NEIGHBORHOOD TRAFFIC STUDY

Area Number 3

Downers Grove, Illinois

May 2014

Prepared for:

Village of Downers Grove

Final
FOR REVIEW PURPOSES ONLY

Prepared by:

TADI

233 S. Wacker Drive, Suite 8400
Chicago, Illinois 60606
www.tadi-us.com

TABLE OF CONTENTS

TABLES

EXHIBITS

INTRODUCTION

STUDY BACKGROUND AND PURPOSE

In 2011, the Village of Downers Grove established the Neighborhood Traffic Study Program, an effort to comprehensively evaluate transportation issues throughout the Village, one neighborhood at a time. Through this program, the Village takes a proactive approach to addressing neighborhood-scale transportation issues, rather than only responding to individual concerns as they arise. This approach also allows issues to be considered collectively within the context of one another. The neighborhood traffic studies focus on addressing transportation concerns that most affect the everyday quality of life for residents such as discouraging speeding motorists, increasing safety, limiting non-local cutting through residential streets, improving neighborhood access and circulation, and enhancing walkability, among others.

This study is intended to define the current issues present within Neighborhood Area 3, evaluate the data and feedback collected throughout the study process, and identify opportunities for solutions. It is important that any improvements presented should not only be practical and effective, but fit the desired character of the neighborhood and reflect the needs of all those traveling to and through the neighborhood using all available modes of transportation. From a practical standpoint, the study presents a menu of short- and long-term recommendations for the Village to implement and successfully address the neighborhood's range of transportation issues over time.

PROJECT SCOPE AND METHODOLOGY

The Village retained TADI and AES Services, Inc. to conduct the Neighborhood Traffic Study for Area 3. The initial phase of the project scope includes defining existing conditions such as collecting a range of traffic and pedestrian count data, an inventory of existing transportation infrastructure, observing traffic conditions throughout typical weekdays. Engaging with Village staff and school officials provides great history and helps to better understand past history, experiences, and community input over time. Based review and analysis of the data and feedback collected, in conjunction with observations performed throughout the study area, key issues are identified.

Through a process that considers the unique perspectives of multiple neighborhood users; including residents, Metra commuters, students at Lester Elementary School, and visitors; a variety of potential opportunities to address operational, safety, and design issues are outlined through a series of short-term and long-term recommendations. All recommendations developed through this study are intended to positively impact the overall quality of life in a manner that balances these multiple perspectives and maintains the neighborhood character.

STUDY AREA

Neighborhood Area 3 primarily consists of single family residential blocks along with scattered locations of multi-family housing. Major community assets within Area 3 include Lester Elementary School, located on Indianapolis Avenue, and Hummer Park on the east side of Fairview Avenue between Gierz Street and Sheldon Avenue. However, the neighborhood does not only consist of residential, educational, and recreational park uses. The Fairview Metra Commuter Rail Station generally located in the middle of the study area with access to the main parking area via 2nd Street. Pepperidge Farms operates a factory location for the bakery on 2nd Street, just east of the Fairview Metra Station. Finally, various commercial retail properties are located along Ogden Avenue and along Fairview Avenue between Maple Avenue and 2nd Street.

The study area, illustrated in **Exhibit 1**, is defined by Ogden Avenue on the north, 55th Street on the south, the Downers Grove-Westmont border on the east (generally Roslyn Road north of the BNSF Railroad and Williams Street south of the railroad), and Fairview Avenue on the west. While the entire study area is included, the evaluation primarily focuses on the internal roadways as recent or ongoing studies by the Village (Maple Avenue and Fairview Avenue) and the DuPage County Division of Transportation (55th Street) covering the study area's peripheral roadways.

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STUDY AREA
EXHIBIT 1

EXISTING CONDITIONS

ROADWAY NETWORK

The neighborhood study area is comprised of multiple roadway types in terms of function and scale. While some roadways are transitional and could be labeled as a hybrid, the roadway network can be organized into three main categories: arterial, collector, and local roadways.

Arterial Roadways

Functionally, arterial streets are generally regional in nature and are intended to provide access beyond the neighborhood. Arterials typically maintain two or more travel lanes in each direction, higher speed limits than other roadway types, and serve relatively high traffic volumes for both intra- and intercommunity travel. In terms of scale, arterial roadways often run adjacent to larger parcels and developments with access points ideally spaced further apart than smaller roadways. Within the study area, four roadways could be considered arterials; Ogden Avenue, 55th Street, Fairview Avenue, and Maple Avenue. The latter two roadways are more transitional and within the study area, are best classified as minor arterials or major collectors.

Collector Roadways

Collector roadways provide connections within and between neighborhoods, primarily serving intra-community travel and link local streets to more regional roadways. In general, collectors include one travel lane in each direction, operate with relatively low speed limits (typically 25-35 mph), and maintain an intermediate development scale that typically serves relatively small/local commercial districts, residential development, and light industrial uses while balancing accessibility with some degree of mobility. Within the study area, key collectors include Fairview Avenue and Maple Avenue (as transitional major collectors) as well as Cumnor Avenue and Williams Street.

Local Streets

Local streets are low volume/low speed roadways that provide high levels of access to serve adjacent properties with little mobility through a community. Local streets provide one travel lane in each direction, maintain 20-30 mph speed limits, and are appropriate for on-street parking. Intersections of local streets are generally two-way or all-way stop-controlled. However, some local streets may have signalized intersections with collector and arterial roadways, depending on various factors. A great majority of the roadways within the study area are considered local streets in terms of their role, function, and scale.

Exhibits 2 and 3 illustrate the intersection traffic controls and speed limits for the roadway network within Neighborhood Area 3.

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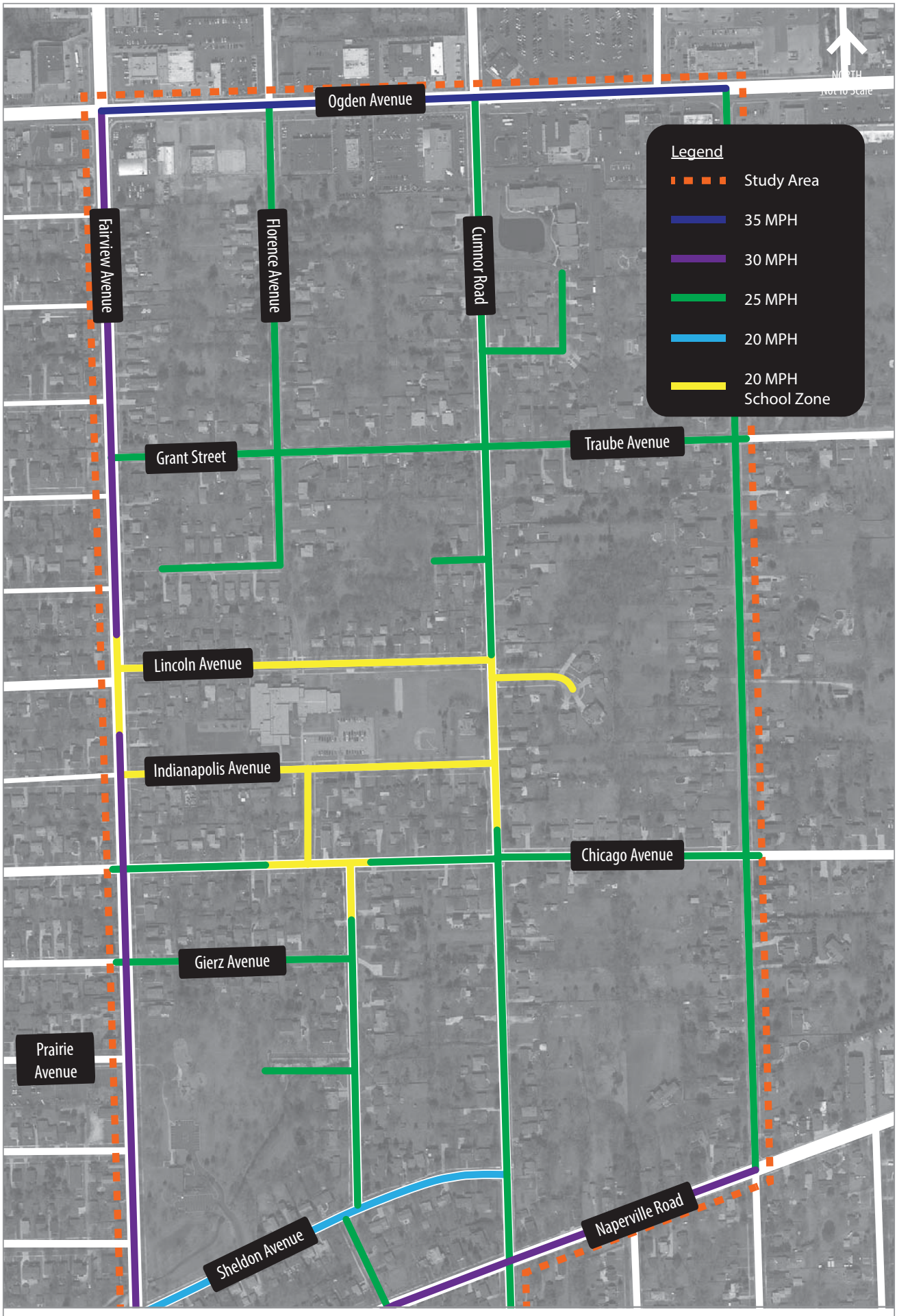
INTERSECTION CONTROL
EXHIBIT 2 (NORTH)

INTERSECTION CONTROL
EXHIBIT 2 (SOUTH)



ROADWAY SPEED LIMITS
EXHIBIT 3 (NORTH)

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ROADWAY SPEED LIMITS
EXHIBIT 3 (SOUTH)

PEDESTRIAN FACILITIES

Pedestrian facilities are provided at various locations throughout the study neighborhood. The goal of the Village is to provide sidewalk on at least one side of every street, allowing for residents to safely walk to/from their daily activities. However, providing sidewalk on a small number of streets segments may not be practical due to physical constraints, short dead-end streets with very low traffic volumes, and other similar factors.

Throughout the northern section of the neighborhood area, sidewalk is provided on at least one side of each street with the exception of the Otis Avenue stub west of Cumnor Road and the Prairie Avenue stub west of Florence Avenue. South of the railroad tracks, sidewalk is provided on both sides of the street with two exceptions; an approximately half mile stretch along the north side of 2nd Street from the Metra parking lot entrance to Williams Street and a one-tenth mile stretch on the west side of Williams from 2nd Street to Quincy Street.

Two notable pedestrian connections within the study area are not along the side of a road. One is a north-south pedestrian path that connects the Florence Avenue/Otis Avenue intersection, between residential properties, to Lincoln Avenue at Lester Elementary School. This is a functional route for students walking to/from school that maintains a mid-block crosswalk linking the path on the north side of the Lincoln Avenue with the school on the south. The other pedestrian sidewalk connects the dead end of Otis Avenue, between residential properties, and Fairview Avenue.

At unsignalized intersections in locations where a local street intersects with a larger roadway, crosswalks are generally provided across the minor leg approaches. At signalized intersections along the arterial streets, crosswalks are generally provided along with pedestrian signals to cross all approaches. Within the vicinity of Lester Elementary School additional, crosswalks are striped across Indianapolis Avenue, Lincoln Avenue, and Cumnor Road to encourage the safe passage of students to the school. Pedestrians traveling to the school from the west and north are guided to cross Fairview Avenue on the south side of the Fairview Avenue/Lincoln Avenue intersection as the north side does not include a marked crosswalk.

On school days, crossing guards are posted at two intersections to assist children in safely crossing streets near Lester Elementary School. One crossing guard is stationed at the Fairview Avenue/Lincoln Avenue intersection from 8:00 to 8:30 AM and 3:00 to 3:30 PM to aid in the safe passage of students crossing the south leg of the heavily traveled Fairview Avenue. Additionally, a crossing guard is located at the Indianapolis Avenue/Florence Avenue intersection directly in front of the school. At this location, student crossing guards also provide assistance to those crossing Indianapolis Avenue and the school's parking lot exit.

BICYCLE FACILITIES

Bike routes are currently designated and signed through the neighborhood on:

- Maple Avenue: Fairview Avenue to Cumnor Road
- Cumnor Road: Maple Avenue to Ogden Avenue
- Lincoln Avenue: Fairview Avenue to Cumnor Road

A marked bike route along Fairview Avenue was identified in the *Village of Downers Grove Bicycle and Pedestrian Plan*, prepared by Sam Schwartz Engineering and adopted by the Village in March 2013. Additionally, as part of the *2013 Fairview Avenue/Maple Avenue Traffic Study*, completed by Civiltech Engineering in December 2013, 4-foot bike lanes along the existing Maple Avenue bike route are identified as a potential improvement.

TRANSIT SERVICE

Public transportation options serving the neighborhood are summarized below.

Metra

One of three Metra stations with service on the Burlington Northern Santa Fe (BNSF) line is located within the neighborhood; the Fairview Avenue station is located just east of Fairview Avenue between 2nd Avenue on the south and Burlington Avenue on the north. The Fairview Avenue station provides both regular and express service between Aurora and Chicago Union Station. Regular service between Fairview Avenue and Union Station in Chicago takes about 50 minutes with express service saving 15 minutes. During the morning and evening peak commuting periods, trains arrive at approximately 15 to 30 minute intervals. Commuter parking is available in surface parking lots (via 2nd Avenue and west of the Fairview Avenue/Burlington Avenue intersection) and 12-hr metered on-street parking along Burlington Avenue north of the station. The surface lots offer a combination of permit and daily fee parking.

Pace Bus

Pace Bus service is provided in the southeast section of the neighborhood as part of Pace Bus Route 661, which provides service between Brookside Drive/63rd Street in southwest Westmont and the Westmont Metra Station. Within the study area, the Pace Bus stop is located at the intersection of Victor Street/7th Street, and the route utilizes Williams Street, 7th Street, Victor Street, and 55th Street to travel through the neighborhood. The service is coordinated with the departures of the Metra train from the Westmont station to Chicago Union Station at 5:48 AM, 6:31 AM, 7:12 AM, and 7:46 AM. In the evening, the bus departs the Westmont station coordinated with arrival of the Metra train from Chicago Union Station at the 5:22PM, 5:41 PM, 6:20 PM, 6:45 PM, and 7:02 PM train arrival times.

DATA COLLECTION

To collect data representing current conditions throughout Neighborhood Area 3, an extensive series of intersection traffic/pedestrian counts, daily traffic/speed/classification counts, and observations were performed at key locations within the neighborhood. This data provides updated information for Village records and is referenced in the identification and evaluation of neighborhood traffic conditions for this study. The following sections summarize the data collected.

INTERSECTION TRAFFIC COUNTS

Turning movement data was collected in September 2013 for the following intersections:

- Fairview Avenue/Prairie Street
- Fairview Avenue/Burlington Avenue (North of BNSF Crossing)
- Fairview Avenue/Burlington Avenue (South of BNSF Crossing)
- Fairview Avenue/2nd Street

The traffic counts were performed during the weekday morning peak period (6:00 AM to 9:00 AM) and weekday evening peak period (3:00 PM to 6:00 PM), coinciding with the peak hours of the adjacent roadway network. Additionally, turning movement counts for the Fairview Avenue/Maple Avenue intersection were obtained from the Village.

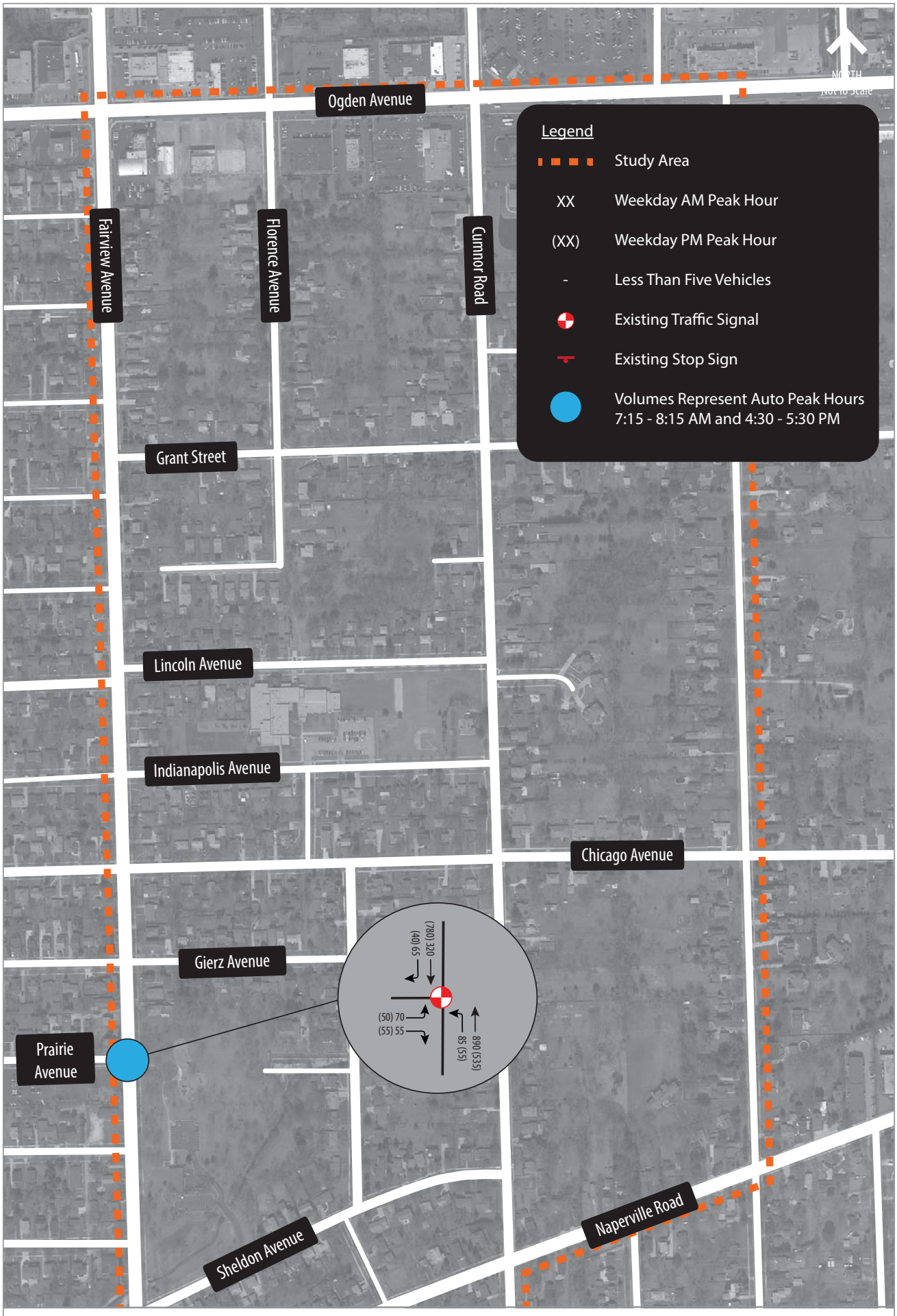
Based on the traffic count data collected, the resulting peak hours occur from 7:15 to 8:15 AM and from 4:30 to 5:30 PM. The existing peak hour vehicular traffic and pedestrian volumes are illustrated on **Exhibit 4**.

PEDESTRIAN TRAFFIC COUNTS

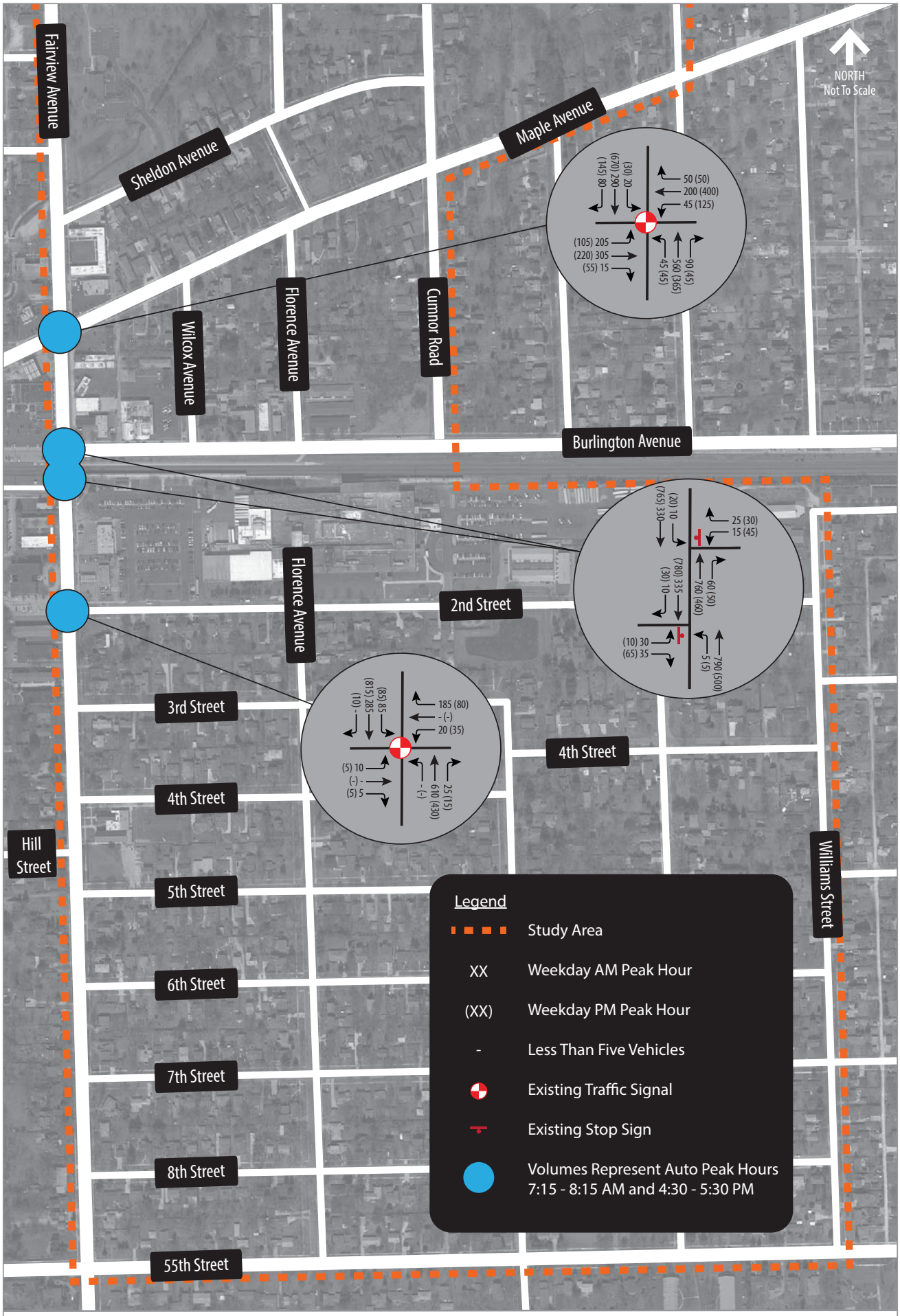
In order to identify current pedestrian traffic associated with Lincoln Elementary School and Whittier Elementary School (located outside of the Neighborhood Area 3, just west of Fairview Avenue), pedestrian data was collected in September 2013 for the following intersections:

- Fairview Avenue/Lincoln Avenue
- Cumnor Road/Lincoln Avenue
- Indianapolis Avenue/Florence Avenue
- Fairview Avenue/Hill Street

The traffic counts were performed during the weekday morning peak period (6:00 AM to 9:00 AM) and weekday evening peak period (2:00 PM to 6:00 PM), coinciding with the peak hours of the adjacent roadway network as well as the arrival and dismissal periods for the nearby schools. Based on the pedestrian data collected, the resulting peak hours occur from 7:45 to 8:45 AM and from 2:30 to 3:30 PM. The existing peak hour pedestrian volumes are shown in **Table 1**.



PEAK HOUR VEHICLE COUNTS
EXHIBIT 4 (NORTH)



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PEAK HOUR VEHICLE COUNTS
EXHIBIT 4 (SOUTH)

Table 1. Pedestrian Count Data

Intersection	Crosswalk							
	North		South		East		West	
	AM	PM	AM	PM	AM	PM	AM	PM
Fairview Avenue/ Lincoln Avenue[1]	1	-	97	58	4	1	3	1
Cumnor Road/ Lincoln Avenue[1]	-	2	5	6	-	-	8	20
Florence Avenue/ Indianapolis Avenue[1]	176	211	4	1	169	181	2	8
Fairview Avenue/Prairie Avenue[2]	5	3	1	29	N/A	N/A	2	4
Fairview Avenue/Burlington Avenue[2]	14	2	4	3	19	6	5	7
Fairview Avenue/2nd Street[2]	-	-	1	2	14	2	9	6
Fairview Avenue/Hill Street[1]	73	59	-	-	16	24	5	8

1 – Volumes represent pedestrian peak hours (7:45 – 8:45 AM and 2:30 – 3:30 PM)

2 – Volumes represent auto peak hours (7:15 – 8:15 AM and 4:30 – 5:30 PM)

DAILY TRAFFIC COUNTS

Traffic data collection devices were placed throughout the study area to collect daily volumes (categorized in 15-minute increments), travel speeds, and vehicle classification data. Due to construction in the southern part of the neighborhood, the traffic counters were deployed for the northern portion of the neighborhood in September 2013 and for the southern portion in November 2013, following the completion of the construction. The ADT volumes resulting from the data collection are illustrated on **Exhibit 5**. Detailed information regarding volumes and speeds are summarized in the Appendix.

OBSERVATIONS

A key component of the data collection process includes field observation of traffic conditions throughout the area with particular attention paid to a few key locations. Observations generally occurred during the weekday morning and peak periods; however, some observations focused on other times, such as related to school dismissal, which happens prior to the traditional peak hour along the arterial streets in the area. Key observational locations for the neighborhood include Lester Elementary School, Hummer Park, the Fairview Avenue Metra Station, and Pepperidge Farms. The following section summarizes the observations at these locations.

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DAILY 24-HOUR TRAFFIC COUNTS
EXHIBIT 5 (NORTH)

DAILY 24-HOUR TRAFFIC COUNTS
EXHIBIT 5 (SOUTH)

Lester Elementary School

Schools, particularly neighborhood-oriented schools, are an important anchor in any community. As such, they are a key generator of activity with parents and students arriving and departing during concentrated periods of time in the morning and mid-afternoon. The land use patterns and street configuration surrounding neighborhood schools, like Lester Elementary School, enable a large number of students to walk or ride bicycles to school as alternatives to being dropped off/picked up. This multimodal mix is beneficial on many levels, but demands careful attention to promote a safe travel environment for everyone.

As noted previously, a number of the intersection traffic and pedestrian counts for this study are in the vicinity of Lester Elementary School. In addition, observations focusing on walking, biking, and traffic conditions were performed in the immediate vicinity during morning arrival and afternoon dismissal periods Wednesday, September 18 and Tuesday, September 26, 2013. Further, discussions with Lester Elementary School Principal provided valuable insight to the traffic management of school arrival and dismissal periods. A summary of the various observations and input received regarding the area proximate to Lester Elementary School is outlined below in **Table 2**.

Table 2. Observations

Category	Location	Description
Arrival Period		
Crossing Guards	Fairview Avenue/Lincoln Avenue Indianapolis Avenue/Florence Avenue	A crossing guard at each location helps to assist students and parents crossing Fairview Avenue and Indianapolis Avenue from 8:00-8:30 AM and 2:55-3:25 PM. At Fairview/Lincoln, the crossing guard activates the pedestrian signal push button and walks into the crosswalk with an LED-illuminated stop sign to re-enforce the walk phase to motorists. The crossing guard at Fairview/Lincoln indicated that some students (with parents) occasionally cross Fairview at Indianapolis, which is uncontrolled. Student crossing guards assist at the Indianapolis/Florence intersection, including the school parking lot exit.

Category	Location	Description
School Principal Input	General	More students tend to walk or ride bikes at Lester Elementary due to lack of busing and an extensive sidewalk system. Inclement weather severely impacts that. Parents have indicated their desire for the following signs: • "No Cell Phone" signs in the school vicinity • A "school warning" sign on Fairview to further alert identify this area
Resident Input	Lincoln Avenue	Some students cross in the middle of the street Traffic conditions are generally fine in the morning Traffic during the dismissal periods is organized, but can seem chaotic During school time, the one-way street is enjoyable
Drop-Off Activity	Lincoln Avenue	Vehicles utilize south side of Lincoln and the school parking lot to park and walk children to school Ample parking is available on the south side of Lincoln, west of the school
	Indianapolis Avenue	Vehicles use the north side of Indianapolis (west of parking lot), occasionally the south side of Indianapolis (east of Florence), east side of Florence, and Chicago to park for drop-off activity. Some vehicles also use the school parking lot.

Category	Location	Description
		Westbound queues along the north side of Indianapolis extend through the crosswalk at Florence. The crossing guard helps to control this and provide safe pedestrian crossing. Some westbound vehicles on Indianapolis use a residential driveway across from the school to turn around and drive eastbound to avoid Fairview/Indianapolis
Bikes	Lincoln Avenue	Students generally use the available bike rack; it is overflowing with bikes during favorable weather. A second bike rack would be very useful.
Dismissal		
Pick-Up Activity	Lincoln Avenue	Half of vehicles use the school lot accessible via Lincoln Avenue to wait for dismissal (28 vehicles observed in lot right before dismissal compared to 29 along the south side of Lincoln) Within 15-20 minutes after dismissal (3:10-3:15 pm), pick-up traffic is essentially gone.
	Indianapolis Avenue	Parents utilize Indianapolis Avenue (north side), Florence Avenue (east side), and Chicago Avenue to either park/go to the school to pick up students or to idle and wait for students.

COMMUNITY CORRESPONDENCE

In October 2013, the Village distributed an informational pamphlet to inform area residents of the study, provide background on the study's general objectives, and to solicit input on traffic-related concerns and issues relative to the neighborhood. The Village received several phone calls and e-mails to provide input regarding existing issues. To document the information received, copies of the correspondence are included in the attached Appendix. However, as an overview, **Table 3** highlights key issues expressed in the correspondence to the Village.

Table 3. Key Issues from Community Correspondence

Issue	Location	Description
Speeding	Grant Street (Fairview to Roslyn)	Excessive speeding and generally unsafe driving
	Fairview Avenue (2nd to 55th)	Excessive speeding, particularly when approaching the southbound merge at 2nd Street
	Cumnor Road (near Grant Street)	Regular excessive speeding by vehicles ranging from dealership cars test driving to FedEx trucks
	Grant Street (Fairview to Florence)	Excessive speeding while using Florence Avenue-Grant Street as a cut-through route bypassing the traffic signal at Ogden/Fairview.
Noise	Fairview Avenue (2nd to 55th)	Increased volumes and noise by ambulances to Good Samaritan Hospital
Cut-Through Patterns	Grant Street and Florence Avenue	Speeding vehicles use this route to bypass the traffic signal at Fairview/Ogden
Aggressive Driving	Fairview Avenue (2nd to 55th)	Angry drivers as they attempt to merge lanes southbound at 2nd Street
Congestion	Fairview Avenue (Maple to 2nd)	Congestion (particularly northbound) between approaching Maple Avenue

Issue	Location	Description
Parking	Fairview Avenue (Maple to 2nd)	On-street parking along the east side of Fairview Avenue can negatively impact traffic flow along the street, but there is a need to support short-term parking needs of adjacent businesses
Requests	Fairview Avenue (2nd to 55th)	Placement of Driver Feedback Radar signs to encourage speed limit compliance

PUBLIC MEETING

A community meeting was held on February 27, 2014 at Lester Elementary School to summarize study objectives, highlight data collected, present preliminary findings, and solicit feedback and input from neighbors in attendance. Approximately 30 residents attended the meeting, including the Lester Elementary School principal. **Table 4** summarizes the key ideas that were brought up in the meeting.

Table 4. Key Issues from Public Meeting

Issue	Location	Description
Speeding	Cumnor Road (north of Lincoln)	Excessive speeding still an ongoing problem
	Rosyln Road (south of 2nd Street)	Concern about use of Rosyln Road at excessive speeds (specifically Village of Westmont Police vehicles and Papa John's delivery vehicles)
Enforcement	Rosyln Road	The Village should focus on safety and that additional police enforcement is needed for speeding, especially within the vicinity of Lester School
	Cumnor Road	Police patrols on Cumnor should be increased. Children and motorist safety are of highest importance

Issue	Location	Description
Intersection Control	Grant/Traube/Cumnor	Concern that the intersection is unsafe due to visibility and needs to be upgraded to 4-Way stop control
	Sheldon/Cumnor	Unsafe and should be control with Stop signs
	Florence/Gierz	Unsafe and should be control with Stop signs
	Florence/Chicago	Unsafe and should be control with Stop signs
Visibility	6th and 7th Streets at Florence	Limited driver visibility approaching Florence, particularly difficult to see students walking to/from Whittier School
	8th/Fairview	Unsafe for north- and southbound motorist attempting to turn to/from 8th Street due to the hill and existing striping
	Chicago/Roslyn	Short crabapple tress block visibility to north and should be trimmed back
	Sheldon/Florence	Poor visibility due to intersection off-set
Turn Restrictions	Ogden Avenue at Roslyn	Concern regarding the effectiveness of the "No Left-Turn" from 4 to 6 PM restriction on Ogden Avenue
Median	Ogden Avenue (at Roslyn and Cumnor)	Request that the corrugated median is removed/redesigned so that motorists may make left-turns from within the median
	Fairview/Maple	Needs a left-turn lane as it is unsafe to turn east at Maple due to tight intersection, congestion, and oncoming traffic
Signal Timing	Fairview/Maple	Provide northbound left-turn green phase to expedite northbound traffic flow and prevent vehicles from backing up toward railroad tracks

Issue	Location	Description
	Fairview/Prairie	An all-red phase should be added to the signal so that pedestrians can cross to/from Hummer Park as the turning vehicles are constant and pedestrians are not protected
Lester School	Lincoln Avenue	Re-design shoulders along both sides of Lincoln Avenue, because motorist's park on both sides of the roadway and make it unsafe for school children to cross.
	Chicago/Florence	Crosswalks need to be enhanced/re-striped and new signage needs to be added as crossings are missing where many children are actually crossing the street
	Fairview Avenue	School speed zone signage should be similar to those used in Oregon that have flashing yellow lights during school hours
Parking	Fairview Avenue (between Maple and the BNSF Railroad Tracks)	Concerned about how the parking along east side of Fairview impacts congestion.
	Fairview Avenue (north of tracks)	Parking spaces should be delineated with parking boxes to better show motorists where to park and where not to park.
Traffic Calming	Roslyn (Maple to Ogden)	Even though the temporary speed humps were effective, we were looking for permanent ones to be implemented.

DATA EVALUATION

VOLUMES AND SPEEDS

Based upon the data collected, it appears that most motorists are travelling at speeds generally considered appropriate for neighborhood streets. Speed control measures should focus on addressing a relatively low percentage driving at inappropriate speeds. A variety of speed control options should be considered in these areas. As shown in **Table 5**, several street segments did exhibit excessive volumes and travel speeds.

Table 5. Segments with High than Expected Peak Hour Volumes and Excessive Travel Speeds

Roadway	Segment	Higher Than Expected Peak Hour Volumes	Excessive Travel Speeds (85th percentile)
Williams Street	6th Street to 4th Street	Yes, Morning	No
Wilcox Avenue	Maple Avenue to Burlington Avenue	Yes, Midday	No
Cumnor Road	4th Street to 7th Street	No	Yes
Cumnor Road	Chicago Avenue to Ogden Avenue	No	Yes
6th Street	Fairview Avenue to Florence Avenue	No	Yes
Florence Avenue	2nd Street to 7th Street	No	Yes
2nd Street	Fairview Avenue to Florence Avenue	Yes, Morning	Yes
2nd Street	Victor Street to Williams Street	Yes, Morning	Yes
Roslyn Road	Maple Avenue to Traube Avenue	No	Yes
3rd Street	Florence Avenue to Cumnor Avenue	No	Yes
Sheldon Avenue	Fairview Avenue to Florence Avenue	No	Yes

It is also recognized that one of the significant points, if not the most frequently expressed concern, raised by the community is regarding speeding in the residential areas. Feedback indicated speeding concerns specifically in the areas of Cumnor Road, Grant Street, Roslyn Road north of the BNSF tracks and Fairview Avenue south of the tracks. These areas may benefit by design/enforcement modification options summarized in the recommendations section of this report.

INTERSECTION TRAFFIC CONTROL

As illustrated on Exhibit 2, the neighborhood intersections are controlled by a mix of all-way stop signs, two-way stop signs, yield signs, as well as several intersections with no control. One objective of this study includes establishing some form of traffic control at every intersection. Due to lack of consistent understanding for yield signs, one Village objective includes converting yield signs to stop control. Further,

based upon concerns of residents related to safety, sight-lines, lighting, neighborhood traffic volumes/patterns, and other factors, the neighborhood street network would benefit from converting some two-way stop-controlled intersections to all-way stop-control. Detailed recommendations are defined in the recommendations section of the report. **Table 6** summarizes the existing and recommended number of intersections organized by traffic control.

Table 6. Intersection Traffic Control Summary

Type of Intersection Control	Existing Number of Intersections	Preliminary Recommended Number of Intersections
None	18	0
Yield	7	0
Two-Way/One-Way Stop	36	55
All-Way Stop	3	9
Total Unsignalized Intersections	64	64

INTERSECTION CAPACITY ANALYSIS

Capacity analyses were conducted along Fairview Avenue for the intersections where traffic counts were collected during the weekday peak hours. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS) according to the average delay per vehicle as it passes through the intersection. Levels of service range from A to F with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions).

The LOS grades shown below, which are provided in the Transportation Research Board's Highway Capacity Manual (HCM), quantify and categorize the driver's discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 7**.

Table 7. Level of Service Grading Descriptions[1]

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

1 - Highway Capacity Manual 2010

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 8**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.

Table 8. Level of Service Grading Criteria[1]

Level of Service	Control Delay per Vehicle (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F[2]	> 50	> 80

1 - Highway Capacity Manual 2010

2 - All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

Based on these HCM standards, Synchro analysis software was utilized to determine the existing capacity results for the study periods by intersection and approach. The results are reported in **Table 9** and detailed capacity reports can be found in the Appendix.

Table 9. Intersection Capacity Analysis

Intersection	Existing Conditions			
	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Fairview Avenue/Prairie Avenue *				
Eastbound Approach	35	C	53	D
Northbound Approach	9	A	4	A
Southbound Approach	9	A	12	B
Overall Intersection	*11*	*B*	*12*	*B*
Fairview Avenue/Maple Avenue *				
Eastbound Approach	39	D	60	E
Westbound Approach	25	C	47	D
Northbound Approach	9	A	13	B
Southbound Approach	9	A	30	C
Overall Intersection	*20-*	*B*	*36*	*D*
Fairview Avenue/Burlington Avenue (North) ▲				
Eastbound Approach	17	C	16	C
Southbound (Left-Turn)	1	A	1	A
Fairview Avenue/Burlington Avenue (South) ▲				
Westbound Approach	14	B	11	B
Northbound (Left-Turn)	<1	A	<1	A
Fairview Avenue/2nd Street *				
Eastbound Approach	28	C	39	D
Westbound Approach	16	B	32	C
Northbound Approach	11	B	6	A
Southbound Approach	3	A	2	A
Overall Intersection	*9*	*A*	*6*	*A*

* - Signalized Intersection

▲ - Minor-Leg Stop-Controlled Intersection

As presented in Table 9, each of the key intersections along Fairview Avenue currently operates at an overall intersection level within acceptable range of capacity (LOS D or better). However, some intersection approaches maintain levels of service approaching capacity (LOS E) with the eastbound approach of Maple Avenue at Fairview Avenue already at LOS during the weekday evening peak hour. Improvements at this intersection contemplated as part of the Village's ongoing Fairview Avenue/Maple Avenue Traffic Study are intended to, among other objectives, address this capacity issue.

PARKING EVALUATION

On-street parking areas and general parking restriction generally seem to be appropriate based upon the observed utilization and lack of concern expressed by neighborhood residents to date. In the area surrounding Lester Elementary School, short-term parking for student drop-off and pick-up activity along

both Lincoln Avenue north of the school and Indianapolis Avenue south of the school often occurs in the small roadside shoulder and in the parkway. These areas would both benefit from paved and better defined parking spaces to help clarify where parents should park and to limit impacts on the adjacent parkways.

The other parking issue within the study area concerns the east side of Fairview Avenue just north of the BNSF tracks (2-hour parking from 6AM to 6 PM). Whenever vehicles occupy the on-street parking in the right travel lane, the number of northbound travel lanes is reduced to one lane, resulting in reduced capacity and extensive northbound queuing approaching Maple Avenue. These spaces are utilized by the adjacent businesses, but also negatively impact traffic flow and queuing. While on the peripheral of the Area #3 study area, this issue is being considered as part of the Village's ongoing Fairview Avenue/Maple Avenue Traffic Study.

KEY ISSUES SUMMARY

Based on observations throughout the neighborhood, evaluation of the data collected, and review of feedback provided by the community, a summary of key issues is detailed below. Various concerns were expressed and identified through the study process and are documented in this report.

Neighborhood Speeding

While the speed data collected as part of the study indicates most vehicle speeds are appropriate for neighborhood streets, it appears that a small percentage of vehicles likely operate at high speeds that are inappropriate local neighborhood streets. However, several street segments do experience a number of vehicles traveling at high, unsafe speeds. Community input also suggests speeding concerns and its impact on safety. Particular locations of concern are located along Cumnor Road; Rosyln Road; Florence Avenue; Sheldon Avenue; and 2nd, 3rd, and 6th Streets.

Neighborhood Cut-Through Traffic

Review of traffic volumes and community feedback suggests certain local neighborhood routes (such as Roslyn Road, Wilcox Avenue-Burlington Avenue, and Florence Avenue-Grant Street) experience higher than normal volumes, likely due to motorists seeking to bypass congestion on major surrounding streets (including the Fairview/Ogden and Fairview/Maple intersections).

Inconsistent/Missing Traffic Control

Throughout the neighborhood, there are several intersections that are uncontrolled. The lack of traffic control can be confusing to motorists and pedestrians, leading to potential safety issues. Furthermore, several intersections are controlled with yield signs which are inconsistent with current Village objectives.

Missing Pedestrian Sidewalk Segments

While the Village's policy is to maintain pedestrian sidewalks on at least one side of every street, some locations within the neighborhood near key pedestrian generators (such as Lester Elementary School and the Fairview Avenue Metra Station), would benefit from the provision of additional sidewalk routes.

School Awareness by Motorists along Fairview Avenue

Concerns raised by parents and stakeholders at Lester Elementary School suggest there is a lack of school zone awareness by motorists traveling along Fairview Avenue. The existing School Zone Speed Limit is too short, focusing mostly upon Lincoln Avenue, even though a significant portion of school-related activity occurs at/along Indianapolis Avenue.

School On-Street Parking

Lincoln Avenue and Indianapolis Avenue at Lester Elementary School would benefit from wider pavement and reconstructed shoulders to help to clarify where parents should park for short-term parking and student drop-off/pick-up activity. Restoration of ditches along both streets would also enhance drainage and improve aesthetics.

Pedestrians Crossing Fairview Avenue (near Hummer Park)

The traffic signal timing at Fairview Avenue/Prairie Avenue includes a considerable wait time for pedestrians to cross Fairview Avenue. Due to this extended wait time, pedestrians often cross during the "Do Not Walk" phase between gaps in the north-south traffic flow. By the time the signal phases change to serve the pedestrians, they have already crossed and traffic along Fairview Avenue often stops without any traffic or pedestrians to stop for. This pedestrian delay results in unsafe pedestrian crossings against the signal and unnecessary delay and queuing for vehicles along Fairview Avenue. The Village should consider adjusting the phasing to provide more green-time for pedestrians, and also consider an All-Red phase, especially during peak pedestrian times and weekends.

Congestion along Fairview Avenue

During peak periods, Fairview Avenue regularly experiences extended queues and vehicle delay. This issue is one focus area being studied as part of the Village's ongoing Fairview Avenue/Maple Avenue Traffic Study.

RECOMMENDATIONS

Table 10 provides recommendations for Neighborhood Area 3 organized by issue and categorized as short- and/or long-term implementation horizons, as appropriate. Short-term improvements are considered as relatively affordable, quickly and easily implemented, and/or needed to address immediate concerns. Long-term improvements are generally considered as higher cost, requiring considerable additional planning/coordination to implement or represent follow-up opportunities depending on the effectiveness of previous efforts.

Table 10. Recommendations

Issue	Description
Speeding	
Short-term Recommendation (o-6 months)	*Addition of a double yellow centerline stripe along Cumnor Road and Roslyn Road* The main objective of this recommendation is to reduce a driver's perceived lane width. Although Cumnor Road is only 21 feet wide (10.5-foot lanes in each direction), the relatively limited bi-directional traffic volumes mean that vehicles infrequently experience oncoming traffic and feel comfortable using a majority of the road width. The benefits of adding a centerline in combination with existing edge lines include: • relatively low cost • flexibility and ease of implementation • no impediment to emergency vehicle response or snowplow access • no limitation of access to adjacent properties • no impacts on stormwater drainage • easily understood by the driving public • effectiveness at reducing speeds (particularly on long/straight roadway alignments). The expected reduction in speed is generally relative to the extent at which existing speeds compare to an appropriate speed for that roadway type. Studies show that speeds can be reduced up to 7 mph, with a higher reduction seen on roadways with higher excessive speeds. If speeds are slightly higher than what they should be, the anticipated reduction would likely be small. Conversely, if the typical speed is substantially higher than appropriate for a

	given roadway, the speed reduction would likely be much greater. Vehicle speeds should be monitored to understand local before/after effects in order to determine short-term and long-term effectiveness.
Mid-term Recommendation (6-18 months)	Increased/Focused Police Enforcement If the objectives of the short-term improvement are not met, then additional enforcement focused on key areas should be considered for the area.
Long-term Recommendation (18-36 months)	*Install Physical Horizontal Deflections* To supplement increased enforcement and reduce speeds, physical obstructions may be used to reduce the length of straight, free flow roadways. Recommended physical obstructions for consideration include horizontal deflections such as: • curb extensions • neck-downs • median islands Emergency vehicle access and response time, drainage, cost, maintenance, and broad neighborhood support should be considered when identifying appropriate mitigation methods for a particular stretch of roadway.

Cut-Through Traffic

Long-term Recommendation (18-36 months)	*Coordinate with IDOT/DuPage County to Address Congestion Issues along Ogden Avenue and 55th Street.* By improving congestion issues on the peripheral roadway network, diverting to the lower-speed neighborhood street system would be less desirable compared to travel on a higher speed major route.

Inconsistent/Missing Traffic Control

Short-term Recommendation (o-6 months)	*Modify/Provide Traffic Control* The following table summarizes recommended traffic control changes to provide improved guidance to motorists, address sight-line and safety concerns, facility pedestrian crossings along key routes, and provide consistency with neighborhood travel expectations. These proposed intersection controls are illustrated on **Exhibit 6**.

Intersection	Existing Control	Recommended Control
Cumnor Road/Traube Avenue/Grant Street	2-Way Stop (Traube Avenue/Grant Street)	4-Way Stop
Florence Avenue/ 6th Street	2-Way Stop (Florence Avenue)	4-Way Stop
Roslyn Road/ Chicago Avenue	2-Way Stop (Chicago Avenue)	4-Way Stop
Cumnor Road/ Chicago Avenue	2-Way Stop (Chicago Avenue)	4-Way Stop
Cumnor Road/ 6th Street	2-Way Stop (6th Street)	2-Way Stop (Cumnor Road)
Williams Street/7th Street/Des Moines Street	2-Way Stop (7th Street/Des Moines Street)	4-Way Stop
Florence Avenue/ Sheldon Avenue	Yield	2-Way Stop (Florence Avenue)
Victor Street/ 4th Street	Yield	2-Way Stop (4th Street)
Florence Avenue/ 4th Street	Yield	2-Way Stop (Florence Avenue)
Florence Avenue/ 7th Street	Yield	2-Way Stop (7th Street)
Florence Avenue/ 8th Street	Yield	2-Way Stop (8th Street)
Cumnor Road/ 8th Street	Yield	2-Way Stop (8th Street)
Victor Street/ 7th Street	Yield	2-Way Stop (Victor Street)
Victor Street/6h Street	None	2-Way Stop (6th Street)
Victor Street/8h Street	None	2-Way Stop (8th Street)
Cumnor Road/Otis Avenue	None	1-Way Stop (Otis Avenue)
Cumnor Road/Indianapolis Avenue	None	1-Way Stop (Indianapolis Avenue)
Florence Avenue/Gierz Street	None	1-Way Stop (Gierz Street)
Florence Avenue/Prairie Avenue	None	1-Way Stop (Prairie Avenue)
Florence Avenue (West)/ Chicago Avenue	None	1-Way Stop (Florence Avenue)
Florence Avenue (East)/ Chicago Avenue	None	1-Way Stop (Florence Avenue)
Cumnor Road/Sheldon Avenue	None	1-Way Stop (Sheldon Avenue)

Intersection	Existing Control	Recommended Control
Wilcox Avenue/Burlington Avenue	None	1-Way Stop (Wilcox Avenue)
Florence Avenue/2nd Street	None	1-Way Stop (Florence Avenue)
Victor Street/2nd Street	None	1-Way Stop (Victor Street)
Cumnor Road (North)/ 4th Street	None	1-Way Stop (4th Street)
Cumnor Road (South)/ 4th Street	None	1-Way Stop (4th Street)
Williams Street/4th Street	None	3-Way Stop
Cumnor Road/ 5th Street	None	1-Way Stop (5th Street)
Williams Street/6th Street	None	1-Way Stop (6th Street)
Williams Street/8th Street	None	1-Way Stop (8th Street)

Sidewalk

Short-term Recommendation (o-6 months)	*Provide Sidewalk Connections at:* • *2nd Street (North Side): East of Fairview Avenue Metra Station* • *Chicago Avenue (North Side): Florence Avenue to Cumnor Road* Currently, sidewalk does not exist on the north side of 2nd Street, east of the Metra Station. Additionally, near Lester Elementary School, sidewalk is not provided on the north side of Chicago Avenue between Florence Avenue and Cumnor Road. Sidewalk should be added at these locations in order to increase pedestrian/bicycle connectivity.

School Zone on Fairview Avenue

Short-term Recommendation (o-6 months)	*Provide Signage in Accordance with the MUTCD* School zone signage, as identified in Section 7 of the Manual on Uniform Traffic Control Devices (MUTCD) should be considered along Fairview Avenue to extend the school zone south of Indianapolis Avenue. As such, a School (S1-1) sign with supplemental arrow plaque (W16-5P and W16-6P) should be considered on Fairview Avenue approaching the zone north of Lincoln Avenue and south Indianapolis Avenue.

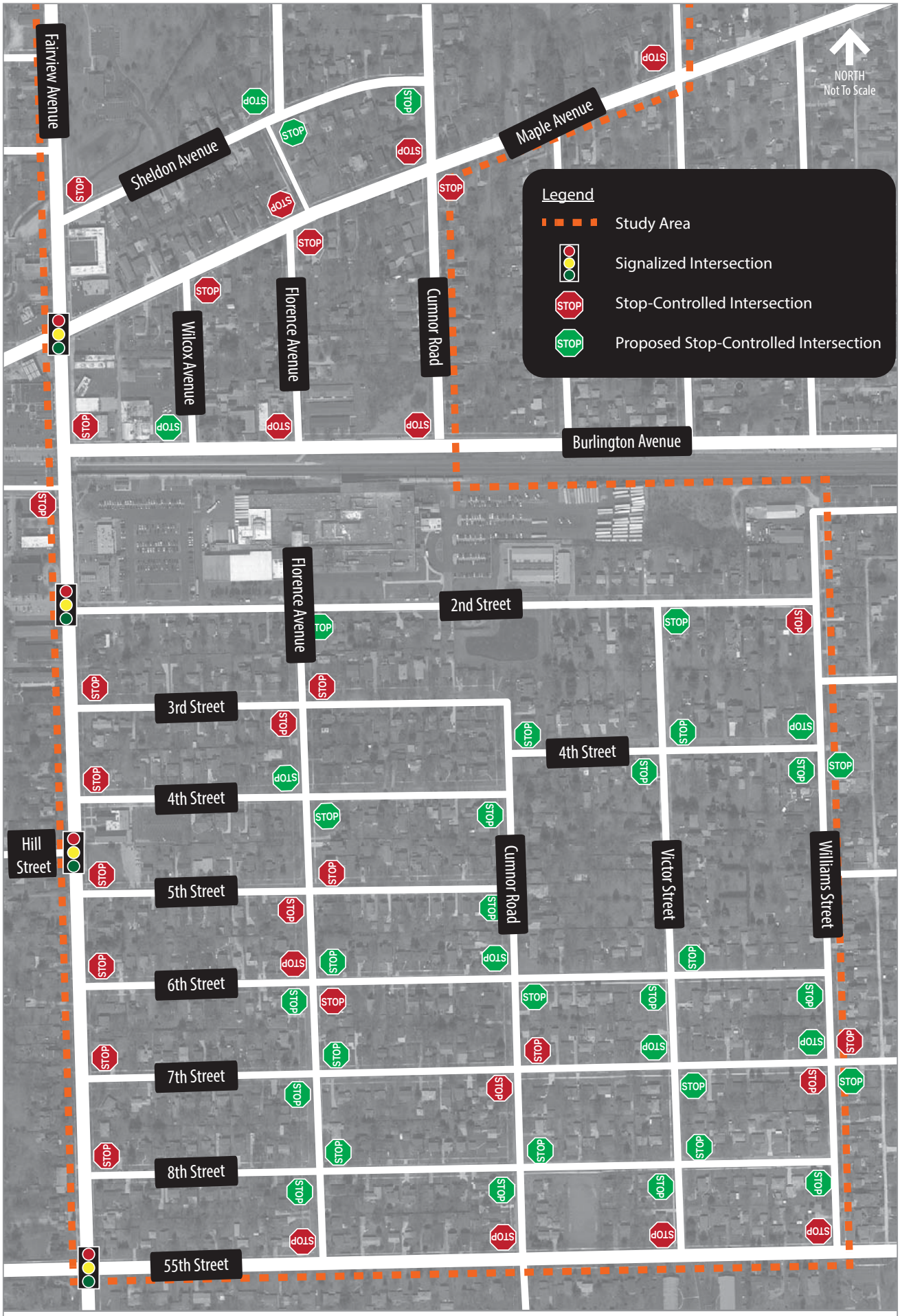
School Zone On-Street Parking Areas

Long-term Recommendation (18-36 months)	*Provide a paved 8-foot paved parking area adjacent to the school along Indianapolis Avenue (north side) and Lincoln Avenue (south side)* By providing additional paved surface, pick-up/drop-off activity can occur outside of the travel-way, allowing for traffic to flow more easily along Indianapolis and Lincoln Avenues. Paved areas for drop-off/pick-up activity would also limit damage to adjacent grass parkways.

Fairview Avenue Pedestrian Cross Time

Long-term Recommendation (18-36 months)	*Shorten the gap extension and minimum green times along Fairview Avenue at Prairie Avenue* Adjusting the gap extension and minimum green times along Fairview Avenue would reduce the amount of green-time allocated to Fairview Avenue traffic once a pedestrian has pushed the call button. A reduction in the gap extension time recognizes that if considerable gaps are present in the traffic flow, the signal phase will change to provide a WALK phase across Fairview Avenue rather than pedestrians attempting to cross between gaps against the signal. Consider adding an "All-Red" vehicular phase to allow pedestrians to cross safely.

PROPOSED INTERSECTION CONTROL
EXHIBIT 6 (NORTH)



PROPOSED INTERSECTION CONTROL
EXHIBIT 6 (SOUTH)

CONCLUSIONS

This report documents the extensive data collection, observations, and review of transportation characteristics throughout the neighborhood. Through evaluation of the data and input received, a number of key issues and associated recommendations are identified to guide future improvements to the neighborhood's access, circulation, and general safety. These recommendations are intended practical and effective opportunities to benefit all modes of transportation used by neighborhood residents, students, commuters, businesses, and visitors in their everyday lives.

APPENDIX

DAILY TRAFFIC COUNTS

Table A. Hi-Star Data Summary

Date	Roadway	Between		ADT			Peak Hour				Speed				
		Roadway 1	Roadway 2	NB/EB (vehicles)	SB/WB (vehicles)	Total (vehicles)	Time of Day	NB/EB (vehicles)	SB/WB (vehicles)	Total (vehicles)	Posted (MPH)	% Exceeding Speed Limit	Average (MPH)	Mode Speed (MPH)	85th Percentile Speed (MPH)
9/10/2013	Chicago Avenue	Cumnor Road	Roslyn Road	191	272	463	8:00	28	30	58	25	22%	26	20	33
9/10/2013	Chicago Avenue	Fairview Avenue	Florence Avenue	401	328	729	8:00	51	42	93	25	26%	26	20	34
9/10/2013	Cumnor Road	Chicago Avenue	Sheldon Avenue	528	677	1205	17:00	92	48	140	25	55%	31	30	36
9/10/2013	Cumnor Road	Indianapolis Avenue	Chicago Avenue	536	827	1363	8:00	76	89	165	20	62%	27	25	33
9/10/2013	Cumnor Road	Maple Avenue	Burlington Avenue	113	235	348	17:00	2	38	40	25	1%	20	15	24
9/10/2013	Cumnor Road	Traube Avenue	Ogden Avenue	528	791	1319	17:00	31	79	110	25	27%	27	25	33
9/10/2013	Florence Avenue	Grant Street	Ogden Avenue	180	290	470	17:00	11	37	48	25	7%	21	15	25
9/10/2013	Florence Avenue	Sheldon Avenue	Prairie Avenue	121	137	258	8:00	25	16	41	25	10%	23	20	29
9/10/2013	Gierz Avenue	Fairview Avenue	Florence Avenue	115	60	175	8:00	22	9	31	25	5%	19	15	24
9/10/2013	Indianapolis	Florence Avenue	Cumnor Road	275[1]	149	424[2]	8:00	131[1]	0	131[2]	20	10%	20	20	24
11/21/2013	Lincoln Avenue	Fairview Avenue	Cumnor Road	264[1]	212	476[2]	8:00	79[1]	0	79[2]	20	43%	26	20	33
9/10/2013	Maple Avenue	West End Avenue	Roslyn Road	3980	4354	8334	17:00	264	573	837	30	39%	34	30	39
9/10/2013	Maple Avenue	Fairview Avenue	Wilcox Avenue	3897	4952	8849	17:00	265	578	843	30	4%	24	25	31
9/10/2013	Maple Avenue	Traube Avenue	Ogden Avenue	718	865	1583	17:00	55	85	140	25	32%	29	25	34
9/10/2013	Roslyn Road	Chicago Avenue	Traube Avenue	557	684	1241	17:00	52	78	130	25	43%	29	25	34
9/10/2013	Roslyn Road	Naperville Road	Chicago Avenue	548	602	1150	17:00	46	74	120	25	23%	27	25	33
9/10/2013	Sheldon Avenue	Fairview Avenue	Florence Avenue	368	274	642	8:00	53	23	76	20	63%	27	25	34
9/10/2013	Traube Avenue	Cumnor Road	Florence Avenue	312	742	1054	8:00	26	86	112	25	14%	26	25	30
9/10/2013	Traube Avenue	Cumnor Road	Roslyn Road	266	487	753	17:00	22	58	80	25	10%	25	20	29
9/10/2013	Wilcox Avenue	Maple Avenue	Burlington Avenue	1373	737	2110	12:00	221	49	270	25	1%	18	15	19
11/14/2013	2nd Street	Fairview Avenue	Florence Avenue	1071	1223	2294	7:00	45	195	240	25	51%	33	25	39
11/21/2013	2nd Street	Victor Street	Williams Street	632	712	1344	7:00	32	117	149	25	45%	30	25	36
11/21/2013	3rd Street	Florence Avenue	Cumnor Road	192	110	302	18:00	27	8	35	25	21%	26	20	35
11/14/2013	4th Street	Fairview Avenue	Florence Avenue	186	178	364	18:00	21	20	41	25	11%	22	15	28

1 - Roadway operates as one-way eastbound from 8:00 to 9:00 AM and from 2:30 to 3:30 PM. Therefore, WB ADT data was included as EB ADT data during these periods.

2 - ADT count may be high at this location due to double counting that may occur due to the limitations of the Hi-Star units that is more likely to occur on narrow streets. This double counting is particularly during pick-up/drop-off activity.

Table A. Hi-Star Data Summary (Continued)

Date	Roadway	Between		ADT			Peak Hour				Speed				
		Roadway 1	Roadway 2	NB/EB (vehicles)	SB/WB (vehicles)	Total (vehicles)	Time of Day	NB/EB (vehicles)	SB/WB (vehicles)	Total (vehicles)	Posted (MPH)	% Exceeding Speed Limit	Average (MPH)	Mode Speed (MPH)	85th Percentile Speed (MPH)
11/14/2013	4th Street	Victor Street	Williams Street	85	95	180	16:00	14	6	20	25	10%	22	20	28
11/14/2013	5th Street	Florence Avenue	Victor Street	113	103	216	8:00	5	18	23	25	12%	24	20	29
11/21/2013	6th Street	Cumnor Road	Victor Street	71	56	127	14:00	8	5	13	25	16%	25	20	31
11/14/2013	6th Street	Fairview Avenue	Florence Avenue	183	190	373	8:00	16	17	33	25	41%	30	20	43
11/14/2013	7th Street	Florence Avenue	Cumnor Road	137	90	227	18:00	16	11	27	25	15%	27	20	30
11/14/2013	7th Street	Victor Street	Williams Street	113	53	166	16:00	12	5	17	25	5%	17	15	24
11/14/2013	8th Street	Cumnor Road	Victor Street	52	54	106	15:00	8	4	12	25	13%	22	15	29
11/14/2013	8th Street	Fairview Avenue	Florence Avenue	115	117	232	7:00	8	15	23	25	12%	25	20	29
11/14/2013	Cumnor Road	4th Street	5th Street	124	145	269	7:00	12	15	27	25	23%	25	25	33
11/14/2013	Cumnor Road	6th Street	7th Street	170	157	327	7:00	17	20	37	25	25%	25	25	33
11/14/2013	Cumnor Road	8th Street	55th Street	189	227	416	7:00	16	28	44	25	6%	20	15	24
11/21/2013	Florence Avenue	2nd Street	3rd Street	388	219	607	7:00	107	10	117	25	22%	26	25	34
11/14/2013	Florence Avenue	4th Street	5th Street	308	186	494	7:00	82	10	92	25	44%	29	30	35
11/14/2013	Florence Avenue	6th Street	7th Street	277	162	439	7:00	70	19	89	25	30%	28	25	34
11/14/2013	Florence Avenue	8th Street	55th Street	255	235	490	7:00	59	33	92	25	13%	25	20	30
11/14/2013	Victor Street	2nd Street	4th Street	124	135	259	7:00	17	8	25	25	4%	26	20	31
11/14/2013	Victor Street	4th Street	6th Street	107	120	227	17:00	11	12	23	25	18%	25	25	31
11/14/2013	Victor Street	6th Street	7th Street	98	133	231	17:00	5	17	22	25	18%	24	20	32
11/14/2013	Victor Street	8th Street	55th Street	113	191	304	17:00	13	15	28	25	5%	19	15	23
11/21/2013	Williams	2nd Street	Richmond Street	579	709	1288	7:00	110	37	147	25	16%	25	20	30
11/14/2013	Williams	6th Street	Dallas Street	409	344	753	7:00	86	23	109	25	41%	30	25	38
11/14/2013	Williams	8th Street	55th Street	361	512	873	7:00	53	40	93	25	6%	20	15	25

1 - Roadway operates as one-way eastbound from 8:00 to 9:00 AM and from 2:30 to 3:30 PM. Therefore, WB ADT data was included as EB ADT data during these periods.

2 - ADT count may be high at this location due to double counting that may occur due to the limitations of the Hi-Star units that is more likely to occur on narrow streets. This double counting is particularly during pick-up/drop-off activity.

COMMUNITY CORRESPONDENCE

CAPACITY ANALYSIS