
Alessandro Road	Crescent St to Sunset Dr	2700		45		Yes	Res Collector					8			25				1	26
Cajon Street	Citrus Ave to Fern Avenue	2200		25		No	4L-Minor Arterial	4	1			15	4		15		8		3	26
Crescent Avenue	Alessandro Rd to Serpentine Dr	2800		35		No	Res Collector					7			25				1	26
Dearborn Street	Fifth Avenue to Citrus Ave	2600		30		Yes	Res Collector					3			25				1	26
Grove Street	Cornell St to San Bernardino Ave	3200		25		No	Local Res					9			25				1	26
Sunset Drive	Wabash Ave to Ford St	6400		25		Yes	Res Collector					5			25				1	26
University Street	Colton Ave to Lugonia Ave	2600		30		No	2L-Minor Arterial		5			16	2		15		8		3	26

GENERAL INFO								CRITERIA						WEIGHTED VALUES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100
Colton Avenue	Redlands Blvd to Tennessee St	1900		35		Yes	4L-Minor Arterial		2			43	5		15		3		7	25
Dearborn Street	Lugonia Ave to San Bernardino Ave	2600		25		No	Res Collector								25					25
Grove Street	Colton Ave to Brockton Ave	1300		25		No	Res Collector								25					25
Mariposa Drive	Country Club Dr to Wabash Ave	2300		25		No	Res Collector								25					25
Pioneer Avenue	Church St to Judson St	5200		35		No	Res Collector								25					25
Pioneer Avenue	Judson St to Sessums Dr	1500		35		No	Res Collector								25					25
Rossmont Drive	Sunset Dr to Garden St	2400		25		No	Local Res								25					25
Sunset Drive	Alessandro Rd to Ridge St	3700		25		Yes	Res Collector								25					25
Sunset Drive	Ridge St to Rossmont Dr	5100		25		Yes	Res Collector								25					25
Sunset Drive	Rossmont Dr to Palo Alto Dr	8700		25/30		Yes	Res Collector								25					25
Sunset Drive	Palo Alto Dr to Wabash Ave	6400		30		Yes	Res Collector								25					25
Wabash Avenue	Palo Alto Dr to Sunset Dr	2800		25		No	Res Collector								25					25
Tennessee Street	Redlands Blvd to Lugonia Ave	3500		40		No	4L-Minor Arterial		1			47	3		15		2		7	24
University Street	Cypress Ave to Citrus Ave	950		30		No	4L-Minor Arterial		3	1		3	6		15		4	2	3	24
University Street	Citrus Ave to Colton Ave	2600		30		No	4L-Minor Arterial		3			14	7		15		4		5	24
Center Street	Palm Ave to Crescent Ave	2100		35		Yes	2L-Minor Arterial		1			30			15		2		6	23
Redlands Blvd	California St to Alabama St	5200		40		Yes	6L-Arterial	5	1			29	11		5		10		8	23
Lugonia /RTE 38	Orange St to Church St	2600		40		No	4L-Minor Arterial	2	1			14	5		15		4		3	22
Orange Street	San Bernardino Ave to Riverview Dr	2600		50		Yes	2L-Minor Arterial		3			14	4		15		4		3	22
Park Avenue	Alabama St to Tennessee St	2600		25		Yes	Indust Collector	1	2			7	2		15		4		2	21
Iowa Street	Citrus Ave to Redlands Blvd	2500		25		No	Indust Collector	1			1	5			15		2	2	1	20
Lugonia /RTE 38	University St to Judson St	2600		50		No	4L-Minor Arterial		2			9	2		15		3		2	20
Nevada Street	Redlands Blvd to Lugonia Ave	2600		35		No	4L-Minor Arterial	1				12	3		15		2		3	20
Park Avenue	Tennessee St to New York St	1300		25		No	Indust Collector	1	2			5			15		4		1	20
San Bernardino Ave	Orange St to Church St	2600		35		Yes	4L-Minor Arterial	1	1			6	2		15		3		2	20
Canyon Road	Fern Ave to Alessandro Rd	11800		55		Yes	4L-Minor Arterial					18	7		15				5	20
Terracina Blvd	Olive Ave to Cypress Ave	2700		35		Yes	4L-Minor Arterial		1	1			2		15		2	2	1	20
Orange Tree Lane	California St to Nevada St	2800		30		No	Indust Collector			1		10	2		15			2	2	19
Park Avenue	New Jersey St to Alabama St	4700		25		Yes	Indust Collector	1			2				15		2	2		19
Lugonia /RTE 38	Texas St to Orange St	2600		40		No	4L-Arterial	2	2		2	10	4		8		6	2	2	18
Lugonia /RTE 38	Judson St to Dearborn St	2600		50		No	4L-Minor Arterial	1				6			15		2		1	18
Lugonia /RTE 38	Dearborn St to Wabash Ave	2600		40		No	4L-Minor Arterial	1				3			15		2		1	18
New Jersey Street	Citrus Ave to Redlands Blvd	3300		25		No	Indust Collector				2	2			15			2	1	18
Orange Tree Lane	Nevada St to Alabama St	2800		30		No	Indust Collector			1		4			15			2	1	18
San Mateo Street	Brookside Ave to Fern Ave	2600		35		Yes	4L-Minor Arterial			1		9			15			2	1	18
California Street	Redlands Blvd to Lugonia Ave	2600		40		Yes	6L-Arterial		1	1		37	5		5		2	2	8	17
Citrus Avenue	Dearborn St to Wabash Ave	2600		40		Yes	4L-Minor Arterial		1						15		2			17
Highland Avenue	Redlands Blvd to Ford St	3300		40		Yes	2L-Minor Arterial				1				15			2		17

GENERAL INFO								CRITERIA						WEIGHTED VALUES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	Master Plan Bike Path	Street Type	Pedestrian Accidents	Bicycle Accidents	Traffic Calming Req	Stop Sign Req	Traffic Violation Incidents	Traffic Accident Incidents	Speed Increase	Street Type	School	Bike and Pedestrian	Public Comm	Violations and Accidents	Total
		FT	MPH	MPH		Y/N		#	#	#	#	#	#	25	25	20	10	10	10	100
Iowa Street	Barton Rd to Citrus Ave	2700		25		No	Indust Collector					2			15			2		17
Kansas Street	Barton Rd to Orange Ave	1900		25		No	Indust Collector		1						15		2			17
Orange Avenue	Nevada St to Alabama St	3200		25		No	Indust Collector					2			15			2		17
San Bernardino Ave	Church St to Judson St	5300		35/45		No	4L-Minor Arterial	1							15		2			17
Terracina Blvd	Barton Rd to Olive Ave	4000		45		Yes	4L-Minor Arterial		1						15		2			17
Wabash Avenue	Sunset Dr to Reservoir Rd	2300		45		No	2L-Minor Arterial				1				15			2		17
Colton Avenue	Grove St to Dearborn St	3900		35		Yes	2L-Minor Arterial					5			15				1	16
New York Street	ESRI Campus	1000		25		No	Indust Collector					3			15				1	16
Orange Avenue	Alabama St to Tennessee St	2600		25		No	Indust Collector					8			15				1	16
Tennessee Street	Lugonia Ave to San Bernardino Ave	2600		40		No	4L-Minor Arterial					2			15				1	16
Brookside Avenue	Lakeside Ave to Center St	3900		35		Yes	4L-Arterial	1	2	1		3			8		4	2	1	15
Judson Street	San Bernardino Ave to Sessums Dr	1300		35		No	2L-Minor Arterial								15					15
Kansas Street	Citrus Ave to Redlands Blvd	3300		25		No	Indust Collector								15					15
Live Oak Canyon Rd	1500 ft e/o San Timoteo Canyon Rd to east 6000 ft	9000		50		Yes	2L-Minor Arterial								15					15
Live Oak Canyon Rd	2300ft w/o bridge to 5500 ft east of	8000		45		Yes	2L-Minor Arterial								15					15
New York Street	Pine Ave to State St	1300		25		No	Indust Collector								15					15
Palmetto Avenue	w/b Nevada St to Marigold Ave	4600		30		No	Indust Collector								15					15
San Bernardino Ave	Judson St to Dearborn St	2300		45		No	4L-Minor Arterial								15					15
San Bernardino Ave	Dearborn St to Wabash Ave	2900		45		No	4L-Minor Arterial								15					15
San Mateo Street	Cypress Ave to Highland Ave	2600		30		Yes	4L-Minor Arterial								15					15
Canyon Road	Alessandro Rd to City Limits	5400		55		Yes	4L-Minor Arterial								15					15
Texas Street	San Bernardino Ave to Domestic St	2600		30		No	4L-Minor Arterial								15					15
Wabash Avenue	7th St to 5th St	2600		25		No	2L-Minor Arterial								15					15
Wabash Avenue	Lugonia Ave to Sessums Dr	4800		35		No	2L-Minor Arterial								15					15
Lugonia /RTE 38	Mountain View Ave to California St	4600		45		No	4L-Arterial	1		1		3	2		8		2	2	2	14
Lugonia /RTE 38	e/b California St to Alabama St	5300		45		No	4L-Arterial	1				21			8		2		4	14
Redlands Blvd	Alabama St to Tennessee St	2600		40		No	6L-Arterial		1	1		25	3		5		2	2	5	14
Lugonia /RTE 38	Tennessee St to Texas St	2400		40		No	4L-Arterial					12	2		8		2		3	13
San Bernardino Ave	Texas St to Orange St	2600		45		Yes	6L-Arterial	1	1			13	8		5		3		5	13
Redlands Blvd	Tennessee St to Texas St	2800		40		No	6L-Arterial	1	1	1		6	3		5		3	2	2	12
Lugonia /RTE 38	e/b Alabama St to Tennessee St	2800		45		No	4L-Arterial					11	4		8				3	11
Redlands Blvd	Highland Ave to Ford St	3200		50		No	4L-Arterial				1				8			2		10
Alabama Street	Barton Road to Redlands Blvd	5600		45		Yes	6L-Arterial	1	2						5		4			9
Redlands Blvd	Cypress Ave to Highland Ave	2600		35		Yes	4L-Arterial								8					8
California Street	Lugonia Ave to San Bernardino Ave	2600		40		Yes	6L-Arterial					4	2		5				2	7
San Bernardino Ave	Mountain View Ave to California St	5200		45		Yes	6L-Arterial				1				5		2			7
San Bernardino Ave	Tennessee St to Texas St	2600		45		Yes	6L-Arterial					3			5				1	6
Mountain View Ave	n/b Lugonia Ave to San Bernardino Ave	1200		45		Yes	6L-Arterial								5					5

TOP RANKED STREETS		GENERAL INFO				TRAFFIC CALMING ALTERNATIVES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	METHOD / COST						Comments
						ALT 1	Cost	ALT 2	Cost	ALT 3	Cost	
		FT	MPH	MPH								
Pennsylvania Ave												
Pennsylvania Ave	Karon Street to Orange St	3600	25	30	Nearby	Edge Stripe	\$3,366	Striped Median	\$6,120	Raised Median	\$270,000	
Pennsylvania Ave	Orange St to Church St	2600	25	30	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Pennsylvania Ave	Church St to University St	1900	25	35	Nearby	Edge Stripe	\$1,777	Striped Median	\$3,230	Raised Median	\$142,500	
Pennsylvania Ave	University St to Judson St	3300	25	35	Yes	Edge Stripe	\$3,086	Striped Median	\$5,610	Raised Median	\$247,500	
						Total	\$10,659	Total	\$19,380	Total	\$855,000	
Ford Street												
Ford Street	Garden Hill Dr to Sunset Dr	3200	30	35	Yes	Edge Stripe	\$2,992					Too narrow for median
						Total	\$2,992					
Wabash Avenue												
Wabash Avenue	5th St to Citrus Ave	2600	35	45	Nearby	Striped Median	\$4,420	Raised Median	\$195,000			Reduce to one lane in each
Wabash Avenue	Citrus Ave to Colton Ave	2600	30	40	Yes	Striped Median	\$4,420	Raised Median	\$195,000			Reduce to one lane in each
						Total	\$8,840	Total	\$390,000			
Elizabeth Street												
Elizabeth Street	Garden St to Crescent Ave	5000	30	35	Yes	Edge Stripe	\$4,675	Striped Median	\$8,500	Raised Median	\$375,000	
						Total	\$4,675	Total	\$8,500	Total	\$375,000	
Fifth Avenue												
Fifth Avenue	Ford Street to Dearborn Street	2700	35	45	Yes	Striped Median	\$4,590	Raised Median	\$202,500			Reduce to one lane in each
						Total	\$4,590	Total	\$202,500			direction for bike path
Palo Alto Drive												
Palo Alto Drive	Country Club Dr to Sunset Dr	5000	30	35	Yes	Edge Stripe	\$4,675					Too narrow for median
							\$4,675					
Palm Avenue												
Palm Avenue	Serpentine Dr to Center St	4200	35	30/40		Edge Stripe	\$3,927	Striped Median	\$7,140	Raised Median	\$315,000	
Palm Avenue	Center St to Cajon St	2600	35	40	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Palm Avenue	Cajon St to Redlands Blvd	1800	35	40		Edge Stripe	\$1,683	Striped Median	\$3,060	Raised Median	\$135,000	
Palm Avenue	Redlands Blvd to Lytle St	1500	35	40		Edge Stripe	\$1,403	Striped Median	\$2,550	Raised Median	\$112,500	
Palm Avenue	Lytle St to Ford St	3000	35	40		Edge Stripe	\$2,805	Striped Median	\$5,100	Raised Median	\$225,000	
						Total	\$12,249	Total	\$22,270	Total	\$982,500	
Olive Avenue												
Olive Avenue	Center St to Cajon St	2600		30	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
						Total	\$2,431	Total	\$4,420	Total	\$195,000	

GENERAL INFO						TRAFFIC CALMING ALTERNATIVES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	METHOD / COST						Comments
		FT	MPH	MPH		ALT 1	Cost	ALT 2	Cost	ALT 3	Cost	
Redlands Blvd												
Redlands Blvd	Orange St to Citrus Ave	2300	25	30	Yes	Enforcement						Four uncontrolled crosswalks
Redlands Blvd	Citrus Ave to Cypress Ave	2300	25	30	Yes							
Church Street												
Church Street	Colton Ave to Lugonia Ave	2600		30	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Church Street	Lugonia Ave to San Bernardino Ave	2600		30	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
						Total	\$4,862	Total	\$8,840	Total	\$390,000	
Orange Street												
Orange Street	Colton Ave to Lugonia Ave	2600	30	35	Nearby	Enforcement						State Highway restricts physical modifications
	Lugonia Ave to San Bernardino Ave	2600		40	Yes							
Orange Street												
Texas Street												
Texas Street	Redlands Blvd to Colton Ave	1800	35	40	Yes	Edge Stripe	\$1,683	Striped Median	\$3,060	Raised Median	\$135,000	
						Total	\$1,683	Total	\$3,060	Total	\$135,000	
Citrus Avenue												
Citrus Avenue	Redlands Blvd to University St	2600		25	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420			
Citrus Avenue	University St to Judson St	3100	35	40	Nearby	Edge Stripe	\$2,899	Striped Median	\$5,270			
						Total	\$5,330	Total	\$9,690			
Pioneer Avenue												
Pioneer Avenue	Tennessee St to Texas St	2600		30	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Pioneer Avenue	Texas St to Orange St	2600	30	35	Nearby	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Pioneer Avenue	Orange St to Church St	2600	30	35		Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
						Total	\$7,293	Total	\$13,260	Total	\$585,000	
Colton Avenue												
Colton Avenue	Texas St to Orange St	2600	30	35		Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Colton Avenue	Orange St to Church St	2600	30	35	Nearby	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Colton Avenue	Church St to University St	2000		30	Yes	Edge Stripe	\$1,870	Striped Median	\$3,400	Raised Median	\$150,000	
						Total	\$6,732	Total	\$12,240	Total	\$540,000	
Cypress Avenue												
Cypress Avenue	Terracina Blvd to San Mateo St	3800	40	45	Yes	Edge Stripe	\$3,553	Striped Median	\$6,460	Raised Median	\$285,000	
Cypress Avenue	San Mateo St to Center St	2600	40	45	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	

GENERAL INFO						TRAFFIC CALMING ALTERNATIVES						
Street	Segment	Segment Length	Prior Speed	Current Speed	School	METHOD / COST						Comments
						ALT 1	Cost	ALT 2	Cost	ALT 3	Cost	
		FT	MPH	MPH								
Cypress Avenue	Center St to Cajon St	2600	40	45	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Cypress Avenue	Cajon St to Redlands Blvd	1900	40	45	Nearby	Edge Stripe	\$1,777	Striped Median	\$3,230	Raised Median	\$142,500	
Cypress Avenue	Redlands Blvd to Citrus Ave	3400	40	45	Yes	Edge Stripe	\$3,179	Striped Median	\$5,780	Raised Median	\$255,000	
						Total	\$13,371	Total	\$24,310	Total	\$1,072,500	
Colton Avenue												
Colton Avenue	Dearborn St to Wabash Ave	2600	35	45	Nearby	Edge Stripe	\$2,431					Too narrow for bikepath
						Total	\$2,431					
Brockton Avenue												
Brockton Avenue	Church St to University St	2000	30	35		Edge Stripe	\$1,870	Striped Median	\$3,400	Raised Median	\$150,000	Too narrow for bike path
Brockton Avenue	University St to Grove St	2000	30	35		Edge Stripe	\$1,870	Striped Median	\$3,400	Raised Median	\$150,000	Too narrow for bike path
Brockton Avenue	Grove St to Dearborn St	4000	30	35		Edge Stripe	\$3,740	Striped Median	\$6,800	Raised Median	\$300,000	Too narrow for bike path
Brockton Avenue	Dearborn St to Wabash Ave	2400	30	35		Edge Stripe	\$2,244	Striped Median	\$4,080	Raised Median	\$180,000	Too narrow for bike path
							\$9,724		\$17,680		\$780,000	
Fern Avenue												
Fern Avenue	San Mateo St to Center St	2600		40	Yes	Edge Stripe	\$2,431	Striped Median	\$4,420	Raised Median	\$195,000	
Fern Avenue	Cajon St to Redlands Blvd	1800		40	Yes	Edge Stripe	\$1,683	Striped Median	\$3,060	Raised Median	\$135,000	
						Total	\$4,114	Total	\$7,480	Total	\$330,000	