

# Northeast Linden Area Traffic Calming Recommendations

A Companion Report to *Comprehensive Strategies for Traffic Management*



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## Linden Area Traffic Management Plan



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## Introduction

This report contains recommendations for implementing traffic calming treatments in the northeast area of Linden. These recommendations are made in conjunction with area-wide traffic management recommendations in the *Comprehensive Strategies for Traffic Management* report. Taken together, these sets of recommendations lay out a program for improving neighborhood livability by better controlling vehicular speeds, improving walking facilities, and involving the community in every step of the process.

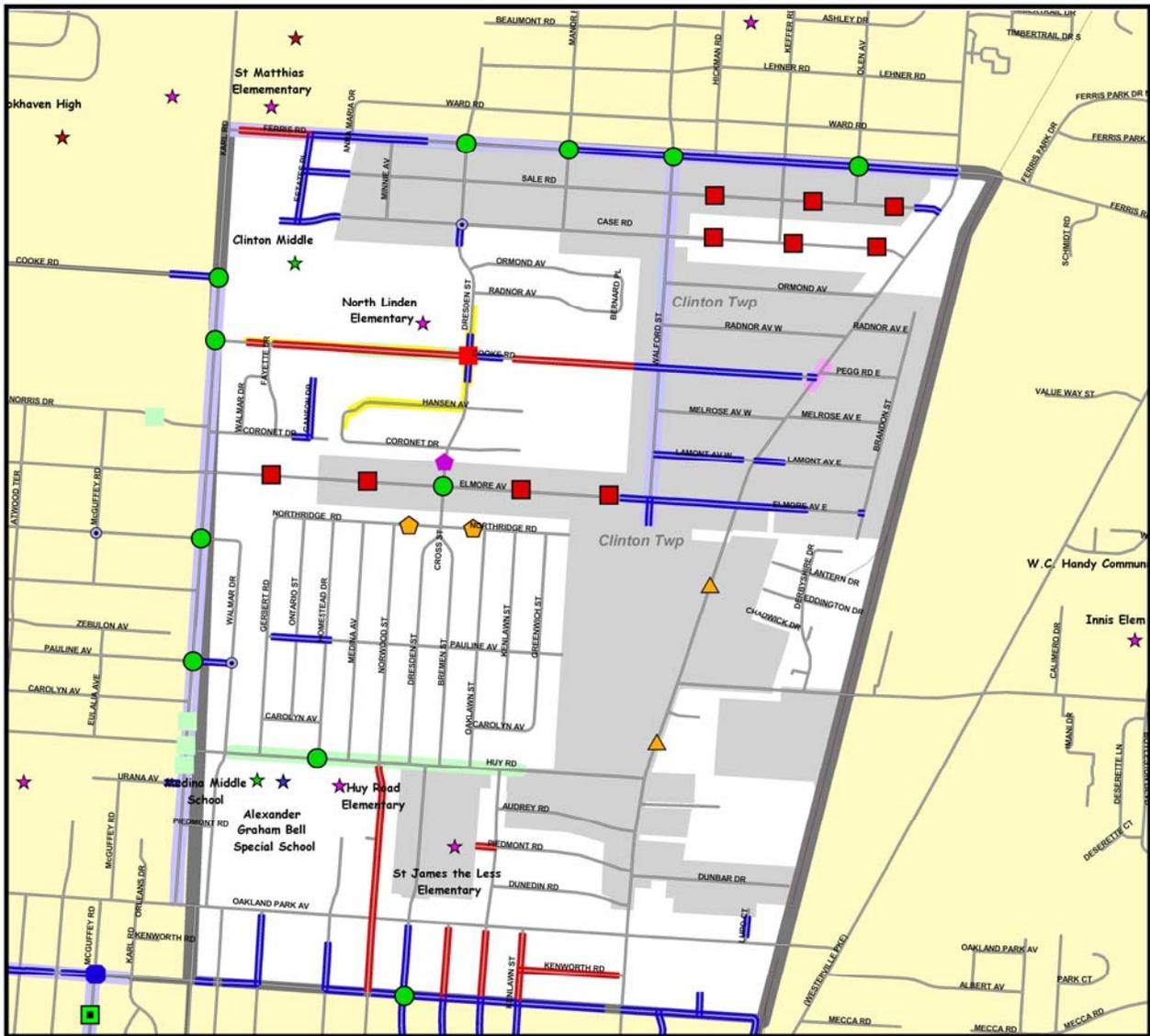


## Summary of Concerns

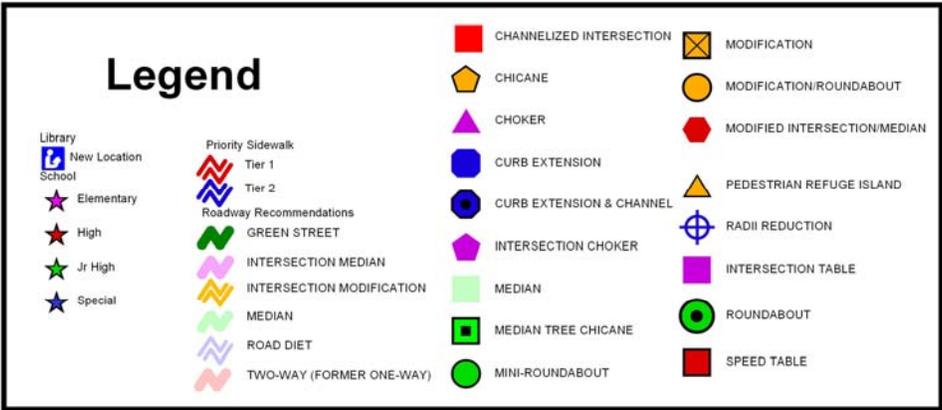
Residents are concerned with (1) No sidewalks on Ferris, Case and Sale, (2) Speed on Elmore and lack of sidewalks, (3) Speeding on Case Road, (4) Commercial traffic on Sale Road, (5) Red light running Cleveland at Pegg and Cooke, (6) Speeding on Karl and McGuffey, (7) Speeding on Case and Dresden, (8) Speeds Dresden and Huy near the schools.

## MAP OF NORTHEAST LINDEN RECOMMENDATIONS

NOTE: This map shows a complete build-out of all phases of the recommendations. Some treatments may not be necessary if early phases are effective.



Linden Area Traffic Management Plan  
 Sponsored by the City of Columbus  
**Linden 2 (Northeast) Recommendations**  
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 This plan was prepared in accordance with the Ohio Department of Transportation's Traffic Engineering Manual, 2011 Edition. It is intended to be used in conjunction with the Ohio Department of Transportation's Traffic Engineering Manual, 2011 Edition. It is not intended to be used as a substitute for the Ohio Department of Transportation's Traffic Engineering Manual, 2011 Edition. It is not intended to be used as a substitute for the Ohio Department of Transportation's Traffic Engineering Manual, 2011 Edition.



## Northeast Linden Recommendations

### SIDEWALKS

About a third of the streets in this area are without sidewalks. Missing sidewalks tend to be concentrated in the north and within Clinton Township. Tier 1 priority sidewalks are needed along Cooke Road, Norwood Street south of Huy Road and other streets near elementary schools. Tier 2 priority sidewalks are concentrated primarily along arterials with additional scattered locations to fill in gaps in the existing sidewalk network.

### STREET TREATMENTS: MAJOR ROADS

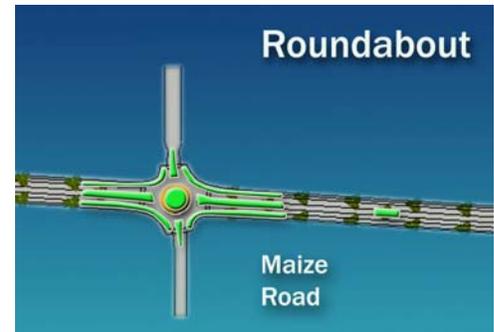
#### **Ferris Road**

Ferris Road is a straight non-curbed roadway with a rural feel. It is 27 feet wide and carries 5,600 vehicles daily.

*RECOMMENDATION: Road Diet and Mini-Roundabouts (2 phases)*

*Phase One:* Paint edge stripes and narrow travel lanes to 10 feet wide each. Provide a sidewalk (without curbs) on the south side of Ferris Road. The visual road diet will not impact parking as all residents have driveways or parking pads next to the street.

*Phase Two:* Provide curb and gutter, planter strips and sidewalks on both sides of Ferris Road. Add mini-roundabouts at the intersections of Dresden Street, Manor Street and Olen Avenue. It may be possible at some stage to replace the signalized intersection at Walford Street with a mini-roundabout to calm traffic on both roads. Because of the higher volume of traffic, vertical traffic calming treatments are not recommended. Some right-of-way may be required to enable the construction of roundabouts to allow larger turning vehicles to be accommodated at these intersections if desired.



Ferris Road is a narrow road with speeding vehicles and no sidewalks. Residents expressed a desire to prioritize sidewalks and improved speed controls on this street. A number of crossings are proposed. Speeds at the crossings need to be controlled.

## Cleveland Avenue

Cleveland Avenue is carrying approximately 22,000 vehicles per day north of Elmore Avenue. The roadway width varies from 48 to 60 feet. The intersections along Cleveland Avenue have a reported problem of drivers running red lights, especially at Pegg Road East and Cooke Road which is likely the result of the major offset between the east-west legs of the intersection.

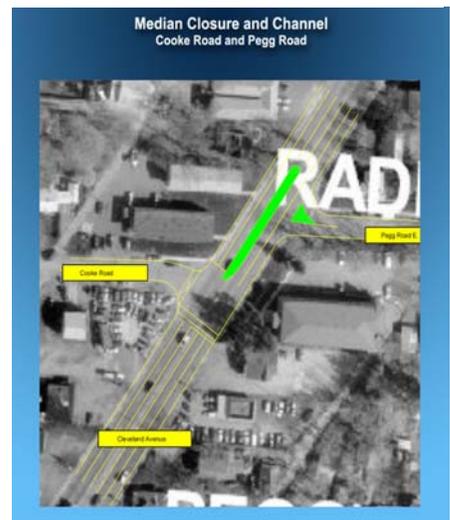
**RECOMMENDATIONS: Pedestrian Refuge Islands & Intersection Median (2 phases)**

*Phase One:* Create short medians with pedestrian refuges and new crossings to improve pedestrian access across Cleveland Avenue. Placement of the treatments requires additional examination to ensure they are appropriate to meet pedestrian needs and safety criteria.

*Phase Two:* Install a median along Cleveland Avenue through the intersection with Pegg Road East. This creates a right-in and right-out intersection without any left turns and a simplified intersection with Cooke Road. Drivers who want to turn left from Pegg Road East will proceed south along Brandon Street exiting at any of the other east/west streets. The median will also help pedestrians cross Cleveland Avenue at Cooke Road. Installation of the median may eliminate the need for a traffic signal at Cooke Road.



Cleveland Avenue is wide and especially challenging for pedestrians to cross. A remake of this retail area into a village one day will greatly enhance the neighborhood. Meanwhile, reduced speed, improved pedestrian crossings and enhanced intersections will help. Additional crossing points are needed for pedestrians. A median and pork chop island at Pegg and Cooke Roads is recommended to eliminate some of the confusion and red light running that occurs here.



## Cooke Road

Cooke Road is a 26-foot wide, two lane, urban street with curb and gutter, and sidewalk of considerable length along the north side of the street. A clear omission is the lack of a sidewalk along the short section, just east of the North Linden Elementary School. Traffic volumes near the school are 5,000 vehicles per day. To the east the numbers drop to around 2,000-3,000 vehicles daily.

### *RECOMMENDATION: Median and Channelized Intersection*

Construct a channelized intersection at Dresden Street with medians on all four legs of the intersection and a median on Cooke Road extending west beyond the school. The median that extends westwards along Cooke Road would help to manage traffic movements and slow vehicles in front of the school. Openings in the median would permit vehicles to enter and leave driveways on both sides of Cooke Road. The medians at the intersection would improve pedestrian crossings and help slow vehicles. As an alternative, a mini-roundabout may also be a feasible option at this location.

## Huy Road

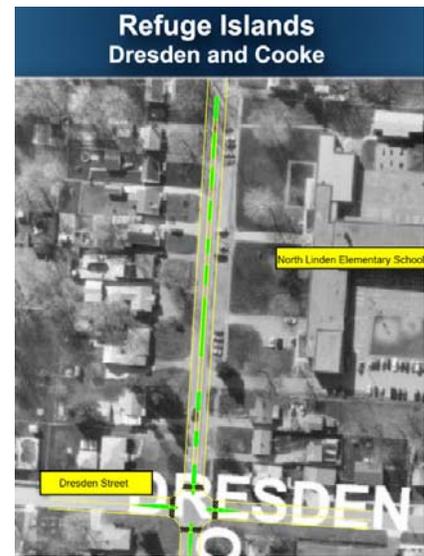
Huy Road is a 33-foot wide street with curb and gutter and sidewalks serving three schools. It carries approximately 7,000 vehicles per day.

### *RECOMMENDATION: Median and Mini-Roundabout*

Construct a mini-roundabout at Homestead Drive and a median from Walmar Drive to Oaklawn Street east of St. James the Less Elementary School. The proposed median is 6 feet wide with 12-foot wide lanes on either side of the median and openings for driveways and side streets. The treatments would provide pedestrians, especially school children, with easier road crossings and help slow traffic.

The installation of a mini-roundabout would need to be discussed with the affected schools to ensure their traffic patterns are accommodated and school crossing guards are appropriately trained.

Parking is not permitted on Huy Road east of Homestead or on the south side of the street west of Homestead. The median would result in the remaining parking being removed from Huy Road. In areas where the community determines parking is needed, the median can be narrowed to permit the installation of a parking lane on the north side of Huy. After designating the travel lanes, the remaining roadway width can be used as a restricted shoulder on the sides of the street or added to the median.



Cooke Road has a number of incomplete sidewalk sections. School crossings can be challenging. Children will benefit from speed controls on Cooke. A combination of tools will be applied, including a mini-roundabout on Karl Road at the Clinton Middle School entrance.

## Karl Road

Karl Road at Cooke Road is carrying 12,000 vehicles per day in a street width of 46 feet from the northern study area boundary to Cooke Road, then 32 feet wide to the south. This volume is easily handled in two lanes, yet the road operates as a wide four-lane roadway in the northern area. Multi-lane roads allow imprudent drivers to set higher speeds. Clinton Middle School is located at the northern intersection of Cooke and Karl roads. Speeds are very high, with 85<sup>th</sup> percentile speeds at 50 mph.

### *RECOMMENDATION: Road Diet (3 phases)*

*Phase One:* Create two well-defined ten-foot travel lanes with on-street parking; the parking would be restricted to one side of the street in the narrower section. Target enforcement strategies should occur concurrently. Use high emphasis markings for crosswalks at any designated school crossings.

The road diet will not result in the loss of any parking on Karl Road. On-street parking south of Elmore Avenue is currently restricted to the west side of Karl. After designating the travel and parking lanes, the remaining roadway width can be used as a median or a restricted shoulder on the side of the street opposite the parking. The effects of these changes should be evaluated to determine if phase two will be necessary.

*Phase Two:* If needed, install additional horizontal deflection tools, including two mini-roundabouts to slow traffic along Karl and channelization at Huy and Lenore to improve pedestrian crossings. The mini-roundabouts are proposed for both intersections with Cooke Road. Vehicle volumes are so low that these mini-roundabouts will operate at Level-of-Service A at all hours, reducing travel time and overall delay at the intersections. Treatments can be phased. These are the highest priority treatments due to their proximity to schools.

*Phase Three:* If needed, install additional mini-roundabouts at Northridge and Pauline. The effects of previous phases should be evaluated to determine if phase three will be necessary.



The medians and crosswalks shown here improve the safety of motorists and pedestrians crossing Karl Road. These treatments assist motorists in gaining access to the street or moving up and down Karl Road at safe and prudent speeds. They are also designed to avoid any new problems, such as limiting access to driveways, impeding transit operations or delaying emergency response.



A mini-roundabout at the intersection of Karl and Cooke roads at the entrance of Clinton Middle School.

**STREET TREATMENTS: MINOR ROADS**

**Sale Road**

Sale Road is a 21-foot wide, two lane, rural road. Driveway spacing makes it difficult to place both horizontal and most vertical traffic calming treatments.

*RECOMMENDATION: Speed Tables*

Place two speed tables east of Walford Street and one speed table east of Olen Avenue.

**Case Road**

Case Road is a 22-foot wide, two lane, rural road west of Walford Street in Clinton Township. The width changes to 26 feet, with curb and gutter, east of Walford Street in Columbus. There are no sidewalks in the township section, and sidewalks are only on one side of the street in the Columbus section.

*RECOMMENDATIONS: Mini-Circle and Visual Treatments*

Install a mini-circle at Dresden Street and pilot the use of visual treatments east of Walford consisting of pavement markings that visually simulate a traffic calming treatment. Attendees at the second neighborhood meeting expressed an interest in the visual treatments currently being tested in other parts of the country. This type of treatment may be ideal for this and other streets in the northeast area because of the township’s limited funding and limited space for the installation of physical treatments. If visual treatments are not used, a speed table east of Walford Street and two speed humps east of Keefer Avenue are recommended. It must be stressed that speed humps are not a preferred traffic calming treatment, however, in this case driveway spacing makes it difficult to locate other traffic calming treatments. If sufficient space is identified during detailed design, the speed humps should be converted to speed tables.

**Dresden Street**

Dresden Street is a 25 to 28-foot wide suburban street.

*RECOMMENDATION: Mini-Circle and Pedestrian Connection*

Create a formal connection between Dresden and Cross streets for pedestrians and install a mini-circle at Case Road to slow speeds on both streets. At present, Dresden and Cross streets dead end into each other with a metal barrier and significant grade difference separating the two streets. It is evident that pedestrians already pass through the barrier, therefore it is recommended that the passage be formalized and improved to provide a safer and more accessible route for pedestrians and cyclists.



Cooke Road and Huy Road will have a series of crossing islands to both control speed and simplify street crossings for pedestrians.



This example of visual traffic calming treatments is being tested in parts of the U.S.



The barrier where Dresden and Cross meet.



### Elmore Avenue

Elmore Avenue is a 24-foot wide rural street with a school crossing at Cross Street. Sidewalks with curb and gutter complement the pedestrian/bicycle connection between Cross Street and Dresden Street.

*RECOMMENDATION: Mini-Roundabout and Speed Tables*

Construct a mini-roundabout at Cross Street and two speed tables each to the east and west of Cross Street to slow traffic.



### Walford Street

Walford Street is a 26 to 28-foot wide suburban street. Walford carries 5,000 vehicles per day. There is a sidewalk on the west side, 4½ feet wide and adjacent to the curb.

*RECOMMENDATION: Road Diet*

Paint edge stripes and narrow the travel lanes to 10 feet wide each. Edge striping will provide a modest buffer to the narrow sidewalk.

The road diet will have no impact on parking because on-street parking is already prohibited. After designating the travel and parking lanes, the remaining roadway width can be used as a median or a restricted shoulder on the sides of the road.



The sidewalk on Walford Street is limited in width and location. Narrowing the lanes to 10 feet, using edge lines will create a helpful border to the street. In time a sidewalk should be added to the east side of this important access to Northern Lights Shopping Center.

### Walmar Drive

Walmar Drive is a 26-foot wide residential street adjacent and parallel to Karl Road. High-speed cut-through traffic is a major concern of residents on this road.

*RECOMMENDATION: Mini-circle*

Install a mini-circle at Pauline Avenue so as to slow traffic along the long stretch from Northridge to Huy. A raised intersection may be appropriate here, however the grade change at the intersection may negate its usefulness for eastbound traffic.

### Northridge Road

Northridge Road is a 26-foot wide residential street that connects to the parking lot and access road in the rear of Northern Lights Shopping Center. This connection raised complaints about speeding and cut-through traffic on Northridge.

*RECOMMENDATION: Chicanes*

Install one chicane just to the east, and one just west, of Cross Street.

## Summary

The primary objectives of the traffic calming and traffic management program are to: 1) identify issues and concerns, 2) determine workable solutions, and 3) most importantly, encourage residents and other stakeholders to develop a sense of ownership and commitment to solve problems that affect their quality of life. This program was and continues to be a citizens' hands-on project, working with staff from the City of Columbus. Citizen input remains essential to the success of the program.

At the final workshop the northeast Linden residents prioritized a list of the most important issues that they wanted to see addressed in their neighborhood. This list included speeding, cut-through traffic and a lack of crosswalks. The roads and intersections below needed the most attention, and the conceptual designs are those the community showed most interest in implementing:

<p>PRIORITY LOCATIONS: Walmar Drive, Northridge Road, Cooke Road/Pegg Road intersection with Cleveland Avenue.</p>
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