Memorandum

Paul G. Redman, P.E.
Director of Engineering

To: The Honorable Mayor and City Council

Date: January 15, 2018

Subject: Collector Roads Traffic Study & Residential Street Speed Limit

Background

At the direction of the City Council, Staff has been exploring the process of the lowering of the speed limit on City streets to 25 mph. Last January, Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA) of Rosemont, Illinois presented an overview to the City Council on the legal and engineering principles of setting appropriate speed limits on local streets. In a follow-up discussion last May, it was a consensus of the City Council that lowering the speed limit on local residential streets was appropriate without further engineering study, but that the collector street system (which includes arterials) should be evaluated by obtaining and analyzing current traffic data. Last June, the City Council authorized a traffic study by KLOA for data collection on the City collector streets.

At the January 22 City Council Planning Session, KLOA will present an overview of the completed Collector Roads traffic study to the City Council. The purpose of the study was to collect various traffic data on the City's collector street system and determine if any modifications to the City roadway classifications was warranted. A secondary purpose of the study was to use data collected from the collector road system to determine if it is appropriate from a traffic engineering perspective to lower the speed limit on collector streets.

Roadway Classification

KLOA collected data from 50 locations along the city collector road system. Principle data collected was vehicle counts and speeds. Analysis of the data lead KLOA and City staff to revise the City roadway classification by dropping some collector roads to local roads, and expanding the classifications from three to five, by designating "minor" and "major" classifications for collector and arterial roads. The main reason for expanding the number of classifications is the large spread of traffic volumes measured on the collector road system, from as low as 1,000 to greater than 10,000 vehicles per day. Lists and maps of the revised roadway classifications are contained in the report by KLOA.

Vehicle Speeds

The traffic data collected included the traveling speed of vehicles summarized as the 85th percentile speed and the average speed. Several streets had 85th percentile speeds which were not within 5 mph of the posted speed limit, possibly indicating an unreasonable speed of travel. However, most of the streets with high 85th percentile speeds are streets which have physical conditions that may influence higher speeds like long uninterrupted flow, wide lanes, limited access, and parking restrictions and/or separate parking lanes.

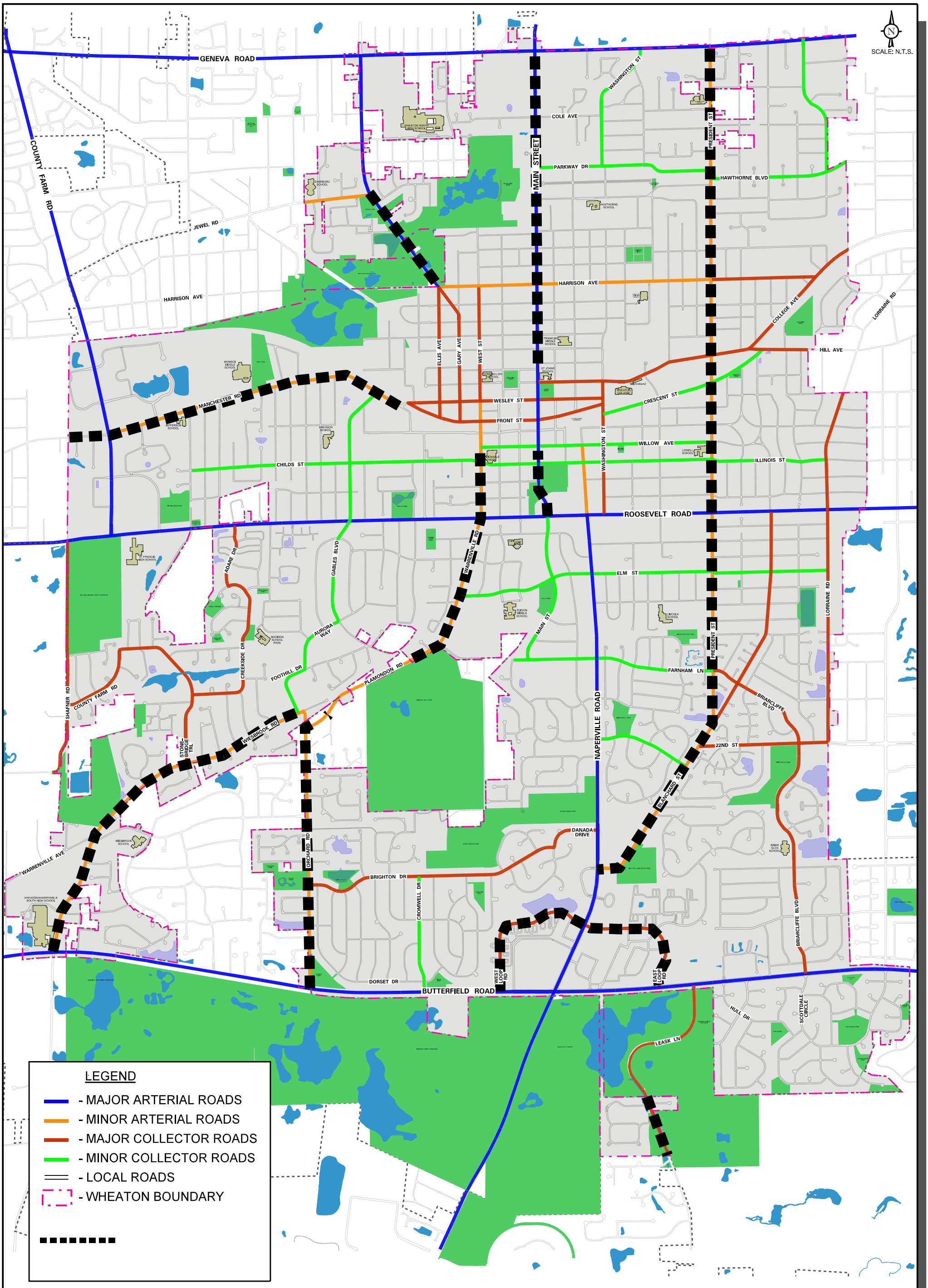
Staff recommends that the existing 30 mph speed limit remain on the following streets due to their importance as it relates to the efficient flow of traffic through the City, their higher traffic volumes, 85th

percentile speed greater than 5 mph over the posted speed, and physical conditions that allow for the volume and speed of vehicles measured. All the following streets are major collectors or arterials (traffic volumes exceeding 6,000) and are major access routes to and from Wheaton.

- Main Street – north of Roosevelt Road (except within the CBD 20 mph)
- Gary Avenue – north of Harrison Avenue
- President Street
- Blanchard Street – south of President Street
- West Street – south of Illinois Street
- Warrenville Road – south of Roosevelt Road
- Wiesbrook Road
- Orchard Road – south of Wiesbrook Road
- Manchester Road
- East Loop Road
- West Loop Road
- Leaske Lane

Recommendation on Lowering Speed Limits

Staff proposes lowering the speed limit to 25 mph on all on City streets, except for the collector and arterial streets listed above in this memorandum. If the City Council concurs with the recommendation, staff will prepare a detail of the process for communication/outreach to the community, planning for posting speed limit, enforcement strategies, and ordinance amendments.



COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

RECOMMENDED ROADWAYS

30 MPH SPEED LIMIT

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 8

Collector Road Study

Wheaton, Illinois

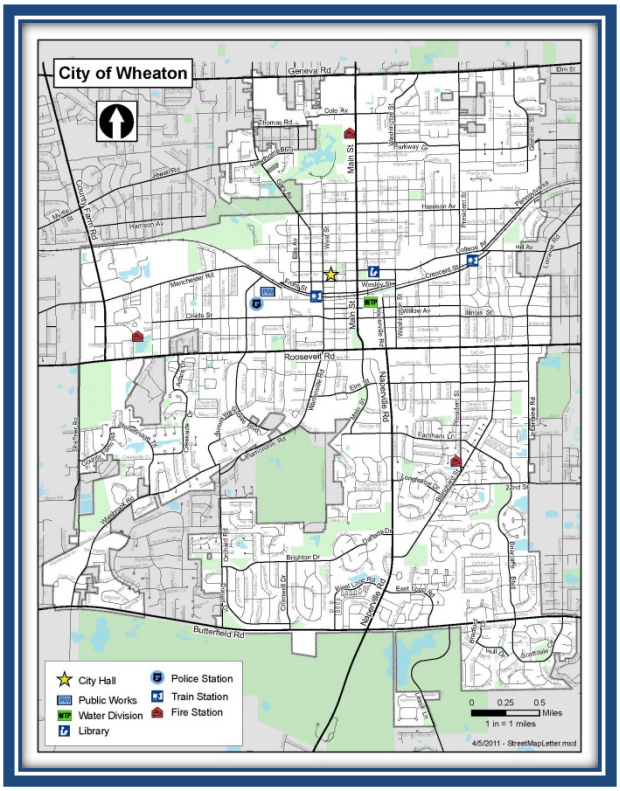
Prepared For:

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

January 16, 2018

1. Introduction

This report summarizes the methodologies, results, and findings of a study performed by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) regarding the data collection and review of the collector roads within the City of Wheaton. The City of Wheaton is located in central DuPage County generally bounded by Geneva Road to the north, Butterfield Road (IL 56) to the south, the Village of Glen Ellyn to the east, and the Village of Winfield and unincorporated DuPage County to the west. At 11.25 square miles in size, the City of Wheaton includes a central business district, several commercial corridors, 52 parks, numerous public and private schools, Wheaton College, and the DuPage County government office complex and DuPage County Fairgrounds. The insert shows the boundary of the City of Wheaton.



The City of Wheaton roadway system includes a network of arterial, collector, and local roadways. A total of six arterial roadways extend through or along the periphery of the City providing regional access to and from the City. In addition, the City of Wheaton has a total of 54 collector roads that extend for approximately 46 miles through the City. The majority of the collector roads are under the jurisdiction of the City of Wheaton. Finally, the City has a network of local roads primary serving the individual land uses. **Figure 1** shows the City of Wheaton's roadway function classification system. (All of the figures are located in the Appendix.)

The function of a roadway is defined in traffic planning by a roadway hierarchy or functional classification system. This system provides for three basic types of roadways: arterial, collector, and local. The purpose of defining the function of a road is to determine how it serves the two primary travel needs which are (1) travel mobility and (2) access. The two primary travel needs of a road are a function of its length, capacity, traffic control, access, and other general design standards. A collector road's primary function is to collect traffic and distribute it between arterial roads and local roads. They provide both land use access and traffic service, but do not serve long distance travel or high traffic volumes.

The purpose of the study was to inventory the existing physical and operating conditions of the collector roads, identify any operating deficiencies along the collector roads, evaluate whether they are serving the function of a collector road, and determine if any modifications are necessary to the existing City of Wheaton roadway functional classification system.

2. Existing Collector Road Conditions

The conditions of the collector roads were inventoried to obtain a database for evaluating the existing operations and their function. This included collecting and reviewing existing traffic information and data, performing extensive field reconnaissance and observations, and conducting daily vehicle classification counts and speed surveys.

Existing Roadway System

The City of Wheaton roadway system includes a network of arterial, collector and local roadways. A total of six arterial roadways (see insert) extend through or along the periphery of the City and are generally under the jurisdiction of the Illinois Department of Transportation (IDOT) or the DuPage County Division of Transportation (DuDOT). These roads provide regional access to, from, and through the City. Complementing the arterial roadway system, the City of Wheaton has a total of 54 collector roads that extend for approximately 46 miles through the City. The majority of the collector roads are under the jurisdiction of the City of Wheaton. **Table 1** lists the existing collector roads. Finally, a network of local roads extends through the City, primarily serving the individual land uses. **Figure 1** shows the City of Wheaton roadway functional classification system.

East-West Arterial Roadways

- Geneva Road (DuDOT)
- Roosevelt Road or IL 38 (IDOT)
- Butterfield Road or IL 56 (IDOT)

North-South Arterial Roadways

- Naperville Road (DuDOT)
- County Farm Road (DuDOT)
- Main Street (City of Wheaton)

IDOT: Illinois Department of Transportation
DuDOT: DuPage County Division of Transportation

Collector Road Physical and Operating Characteristics

In order to determine the existing physical and operating characteristics, KLOA, Inc. performed extensive field reconnaissance of all of the collector roads. The following summarizes the type of data collected and the primary physical and operating characteristics of the collector roads. A separate spreadsheet has been prepared by KLOA, Inc. summarizing the characteristics of each of the collector roads.

Traffic Flow. All of the collector roads have two-way traffic flow, except the following roads:

- Ellis Avenue (one-way southbound)
- Gary Avenue (one-way northbound)
- Wesley Street (one-way westbound)
- Front Street (one-way eastbound)

Table 1
CITY OF WHEATON COLLECTOR ROADS

Adare Drive	Hull Drive (East of Bradford to Appleby)
Aurora Way (Gables to Foothill)	Illinois Street
Blanchard Street (South of Roosevelt)	Jewell Road
Bradford Drive (Butterfield to Hull)	Leask Lane
Briarcliff Boulevard	Longfellow Road (Naperville to Blanchard)
Brighton Drive	Lorraine Road
Childs Street	Main Street (South of Roosevelt)
Cole Avenue	Manchester Road
College Avenue	Naperville Road (North of Roosevelt)
County Farm Road (South of Roosevelt)	Orchard Road
Creekside Drive	Parkway Drive
Cromwell Drive	Plamondon Road
Crescent Street	President Street
Danada Drive	Scottdale Circle
Dorset Drive	Seminary Ave (East of Main)
East Loop Road	Shaffner Road
Ellis Avenue	Stonebridge Trail
Elm Street (Warrenville to Lorraine)	Thomas Avenue (Gary to Papworth)
Farnham Lane	22nd Street
Foothill Drive (Aurora to Orchard)	Warrenville Road
Front Street	Washington Street (Geneva to Parkway)
Gables Boulevard	Washington Street (Roosevelt to Seminary)
Gary Avenue	Wesley Street
Glencoe Street	West Loop Road
Harrison Avenue	West Street (Roosevelt to Harrison)
Hawthorne Boulevard (East of President)	Wiesbrook Road
Hill Avenue	Willow Avenue (West Ave. to President)

Number of Lanes. All of the two-way collector roads have one lane in each direction, except the following roads:

- Portions of Main Street have a three-lane cross section
- Portions of Naperville Road have a five-lane cross section
- East Loop Road has a three-lane cross section
- West Lane Road has a three-lane cross section
- Blanchard Street/President Street between Farnham Lane and Naperville Road have a three-lane cross section
- Jewel Road has a three-lane cross section

The one-way portions of Ellis Avenue and Gary Avenue generally have one through lane and the one-way portions of Wesley Street and Front Street have either one through lane or two through lanes.

Median Type. Only the following three collector roads have medians:

- 22nd Street
- Hawthorne Boulevard
- Blaircliffe Boulevard between Blanchard Street and Butterfield Road

On-Street Parking. Parking is typically permitted on one or both sides of most of the collector roads, although many of the collector roads have regulated parking.

Edge Type. All of the collector roads are designed with curb and gutter or shoulder and ditch edge types.

Sidewalks. Sidewalks are provided one or both sides of the majority of the collector roads.

Speed Limits and School and Park Zones. All of the collector roads have a posted speed limit of 30 mph except those collector roads that extends through the Central Business District (CBD) or have school zones, where the speed limit is posted at 20 mph. The following outlines the collector roads in the CBD with a 20 mph speed limit:

- West Street between Wesley Street and Willow Avenue
- Main Street between Seminary Street and Willow Avenue
- Wesley Street between West Street and Cross Street
- Front Street between West Street and Cross Street

Figures 2a and **2b** show the collector roads within the CBD with a 20 mph speed limit and the existing school and park zones along the collector roads.

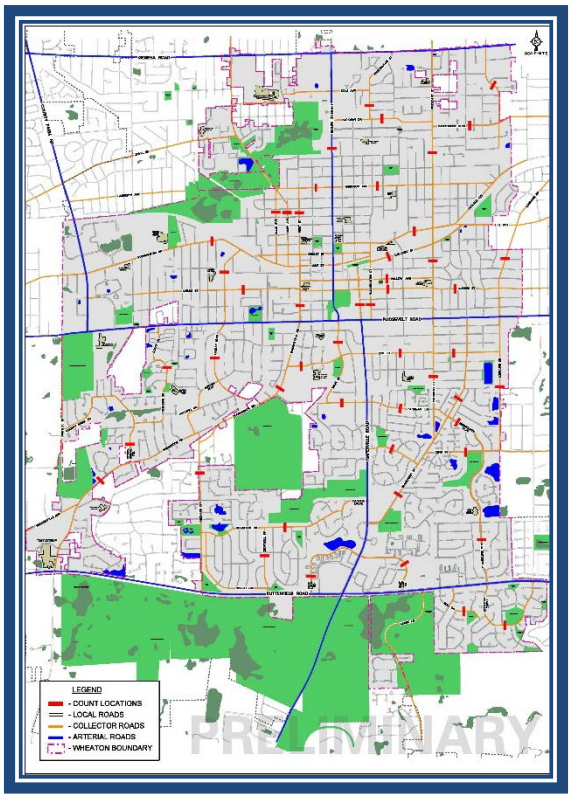
Intersection Traffic Control. Generally the collector roads are under free flow conditions except where they intersect another collector road or an arterial road or at high pedestrian locations. **Figures 3a** and **3b** show the traffic control along the collector roads for only those locations where the collector road is required to stop.

At-Grade Railroad Crossings. The following collector roads have an at-grade railroad crossing with the Union Pacific Railroad tracks which generally extend in an east-west direction through the center of Wheaton:

- West Street
- Washington Street
- President Street
- Hill Avenue

Existing Daily Traffic and Classification Counts and Speed Surveys

In order to determine the existing traffic volumes, type of traffic, and speeds along the collector roads, KLOA, Inc. conducted daily machine traffic counts and speed surveys at 50 locations within the City (see insert and **Figure 4**). The traffic counts and speed surveys were conducted in September and October 2017 for a minimum of two days and were broken down by direction and by hour. **Figures 5a and 5b** show the two-way daily traffic volumes and **Figures 6a and 6b** show the average and 85th percentile speeds observed on the roadways. The percentage of truck traffic to total traffic for each of the traffic count locations is provided in the separate spreadsheet summarizing the characteristics of each of the collector roads.

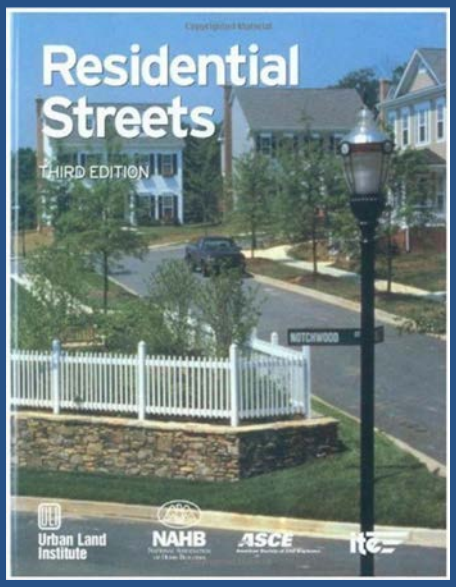


The average speed is the sum of the observed speeds of all the vehicles divided by the total vehicles on that segment of the road. Average speeds are used to determine the speeds at which motorists are typically traversing a roadway section, whereas the 85th percentile speed represents the speed at or below which 85 percent of vehicles on a roadway section travel under free flow conditions. The 85th percentile speed is commonly used to establish the posted speed limits along roadways.

3. Evaluation of Existing Operating Conditions

To determine how the collector roads are operating, KLOA, Inc. examined the existing traffic volumes and speed surveys performed at the 50 locations along the collector roads. From this analysis, any roadways with volumes and/or speeds exceeding acceptable/reasonable standards were identified.

Evaluation of Daily Traffic Volumes



Daily Volumes

According to *Residential Streets,* local residential roads typically have a daily volume between 400 and 1,500 vehicles while residential collector roads typically have a daily volume exceeding 1,500 vehicles.

Residential Streets, Third Edition, 2001 was developed by the National Association of Home Builders (NAHB), the American Society of Civil Engineers (ASCE), the Institute of Transportation Engineers (ITE), and the Urban Land Institute (ULI).

Table 2 summarizes the existing average weekday (24-hour) two-way traffic volumes on the collector roadways and determines if the volumes fall within the local or collector road national residential street standards, as published in *Residential Streets,* Third Edition (see insert). As can be expected, the volume of traffic along the collector roads varied considerably.

Two-lane roads typically have a daily capacity of 10,000 to 12,500 vehicles per day which is dependent on its design, particularly at its signalized intersections. Main Street and the following five roads had daily traffic volumes that exceeded 10,000 vehicles per day:

- Gary Avenue north of Harrison Avenue (17,400 vehicles)
- Blanchard Street (11,716 vehicles)
- President Street (11,611 and 13,439 vehicles)
- Naperville Road (11,251 vehicles)
- Harrison Avenue (10,582 vehicles)

If these roads are currently experiencing capacity constraints and/or operational issues, they would be candidates for additional review and/or further studies to ascertain the issues and the appropriate mitigation measures.

Ten of the collector roads had daily traffic volumes that were less than 1,500 vehicles per day and four other roads had volumes that just exceeded 1,500 vehicles per day, which represents the lower volume threshold of collector roads. The following lists the collector roads that had a volume lower than 1,500 vehicles per day:

- Hawthorne Boulevard (1,487 vehicles)
- Gables Boulevard south of Roosevelt Road (1,369 vehicles)
- Washington Street between Driving Park Road and Parkway Drive (1,345 vehicles)
- Crescent Street (1,291 vehicles)
- Farnham Lane between Main Street and Naperville Road (1,290 vehicles)
- Illinois Street between President Street and Lorraine Road (1,151 vehicles)
- Glencoe Street (1,021 vehicles)
- Scottdale Circle (976 vehicles)
- Elm Street (644 vehicles)
- Hull Drive (567 vehicles)

Table 2
EXISTING WEEKDAY DAILY TRAFFIC VOLUMES – NORTH WHEATON

Roadway Section	Daily Traffic Volume	Volumes Meet Collector Standards[1] and Capacity[2]
Gary Avenue north of Harrison Avenue	17,400	No
Main Street south of Wakeman Avenue	17,336	No
President Street south of Prairie Avenue	13,439	No
President Street south of Michigan Avenue	11,611	No
Naperville Road north of Roosevelt Road	11,251	No
West Street south of Indiana Street	9,250	Yes
West Street south of Jefferson Avenue	5,745	Yes
Gary Avenue south of Jefferson Avenue	5,512	Yes
Ellis Avenue south of Jefferson Avenue	4,314	Yes
Lorraine Road north of Liberty Drive	4,714	Yes
Washington Street south of Crescent Street	3,496	Yes
Gables Boulevard north of Childs Street	2,979	Yes
Washington Street south of Cole Avenue	1,345	No
Glencoe Street south of Daly Road	1,021	No
Harrison Avenue east of Wheaton Avenue	10,582	Yes
Harrison Avenue east of Washington Street	7,942	Yes
Manchester Road west of White Oak Drive	8,126	Yes
College Avenue east of Washington Street	5,122	Yes
Childs Street east of Vernon Avenue	2,879	Yes
Willow Avenue west of Summit Street	2,229	Yes
Parkway Drive east of Washington Street	1,592	Yes
Illinois Street west of Summit Street	1,555	Yes
Hawthorne Boulevard east of Summit Street	1,487	No
Crescent Street west of Summit Street	1,291	No
Illinois Street east of Blanchard Street	1,151	No

1. According to *Residential Streets*, local residential roads typically have a daily volume between 400 and 1,500 vehicles while residential collector roads typically have a daily volume exceeding 1,500 vehicles.
2. A two-lane road generally has a daily capacity of 10,000 to 12,500 vehicles.

Table 2, Continued
EXISTING DAILY TRAFFIC VOLUMES – SOUTH WHEATON

Roadway Section	Daily Traffic Volume	Volumes Meet Collector Standards[1] and Capacity[2]
Blanchard Street south of Hawkins Circle	11,716	No
President Street south of Dawes Avenue	8,414	Yes
Warrenville Road north of Merrill Drive	8,341	Yes
Orchard Road south of Flint Creek Road	8,152	Yes
Blanchard Street south of Darwin Lane	5,056	Yes
Adare Drive north of Creekside Drive	4,573	Yes
Briarcliffe Boulevard north of Windsor Drive	3,968	Yes
Lorraine Road north of Orchard Lane	3,510	Yes
Stonebridge Trail north of Wiesbrook Road	3,156	Yes
Main Street south of Park Avenue	2,276	Yes
Cromwell Drive south of Somerset Lane	1,704	Yes
Gables Boulevard south of Sunset Road	1,369	No
Wiesbrook Road west of Muirfield Circle	8,080	Yes
East Loop Road south of Johns Drive	7,460	Yes
22nd Street west of Briarcliffe Boulevard	5,759	Yes
Briarcliffe Boulevard east of Dundee Drive	4,190	Yes
West Loop Road north of Butterfield Road	3,566	Yes
Brighton Drive east of Gladstone Drive	3,124	Yes
Elm Street east of James Court	2,884	Yes
Farnham Lane east of Wales Drive	1,875	Yes
Elm Street east of Sumner Street	1,534	Yes
Longfellow Drive east of Citation Circle	1,524	Yes
Farnham Lane east of Main Street	1,290	No
Scottdale Circle east of Stirrup Lane	931	No
Elm Street east of Williston Street	644	No
Hull Drive east of Kingston Drive	567	No

1. According to *Residential Streets*, local residential roads typically have a daily volume between 400 and 1,500 vehicles while residential collector roads typically have a daily volume exceeding 1,500 vehicles.
2. A two-lane road generally has a daily capacity of 10,000 to 12,500 vehicles.

Travel Speed Surveys

The majority of the City's collector roads are regulated by a 30 mph speed limit except in the Central Business District and school areas, where the speed limit is posted at 20 mph. The travel speed data was summarized in two ways for each location. First, the 85th percentile speed was calculated, which is the speed at which 85 percent of the motorists drive at or below and is a benchmark that traffic engineers use to determine speed limits. Second, the average speed was calculated, which is the arithmetic mean of the speeds of all vehicles recorded. The differential between the 85th percentile speed and average speed is useful in addressing speeding issues. Figures 4a and 4b show the 85th percentile speeds and the average speeds on the City roadways. **Table 3** summarizes the existing 85th percentile and compares them to what is considered reasonable travel speeds (see insert).

Travel Speeds

- Travel speeds are primarily influenced by the road's characteristics which are generally costly to modify.
- Courts typically only uphold tickets when they are 8 to 10 mph over the speed limit.

As such, 85th percentile speeds within five (5) mph of the posted speed limit are typically considered reasonable.

The average speeds were generally within one to two mph of the posted speed limit and the majority of the 85th percentile speeds were generally within five mph of the posted speed limit. However, it should be noted that 15 of the roadway sections did experience average speeds that exceeded the speed limit and/or had 85th percentile speeds that exceeded the posted speed limit by five mph. The higher speeds were primarily observed along those roadway sections that had longer lengths of free-flow conditions and/or along the higher volume collector roads. The speed surveys show that the following roads had average speeds that exceeded the posted speed limit and/or 85th percentile speeds that exceeded the posted speed limit by five mph:

- President Street
- Gary Avenue
- Gables Boulevard north of Roosevelt Road
- Lorraine Road south of Roosevelt Road
- Blanchard Street
- Briarcliffe Boulevard
- Warrenville Road
- Orchard Road
- Cromwell Drive
- West Loop Road
- Harrison Avenue between Main Street and Gary Avenue
- Manchester Road
- Childs Street between West Street and Gables Boulevard
- 22nd Street
- Wiesbrook Road

Given the existing travel speeds, these 15 roads are candidates for additional review and/or further study to determine if the travel speeds are appropriate for the type and design of the road and, if deemed appropriate, which measures can be implemented to reduce the travel speeds.

Table 3
EXISTING 85th PERCENTILE SPEEDS – NORTH WHEATON

Roadway Section	85th Percentile Speeds	Within 5 mph of Posted Speed Limit
Main Street south of Wakeman Avenue	34/35	No
President Street south of Prairie Avenue	35/36	No
President Street south of Michigan Avenue	32/33	Yes
Naperville Road north of Roosevelt Road	31/33	Yes
West Street south of Indiana Street	35/35	No
West Street south of Jefferson Avenue	33/34	Yes
Gary Avenue south of Jefferson Avenue	36	No
Ellis Avenue south of Jefferson Avenue	33	Yes
Lorraine Road north of Liberty Drive	34	Yes
Washington Street south of Crescent Street	30/33	Yes
Gables Boulevard north of Childs Street	33/36	No
Washington Street south of Cole Avenue	32	Yes
Glencoe Street south of Daly Road	29/31	Yes
Harrison Avenue east of Wheaton Avenue	33	Yes
Harrison Avenue east of Washington Street	33/34	Yes
Manchester Road west of White Oak Drive	36/38	No
College Avenue east of Washington Street	33	Yes
Childs Street east of Vernon Avenue	34/35	No
Willow Avenue west of Summit Street	30/31	Yes
Parkway Drive east of Washington Street	34	Yes
Illinois Street west of Summit Street	33	Yes
Hawthorne Boulevard east of Summit Street	32/33	Yes
Crescent Street west of Summit Street	33/34	Yes
Illinois Street east of Blanchard Street	32/33	Yes

Table 3, Continued
EXISTING 85th PERCENTILE SPEEDS – SOUTH WHEATON

Roadway Section	85th Percentile Speeds	Within 5 mph of Posted Speed Limit
Blanchard Street south of Hawkins Circle	38/39	No
President Street south of Dawes Avenue	38	No
Warrenville Road north of Merrill Drive	39	No
Orchard Road south of Flint Creek Road	38/39	No
Blanchard Street south of Darwin Lane	36/38	No
Adare Drive north of Creekside Drive	31	Yes
Briarcliffe Boulevard north of Windsor Drive	34/37	No
Stonebridge Trail north of Wiesbrook Road	32/33	Yes
Main Street south of Park Avenue	33	Yes
Lorraine Road north of Orchard Lane	36/37	No
Cromwell Drive south of Somerset Lane	34/36	No
Gables Boulevard south of Sunset Road	33	Yes
Wiesbrook Road west of Muirfield Circle	39/41	No
East Loop Road south of Johns Drive	34	Yes
22nd Street west of Briarcliffe Boulevard	35/37	No
Briarcliffe Boulevard east of Dundee Drive	34/35	No
West Loop Road north of Butterfield Road	35/37	No
Brighton Drive east of Gladstone Drive	30/31	Yes
Elm Street east of James Court	34	Yes
Farnham Lane east of Wales Drive	33/34	Yes
Elm Street east of Sumner Street	34	Yes
Longfellow Drive east of Citation Circle	33/32	Yes
Farnham Lane east of Main Street	34/33	Yes
Scottdale Circle east of Stirrup Lane	33/34	Yes
Elm Street east of Williston Street	32	Yes
Hull Drive east of Kingston Drive	31/33	Yes

Collector Roads with Volumes and/or Speeds Exceeding Acceptable/Reasonable Standards

The existing operating characteristics of the collector roads were examined to determine if any of the collector roads were experiencing any of the following operating concerns:

- Daily traffic volumes that were approaching or exceeding the general capacity of a two-lane road.
- Average speeds that were exceeding the posted speed limit.
- 85th percentile speeds that were exceeding the speed limit by five mph.

A total of 18 of the existing collector roads were identified that had volumes and/or speeds exceeding the above criteria. **Table 4** shows the 18 collector roads as well as the daily traffic volumes and average and 85th percentile speeds.

Table 4
COLLECTOR ROADS WITH VOLUMES AND/OR SPEEDS EXCEEDING ACCEPTABLE/REASONABLE STANDARDS

	Operating Characteristics		
	Traffic Volumes	Average Speeds (mph)	85th Percentile Speeds (mph)
Main Street north of Roosevelt Road	11,716	29 - 30	34 - 35
President Street north of Roosevelt Road	11,611 13,439	29 - 31	35 - 36
President Street south of Roosevelt Road	8,414	31 - 32	38
Gary Avenue north of Harrison Avenue	17,400	N/A	N/A
Gary Avenue south of Harrison Avenue	5,512	31	36
West Street south of Indiana Street	9,250	30 - 31	35 - 35
Gables Boulevard north of Roosevelt Road	2,979	29 - 31	33 - 36
Naperville Road north of Roosevelt Road	11,251	23 - 26	31 - 33
Lorraine Road north of Roosevelt Road	4,714	30	34
Lorraine Road south of Roosevelt Road	2,152	30	33 - 36
Blanchard Street south of Roosevelt Road	5,506 11,716	30 - 34	36 - 39
Briarcliffe Boulevard	3,977 4,190	30 - 32	34 - 37
Warrenville Road	8,341	33 - 34	39
Orchard Road	8,152	32 - 33	38 - 39
Cromwell Drive	1,704	29 - 30	34 - 36
West Loop Road	3,566	30 - 31	35 - 37
Harrison Avenue	7,942 10,582	27 - 29	33 - 34
Manchester Road	8,126	31 - 32	36 - 38
Childs Street between West Street and Gables Boulevard	2,879	29 - 29	34 - 35
22nd Street	5,759	31 - 32	35 - 37
Wiesbrook Road	8,080	35 - 39	39 - 41

4. Evaluation of Roadway Functional Classification System

To determine how the collector roads are operating and functioning within the City's roadway functional classification system, KLOA, Inc. examined the existing characteristics of the collector roads. This was accomplished by defining the function of each type of road and reviewing and analyzing the existing traffic volumes and speed surveys as well as the physical characteristics of the collector roads.

Functional Classification of a Roadway System

The function of a roadway, whether it is located within a neighborhood or a commercial area, is defined in traffic planning by a roadway hierarchy or functional classification system. This system provides for three basic types of roadways: arterial, collector, and local. As summarized in the insert, the two primary purposes of a roadway are (1) travel mobility and (2) access to specific locations. The purpose of defining the function of a road is to determine how it serves the two primary travel needs, which are a function of its length, capacity, traffic control, access, and other general design standards. The following provides the definition for each of these three functional classifications:

Access versus Mobility

Roadways serve two primary travel needs: access to/egress from specific locations and travel mobility. While these two functions lie at opposite ends of the continuum of roadway function, most roads provide some combination of each.

- Roadway mobility function: Provides few opportunities for entry and exit and therefore low travel friction from most vehicle access/egress
- Roadway accessibility function: Provides many opportunities for entry and exit, which creates potentially higher friction from vehicle access/ egress

U.S. Department of Transportation, Federal Highway Administration

- An ***arterial road's*** primary function is that of traffic service (mobility) and connecting areas of principal traffic generation. Typically access is limited on arterial roads to promote the mobility. They form a reasonably continuous and integrated system and include major roadways with significant length and traffic-carrying capacity. Typically arterial roads extend between freeways/highways and/or other arterial roads. Arterial roads can be further classified as minor and major arterial roads.

- A ***collector road's*** primary function is to collect traffic and distribute it between arterial roads and local roads. They provide both land use access and traffic service, but do not serve long-distance travel or high traffic volumes. Typically collector roads extend between arterial roads and/or other collector roads. Collector roads can be further classified as minor and major collector roads.

- A ***local road's*** primary function is to provide access to the land uses that it serves. They typically extend for short distances and carry low traffic volumes with limited mobility.

Table 5 summarizes the relationship between the functional classification and the roadway's travel characteristics as provided in the *Highway Functional Classification Concepts, Criteria and Procedures*, 2013 Edition published by the U.S. Department of Transportation, Federal Highway Administration.

Table 5
RELATIONSHIP BETWEEN FUNCTIONAL CLASSIFICATION
AND TRAVEL CHARACTERISTICS

Functional Classification	Length	Access Points	Speed Limits	Distances Between Routes	Usage (ADT And DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

ADT = Average Daily Traffic Volumes
DVMT = Daily Vehicle Miles Traveled

Collector Road Characteristics

The following further summarizes the typical physical characteristics of a collector road and **Table 6** summarizes the general collector road criteria.

- The primary function of a collector road is to collect traffic and distribute it between arterial roads and local roads.
- Collector roads provide both land use access and traffic service within a community, but do not serve long-distance travel or high traffic volumes (arterial road).
- Typically extend between arterial roads and/or other collector roads.
- Generally spaced ½ mile from other collector roads and arterial roads.
- Provide continuity with the roadway system within adjacent communities.

Table 6
COLLECTOR ROAD GENERAL CRITERIA

Characteristics	Criteria
Daily Traffic Volumes	• Greater than 1,500 vehicles[1] • 1,100 to 6,300 vehicles[2]
Minimum Spacing	• ½ to 1 mile in suburban areas • ¼ mile in urban areas
System Continuity and Redundancy	• Collector roads should extend between other collector roads and/or arterial roads. • Avoid, if possible within spacing guidelines, assigning the same functional classification to parallel routes.
Length	• Major collector roads penetrate residential neighborhoods, often for significant distances, typically greater than ¾ of a mile. • Minor collector roads penetrate residential neighborhoods, often only for a short distance, typically less than ¾ of a mile.
Access	• Major collector roads serve higher density residential and commercial/industrial areas • Minor collector roads serve lower density residential and commercial/industrial areas.

1. *Residential Streets*, Third Edition, 2001 was developed by the National Association of Home Builders (NAHB), the American Society of Civil Engineers (ASCE), the Institute of Transportation Engineers (ITE), and the Urban Land Institute (ULI)
2. *Highway Functional Classification Concepts, Criteria and Procedures,* 2013 published by the US Department of Transportation, Federal Highway Administration. ***The traffic volume criteria for urban major and minor collector roads are approximate, based on the small number of States reporting.***

KLOA, Inc. reviewed all of the collector roads in the City of Wheaton to determine if any of the current designated collector roads do not meet the general collector road criteria (Table 6). From this review, it was determined that 15 existing collector roads or sections of the collector roads have characteristics that would indicate they function more similar to a local road as opposed to a collector road. Further, eight of the collector roads or sections of the collector roads have characteristics that would indicate that they function more similar to an arterial road as opposed to a collector road. **Table 7** shows the 23 collector roads that have characteristics that would indicate they function more similar to a local road or an arterial road as opposed to a collector road and a summary of the characteristics of each road.

Table 7
COLLECTOR ROADS WITH LOCAL ROAD OR ARTERIAL ROAD CHARACTERISTICS

	Roadway Characteristics				
	Daily Volumes (vehicles)	Approximate Roadway Length (miles)	Continuity Within System	Approximate Spacing (miles)	Land Use
Collector Roads with Local Road Characteristics					
Cole Avenue	n.a.	0.65	C to L	0.20 to 0.38	Low
Thomas Road	n.a.	0.40	C to L	0.37	Medium
Washington Street/Driving Park Road	1,345	0.58	A to C	0.30 to 0.48	Low
Glencoe Street	1,021	0.77	A to L	0.41	Medium
Crescent Street	1,291	0.72	C to C	0.15	Medium
Willow Avenue	2,229	0.98	C to C	0.20 to 0.30	High
Childs Street/Illinois Street	1,151 1,555 2,879	2.92	L to L	0.15 to 0.25	High
Main Street south of Roosevelt Road	2,276	0.65	A to C	0.19 to 0.35	Medium
Farnham Lane west of Naperville Road	1,290	0.36	A to L	0.36 to 0.78	Low
Gables Boulevard, Aurora Way, Foothill Drive, and Orchard Road	1,369	1.0	A to C	0.45 to 0.57	Low
Longfellow Drive	1,524	0.41	A to C	0.31 to 0.57	Low
Dorset Drive	n.a	0.79	C to C	0.05 to 0.45	Low
Bradford Drive/Hull Drive	567	0.44	A to L	0.33	Low
Scottdale Circle	931	0.86	A to A	0.33	Medium
Elm Street	644 1,534	1.0	A to C	0.25 to 0.42	Low

Continuity Abbreviations:
- A = Arterial road
- C = Collector Road
- L = Local Road

Table 7, continued
COLLECTOR ROADS WITH LOCAL ROAD OR ARTERIAL ROAD CHARACTERISTICS

	Roadway Characteristics				
	Daily Volumes (vehicles)	**Approximate Roadway Length (miles)**	**Continuity Within System**	**Approximate Spacing (miles)**	**Land Use**
Collector Roads with Arterial Road Characteristics					
Manchester Road	8,126	1.3	A to C	0.25 to 0.40	Medium
Orchard Road	8,152	1.0	A to C	1.0	High
Warrenville Road/ Wiesbrook Road	8,080 8,341	3.7	A to A	0.5 to 1.0	Medium
West Street (Roosevelt Road to Wesley Street)	9,250	0.5	A to C	0.45 to 0.55	Medium
Harrison Avenue	7,942 10,582	1.6	C to C	0.33 to 0.50	Medium
Naperville Road (Roosevelt Road to Willow Avenue)	11,251	0.3	A to C	0.45 to 0.55	High
Blanchard Street	11,716	1.8	A to A	0.25	Medium
President Street	8,414 13,439	2.0	A to A	0.40 to 0.50	High
Gary Avenue north of Harrison Avenue	17,400	0.7	A to C	0.35 to 0.75	Low

Continuity Abbreviations:
- A = Arterial road
- C = Collector Road
- L = Local Road

Recommended Modifications to Roadway Functional Classification System

Given the number of collector roads within the City and the results of the collector road study, the City of Wheaton has determined that the roadway functional classification system should be expanded from three to five roadway functional classifications and should include the following:

- Major Arterial Roads
- Minor Arterial Roads
- Major Collector Roads
- Minor Collector Roads
- Local Roads

The determination of the function classification for each road was based on the collector and arterial road criteria. In addition, the following traffic volume thresholds were established for each roadway function classification:

- Major Arterial Roads — Greater than 15,000 vehicles per day
- Minor Arterial Roads — 6,000 to 15,000 vehicles per day
- Major Collector Roads — 3,000 to 6,000 vehicles per day
- Minor Collector Roads — 1,000 to 3,000 vehicles per day
- Local Roads — Less than 1,000 vehicles per day

Figure 7 illustrates the proposed roadway functional classification system and **Table 8** summarizes the proposed modifications to the roadway functional classification system.

Table 8
MODIFICATIONS TO ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

Modification	Roadway/Segment
Collector Road to	Gary Avenue north of Harrison Avenue
Major Arterial Road	
Collector Road to	Blanchard Street (Naperville Road to President Street)
Minor Arterial Road	Harrison Avenue (Gary Avenue to President Street)
	Jewell Road
	Manchester Road
	Naperville Road (Roosevelt Road to Willow Avenue)
	Orchard Road
	President Street
	Warrenville Road/Plamondon Road
	West Street (Roosevelt Road to Wesley Street)
	Wiesbrook Road
Collector Road to	22nd Street
Major Collector Road	Adare Drive
	Blanchard Street (Roosevelt Road to President Street)
	Briarcliffe Boulevard
	Brighton Drive/Danada Drive
	College Avenue
	County Farm Road (South of Roosevelt Road)
	Creekside Drive
	East Loop Road
	Ellis Avenue
	Front Street
	Gary Avenue (Harrison Avenue to Front Street)
	Harrison Avenue (President Street to College Avenue)
	Hill Avenue
	Leask Lane
	Lorraine Road
	Seminary Avenue (East of Main Street)
	Shaffner Road

Table 8, Continued
MODIFICATIONS TO ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

Modification	Roadway/Segment
Collector Road to	Stonebridge Trail
Major Collector Road, cont.	Washington Street (Roosevelt Road to Seminary Avenue)
	Wesley Street
	West Street (Harrison Avenue to Wesley Street)
	West Loop Road
Collector Road to	Aurora Way (Gables Boulevard to Foothill Drive)
Minor Collector Road	Childs Street
	Crescent Street
	Cromwell Drive
	Elm Street (Warrenville Road to Lorraine Road)
	Farnham Lane
	Foothill Drive (Aurora Way to Orchard Road)
	Gables Boulevard (Manchester Road to Aurora Way)
	Glencoe Street (Geneva Road to Hawthorne Boulevard)
	Hawthorne Boulevard (East of President Street)
	Illinois Street
	Longfellow Drive (Naperville Road to Blanchard Street)
	Main Street (South of Roosevelt Road)
	Parkway Drive
	Washington Street (Geneva Road to Parkway Drive)
	Willow Avenue (West Avenue to President Street)
Collector Road to	Bradford Drive
Local Road	Cole Avenue
	Dorset Drive
	Gables Boulevard (South of Aurora Way)
	Glencoe Street (South of Hawthorne Boulevard)
	Hull Drive
	Scottdale Circle
	Thomas Avenue

5. Conclusions

This report summarizes the results and findings of a data collection and review of the collector roads within the City of Wheaton. The City of Wheaton's roadway system includes a network of arterial, collector, and local roadways, with the City having a total of 54 collector roads that extend for approximately 46 miles through the City. The purpose of the study was to inventory the existing physical and operating conditions of the collector roads, identify any operating deficiencies along the collector roads, evaluate whether they are serving the function of a collector road, and determine if any modifications are necessary to the existing roadway functional classification system.

The following summarizes the findings and results of the study:

- The City of Wheaton has a total of six arterial roadways, 54 collector roads, and a network of local roads that extend through or along the periphery of the City.

- In order to determine the existing physical and operating characteristics, KLOA, Inc. performed (1) extensive field reconnaissance of all of the collector roads and (2) traffic counts and speed surveys at 50 locations along the collector roads, all of which is summarized within the report and/or a separate spreadsheet developed as part of the study.

- Based on the results of the traffic counts and speed surveys, a number of the collector roads were identified that had (1) traffic volumes that were approaching or exceeding the general capacity of a two-lane road, (2) average speeds that were exceeding the speed limit, and/or (3) 85th percentile speeds that were five mph over the posted speed limit. Given the higher traffic volumes and/or travel speeds, these roads are candidates for additional review and/or future study to further evaluate the existing conditions and to determine what type of capacity improvements and/or speed reduction measures are required, if necessary.

- An evaluation of the physical and operating characteristics showed that a number of the collector roads had characteristics that would indicate that they function more similar to a local road or an arterial road as opposed to a collector road.

- Given the number of collector roads and the results of the collector road study, the City of Wheaton determined that the roadway functional classification system should be expanded from three to five roadway functional classifications that would include minor and major arterial roads and minor and major collector roads.

- Using the established arterial and collector road criteria and traffic volume thresholds developed as part of the study, modifications to the functional roadway classification system were developed.

Appendix

- **Figures**
- **Existing Conditions Spreadsheet**

SCALE: N.T.S.

GENEVA ROAD
COUNTY FARM RD
JEWEL RD
HARRISON AVE
MAIN STREET
WASHINGTON ST
COLE AVE
PRESIDENT ST
PARKWAY DR
HAWTHORNE BLVD
HARRISON AVE
COLLEGE AVE
LORRAINE RD
ELLIS AVE
GARY AVE
WEST ST
HILL AVE
MANCHESTER RD
WESLEY ST
CRESCENT ST
FRONT ST
WILLOW AVE
ILLINOIS ST
CHILDS ST
ROOSEVELT ROAD
ADARE DR
GABLES BLVD
WARRENVILLE RD
ELM ST
LORRAINE RD
AURORA WAY
MAIN ST
CREEKSIDE DR
FOOTHILL DR
PLAMONDON RD
FARNHAM LN
PRESIDENT ST
SHAFNER RD
COUNTY FARM RD
BRIARCLIFFE BLVD
STONE-BRIDGE TRL
WIESBROOK RD
NAPERVILLE ROAD
22ND ST
BLANCHARD ST
ORCHARD RD
DANADA DRIVE
WARRENVILLE AVE
BRIGHTON DR
CROMWELL DR
DORSET DR
WEST LOOP RD
EAST LOOP RD
BUTTERFIELD ROAD
HULL DR
SCOTTDALE CIRCLE
LEASK LN

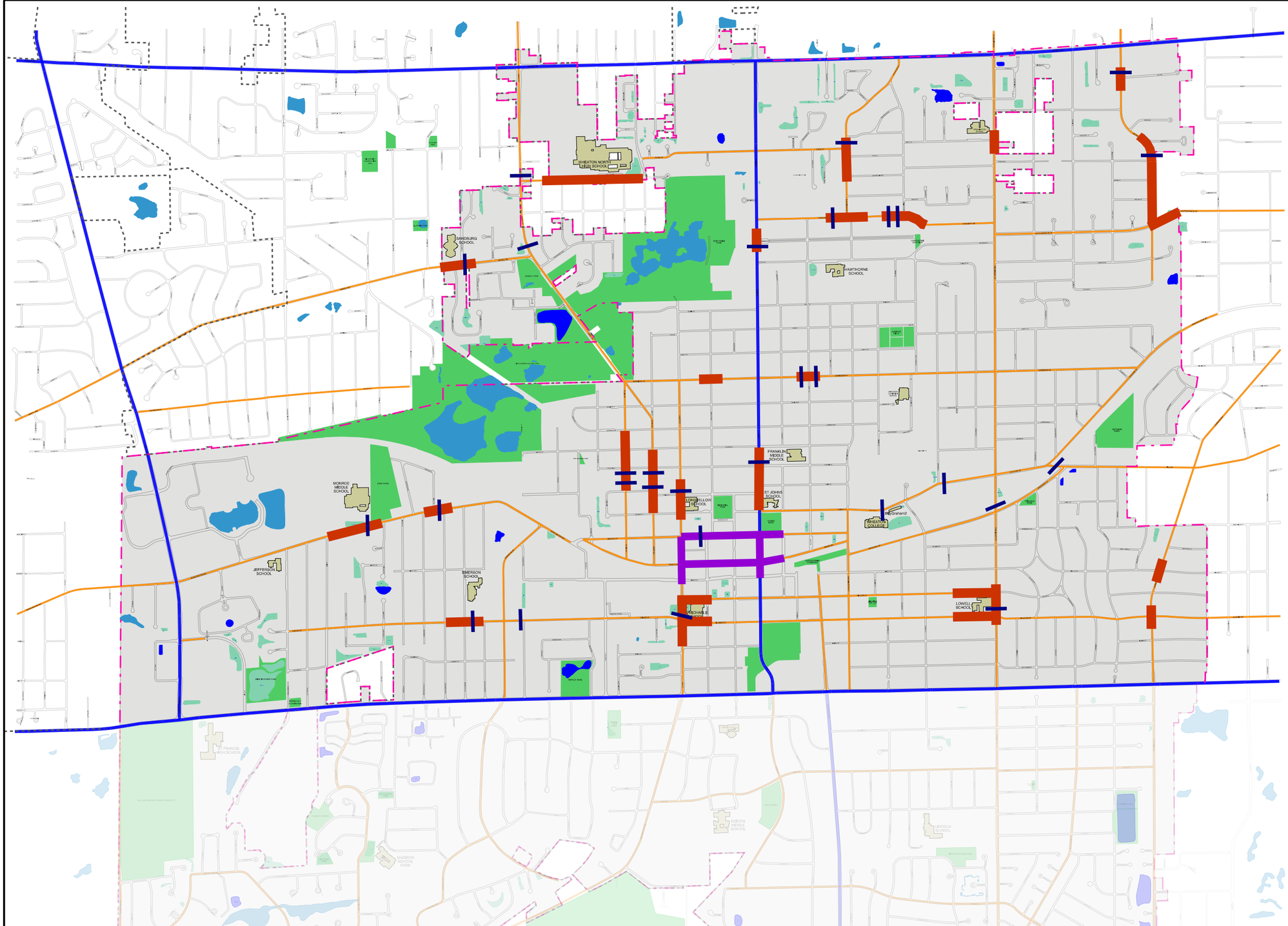
LEGEND
- LOCAL ROADS
- COLLECTOR ROADS
- ARTERIAL ROADS
- WHEATON BOUNDARY

COLLECTOR
ROAD STUDY
WHEATON, ILLINOIS

CITY OF WHEATON
EXISTING ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 1



N

SCALE: 1" = 80'

LEGEND

- EXISTING SCHOOL ZONES
- EXISTING PEDESTRIAN AND SCHOOL CROSSINGS
- POSTED 20 MPH SPEED LIMIT

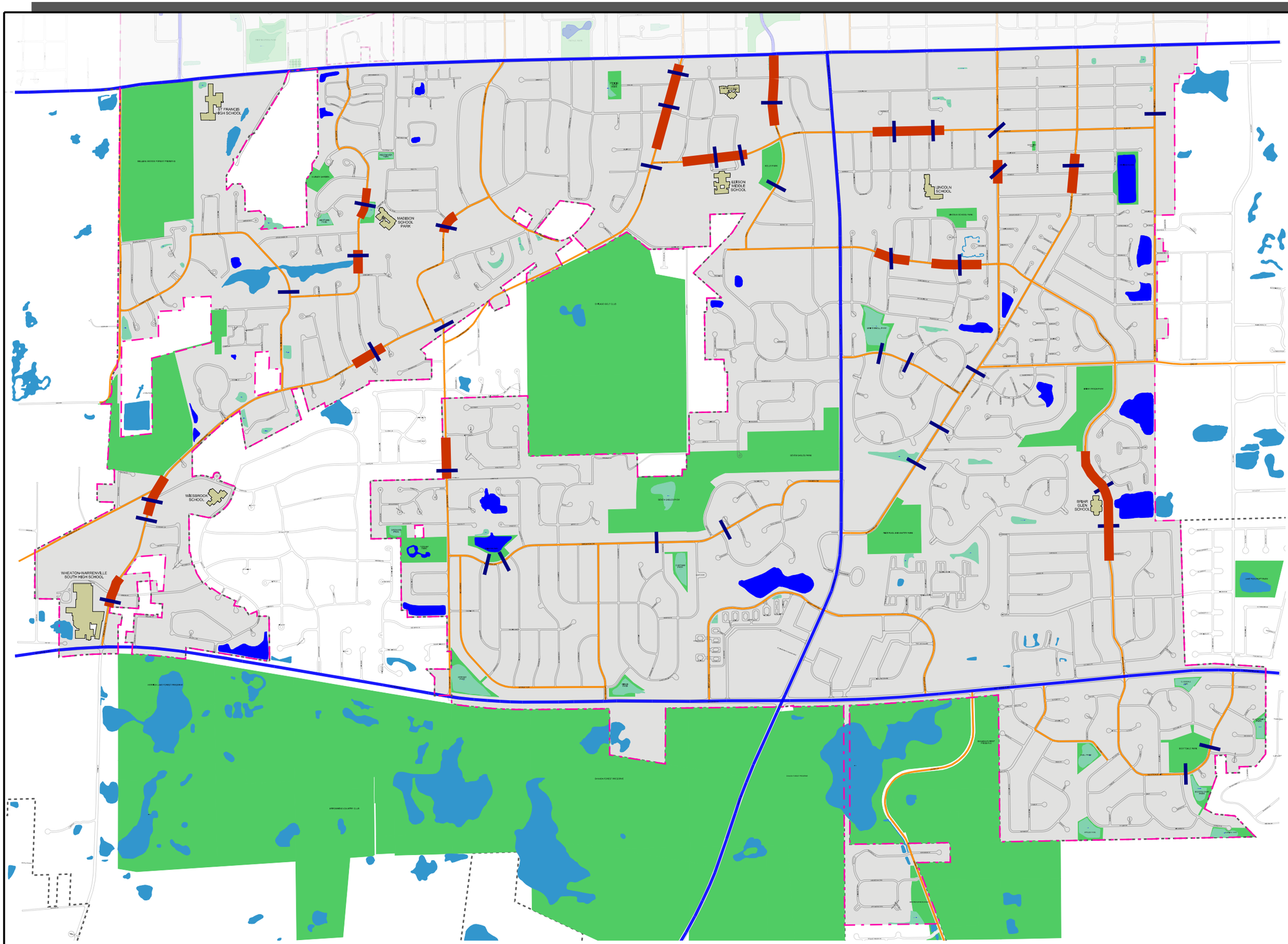
- ALL SCHOOL ZONES AND CROSSINGS HAVE A 20 MPH SPEED LIMIT
- UNLESS OTHERWISE POSTED, ALL THE COLLECTOR ROADS HAVE A 30 MPH SPEED LIMIT

COLLECTOR
ROAD STUDY
WHEATON, ILLINOIS

SCHOOL ZONES AND SCHOOL PEDESTRIAN CROSSINGS - NORTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 2A



N

SCALE: 1" = 80'

LEGEND

- EXISTING SCHOOL ZONES
- EXISTING PEDESTRIAN AND SCHOOL CROSSINGS

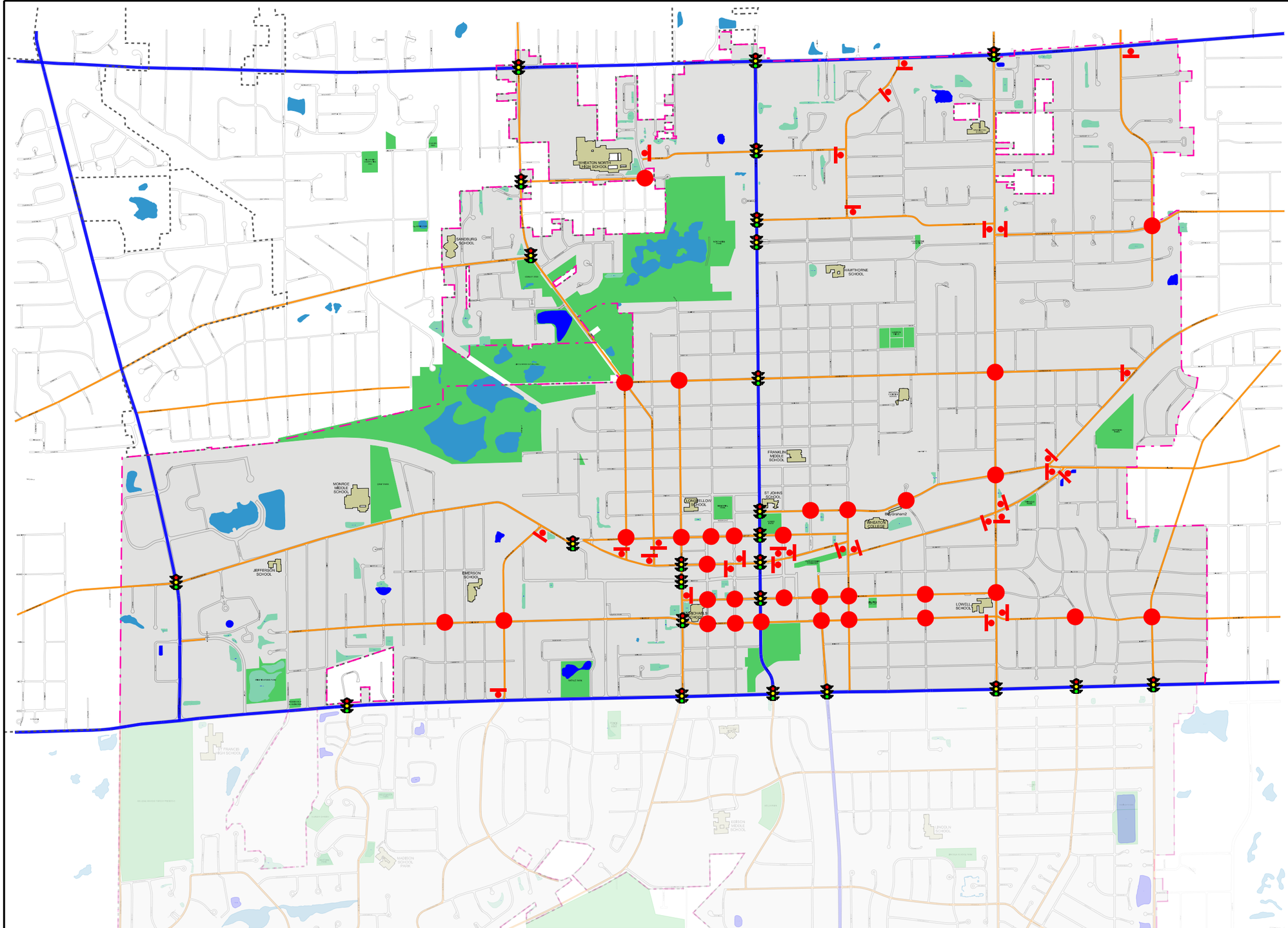
- ALL SCHOOL ZONES AND CROSSINGS HAVE A 20 MPH SPEED LIMIT
- UNLESS OTHERWISE POSTED, ALL THE COLLECTOR ROADS HAVE A 30 MPH SPEED LIMIT

COLLECTOR
ROAD STUDY
WHEATON, ILLINOIS

SCHOOL ZONES AND SCHOOL PEDESTRIAN CROSSINGS - SOUTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 2B

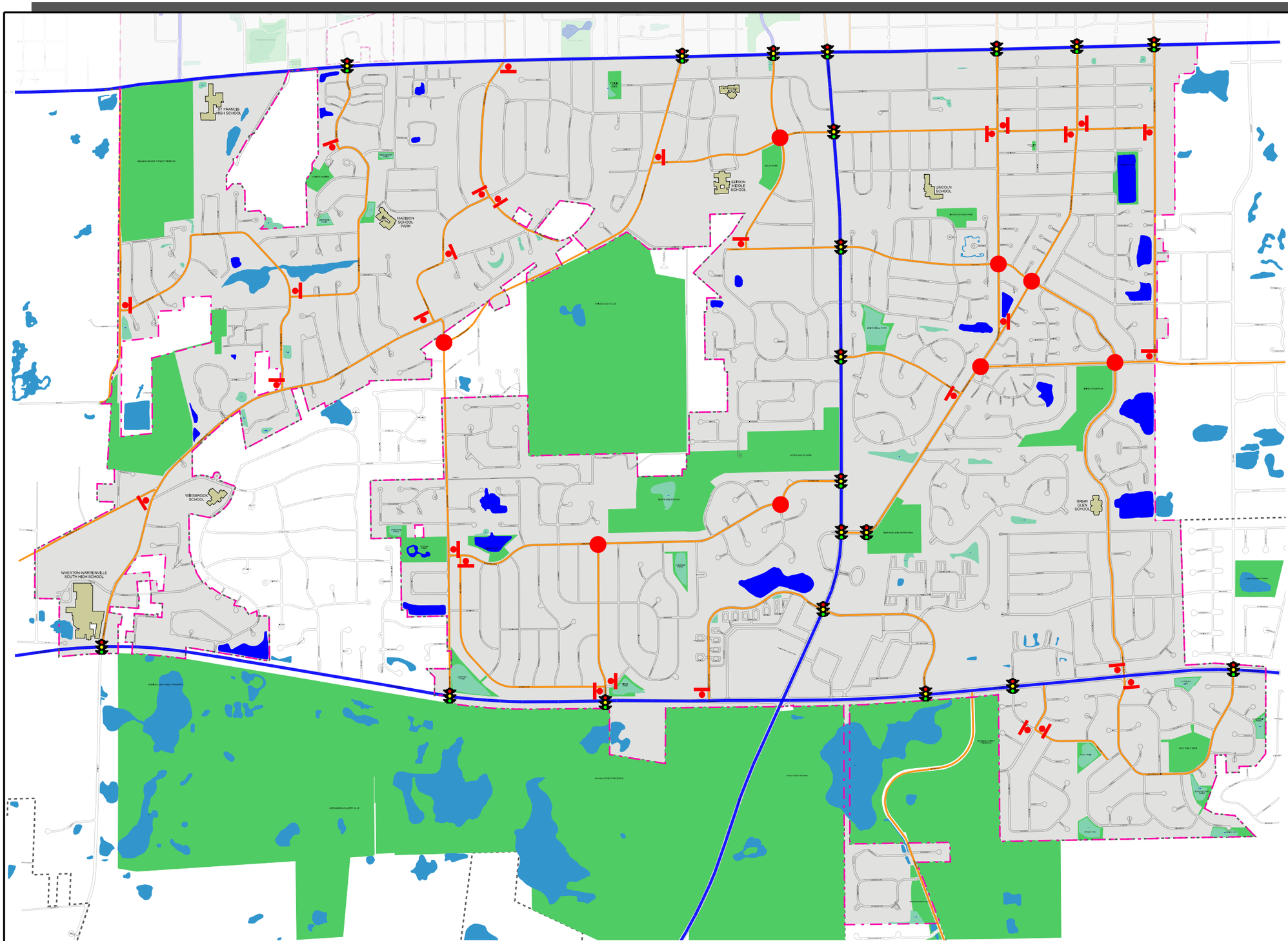


COLLECTOR
ROAD STUDY
WHEATON, ILLINOIS

EXISTING COLLECTOR ROAD TRAFFIC CONTROL - NORTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 3A



N

SCALE: 1" = 80'

LEGEND

- EXISTING SIGNAL
- EXISTING STOP SIGN
- EXISTING ALL-WAY STOP SIGNS

COLLECTOR
ROAD STUDY
WHEATON, ILLINOIS

EXISTING COLLECTOR ROAD TRAFFIC CONTROL - SOUTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 3B

SCALE: N.T.S.

GENEVA ROAD
COUNTY FARM RD
JEWEL RD
HARRISON AVE
MANCHESTER RD
CHILDS ST
ROOSEVELT ROAD
WARRENVILLE AVE
BUTTERFIELD ROAD
MAIN STREET
WASHINGTON ST
COLE AVE
PARKWAY DR
PRESIDENT ST
HAWTHORNE BLVD
ELLIS AVE
GARY AVE
WEST ST
WESLEY ST
FRONT ST
WILLOW AVE
ILLINOIS ST
COLLEGE AVE
LORRAINE RD
HILL AVE
CRESCENT ST
ADARE DR
GABLES BLVD
WARRENVILLE RD
ELM ST
SHAFNER RD
CREEKSIDE DR
AURORA WAY
FOOTHILL DR
PLAMONDON RD
FARNHAM LN
STONE-BRIDGE TRL
WIESBROOK RD
ORCHARD RD
NAPERVILLE ROAD
BRIARCLIFFE BLVD
22ND ST
BLANCHARD ST
DANADA DRIVE
BRIGHTON DR
CROMWELL DR
DORSET DR
WEST LOOP RD
EAST LOOP RD
HULL DR
SCOTTDALE CIRCLE
LEASK LN

LEGEND
- COUNT LOCATIONS
- LOCAL ROADS
- COLLECTOR ROADS
- ARTERIAL ROADS
- WHEATON BOUNDARY

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

TRAFFIC COUNTS AND SPEED SURVEY LOCATIONS

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 4

SCALE: 1" = 80'

LEGEND

- ←000 - ONE-WAY DAILY TRAFFIC VOLUME
- ←000→ - TWO-WAY DAILY TRAFFIC VOLUME
- - LOCAL ROADS
- - COLLECTOR ROADS
- - ARTERIAL ROADS

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

DAILY TRAFFIC VOLUMES - NORTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 5A

SCALE: 1" = 80'

LEGEND

000 - ONE-WAY DAILY TRAFFIC VOLUME

- LOCAL ROADS

- COLLECTOR ROADS

- ARTERIAL ROADS

ST. FRANCIS HIGH SCHOOL
MADISON SCHOOL PARK
EDISON MIDDLE SCHOOL
LINCOLN SCHOOL
WESSBROOK SCHOOL
WHEATON-WARRENVILLE SOUTH HIGH SCHOOL
BRIAR GLEN SCHOOL

2214 → 2356
662 ← 707
1299 ← 1585 →
1255 ← 1021
697 ← 837 →
316 ← 328 →
4140 ← 4274
1848 ← 1662
4067 ← 4274
565 ← 725 →
884 ← 991 →
2217 → 2839
2044 ← 2146
1504 ← 1652
794 ← 730 →
2801 ← 2958 →
3947 ← 4133 →
4237 ← 3915
6346 ← 5370
1571 ← 1553 →
2034 ← 1943
816 ← 888
1762 ← 1804
1951 ← 3509
341 ← 226 →
419 ← 512 →

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

DAILY TRAFFIC VOLUMES - SOUTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 5B

SCALE: 1" = 80'

LEGEND

00 - AVERAGE SPEEDS

(00) - 85TH PERCENTILE SPEEDS

- LOCAL ROADS

- COLLECTOR ROADS

- ARTERIAL ROADS

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

AVERAGE AND 85TH PERCENTILE SPEEDS - NORTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 6A

SCALE: 1" = 80'

LEGEND

00 - AVERAGE SPEEDS
(00) - 85TH PERCENTILE SPEEDS
- LOCAL ROADS
- COLLECTOR ROADS
- ARTERIAL ROADS

ST. FRANCIS HIGH SCHOOL
MADISON SCHOOL PARK
EDISON MIDDLE SCHOOL
LINCOLN SCHOOL
WESSBROOK SCHOOL
WHEATON-WARRENVILLE SOUTH HIGH SCHOOL
BRIAR GLEN SCHOOL

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

AVERAGE AND 85TH PERCENTILE SPEEDS - SOUTH WHEATON

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 6B

SCALE: N.T.S.

GENEVA ROAD
COUNTY FARM RD
JEWEL RD
HARRISON AVE
MANCHESTER RD
CHILDS ST
ROOSEVELT ROAD
WARRENVILLE AVE
BUTTERFIELD ROAD
DORSET DR
SHAFNER RD
COUNTY FARM RD
ADARE DR
CREEKSIDE DR
STONE-BRIDGE TRL
WIESBROOK RD
FOOTHILL DR
AURORA WAY
GABLES BLVD
ORCHARD RD
CROMWELL DR
WARRENVILLE RD
PLAMONDON RD
BRIGHTON DR
WEST LOOP RD
EAST LOOP RD
MAIN STREET
NAPERVILLE ROAD
ELLIS AVE
GARY AVE
WEST ST
WASHINGTON ST
COLE AVE
PARKWAY DR
WESLEY ST
FRONT ST
WILLOW AVE
ELM ST
FARNHAM LN
MAIN ST
DANADA DRIVE
PRESIDENT ST
HAWTHORNE BLVD
COLLEGE AVE
HILL AVE
CRESCENT ST
ILLINOIS ST
LORRAINE RD
22ND ST
BLANCHARD ST
BRIARCLIFFE BLVD
LEASK LN
HULL DR
SCOTTDALE CIRCLE

LEGEND

- MAJOR ARTERIAL ROADS
- MINOR ARTERIAL ROADS
- MAJOR COLLECTOR ROADS
- MINOR COLLECTOR ROADS
- LOCAL ROADS
- WHEATON BOUNDARY

COLLECTOR ROAD STUDY
WHEATON, ILLINOIS

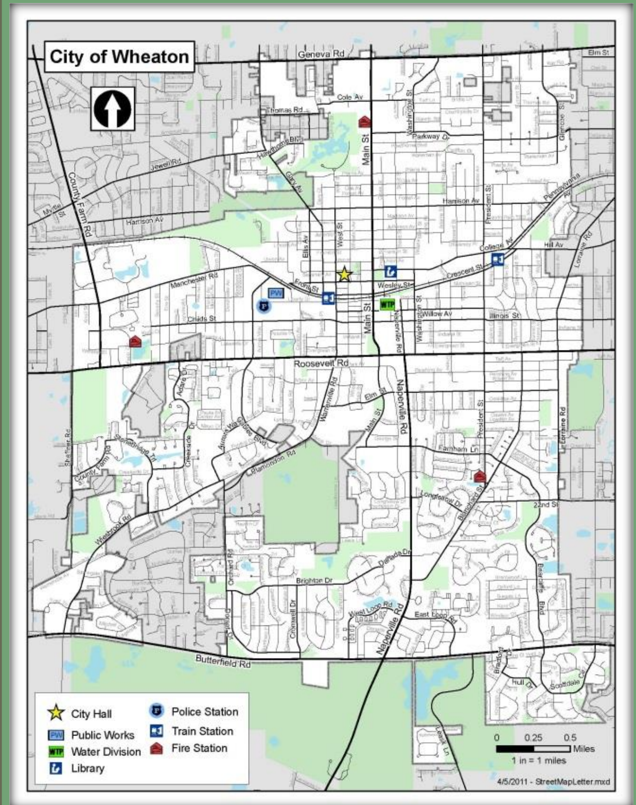
MODIFIED ROADWAY FUNCTIONAL CLASSIFICATION SYSTEM

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 17-201 Figure: 7

CITY OF WHEATON COLLECTOR ROAD CHARACTERISTICS

	Operating Characteristics									Physical Characteristics												Traffic Control				School/Park Signage		
	Traffic Volume			Average Speeds		85th % Speeds																						
Collector Road	North or East	South or West	Total	North or East	South or West	North or East	South or West	Truck Percentage	Speed Limit	Flow	Centerline or Median (Predominantly)	Number of Lanes	Bike Lanes	On-Street Parking (Predominantly)	Edge Type (Predominantly)	Sidewalks (Predominantly)	At-Grade Railroad Crossing	Road Length (Feet)	Road Width (Feet)	General Access Type	Access Density	Traffic Signals	All-Way Stop	Collector Two-Way Stop	Three-Way Stop	Zones	Speed Limits	Crossings
Adare Drive									30	Two-Way	Centerline	1-1		Both	Curb	Both	No	1,422	38	Residential	High	1	0	1	0	0	0	0
Aurora Way									30	Two-Way	Centerline	1-1		Both	Curb (E of Sunset)	North Side	No	1,503	32	Residential	High	0	0	0	0	1	20	1
Blanchard Street	2,839	2,217	5,056	33	30	38	36	2.6	30	Two-Way	Centerline	1-1		East Side	Curb	Both	No	8,690	32-40	Mixed	Low	3	2	1	0	1	20	4
	5,730	6,346	12,076	34	34	39	38	2.9																				
Bradford Drive									30	Two-Way		1-1		Both	Curb	Both	No	789	40	Residential	High	1	0	0	0	0	0	0
Briarcliff Boulevard (W of Blanchard)									30	Two-Way		1-1		Both	Curb	Both	No	644	28	Residential	Medium	0	2	0	0	0	0	0
Baricliff Boulevard (SE of Blanchard)	2,044	2,146	4,190	30	31	34	35	2.0	30	Two-Way	Median	1-1		Both	Curb	Both	No	7,793	48-50	Residential	High	0	2	1	0	1	20	2
	1,943	2,034	3,977	30	32	34	37	3.9																				
Brighton Drive	1,553	1,571	3,124	25	26	30	31	3.6	30	Two-Way		1-1		Both	Curb	Both	No	5,840	32-36	Residential	High	0	2	1	0	0	0	4
Childs Street	1,743	1,136	2,879	29	29	34	35	4.5	30	Two-Way		1-1		Both	Curb	Both	No	6,598	28-33	Mixed	Medium	1	3	0	0	2	20	2
Cole Avenue			0						30	Two-Way	Centerline	1-1		East of Main	Curb	East of Main	No	3,429	28	Mixed	Medium	1	0	2	0	0	0	0
College Avenue	2,790	2,332	5,122	27	27	32	33	3.3	30	Two-Way	Centerline	1-1	Signed Route	None	Curb	Both	No	6,752	25-42	Mixed	Medium	0	3	1	0	0	0	2
County Farm Road									30	Two-Way		1-1		South	Curb	Both	No	2,261	28-38	Residential	High	0	0	1	0	0	0	0
Creekside Drive	2,359	2,214	4,573	26	26	31	31	3.6	30	Two-Way		1-1		Both	Curb	Both	No	3,747	28-38	Residential	High	0	0	1	0	2	20	2
Cromwell Drive	888	816	1,704	29	30	34	36	4.9	30	Two-Way		1-1		East Side	Curb	Both	No	2,643	31-50	Residential	High	1	1	0	0	0	0	0
Crescent Street	495	796	1,291	27	27	32	33	6.1	30	Two-Way		1-1		North Side, South Side West of President	Curb	South Side	No	3,816	29-57	Mixed	Medium	0	0	2	1	0	0	0
Danada Drive									30	Two-Way		1-1		Both	Curb	Both	No	1,180	36	Residential	High	1	1	0	0	0	0	0
Dorset Drive									30	Two-Way		1-1		West/South Side	Curb	Both	No	4,188	24	Residential	High	0	0	2	0	0	0	0
East Loop Road	3,951	3,509	7,460	29	29	34	34	2.7	30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No	2,971	40	Commercial	Low	1	0	1	0	0	0	0
Ellis Avenue		4,314	4,314		28		33	0.5	30	Southbound		1		West Side	Curb	Both	No	2,828	25	Residential	Medium	0	2	1	0	1	20	2
Elm Street	328	316	644	26	25	32	32	3.3	30	Two-Way		1-1		Both	Curb	South Side	No	8,452	21-28	Residential	High	1	1	4	0	2	20	4
	837	697	1,534	29	29	34	34	4.1							Shoulder President to Roosevelt													
	1,585	1,299	2,884	26	28	33	33	3.6																				
Farnham Road	991	884	1,875	28	27	34	33	1.3	30	Two-Way		1-1		North Side, South Side West of President	Curb (E of President)	East of President	No	4,620	23-28	Residential	Medium	1	1	0	0	2	20	2
	725	565	1,290	28	29	34	34	4.3																				
Foothill Drive									30	Two-Way	Centerline	1-1		Both	Shoulder	North Side	No	414	26	Residential	High	0	0	0	0	0	0	0
Front Street									20 /30	Eastbound		1		South Side and Both Sides	Curb	North Side & Both	No	3,096	25-49	Commercial	High	2	1	1	1	0	0	0
Gables Boulevard	707	662	1,369	31	29	36	33	1.2	30	Two-Way		1-1		Both	Curb (S of Childs)	North of Roosevelt	No	6,900	18-32	Residential	High	0	1	3	0	0	0	0
	1,297	1,682	2,979	27	27	33	33	1.4																				
Gary Avenue (N of Harrison)	17,400								35	Two-Way	Centerline	1-1		None	Curb (N of Prairie)	North of Prairie	No			Mixed	Low	3	1	0	0	0	0	2
Gary Avenue (Harrison - Wesley)	5,512		5,512	31		36		6.2	30	Northbound		1		West Side	Curb	Both	No	2,661	32	Residential	Medium	0	1	1	0	1	20	2
Gary Avenue (S of Wesley)									30	Two-Way	Centerline	1-1		None	Curb	Both	No	34	433	Mixed	Medium	0	0	2	0	0	0	0
Glencoe Street	512	509	1,021	24	25	29	31	7.3	30	Two-Way		1-1		Both	Curb	Both	No	4,054	28	Residential	High	0	1	1	0	2	20	2
Harrison Avenue	4,049	3,893	7,942	29	29	34	33	4.6	30	Two-Way	Centerline	1-1		Both	Curb	Both	No	8,522	31-36	Residential	Medium	1	3	1	0	2	20	2
	5,718	4,864	10,582	27	28	33	33	4.0																				
Hawthorne Boulevard	669	818	1,487	26	26	32	33	4.2	30	Two-Way	Median	1-1		Both	Curb	Both	No	3,163	42	Residential	High	0	1	1	0	1	20	0
Hill Avenue									30	Two-Way		1-1		None	Curb	Both	Yes	1,401	31-46	Mixed	High	0	0	0	0	0	0	1
Hull Drive	226	341	567	25	27	31	33	4.6	30	Two-Way		1-1		Both	Curb	Both	No	1,424	28-29	Residential	High	0	0	1	0	0	0	0
Illinois Street	594	557	1,151	28	26	33	32	3.0	30	Two-Way		1-1		Both	Curb	Both	No	8,799	24-31	Mixed	High	1	7	1	0	2	0	0
	947	608	1,555	28	27	33	33	3.5																				
Jewell Road									30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No			Mixed	Low	1	0	0	0	1	20	1
Leask Lane									30	Two-Way	Centerline	1-1		None	Shoulder	None	No				Low	1	0	0	0	0	0	0
Longfellow Drive	730	794	1,524	26	26	33	32	3.2	30	Two-Way		1-1		Both	Curb	Both	No	2,154	31-41	Residential	High	1	0	1	0	0	0	2
Lorraine Road	1,662	1,848	3,510	32	30	37	36	4.0	30	Two-Way	Centerline	1-1		East Side, West Side North of Roosevelt	Curb	Both	No	8,032	25-45	Residential	Medium	1	0	1	0	2	20	3
	1,029	1,123	2,152	15	30	33	36	3.6			(S of Roosevelt)																	
Main Street (S of Roosevelt)	1,021	1,255	2,276	27	27	33	33	2.9	30	Two-Way		1-1		Both	Curb	West Side	No	3,448	21-28	Residential	High	1	1	1	0	1	20	2
Main Street (N of Seminary)	9,037	8,299	17,336	29	30	35	34	5.1	30	Two-Way	Turn-Lane/TWLT	-2 North of Cole)		None	Curb	Both	No	3,061	42	Mixed	Medium	6	0	0	0	2	20	2
Main Street (South Roosevelt to Seminary)									20/30	Two-Way	Turn-Lane/TWLT	1-1		Both	Curb	Both	Yes	7,871	48-58	Commercial	Medium	5	1	0	0	0	0	0
Manchester Road	4,227	3,899	8,126	32	31	38	36	6.2	30	Two-Way		1-1		None	Curb	South Side	No	8,122	24-36	Mixed	Medium	2	0	0	0	2	20	2
Naperville Road	5,424	5,827	11,251	23	26	31	33	3.5	30	Two-Way		1-1		North of Illinois	Curb	Both	No	1,929	28-41	Mixed	Medium	1	2	0	0	0	0	0
Orchard Road (North of Wiesbrook)									30	Two-Way	Centerline	1-1		Both	Shoulder	None	No	889	26	Residential	High	0	0	1	0	0	0	0
Orchard Road	3,915	4,237	8,152	32	33	38	39	4.1	30	Two-Way	Centerline	1-1		Both	Shoulder	Both	No	6,434	23-31	Residential	Medium	1	1	0	0	1	20	2
Parkway Drive	806	786	1,592	29	29	34	34	2.7	30	Two-Way	Centerline	1-1		Both	Shoulder	South Side	No	4,025	22	Residential	High	1	0	1	0	2	20	3
Plamondon Drive									35	Two-Way	Centerline	1-1		None	Shoulder	North Side	No	4,026	23	Residential	Medium	0	1	0	0	0	0	0
President Street	6,631	6,808	13,439	31	29	36	35	3.8	30	Two-Way	Centerline	1-1		West Side, East Side South of Elm	Curb	Both	Yes	15,451	33-52	Mixed	Medium	2	4	0	0	3	20	5
	5,594	6,017	11,611	26	26	33	32	4.3																				
	4,274	4,140	8,414	32	31	38	38	5.0																				
Scottdale Circle	512	419	931	28	27	34	33	4.7	30	Two-Way		1-1		Both	Curb	Both	No	4,558	34-44	Residential	High	1	0	1	0	0	0	2
Seminary Avenue									30	Two-Way		1-1		South Side	Curb	Both	No	1,456	30-31	Mixed	Medium	1	2	0	0	0	0	0
Shaffner Road									35	Two-Way		1-1		None	Shoulder	None	No	5,114	21-22	Undeveloped	Low	0	0	1	0	0	0	0
Stonebridge Trail	1,652	1,504	3,156	26	27	32	33	2.9	30	Two-Way		1-1		South/West Side	Curb	Both	No	4,288	28-31	Residential	None	0	0	1	0	0	0	1
Thomas Avenue									30	Two-Way		1-1		Both	North	North Side	No	2,116	25-26	Mixed	Low	1	1	0	0	1	20	0
22nd Street	2,958	2,801	5,759	31	32	35	37	2.1	30	Two-Way	Median	1-1		Both	Curb	North Side	No	2,987	50	Residential	Low	0	2	0	0	0	0	0
Warrenville Road (South)									30	Two-Way	Centerline	1-1		None	Curb	None	No	2,279	23-29	Residential	Medium	0	0	1	0	0	0	0
Warrenville Road (North)	4,274	4,067	8,341	33	34	39	39	6.2	30	Two-Way	Centerline	1-1		None	Shoulder	None	No	3,237	26-45	Residential	Medium	1	0	0	0	0	0	3
Washington Street (North)	624	721	1,345	25	25	32	32	2.8	30	Two-Way		1-1		Both	Curb (N of Cole)	None	No	2,610	24-26	Residential	High	0	0	3	0	1	20	1
Washington Street (South)	2,156	1,340	3,496	27	24	33	30	3.5	30	Two-Way		1-1		None	Curb	Both	Yes	2,870	24-38	Mixed	Medium	0	3	0	0	0	0	0
Wesley Street									20	Westbound		1		Both	Curb	Both	No	4,408	25-49	Mixed	High	2	5	0	0	0	0	1
West Loop Road	1,804	1,762	3,566	30	31	35	37	1.8	30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No	3,343	40	Mixed	Low	1	0	1	0	0	0	0
West Street (North of Wesley)	2,751	2,994	5,745	28	29	33	34	4.3	30	Two-Way		2-2	Signed Route	Both	Curb	Both	No	2,575	28-34	Residential	Medium	1	2	0	0	1	20	1
West Street (South of Wesley)									20	Two-Way	Centerline	1-1	Signed Route	None	Curb	Both	Yes	2,586	34-45	Mixed	Medium	4	1	0	0	2	20	2
Wiesbrook Road	4,133	3,947	8,080	35	39	36	41	4.6	30	Two-Way	Centerline	1-1		None	Curb	Both	No	8,435	32-39	Mixed	Medium	1	0	0	0	3	20	4
Willow Avenue	1,334	895	2,229	28	27	33	33	2.1	20/30	Two-Way	enterline (W of Mai	1-1		Both	Curb	Both	No	5,160	25-44	Mixed	Medium	1	7	0	0	2	20	0



CITY OF WHEATON COLLECTOR ROAD STUDY

Kenig, Lindgren, O'Hara, Aboona, Inc.

Wheaton City Council Meeting

Presentation Outline

- Purpose and objectives
- Roadway functional classification system definition
- City of Wheaton functional classification system
- Data collection
- Findings - traffic volumes
- Findings - travel speeds
- Recommended modifications
- Roadways for further review and/or study

Purpose/Objective of the Study

- Inventory the existing physical and operating conditions of the collector roads
- Identify any operating deficiencies along the collector roads
- Evaluate whether the roads are serving the function of a collector road
- Determine if any modifications are necessary to the existing roadway functional classification system

Roadway Functional Classification System Definition

Access vs. Mobility

Mobility function: **Enhancing traffic flow by reducing travel friction via limited land access**

Accessibility Function: **Enhancing land access which increases travel friction and reduces traffic flow**

- Two primary purposes of a roadway are travel mobility and land access
- The purpose of defining a roadway's function is to determine how it serves these two primary travel needs
- The travel needs of a road is a function of its access, length, traffic control, capacity, and other general design standards

Roadway Functional Classification System Definition

Road Hierarchy

Highways

Arterial Roads
- **Major**
- **Minor**

Collector Roads
- **Major**
- **Minor**

Local Roads

- Arterial roads
  - Primary function is traffic mobility
  - Land access is typically limited
  - Extend between highways and arterials
- Collector roads
  - Primary function is to collect traffic
  - Provide land access and traffic service
  - Distribute traffic between arterials and locals
- Local roads
  - Primary function is land access
  - Limited mobility
  - Extend between collectors and locals

Functional Classification versus Roadway Characteristics

Functional Classification	Length	Access Points	Speed Limits	Distances Between Routes	Usage (ADT And DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

ADT = Average Daily Traffic Volumes
DVMT = Daily Vehicle Miles Traveled

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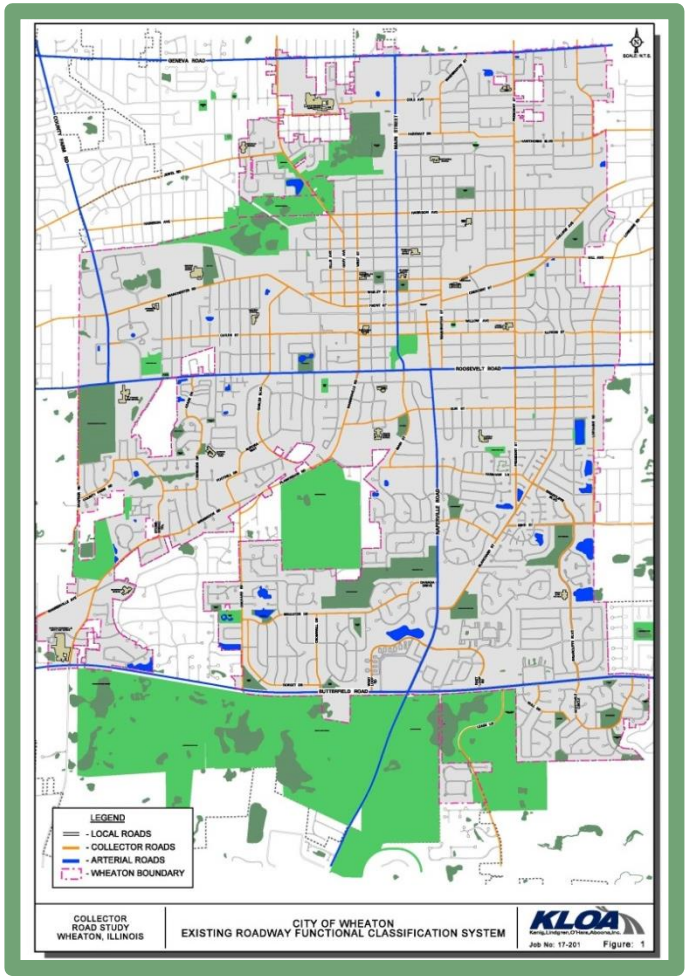
Collector Road General Criteria

Characteristics	Criteria
Daily Traffic Volumes	• Greater than 1,500 vehicles • 1,100 to 6,300 vehicles
Minimum Spacing	• ½ to 1 mile in suburban areas • ¼ mile in urban areas
System Continuity and Redundancy	• Collector roads should extend between other collector roads and/or arterial roads. • Avoid, if possible within spacing guidelines, assigning the same functional classification to parallel routes.
Length	• Major collector roads penetrate residential neighborhoods, often for significant distances, typically greater than ¾ of a mile. • Minor collector roads penetrate residential neighborhoods, often only for a short distance, typically less than ¾ of a mile.
Access	• Major collector roads serve higher density residential and commercial/industrial areas • Minor collector roads serve lower density residential and commercial/industrial areas.

Existing Roadway Functional Classification System



Collector Road Study

- 3 roadway categories
- Arterial roads
  - 6 total arterial roads
  - IDOT & DuDOT jurisdiction
- Collector roads
  - 56 total collector roads
  - Wheaton jurisdiction
- Numerous local roads

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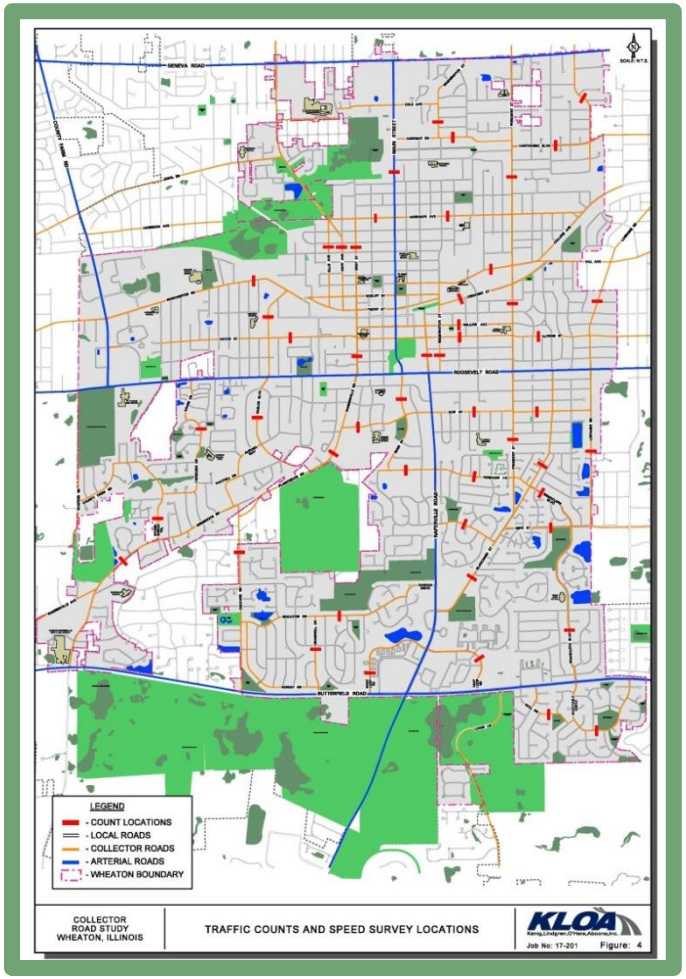
Existing Collector Roads

Adare Drive	Farnham Lane	Orchard Road
Aurora Way (Gables to Foothill)	Foothill Drive (Aurora to Orchard)	Parkway Drive
Blanchard Street (South of Roosevelt)	Front Street	Plamondon Road
Bradford Drive (Butterfield to Hull)	Gables Boulevard	President Street
Briarcliff Boulevard	Gary Avenue	Scottdale Circle
Brighton Drive	Glencoe Street	Seminary Ave (East of Main)
Childs Street	Harrison Avenue	Shaffner Road
Cole Avenue	Hawthorne Boulevard (East of President)	Stonebridge Trail
College Avenue	Hill Avenue	Thomas Avenue (Gary to Papworth)
County Farm Road (South of Roosevelt)	Hull Drive (East of Bradford to Appleby)	22nd Street
Creekside Drive	Illinois Street	Warrenville Road
Cromwell Drive	Jewell Road	Washington Street (Geneva to Parkway)
Crescent Street	Leask Lane	Washington Street (Roosevelt to Seminary)
Danada Drive	Longfellow Road (Naperville to Blanchard)	Wesley Street
Dorset Drive	Lorraine Road	West Loop Road
East Loop Road	Main Street (South of Roosevelt)	West Street (Roosevelt to Harrison)
Ellis Avenue	Manchester Road	Wiesbrook Road
Elm Street (Warrenville to Lorraine)	Naperville Road (North of Roosevelt)	Willow Avenue (West Ave. to President)

Collector Road Data Collection



- Performed traffic counts and speed surveys
  - 50 locations
  - Counts were performed for two days in Fall of 2017
- Inventoried physical and operating characteristics
  - Number of lanes
  - Edge and median Type
  - On-Street parking
  - Sidewalks
  - Intersection traffic control
  - School and park zones

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Collector Road Characteristics Spreadsheet

CITY OF WHEATON COLLECTOR ROAD CHARACTERISTICS

Collector Road	Operating Characteristics									Physical Characteristics										Traffic Control				School/Park Signage		
	Traffic Volume			Average Speeds		85th % Speeds		Truck Percentage	Speed Limit	Flow	Centerline or Median (Predominantly)	Number of Lanes	Bike Lanes	On-Street Parking (Predominantly)	Edge Type (Predominantly)	Sidewalks (Predominantly)	At-Grade Railroad Crossing	Road Length (Feet)	Road Width (Feet)	General Access Type	Access Density	Traffic Signals	All-Way Stop	Collector Two-Way Stop	Three-Way Stop	Zones	Speed Limits	Crossings
	North or East	South or West	Total	North or East	South or West	North or East	South or West																					
Adare Drive									30	Two-Way	Centerline	1-1		Both	Curb	Both	No	1,422	38	Residential	High	1	0	1	0	0	0	0
Aurora Way									30	Two-Way	Centerline	1-1		Both	Curb (E of Sunset)	North Side	No	1,503	32	Residential	High	0	0	0	0	1	20	1
Blanchard Street	2,839	2,217	5,056	33	30	38	36	2.6	30	Two-Way	Centerline	1-1		East Side	Curb	Both	No	8,690	32-40	Mixed	Low	3	2	1	0	1	20	4
	5,730	6,346	12,076	34	34	39	38	2.9																				
Bradford Drive									30	Two-Way		1-1		Both	Curb	Both	No	789	40	Residential	High	1	0	0	0	0	0	0
Branchiff Boulevard (W of Blanchard)									30	Two-Way		1-1		Both	Curb	Both	No	644	28	Residential	Medium	0	2	0	0	0	0	0
Barickiff Boulevard (SE of Blanchard)	2,044	2,146	4,190	30	31	34	35	2.0	30	Two-Way	Median	1-1		Both	Curb	Both	No	7,793	48-50	Residential	High	0	2	1	0	1	20	2
	1,943	2,034	3,977	30	32	34	37	3.9																				
Brighton Drive	1,553	1,571	3,124	25	26	30	31	3.6	30	Two-Way		1-1		Both	Curb	Both	No	5,840	32-36	Residential	High	0	2	1	0	0	0	4
Childs Street	1,743	1,136	2,879	29	29	34	35	4.5	30	Two-Way		1-1		Both	Curb	Both	No	6,598	28-33	Mixed	Medium	1	3	0	0	2	20	2
Cole Avenue			0						30	Two-Way	Centerline	1-1		East of Main	Curb	East of Main	No	3,429	28	Mixed	Medium	1	0	2	0	0	0	0
College Avenue	2,790	2,332	5,122	27	27	32	33	3.3	30	Two-Way	Centerline	1-1	Signed Route	None	Curb	Both	No	6,752	25-42	Mixed	Medium	0	3	1	0	0	0	2
County Farm Road									30	Two-Way		1-1		South	Curb	Both	No	2,261	28-38	Residential	High	0	0	1	0	0	0	0
Creekside Drive	2,359	2,214	4,573	26	26	31	31	3.6	30	Two-Way		1-1		Both	Curb	Both	No	3,747	28-38	Residential	High	0	0	1	0	2	20	2
Cromwell Drive	888	816	1,704	29	30	34	36	4.9	30	Two-Way		1-1		East Side	Curb	Both	No	2,643	31-50	Residential	High	1	1	0	0	0	0	0
Crescent Street	495	796	1,291	27	27	32	33	6.1	30	Two-Way		1-1		North Side, South Side West of President	Curb	South Side	No	3,816	29-57	Mixed	Medium	0	0	2	1	0	0	0
Danada Drive									30	Two-Way		1-1		Both	Curb	Both	No	1,180	36	Residential	High	1	1	0	0	0	0	0
Dorset Drive									30	Two-Way		1-1		West/South Side	Curb	Both	No	4,188	24	Residential	High	0	0	2	0	0	0	0
East Loop Road	3,951	3,509	7,460	29	29	34	34	2.7	30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No	2,971	40	Commercial	Low	1	0	1	0	0	0	0
Ellis Avenue		4,314	4,314		28		33	0.5	30	Southbound		1		West Side	Curb	Both	No	2,828	25	Residential	Medium	0	2	1	0	1	20	2
Elm Street	328	316	644	26	25	32	32	3.3	30	Two-Way		1-1		Both	Curb	South Side	No	8,452	21-28	Residential	High	1	1	4	0	2	20	4
	837	697	1,534	29	29	34	34	4.1							Shoulder President to Roosevelt													
	1,585	1,299	2,884	26	28	33	33	3.6																				
Farnham Road	991	884	1,875	28	27	34	33	1.3	30	Two-Way		1-1		North Side, South Side West of President	Curb (E of President)	East of President	No	4,620	23-28	Residential	Medium	1	1	0	0	2	20	2
	725	565	1,290	28	29	34	34	4.3																				
Foothill Drive									30	Two-Way	Centerline	1-1		Both	Shoulder	North Side	No	414	26	Residential	High	0	0	0	0	0	0	0
Front Street									20/30	Eastbound		1		South Side and Both Sides	Curb	North Side & Both	No	3,096	25-49	Commercial	High	2	1	1	1	0	0	0
Gables Boulevard	707	662	1,369	31	29	36	33	1.2	30	Two-Way		1-1		Both	Curb (S of Childs)	North of Roosevelt	No	6,900	18-32	Residential	High	0	1	3	0	0	0	0
	1,297	1,682	2,979	27	27	33	33	1.4																				
Gary Avenue (N of Harrison)	17,400								35	Two-Way	Centerline	1-1		None	Curb (N of Prairie)	North of Prairie	No			Mixed	Low	3	1	0	0	0	0	2
Gary Avenue (Harrison - Wesley)	5,512		5,512	31		36		6.2	30	Northbound		1		West Side	Curb	Both	No	2,661	32	Residential	Medium	0	1	1	0	1	20	2
Gary Avenue (S of Wesley)									30	Two-Way	Centerline	1-1		None	Curb	Both	No	34	433	Mixed	Medium	0	0	2	0	0	0	0
Glencoe Street	512	509	1,021	24	25	29	31	7.3	30	Two-Way		1-1		Both	Curb	Both	No	4,054	28	Residential	High	0	1	1	0	2	20	2
Harrison Avenue	4,049	3,893	7,942	29	29	34	33	4.6	30	Two-Way	Centerline	1-1		Both	Curb	Both	No	8,522	31-36	Residential	Medium	1	3	1	0	2	20	2
	5,718	4,864	10,582	27	28	33	33	4.0																				
Hawthorne Boulevard	669	818	1,487	26	26	32	33	4.2	30	Two-Way	Median	1-1		Both	Curb	Both	No	3,163	42	Residential	High	0	1	1	0	1	20	0
Hill Avenue									30	Two-Way		1-1		None	Curb	Both	Yes	1,401	31-46	Mixed	High	0	0	0	0	0	0	1
Hull Drive	226	341	567	25	27	31	33	4.6	30	Two-Way		1-1		Both	Curb	Both	No	1,424	28-29	Residential	High	0	0	1	0	0	0	0
Illinois Street	594	557	1,151	28	26	33	32	3.0	30	Two-Way		1-1		Both	Curb	Both	No	8,799	24-31	Mixed	High	1	7	1	0	2	0	0
	947	608	1,555	28	27	33	33	3.5																				
Jewell Road									30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No			Mixed	Low	1	0	0	0	1	20	1
Leask Lane									30	Two-Way	Centerline	1-1		None	Shoulder	None	No				Low	1	0	0	0	0	0	0
Longfellow Drive	730	794	1,524	26	26	33	32	3.2	30	Two-Way		1-1		Both	Curb	Both	No	2,154	31-41	Residential	High	1	0	1	0	0	0	2
Lorraine Road	1,662	1,848	3,510	32	30	37	36	4.0	30	Two-Way	Centerline	1-1		East Side, West Side North of Roosevelt	Curb	Both	No	8,032	25-45	Residential	Medium	1	0	1	0	2	20	3
	1,029	1,123	2,152	15	30	33	36	3.6			(S of Roosevelt)																	
Main Street (S of Roosevelt)	1,021	1,255	2,276	27	27	33	33	2.9	30	Two-Way		1-1		Both	Curb	West Side	No	3,448	21-28	Residential	High	1	1	1	0	1	20	2
Main Street (N of Seminary)	9,037	8,299	17,336	29	30	35	34	5.1	30	Two-Way	Turn-Lane/TWLT	2 North of Cole)		None	Curb	Both	No	3,061	42	Mixed	Medium	6	0	0	0	2	20	2
Main Street (South Roosevelt to Seminary)									20/30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	Yes	7,871	48-58	Commercial	Medium	5	1	0	0	0	0	0
Manchester Road	4,227	3,899	8,126	32	31	38	36	6.2	30	Two-Way		1-1		None	Curb	South Side	No	8,122	24-36	Mixed	Medium	2	0	0	0	2	20	2
Naperville Road	5,424	5,827	11,251	23	26	31	33	3.5	30	Two-Way		1-1		North of Illinois	Curb	Both	No	1,929	28-41	Mixed	Medium	1	2	0	0	0	0	0
Orchard Road (North of Westbrook)									30	Two-Way	Centerline	1-1		Both	Shoulder	None	No	889	26	Residential	High	0	0	1	0	0	0	0
Orchard Road	3,915	4,237	8,152	32	33	38	39	4.1	30	Two-Way	Centerline	1-1		Both	Shoulder	Both	No	6,434	23-31	Residential	Medium	1	1	0	0	1	20	2
Parkway Drive	806	786	1,592	29	29	34	34	2.7	30	Two-Way	Centerline	1-1		Both	Shoulder	South Side	No	4,025	22	Residential	High	1	0	1	0	2	20	3
Plamondon Drive									35	Two-Way	Centerline	1-1		None	Shoulder	North Side	No	4,026	23	Residential	Medium	0	1	0	0	0	0	0
President Street	6,631	6,808	13,439	31	29	36	35	3.8	30	Two-Way	Centerline	1-1		West Side, East Side South of Elm	Curb	Both	Yes	15,451	33-52	Mixed	Medium	2	4	0	0	3	20	5
	5,594	6,017	11,611	26	26	33	32	4.3																				
	4,274	4,140	8,414	32	31	38	38	5.0																				
Scottdale Circle	512	419	931	28	27	34	33	4.7	30	Two-Way		1-1		Both	Curb	Both	No	4,558	34-44	Residential	High	1	0	1	0	0	0	2
Seminary Avenue									30	Two-Way		1-1		South Side	Curb	Both	No	1,456	30-31	Mixed	Medium	1	2	0	0	0	0	0
Shaffner Road									35	Two-Way		1-1		None	Shoulder	None	No	5,114	21-22	Undeveloped	Low	0	0	1	0	0	0	0
Stonebridge Trail	1,652	1,504	3,156	26	27	32	33	2.9	30	Two-Way		1-1		South/West Side	Curb	Both	No	4,288	28-31	Residential	None	0	0	1	0	0	0	1
Thomas Avenue									30	Two-Way		1-1		Both	North	North Side	No	2,116	25-26	Mixed	Low	1	1	0	0	1	20	0
22nd Street	2,958	2,801	5,759	31	32	35	37	2.1	30	Two-Way	Median	1-1		Both	Curb	North Side	No	2,987	50	Residential	Low	0	2	0	0	0	0	0
Warrenville Road (South)									30	Two-Way	Centerline	1-1		None	None	None	No	2,279	23-29	Residential	Medium	0	0	1	0	0	0	0
Warrenville Road (North)	4,274	4,067	8,341	33	34	39	39	6.2	30	Two-Way	Centerline	1-1		None	Shoulder	None	No	3,237	26-45	Residential	Medium	1	0	0	0	0	0	3
Washington Street (North)	624	721	1,345	25	25	32	32	2.8	30	Two-Way		1-1		Both	Curb (N of Cole)	None	No	2,610	24-26	Residential	High	0	0	3	0	1	20	1
Washington Street (South)	2,156	1,340	3,496	27	24	33	30	3.5	30	Two-Way		1-1		None	Curb	Both	Yes	2,870	24-38	Mixed	Medium	0	3	0	0	0	0	0
Wesley Street									20	Westbound		1		Both	Curb	Both	No	4,408	25-49	Mixed	High	2	5	0	0	0	0	1
West Loop Road	1,804	1,762	3,566	30	31	35	37	1.8	30	Two-Way	Turn-Lane/TWLT	1-1		None	Curb	Both	No	3,343	40	Mixed	Low	1	0	1	0	0	0	0
West Street (North of Wesley)	2,751	2,994	5,745	28	29	33	34	4.3	30	Two-Way		2-2	Signed Route	Both	Curb	Both	No	2,575	28-34	Residential	Medium	1	2	0	0	1	20	1
West Street (South of Wesley)									20	Two-Way	Centerline	1-1	Signed Route	None	Curb	Both	Yes	2,586	34-45	Mixed	Medium	4	1	0	0	2	20	2
Wiesbrook Road	4,133	3,947	8,080	35	39	36	41	4.6	30	Two-Way	Centerline	1-1		None	Curb	Both	No	8,435	32-39	Mixed	Medium	1	0	0	0	3	20	4
Willow Avenue	1,334	895	2,229	28	27	33	33	2.1	20/30	Two-Way	enterline (W of Main	1-1		Both	Curb	Both	No	5,160	25-44	Mixed	Medium	1	7	0	0	2	20	0

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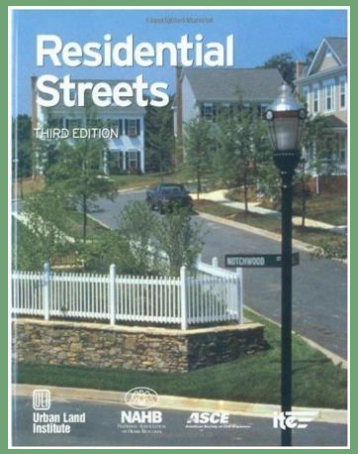
Findings – Traffic Volumes



According to *Residential Streets,* local residential roads typically have a daily volume between 400 and 1,500 vehicles while residential collector roads typically have a daily volume exceeding 1,500 vehicles.

- Volume of traffic varied considerably
- Main Street and 5 collector roads had daily volumes exceeding 10,000 vehicles
- Collector roads with volumes more similar to local roads
  - Ten roads had daily volumes below 1,500 vehicles
  - Four roads had daily traffic volumes just exceeding 1,500 vehicles

Findings – Speed Surveys

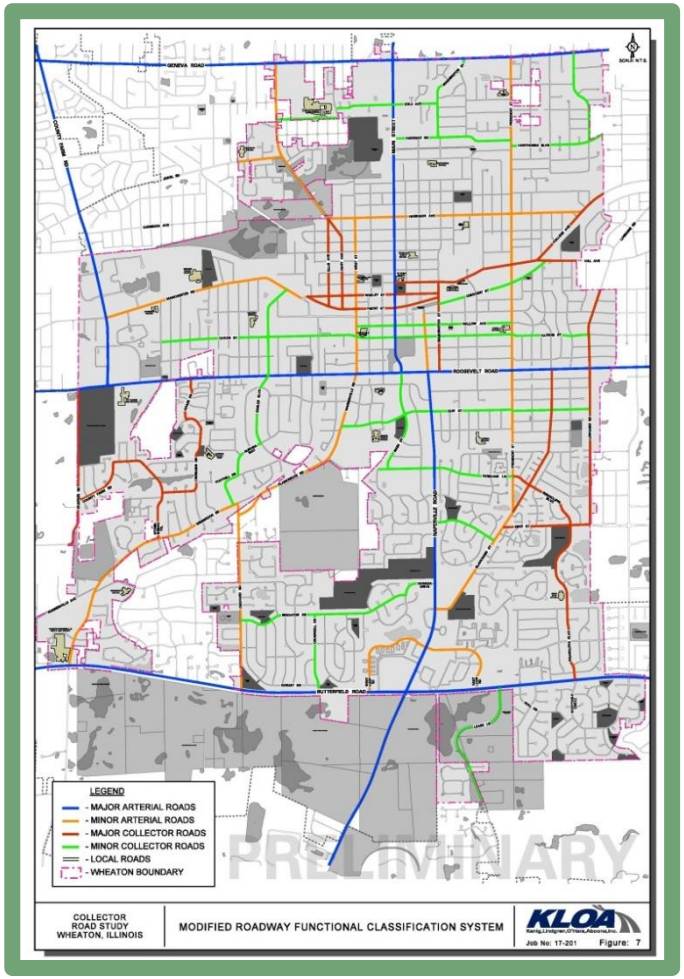
- Travel speeds are primarily influenced by the road's characteristics which are generally costly to modify.
- Courts typically only uphold tickets when they are 8 to 10 mph over the speed limit.
- As such, 85th percentile speeds within 5 mph of the posted speed limit are typically considered reasonable.

- Collector roads generally have a 30 mph speed limit
- Except CBD and school areas that have reduced 20 mph speed limits
- Average speeds were generally within one to two mph of the speed limit
- Many 85th percentile speeds were within 5 mph of the speed limit
- 15 collector roads had average speeds exceeding the speed limit and/or 85th percentile speeds exceeding the speed limit by more than 5 mph

Collector Roads with Volumes/Speeds Exceeding Acceptable/Reasonable Standards

	Traffic Volumes	Average Speeds (mph)	85th Percentile Speeds (mph)
Main Street north of Roosevelt Road	11,716	29 - 30	34 - 35
President Street north of Roosevelt Road	11,611 & 13,439	29 - 31	35 - 36
President Street south of Roosevelt Road	8,414	31 - 32	38
Gary Avenue north of Harrison Avenue	17,400	N/A	N/A
Gary Avenue south of Harrison Avenue	5,512	31	36
West Street south of Indiana Street	9,250	30 - 31	35 - 35
Gables Boulevard north of Roosevelt Road	2,979	29 - 31	33 - 36
Naperville Road north of Roosevelt Road	11,251	23 - 26	31 - 33
Lorraine Road north of Roosevelt Road	4,714	30	34
Lorraine Road south of Roosevelt Road	2,152	30	33 - 36
Blanchard Street south of Roosevelt Road	5,506 & 11,716	30 - 34	36 - 39
Briarcliffe Boulevard	3,977 & 4,190	30 - 32	34 - 37
Warrenville Road	8,341	33 - 34	39
Orchard Road	8,152	32 - 33	38 - 39
Cromwell Drive	1,704	29 - 30	34 - 36
West Loop Road	3,566	30 - 31	35 - 37
Harrison Avenue	7,942 & 10,582	27 - 29	33 - 34
Manchester Road	8,126	31 - 32	36 - 38
Childs Street between West Street and Gables Boulevard	2,879	29 - 29	34 - 35
22nd Street	5,759	31 - 32	35 - 37
Wiesbrook Road	8,080	35 - 39	39 - 41

Proposed Roadway Classification System



- Expand roadway classifications from 3 to 5
- Include major and minor arterials and collectors
- Modifications to the designation of the existing collector roads
  - Major arterials - 1 road
  - Minor arterials - 10 roads
  - Major collectors - 23 roads
  - Minor collectors - 16 roads
  - Locals - 8 roads

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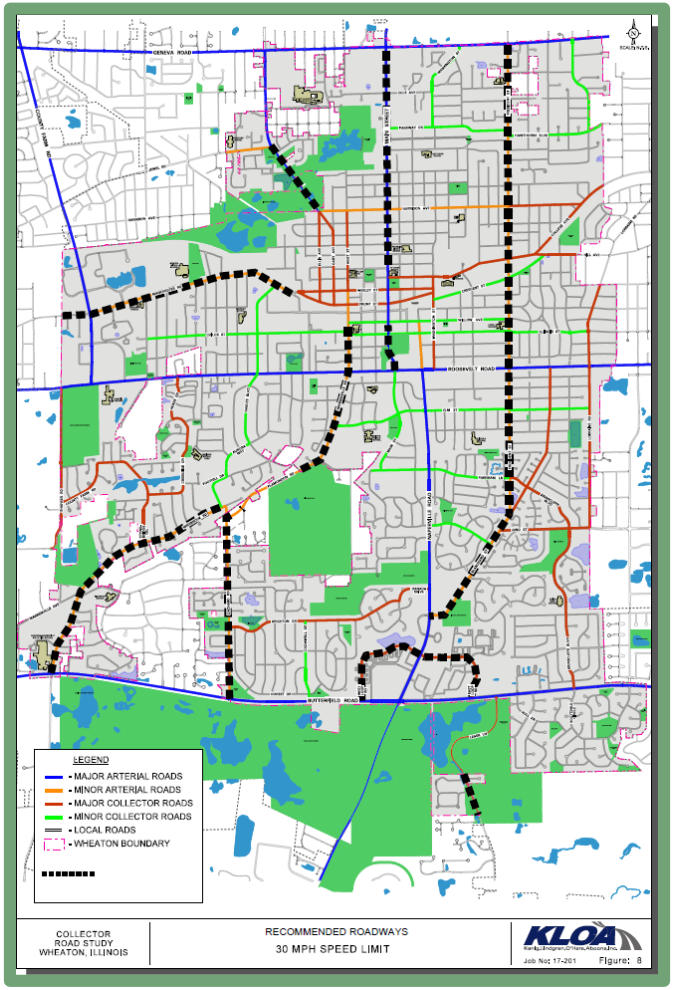
Proposed Roadway Classification System

Modification	Roadway/Segment	
Collector Road to	Gary Avenue north of Harrison Avenue	
Major Arterial Road		
Collector Road to	Blanchard Street (Naperville Road to President Street)	Orchard Road
Minor Arterial Road	Harrison Avenue (Gary Avenue to President Street)	President Street
	Jewell Road	Warrenville Road/Plamondon Road
	Manchester Road	West Street (Roosevelt Road to Wesley Street)
	Naperville Road (Roosevelt Road to Willow Avenue)	Wiesbrook Road
Collector Road to	22nd Street	Harrison Avenue (President Street to College Avenue)
Major Collector Road	Adare Drive	Hill Avenue
	Blanchard Street (Roosevelt Road to President Street)	Leask Lane
	Briarcliffe Boulevard	Lorraine Road
	Brighton Drive/Danada Drive	Seminary Avenue (East of Main Street)
	College Avenue	Shaffner Road
	County Farm Road (South of Roosevelt Road)	Stonebridge Trail
	Creekside Drive	Washington Street (Roosevelt Road to Seminary Avenue)
	East Loop Road	Wesley Street
	Ellis Avenue	West Street (Harrison Avenue to Wesley Street)
	Front Street	West Loop Road
	Gary Avenue (Harrison Avenue to Front Street)	

Proposed Roadway Classification System

Modification	Roadway/Segment	
Collector Road to	Aurora Way (Gables Boulevard to Foothill Drive)	Glencoe Street (Geneva Road to Hawthorne Boulevard)
Minor Collector Road	Childs Street	Hawthorne Boulevard (East of President Street)
	Crescent Street	Illinois Street
	Cromwell Drive	Longfellow Drive (Naperville Road to Blanchard Street)
	Elm Street (Warrenville Road to Lorraine Road)	Main Street (South of Roosevelt Road)
	Farnham Lane	Parkway Drive
	Foothill Drive (Aurora Way to Orchard Road)	Washington Street (Geneva Road to Parkway Drive)
	Gables Boulevard (Manchester Road to Aurora Way)	Willow Avenue (West Avenue to President Street)
Collector Road to	Bradford Drive	Glencoe Street (South of Hawthorne Boulevard)
Local Road	Cole Avenue	Hull Drive
	Dorset Drive	Scottdale Circle
	Gables Boulevard (South of Aurora Way)	Thomas Avenue

Recommended Collector Roads to Maintain 30 mph Speed Limit



Main Street – north of Roosevelt Road (except within the CBD 20 mph)

Gary Avenue – north of Harrison Avenue

President Street

Blanchard Street – south of President Street

West Street – south of Illinois Street

Warrenville Road – south of Roosevelt Road

Wiesbrook Road

Orchard Road – south of Wiesbrook Road

Manchester Road

East Loop Road

West Loop Road

Leaske Lane

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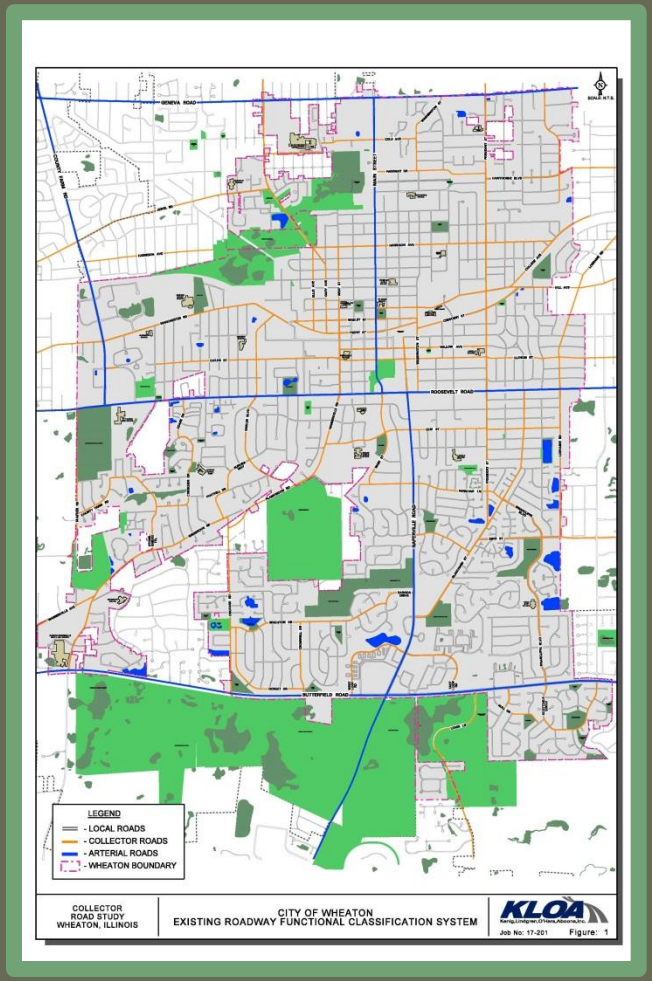

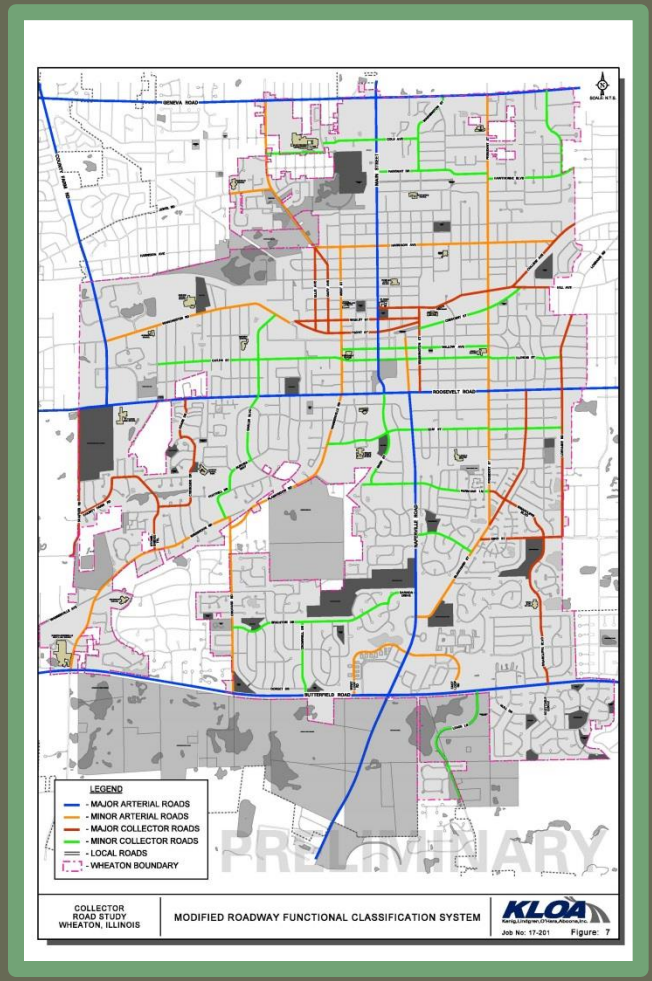

QUESTIONS

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Wheaton City Council Meeting