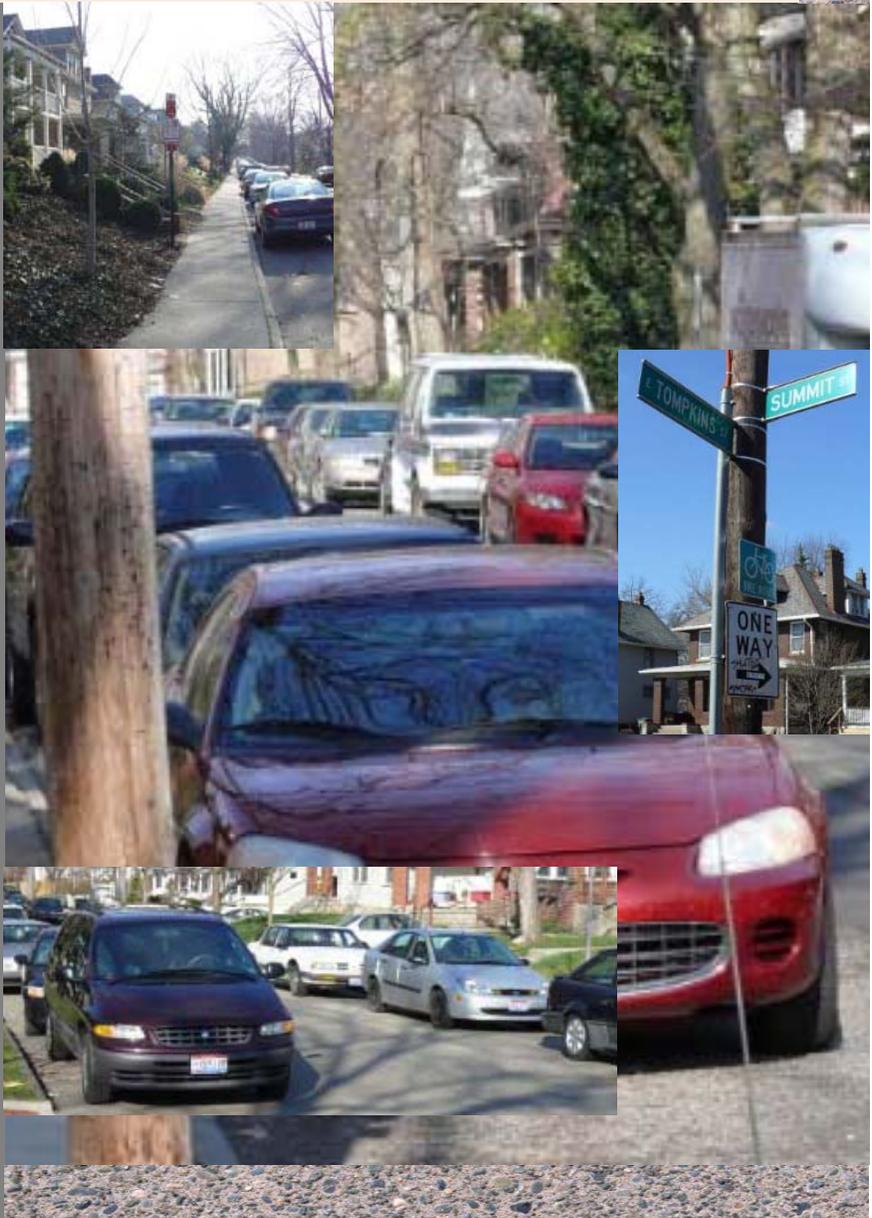


City of Columbus  
**Olde North Columbus  
Traffic Management Plan**  
*Final Report*



Mayor Michael B. Coleman

City of Columbus  
Department of Public Service  
Division of Transportation

Nov 2008



# **OLDE NORTH COLUMBUS TRAFFIC MANAGEMENT PLAN**

## **Final Report**

**Columbus, Ohio**

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**OLDE NORTH COLUMBUS  
TRAFFIC MANAGEMENT PLAN  
FINAL REPORT**



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## 1.0 Executive Summary

The Olde North Columbus Traffic Management Plan (ONCTMP) was prepared by Transportation Division staff in response to requests from organized neighborhood groups; the Olde North Columbus Preservation Society, The Findley Ave Community Watch Collaborative and The Northwood Park Homeowners Association, for improved safety of pedestrians and motorists and quality of life. This document is intended to guide future efforts to make infrastructure improvements to address these issues in the Olde North area of the City of Columbus located within boundaries of Lane Avenue, Glen Echo Ravine, Silver Drive and the Olentangy River. Old North Columbus, as with many historic neighborhoods, is characterized by diversity of residents, both renters and owners. There is a reasonable mix of land uses between retail and residential making walking a viable mode of transportation. There are also many users of public transit and bicycle travel. The transportation network consists of grid streets and turn of the century housing stock. No area plan from the planning division currently exists for the Olde North Columbus area but a plan may be developed in the future as well as a Community Mobility Plan

### Plan Goals

- Reduce impacts from motor vehicles on residential streets
- Enhance mobility in the neighborhood by providing enhanced crosswalks where warranted
- Improve the safety and usefulness of the transportation system by addressing crash issues.

## 2.0 Purpose, Need and Scope

The Olde North Columbus and the Findley Avenue Community Watch Collaborative neighborhoods, which are part of the University Area, approached the City with documented requests to address various mobility and traffic related issues. Community leaders, citizens, and city staff were involved in several efforts to identify problems, issues and needs, and establish priorities. The process was composed of a small meeting of the leaders, a community meeting to obtain additional comments from the neighborhood residents and internal meetings to develop recommendations for traffic calming and other improvements. Meetings with the public are listed below.



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## Public Meetings

May 2006 – Spoke to community at regular meeting to talk about our process and time for performing this study and report

May 2007 – Met with community leadership to develop initial list of concerns

May 2007 – Met with general community to illustrate what we had already found and to acquire any other comments not previously discussed.

February 2008 – Met with general community for status report

March 2008 – Met with community leadership to provide status on report

June 2008 – Participated in general community meeting to provide updates

October 2008 – Presentation of the ONCTMP to community

The purpose of the October 2008 community meeting was for neighborhood residents to review recommendations for traffic calming, operational changes, as well as improved signage and marking.

Healthy streets require appropriate travel speeds and increased motorist awareness and consideration of other roadway users, such as pedestrians and bicyclists. Neighborhood traffic calming creates a level playing field for all modes of travel and improves the quality of life within the neighborhood. Most importantly, traffic calming initiatives require residents to take ownership of their community and to work together to create a safer environment.

This is primarily an engineer's planning document. It is important to note that engineering alone cannot solve all the transportation related issues in a neighborhood. It also requires community commitment to the rest of the 4-E's, namely, enforcement, education and engagement.

The purpose of the Olde North Columbus Traffic Management Plan is to explain the collection of data pertaining to existing conditions from both field study as well as community input and to identify appropriate traffic calming treatments in Olde North Columbus along with construction methods. The report contains detailed mapped data attributes of the street environment which will help to develop an understanding of the existing conditions.



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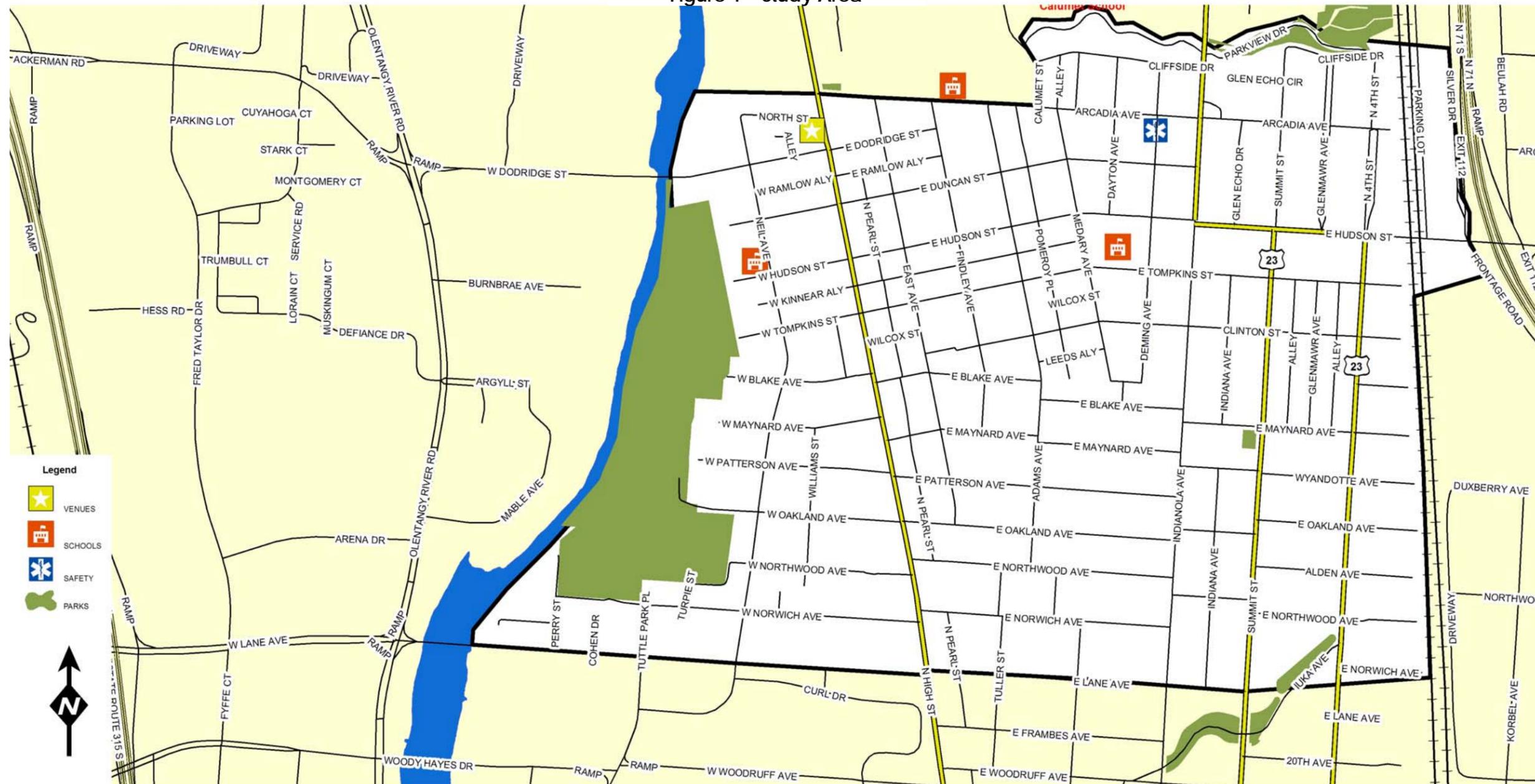


## 3.0 Methods of Analysis

### 3.1 Study Area Overview

The study area limits were determined in a meeting held between division staff and community leadership representing Olde North Columbus as well as the Findley Avenue Community Watch Collaborative and the Northwood Park Homeowners Association. The study area is highlighted in white in **Figure 1** on the next page. The general project area is bound by the Olentangy River on the west, I-71 on the east, Glen Echo Ravine on the north and Lane Avenue on the south.

Figure 1 - Study Area





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## 3.2 Tools Used

The following tools and reports are resources for determining the appropriate transportation facilities.

**Table 1 Development/Land Planning Documents**

Title	Source	Date
University Neighborhoods Revitalization Plan	Campus Partners	July 1999

**Table 2 Resources for Transportation Planning Analysis**

Title	Source	Date
Columbus Pedestrian Thoroughfare Plan, Volume 1: Handbook	Mid-Ohio Regional Planning Commission	2006
Pedestrian Quality of Service	Mid-Ohio Regional Planning Commission and City of Columbus (Current methodologies are not yet contained in a formal report)	N/A
Pedsafe: Pedestrian Safety Guide and Countermeasure Selection System	US Department of Transportation (USDOT) / Federal Highway Administration ( FHWA)	September 2004
Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations	USDOT / FHWA	2005
Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities	Institute of Transportation Engineers	2006
A Policy on Geometric Design of Highways and Streets	American Association of State Highway and Transportation Officials	2004
Ohio Manual of Uniform Traffic Control Devices	Ohio Department of Transportation	2005
City of Columbus – Standard Drawings	City of Columbus / Transportation	2007
Alternative Treatments for At-Grade Pedestrian Crossings	Institute of Transportation Engineers	2001
NCHRP Report 500-Vol. 10: A Guide for Reducing Collisions Involving Pedestrians	Transportation Research Board	2004
Toolbox of Countermeasures and Their Potential Effectiveness for Pedestrian Crashes	FHWA	2008
Pedestrian Road Safety Audit Guidelines and Prompt Lists	USDOT / FHWA	2007
NCHRP Report 562-Improving Pedestrian Safety at Unsignalized Crossings	Transportation Research Board	2006



## 4.0 Data Collection

The following data were collected by City staff with field visits and records review. Aerial photography was used to supplement field inventory efforts. No walk audits were performed with the community.

### 4.1 Plans Reviewed (recommendations by others)

**Table 3** lists the transportation planning documents reviewed for this study

Table 3 Transportation Planning Documents

Title	Source	Date
Columbus Pedestrian Thoroughfare Plan, Volume 1: Handbook	Mid-Ohio Regional Planning Commission	2006
MORPC Regional Bikeway Plan	Mid-Ohio Regional Planning Commission	April 2007
Columbus Bicentennial Bikeways Plan	Alta Planning	February 2008
COTA Mapping	COTA	Various
Capital Improvement Program	City of Columbus / Transportation	Ongoing
Resurfacing (Pavement Assessment Work Limit System)	City of Columbus / Transportation	Ongoing

### 4.2 Traffic Counts

Twenty-four hour machine traffic counts were performed by City of Columbus staff. The results are summarized in **Table 4** and are illustrated in **Figure 2** Olde North Traffic Counts. Additional counts were obtained from the Mid-Ohio Regional Planning Commission and are also shown in **Figure 2** Olde North Traffic Counts.



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Table 4 – Traffic Counts Performed by City of Columbus

ROAD	FROM	TO	DIRECTION	Avg Daily Traffic Volume	Posted Speed Limit	85 <sup>TH</sup> % Speed (85% of vehicles were traveling at or less than this speed)	DATE
CLINTON ST	FINDLEY AVE	ADAMS AVE	EB	251	25	24.6	Tuesday April 22, 2008
CLINTON ST	INDIANOLA AVE	INDIANA AVE	EB	804	25	29.3	Tuesday April 22, 2008
DODRIDGE ST	EAST AVE	FINDLEY AVE	EB	204	25	32.1	Thursday April 24, 2008
DODRIDGE ST	PEARL ST	EAST AVE	EB	746	25	27.3	Wednesday April 24, 2008
DODRIDGE ST	PEARL ST	EAST AVE	WB	870	25	26.9	Thursday April 24, 2008
EAST AVE	DUNCAN ST	DODRIDGE ST	NB	491	25	28.0	Wednesday April 23, 2008
EAST AVE	DUNCAN ST	DODRIDGE ST.	SB	382	25	28.9	Wednesday April 23, 2008
EAST AVE	ARCADIA AVE	DODRIDGE ST.	NB	515	25	26.3	Wednesday April 23, 2008
EAST AVE	ARCADIA AVE	DODRIDGE ST.	SB	249	25	28.4	Wednesday April 23, 2008
INDIANOLA AVE	PATTERSON AVE	OAKLAND AVE	NB	4,144	30	36.6	Tuesday April 22, 2008
INDIANOLA AVE	PATTERSON AVE	OAKLAND AVE	SB	2,789	30	36.5	Tuesday April 22, 2008
INDIANOLA AVE	TOMPKINS ST	CLINTON ST	NB	4,225	30	34.9	Tuesday April 22, 2008
INDIANOLA AVE	TOMPKINS ST	CLINTON ST	SB	2,639	30	34.2	Tuesday April 22, 2008
NORTHWOOD AVE	WALDECK AVE.	INDIANOLA AVE	EB	642	25	27.2	Tuesday Jun_19, 2007
OAKLAND AVE	ADAMS ST.	INDIANOLA AVE	WB	384	25	28.1	Tuesday Jun_19, 2007
PATTERSON AVE	ADAMS ST.	INDIANA AVE	EB	776	25	34.2	Tuesday Jun_19, 2007
PATTERSON AVE	ADAMS ST.	INDIANA AVE	WB	642	25	27.2	Tuesday Jun_19, 2007
TOMPKINS ST	ADAMS ST	FINDLEY AVE	WB	1,159	25	31.9	Monday May_24, 2004
TOMPKINS ST	INDIANOLA AVE	INDIANA AVE	WB	1,091	25	28.2	Tuesday April 22, 2008
DODRIDGE ST	HIGH ST	PEARL ST	WB	1,833	25	22.4	Tuesday June 2, 2008
DODRIDGE ST	HIGH ST	PEARL ST	EB	873	25	28.7	Tuesday June 2, 2008
DODRIDGE ST.	PEARL ST	EAST AVE	WB	2,219	25	26.5	Tuesday June 2, 2008
DODRIDGE ST	PEARL ST	EAST AVE	EB	903	25	29.0	Tuesday June 2, 2008

**Figure 2** Olde North Traffic Counts illustrates the locations of the counts in the above table. Note that the counts shown for Dodridge St are the most recent.





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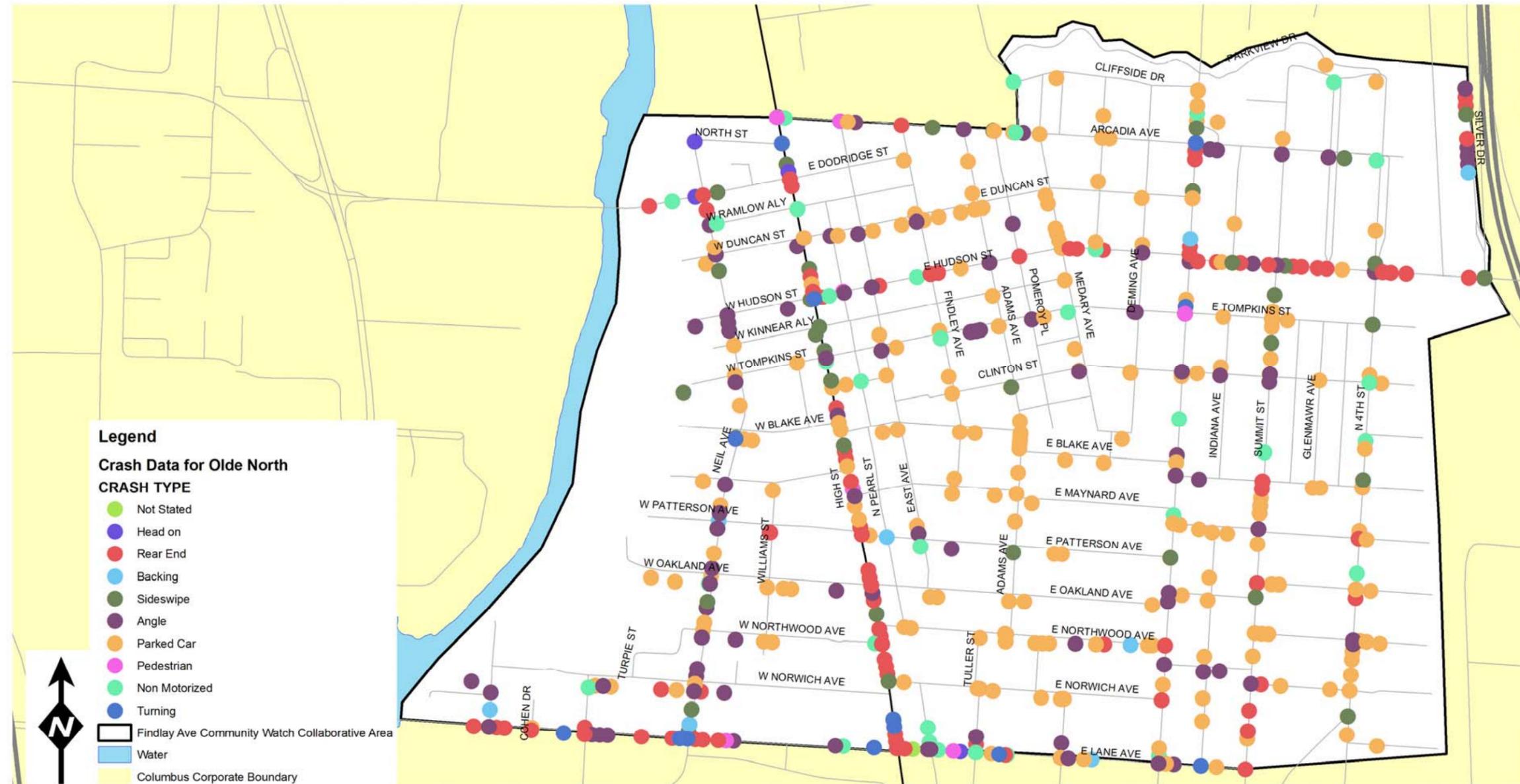
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### 4.3 Crash Spot Map

Vehicle crash data from the three years including 2004, 2005 and 2006 has been analyzed by City staff and plotted on a GIS map for the Olde North area. Crash data obtained from the Columbus Police Division and the Ohio Department of Public Safety can be found in **Figure 3 Vehicle Crashes**. Three years of Pedestrian crash data is mapped in **Figure 4 Map of Pedestrian Crashes**. Fortunately, no pedestrian fatalities were reported during this period.

Figure 3 Vehicle Crashes - 3yr History







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## 4.4 School Locations

There are three school facilities in the Olde North area and are documented on Figure 5 – School Locations. None of these operate as a traditional elementary, middle or high school. Medary Elementary School has closed and now is operated as a Helping Hands Center for children with autism. The former North High School now operates as a Welcome Center for the English as a Second Language program. It will however become a new school in spring of 2009. The Neil Ave Center is used as offices for staff that deals with students that have various types of disabilities.

Figure 5 – School Locations



Label	School	Status
1	North High ESL Welcome Center	Open – Swing school for East H.S.
2	Helping Hands Center	Open
3	Neil Ave Center	Special Education Services
4	Catholic Latino Center	Open
5	Glen Echo Presbyterian Day Care	Open
6	Maynard Ave UMC after school program	Open
7	Tree of Life Christian School	Open



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### 4.5 Neighborhood Issues

The public input process consisted of one public meeting and two meetings with civic leaders. This process resulted in numerous comments about conditions in the Olde North Area, which are documented in Appendix A. Comments were categorized by type of issue presented.

Table 5 shows 20 issue categories that were used to summarize the 62 individual comments received and facilitate development of solutions. Each issue category was further identified as relating to either an infrastructure deficiency or an operational need. Infrastructure issues generally require construction improvements to be prioritized and budgeted over time. Methods of implementation of infrastructure improvements are discussed in the section called **Implementation**. Operational issues are those that can be addressed using City crews and work orders.

Table 5 - Issues

Issue Type	Quantity
Crashes	7
Crime and Personal Safety	4
Cut Through	3
Miscellaneous	1
Missing sign	1
Pedestrian Crossing	8
Private	1
Recreation and Parks	5
Refuse	1
Resurfacing & Water	1
Stop sign running	1
Sidewalk	2
Sight Distance	3
Signals	4
Signs	4
Speed Limit	1
Speeding	8
Traffic Calming	1
Traffic Operations	14
Water	1

Community interest in these areas was summarized by the City as shown in the following figures.

**Figure 6** - 311 Community Mobility Requests 2005 to 2007 shows the history of mobility related service requests collected through the City's 311 call center which has been operational since 2005.

**Figure 7** Comments from Community Meetings shows comments collected during the development of the ONCTMP.

Figure 6 - 311 Community Mobility Requests 2005 to 2007

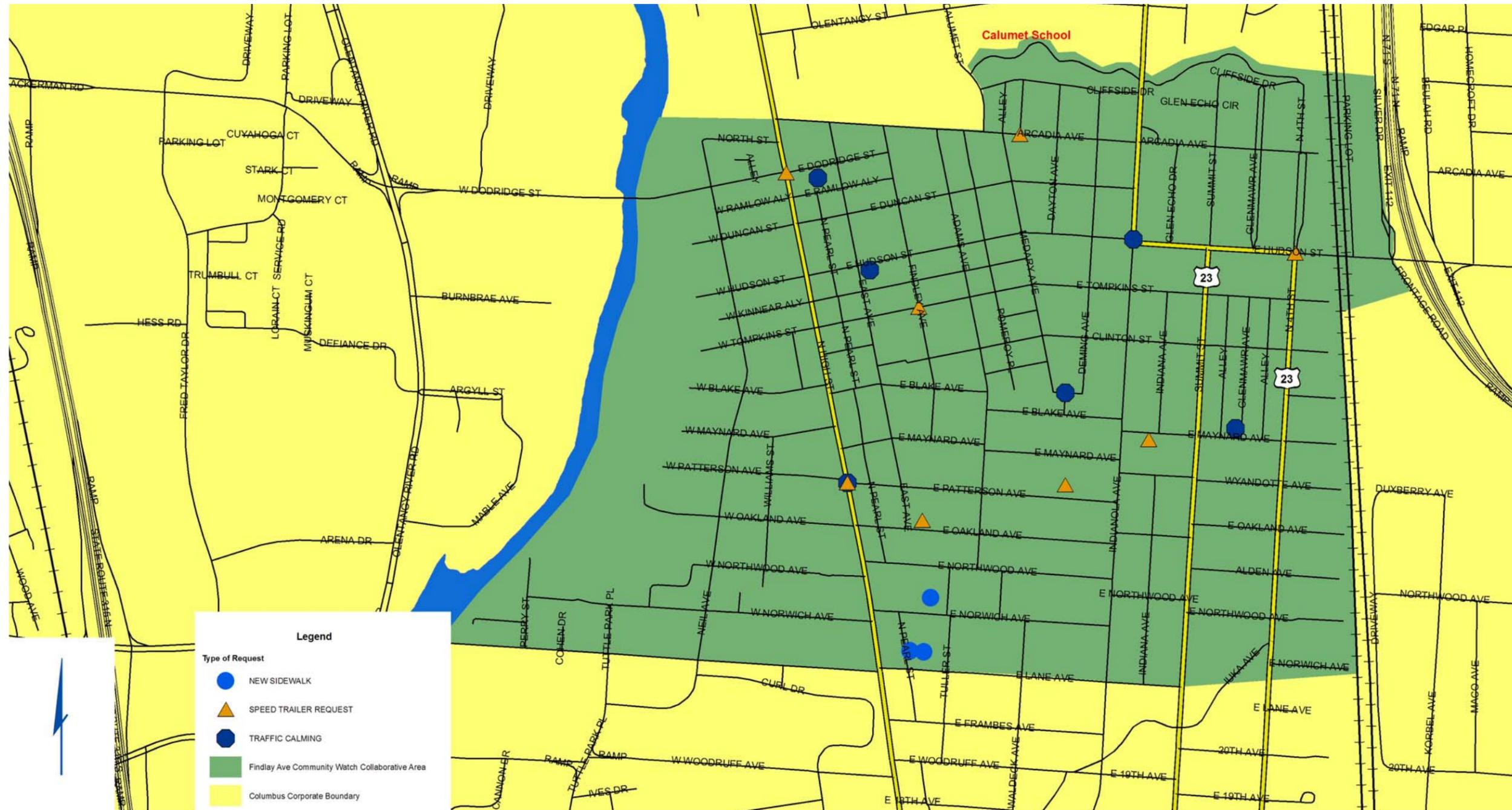
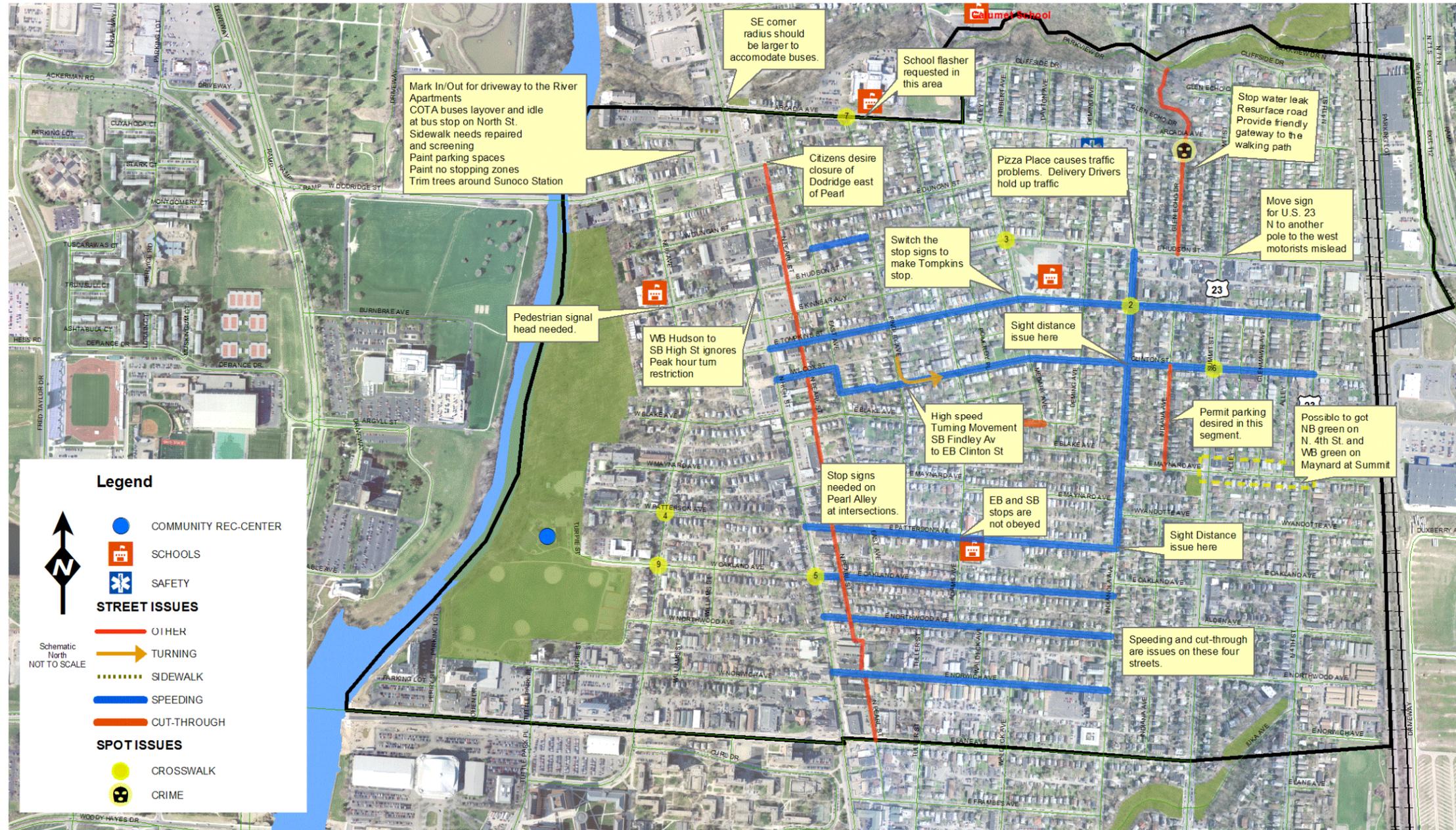


Figure 7 Comments from Community Meetings





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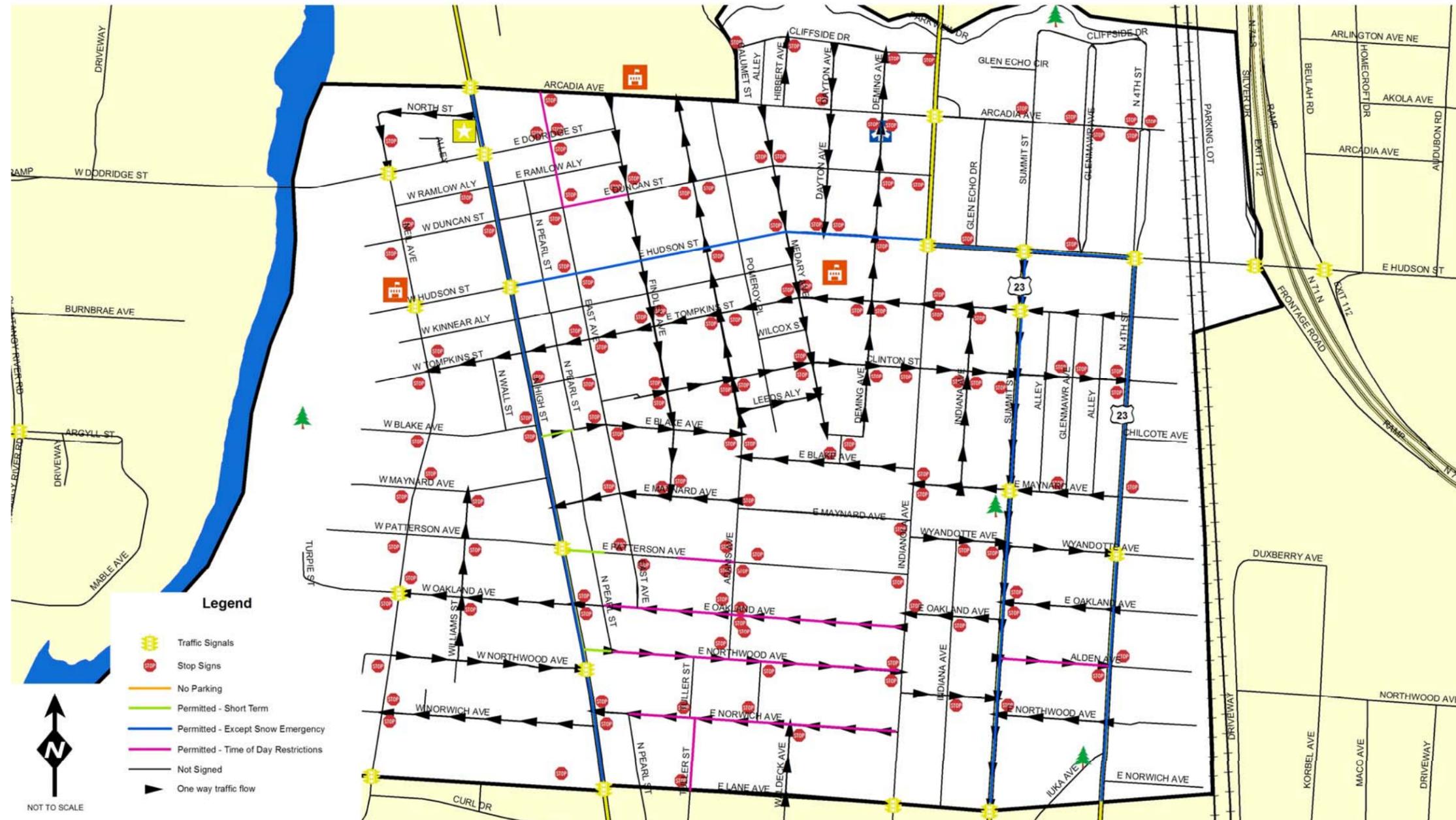
## 4.6 Roadway Inventory: Parking, Circulation, and Access

Roadway inventories were performed by division staff through field visits and records review. Aerial photography was used to supplement field inventory efforts. Table 6 summarizes the items inventoried, as well as the parameters attributed to each item. All inventory items have been included with GIS mapping.

**Table 6 Intersection and Corridor Inventory**

<b>Title</b>	<b>Source</b>
Marked crosswalk – midblock or intersection	Standard – Ladder – Standard with ladder
Speed Limit	Value if Posted – Not Posted
Traffic Control	Signal – Stop - Yield
Roadway directional operation	1-way 2-way
On Street Parking Signage	Permitted – Restricted – Time Restrictions

Figure 8 Roadway Inventory





## 5.0 Solutions Toolbox

The following is a summary of the toolbox and which issues they resolve.

Table 7 Solutions Toolbox

Solution Tools	Issues Resolved
	Infrastructure
Curb Extension	Traffic Operations
	Speed
	Pedestrian Crossings
	Schools
	ADA Compliance
	Sight Distance
	Parks
	Alleys
	Access
Marked Crosswalks	Pedestrian Crossings
No Parking Signs	Sight Distance
	Crashes
Partial Closure	Traffic Operations
	Cut-through
Missing sign	Crashes
Stop Signs	Crashes (Used to assign right-of way, not a traffic calming device)

### 5.1 Marked Crosswalks

According to Section 3B.17 of the Ohio Manual on Uniform Traffic Control Devices (OMUTCD), crosswalks serve the following purposes:

“Crosswalk markings provide guidance for pedestrians who are crossing roadways by defining and delineating paths on approaches to and within signalized intersections, and on approaches to other intersections where traffic stops.”

Crosswalk markings also serve to alert road users of a pedestrian crossing point across roadways not controlled by traffic signals or STOP signs.

At non-intersection locations, crosswalk markings legally establish the crosswalk.”

There are numerous types of marked crosswalk treatments that help make the crossings more visible to motorists. Descriptions of each crossing treatment are shown in below.



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Table 8 Crossing Treatments

<b>Device</b>	<b>Description</b>	<b>Roadway Conditions</b>
Standard crosswalk	Two parallel retroreflective lines that can be used at signalized and uncontrolled intersections	low speeds at signalized and uncontrolled intersections
High-visibility crosswalk with retroreflective white markings and/or textured pavements	Crosswalk markings are ladder style or continental-ladder style that can be seen at night.	To be used at midblock locations and uncontrolled intersections where higher speeds or volumes exist.
Curb extensions/bulb outs	These are sections of curb that extend out into the roadway that shorten the crossing distance and raise visibility to motorists.	These can be used at midblock and at intersections where there is high pedestrian activity.
Overhead signs with flashing beacon.	Overhead sign with the universal pedestrian symbol	Best for use on high speed and wider roadways.
Pedestrian Hybrid Signal (a.k.a. HAWK)	This is a signal that is dark until activated by a pedestrian and flashes yellow and then red to stop motorists. It is an exclusive pedestrian signal with less stringent requirements than a full traffic signal.	This device has not yet been approved in the Ohio MUTCD. Best for use on high speed high volume roadways where there are insufficient gaps in traffic. Pedestrian volumes must meet the proposed requirements in the MUTCD. Generally, this is used when a combination of other devices is insufficient or not an option.

Engineering analysis is used to determine the appropriate treatment.

Figure 9 - Marked Crosswalk Locations as Requested



## 5.2 Curb Extension

Curb extensions essentially move the curb line into the existing roadway, narrowing the total street width at intersections or at mid block locations. They reduce the total width of the street that must be crossed and constrain vehicle travel to appropriate lane width at intersections. If parking is permitted along a street, curb extensions define the parking lane by inseting parking



Photo: Courtesy of Dan Burden

areas between intersections. The narrower traveled portion of the roadway remaining after curb extensions are installed is more accessible to pedestrians and helps to control speed. Extensions can be applied at intersections or mid-block locations. Curb extensions may improve lines of sight and reduce illegal parking. Placed on one side of a street, they can also create a chicane effect to deflect the vehicle path and slow travel speeds.

### 5.3 Chicanes

These features are installed as a series of curb extensions that narrow and deflect the driver's path as they travel down the street.

This treatment is intended for use on residential streets with less than 1500 vehicles per day. It is possible to use chicanes across intersections where

heavy truck traffic is uncommon because

of the restriction to turning movements. It should be noted however that parking spaces are used by the bulbouts but may be less of a problem in locations where parking is already restricted such as at intersections.



Photo: Courtesy of John Sliemers



## 6.0 Analysis / Recommendations by Issue and Location

### 6.1 Pedestrian Crossings

The locations listed in **Table 9 Pedestrian Crossings** were identified as either needing a new marked crosswalk or enhancement such as better sign, markings or pedestrian signals.

Table 9 Pedestrian Crossings

Locations	Community Request
Summit St at Clinton Street	Need marked crosswalk to bus stop (COTA and CABS)
Neil Ave at Oakland Ave	Entrance to Tuttle park needs marked crosswalk.
Arcadia at Findley Ave	Flashers and school crosswalk wanted for North High
High St At Oakland Ave	
Neil Ave at Patterson	Entrance to Tuttle park needs marked crosswalk
Hudson at Medary Ave	Crosswalk needed for Medary Elementary (converted to charter school, Helping Hands Center)
Indianola Ave at E. Tompkins St	Some markings exist
Tompkins St and Summit St	School signal and markings removed, would like to have it back

Crosswalks were evaluated using FHWA and other guidelines. These documents recommend a minimum of 20 pedestrians per hour. These documents recommend that no enhanced pedestrian crossing facilities be placed where this minimum is not met. Additional criteria are based on traffic volume, speed, width of street, and the presence of a median.

Data was collected for each location through a site visit, pedestrian counts as well as office review. A crosswalk inspection sheet was filled in with information about the crossing location such as the posted speed limit, ADT, direction of travel, traffic control. Pedestrian generators such as parks, retail shops, schools and others were observed. Other physical street data were also collected, such as number of lanes, presence of a median, ADA ramps, pedestrian accessible routes with appropriate cross slopes, pedestrian signals and on-street parking.

## 6.1.1 Summit St and Clinton St

### 6.1.1.1 Analysis

This location is not currently marked and requires pedestrians to cross 3 lanes of vehicular traffic. Approximately 9000 vehicles pass the crossing location on Summit Street each day. During the field visit, a pedestrian count was performed resulting in 20 pedestrians in one hour which meets the minimum criteria for a marked crosswalk. Additional considerations for marking this crosswalk include: presence of ADA ramps as well as the distance from Hudson St. which is over 700 ft. This distance gives drivers more time to focus on pedestrians than the turning movement from Hudson to Summit.



Photo: Clinton St at Summit St showing proposed striping

### 6.1.1.2 Recommendations

- High Visibility Markings with overhead signs
- Pedestrian Activated flashing beacons
- ADA curb ramps with detectable warnings, if needed.
- HAWK signal potential candidate location.

## 6.1.2 High St and Oakland Ave

### 6.1.2.1 Analysis



Photo: Crosswalk at Tompkins St and Indianola Ave

A crosswalk was requested at this location, primarily because of several businesses located near the intersection. High Street has 29,500 vehicles per day. A pedestrian count was performed and found only 2 pedestrians in an hour, well below the 20 minimum recommended. As well, a review of pedestrian crashes did not reveal a crash issue that could potentially be solved by a marked crosswalk. In addition, pedestrian crash risk may be

increased if this crosswalk is marked. A legal crosswalk does exist though it is not marked. Also, a signalized intersection is available within 360 ft from the intersection, at Patterson Ave and Northwood Ave.

### 6.1.2.2 Recommendations

- Do not mark a crosswalk at this location.

## 6.1.3 Neil Ave at W. Oakland Ave

### 6.1.3.1 Analysis



Photo: Neil Ave facing north

This location is on Neil Ave just north of OSU campus. It is used by pedestrians and bicyclists to access Tuttle Park. The speed limit, like many arterials is 35 mph Neil Ave in this location has a volume of over 6000 vehicles per day. Unlike other locations, sight distance is fairly good at this location. There are also sidewalks that provide access to Tuttle Park.

The site currently has pedestrian warning signs as well as an overhead flasher which is on a timer. Pedestrians are currently not required to push a button to activate the flasher. A pedestrian count was performed yielding 14 peds and 5 bikes.

### 6.1.3.2 Recommendations

- Upgrade signage to current Ohio MUTCD standard which includes a new style and color of pedestrian warning sign

## 6.1.4 Neil Ave and W. Patterson Ave

### 6.1.4.1 Analysis

This location is another means of accessing Tuttle Park as well as the Olentangy Bike Path. Neil Ave has 6000 vehicles per day which is reasonable for a street of this type. A pedestrian count was performed at this location and 8 pedestrians were counted. This does not meet our criteria of 20 pedestrians per hour. In addition, there are other issues at this intersection which are not problems at Neil and Oakland as discussed above. Sight distance is limited due to horizontal curvature and parked cars. Visibility is much greater at Neil and Oakland and sidewalks exist to walk to the park.

### 6.1.4.2 Recommendations

- Do not provide a marked crosswalk at this location.

## 6.1.5 Indianola Ave at E. Tompkins St

### 6.1.5.1 Analysis



Photo: Crosswalk at Tompkins and Indianola

This location had previously been marked due to proximity to Medary Elementary School (now the Helping Hands Center school for children with developmental disabilities). Indianola has a speed limit of 30 mph but 85% of vehicles travel at 34 mph or less. Pedestrians only have to cross 2 lanes of traffic compared to 5 on High St but sight distance can be a problem when many cars are parked on the street. The traffic volume on Indianola is nearly 8000 vehicles per day.

The resource, “Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations” considers the existing markings and signage to be an appropriate treatment based on the speed, volume and street width. Therefore, some upgrades are recommended.

### 6.1.5.2 Recommendations

- Upgrade signs to the current Ohio MUTCD standard. This includes advance warning signage

## 6.1.6 Hudson St at Medary Ave

### 6.1.6.1 Analysis

Hudson St is two lanes wide and has a speed limit of 35 mph. The volume on Hudson is 14,000 vehicles per day. A school crosswalk was requested at this location. A pedestrian count was not performed since the school is currently closed.

### 6.1.6.2 Recommendations

- Perform a pedestrian count and reconsider the request if the building is ever used as a school again or otherwise has a use that would draw pedestrians.

## 6.1.7 Arcadia Ave at Findley Ave

### 6.1.7.1 Analysis

Arcadia is two lanes with parking on both sides except for the space in front of North Adult Education Center (swing space for East High School as well as new CPS school in 2009), where space is available for buses. Arcadia is rather wide at over 42 feet. This request was primarily to serve the school. Conversations with school staff found that all students are bused.

A pedestrian count was performed and only 3 people were observed in an hour.

### 6.1.7.2 Recommendations

- A marked crosswalk is not recommended at this location.

## 6.2 Speeding, Cut-through and crashes

Several streets were identified by the community as having problems with speeding or cut-through traffic. Data for traffic speeds and volumes was collected and the need for traffic calming measures was evaluated. Analysis of the locations began with a focus on safety.

The observation of crashes may lead to a perception of a speeding problem. Three years of crash reports were obtained and summarized. Crashes were categorized by type. Field investigation of conditions related to reported or potential crashes were observed such as sight distance, parking and traffic controls that may result in crashes as well as speeding.

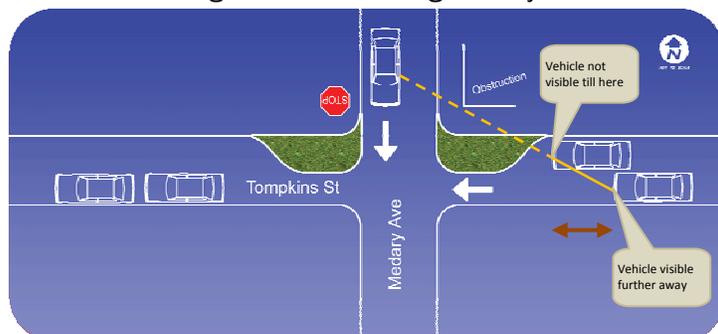
A variety of physical elements were documented in field notes that include signs (missing, obstructed or damaged), corner clearance and no-parking areas, overgrown trees and shrubbery.

### 6.2.1 Tompkins St

#### 6.2.1.1 Analysis

Tompkins St has a posted speed limit of 25 mph, is 20 ft wide, is one-way westbound, and is very heavily parked. The profile of the street generally slopes down from N. 4th St. to High St. There is generally no horizontal curvature but there is a deflection at Medary Ave. There are no stop signs on Tompkins between Indianola Ave. and High St.

The street was visited on March 24, 2008 at 1:30



Graphic depicting possible curb extension at intersection of Tompkins St with both Medary Ave and Findley Ave



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P.M. During the visit, some cars were observed traveling faster than the 25 mph posted speed limit.

Medary Avenue is a southbound street. While parked cars are not an issue in this section, the school property is elevated higher than Tompkins. This hill, located close to the road makes it difficult for southbound drivers to see cars driving west on Tompkins. This is further affected by drivers positioning themselves along the north side of Tompkins to prepare for continuing west on Tompkins.

Also at Findley Avenue, vehicles are again travelling along the north curb on Tompkins. This has a similar affect to conditions on Medary Avenue. There is a fence and a house on the northeast corner of this intersection that sit very close to the corner. There are also plants close to that intersection.

East Avenue is two way but has issues with sight distance as well. Existing sight distance is about 72 ft. Ideally, it would be good to have about 155ft based on the federal document "A Policy on Geometric Design of Highways and Streets" 2004, **Table 2** Resources for Transportation Planning Analysis There are not any NO STOPPING signs to delineate correct parking locations near the intersection.

A review of three years of crash data for Tompkins St. revealed that the majority of crashes were of the angle type. These crashes were typically between vehicles traveling north on side streets and vehicles moving west on Tompkins St. It is believed to be caused in part by the sight distance issues mentioned above. The largest number of crashes occurred at the intersection with East Ave which is two-way, but primarily with the northbound traffic.

Staff also investigated a crash that occurred on March 14, 2008. Based on the tire marks and a conversation with a citizen, the vehicle bounced off a pole which sent the vehicle across the street. It seems unlikely that sight distance was an issue in this case.

## 6.2.1.2 Recommendations

- Provide north side curb extensions on Tompkins at the intersections with Medary Ave and Findley Ave to deflect drivers to the south as they pass through those intersections.
- Provide a "No stopping any Time" sign on Tompkins Avenue 70 ft east of East Avenue. Future work may include a curb extension on the south side of Tompkins to physically enforce parking restrictions.

## 6.2.2 Clinton St.

### 6.2.2.1 Analysis

Clinton Street has a posted speed limit of 25 mph, is 26 ft wide, is one-way eastbound, and is somewhat densely parked. The street has no horizontal curvature and is sloped up to the east but has less traffic than Tompkins, likely because it does not connect to High Street.



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Crash data on Clinton Street indicates that there is not a particular crash pattern with the exception of vehicles turning from Clinton to Indianola. There is a hedge and a building that block sight distance along with parked cars on Indianola.

The intersection of Clinton St at Indianola Ave has more crashes than other intersections on Clinton due to limited sight distance for vehicles turning left from Clinton to Indianola. An apartment building with a retaining wall sits on the NW corner of that intersection. The SW corner has thick shrubbery which also reduces visibility

Clinton Street was visited on April 2, 2008. Only a few vehicles were observed, during the visit, most appeared to be traveling near the 25 mph posted speed limit. This street was much more open than Tompkins as it is slightly less densely parked. Sight distance was not as much of an issue as it was on Tompkins. However, there were several signs that were obscured by trees or other vegetation.

## 6.2.2.2 Recommendations

- Remove a few parking spaces on Indianola to aid visibility, if needed.
- Trim or remove shrubbery on the SW corner property.
- Consider acquisition of property on NW corner and removal of embankment.

## 6.2.3 Oakland Ave

### 6.2.3.1 Analysis

Oakland Ave was identified as having speeding and cut through issues.

The street has a posted speed limit of 25 mph, is 26 ft wide, is one-way westbound, and has parking on both sides. There were some less and more densely parked areas causing quite a constriction. Volumes are between 300 and 400 vehicles per day. This is very acceptable since the 83 homes on Oakland between Indianola Ave and High St. should be expected to produce 830 trips per day, nearly twice the counted value. These volumes on this street are consistent with other residential streets of similar length. The speed data collected indicates that speeding is not a problem to address with physical measures.

Oakland Ave was investigated on April 8, 2008. A moving vehicle was seldom seen during the morning hours of our investigation. The travel lane seemed narrow and was measured to be 10 ft wide where vehicles were parked on both sides of the travel lane.

Crash reports indicate a number of sideswipes, primarily on the north side of the street and thus on the passenger side of the moving vehicle. This pattern was noticed on both Oakland Ave and Northwood Ave. It is a possibility that they are moving over too far to avoid vehicles parked on the left and thus hitting those parked on the right. Also note that 50% of the vehicles that were hit were trucks or SUV's. The time of day does not seem to be related to these crashes.



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An hypothesis that when larger vehicles are parked on the driver side of the vehicle, it may cause drivers to move an unreasonable distance to the right to avoid those large vehicles. This could be due to driver's greater awareness of the left side of the vehicle. It may reduce sideswipe crashes if small vehicles park on the south side of Oakland Ave and SUV's park on the north side. While there is no evidence to support this idea, it may be worth considering.

### 6.2.3.2 Recommendations

- Based on further research, consider a policy change that would allow SUVs and other large vehicles to park on one side of the street.
  - The above recommendation will not be considered per community request.

## 6.2.4 Northwood Ave

### 6.2.4.1 Analysis

Northwood was also listed as having speeding and cut-through traffic.

Northwood Ave is another typical residential street in Olde North Columbus. The street has a posted speed limit of 25 mph, is a 26 ft wide, one-way eastbound street. It is fairly heavily parked and has a sag in the vicinity of Waldeck. Northwood is directly accessible from High Street.

Traffic counts were taken to verify citizen concerns. The volumes on this street are higher than Oakland but still acceptable based on the number of residences on the street. An additional count will be taken to verify if drivers are using Northwood to access East Ave off of High Street.

Northwood Ave was visited to consider the physical conditions that might lead to crashes. The majority of crashes on Northwood tend to be sideswipes. The travel lane is not quite as narrow as Tompkins. Similar to Oakland, crashes are tending to occur on the right side of the street.

### 6.2.4.2 Recommendations

- Consider a policy change that would allow SUVs and other large vehicles to park only on the north side of the street.
  - The above recommendation will not be considered per community request.
- Revisit following the additional count.

## 6.2.5 Patterson Ave

### 6.2.5.1 Analysis

The community indicated concerns with speeding on Patterson. It was also mentioned that drivers were not obeying the four-way stop at Adams

Patterson Ave is a two-way street with parking on both sides. It is one of the few non arterial two-way streets in the Olde North.



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Traffic counts were taken on Patterson, giving an 85<sup>th</sup> % speed of 30.5mph and about 1300 vehicles per day.

A site visit was completed to assess the physical environment surrounding Patterson Ave and check for potential causes for crashes. No crash pattern could be determined. During the site visit several cars were observed parking in no-parking zones. There were other instances of vegetation blocking both signs as well as signage. There were also some illegally parked cars.

### 6.2.5.2 Recommendations

- Use 311 to provide service to missing or damaged signage
- Call City Forestry about tree trimming.

## 6.2.6 Dodridge Street

### 6.2.6.1 Analysis

High Street is predominately a commercial corridor. The business traffic High Street often generates, sometimes creates congestion and speeding in residential areas. This traffic primarily comes from customers choosing to park in nearby residential neighborhoods to gain access to High Street businesses. According to the Old North community, Dodridge Street is one example where traffic from High Street business spills over into the neighborhood. The community is requesting that Dodridge St be closed to traffic

In order to determine what alternatives may be appropriate, traffic counts were performed on Dodridge near the intersection with East Ave. the counts indicate a relatively large volume of traffic could be accessing the residential streets to the east of High Street. The counts also indicate volume traveling west. The destination of those vehicles was not determined though.

Based on the volume from two traffic counts as shown in **Table 4**, Dodridge is an important component of the street network. The traffic does not seem to be primarily from or to the businesses in the immediate vicinity of Dodridge and High. It should be noted however, that these counts may not provide an accurate picture of traffic patterns due to intermittent closures related to construction.

### 6.2.6.2 Recommendations

- Based on the above analysis, this street should be left unchanged.

## 6.2.7 North Street

### 6.2.7.1 Analysis

The community expressed several concerning North St which is west of Dodridge and west of High Street. They are listed below.

- Provide marked pull in parking to be marked on North Street. The community also mentioned speeding as a problem.



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- Use bollards or some other measure to close the alley next to 49 North Street in a more permanent way.

North street is one-way and has a width of 36 feet, very wide for a one-way. The speed limit on North Street is 25mph. Currently, parking is not marked and is available on both sides of North Street. A bus stopping zone is marked as well.

Since there is plenty of width, a new parking plan could include back in angle parking on the south side of North Street. Back in angle parking, while rare in Columbus, is safer because a driver can see clearly when pulling out of the spot. It is also possible to include some additional parallel parking on the north side of North Street. A count of existing spaces was performed and there are currently 25 unmarked spaces. The new parking plan could provide additional parking which would bring the total number of spaces to 36. The drive on the southwest corner of High Street and North Street could be closed if a site plan is submitted for redevelopment of that property. This would yield two additional parking spaces.

As well, the bus stop could be moved closer to High Street which would allow the bus to idle further from the residential areas.

### 6.2.7.2 Recommendations

- Design and modify parking using a combination of back in angle as well as parallel parking
- Move bus stop to the east, closer to High Street.
- Staff will investigate a proper alley closure.

### 6.2.8 Indiana Ave

Permit Parking is needed on Indiana Ave between Maynard Ave and Clinton St.

Citizens on that street should call 311 to initiate a petition process for permit parking.

### 6.2.9 Arcadia Ave and North High Street

#### 6.2.9.1 Analysis

The community requested that the SE curb radius be enlarged to allow COTA buses to make turns better.

COTA routes were checked. It was found that route 81 crosstown route makes that turn at a frequency of about once per hour. Arcadia has a traffic volume of approximately 7000 vehicles per day which should result in few conflicts between bus and vehicular traffic.

#### 6.2.9.2 Recommendations

Based on relatively low volume of both buses and cars, no action is recommended at this time.

### 6.2.10 Hudson St and High St



### 6.2.10.1 Analysis

The issue brought to our attention was that traffic heading west on Hudson St. often ignores the left turn restriction which backs up traffic.

### 6.2.10.2 Recommendations

A turn lane is being added as part of the NCR project which will eliminate this problem.

## 6.2.11 Glen Echo Drive and Arcadia St Bridge

### 6.2.11.1 Analysis

Water is leaking out from under the Arcadia Street bridge over Glen Echo Drive.

### 6.2.11.2 Recommendations

- Contact the water dispatcher to have an inspector check the site to see what should be done.
- The Water department was contacted. The water is not a leak, it is a natural spring.

## 6.2.12 Glen Echo Drive

### 6.2.12.1 Analysis

The community and leadership had several requests for improvements to the Glen Echo Ravine, which begins at the end of Glen Echo Drive. The requests include the following.

- Prepare the surface between the dead end and the ravine proper for walking, baby strollers, and dog walking.
- Maintain the road and walkway regularly, rather than come once every few years after people complain.
- Make a walker friendly and welcoming entrance to Glen Echo Ravine at the point the street dead ends as Glen Echo Drive.
- Clean up trash, old dilapidated signage, cut logs and leaves and miscellaneous junk that have been accumulating for many years under the bridge and beyond into the ravine.
- Remove all the old road surfaces and other stones, cement and related materials on the walkway into the ravine from the dead end on Glen Echo Drive and the ravine proper that was once a road (Park Road?).

Each of these requests applies to the department of Recreation and Parks.

### 6.2.12.2 Recommendations

- Forward requests to representatives of department of Recreation and Parks.
- CRPD intends to pave the surface of Glen Echo Drive at the ravine entrance.



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- New signage is planned at this entrance in 2009.
- CRPD completed a stream restoration project east of the requested location. Plans are to continue restoration work as funds are available.

### **6.2.13 Pearl St (alley)**

#### **6.2.13.1 Analysis**

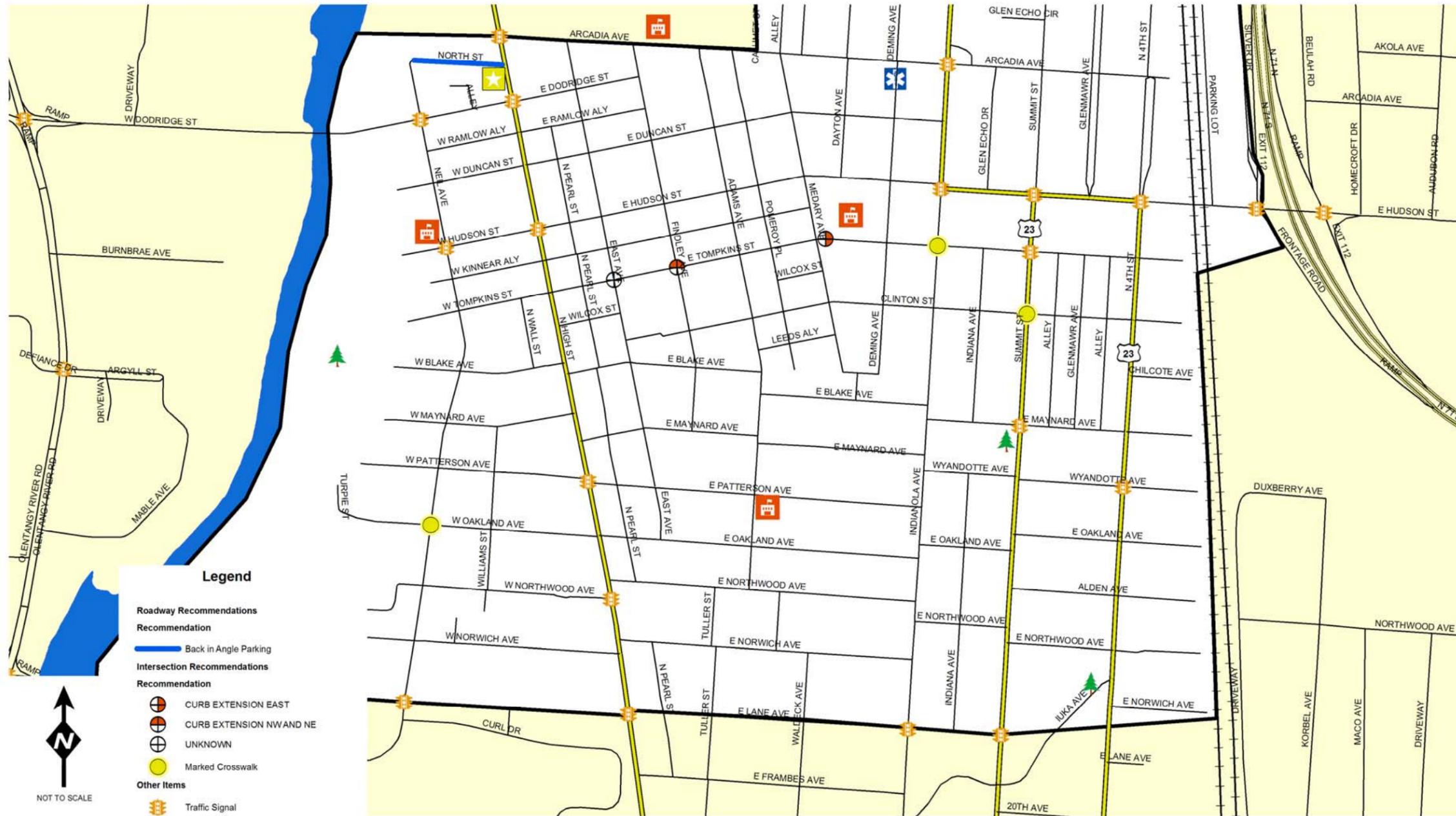
Stop signs needed on alley, particularly Pearl St (alley)

Crashes were reviewed to determine if a problem could be solved by the addition of stop signs.

#### **6.2.13.2 Recommendations**

None was found; therefore stop signs will not be added to alleys.

Figure 10 Plan Recommendations





## 7.0 Implementation

While this plan does not recommend extensive capital improvements, traffic calming treatments such as those planned for Tompkins St can be installed in more than one way. Typically, the City can install islands and similar treatments using rubber curbing and reboundable posts. This method can be used to reduce the time frame for installation. If it is determined that the treatment is achieving the desired results, then funds can be identified in the City's Capital Improvement Plan for permanent installation of the feature. The time frame is longer for such a method. Crosswalk treatments that involve signs and markings can be installed fairly quickly although thermoplastic markings would be installed when the outside temperature is above 50 degrees.

## 8.0 Conclusions

This report completes a review of requests received from the Olde North Columbus Preservation Society as well as the Findley Avenue Community Watch Collaborative. The content includes an analysis of those requests and recommendations of potential solutions to problems according to the scope, established at the project conception. If reducing traffic speeds, or improving sight distance would increase safety, then a solution was sought that could potentially accomplish that. The recommendations described in the sections above are the result of many hours of discussions and analysis.

During the data collection phase of the project, every issue was documented and a priority assigned using input from the community. All of the issues identified by the community were reviewed, but were prioritized with information from the community and its leadership. An engineering solution was not identified for each issue; therefore the report does not contain recommendations for every issue.

Resolution of some issues requires collaboration to engage and educate drivers and other mobile persons as well as collect and provide better information from citizens to law enforcement entities.