NEIGHBORHOOD GREENWAYS SYSTEM STUDY & BIKE SHARE FEASIBILITY STUDY

Oak Park

ADOPTED JULY 20, 2015

ACTIVE TRANSPORTATION ALLIANCE

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Acknowledgements

NEIGHBORHOOD GREENWAYS SYSTEM STUDY AND BIKE SHARE FEASIBILITY STUDY ADVISORY COMMITTEE

ADOPTED JULY 20, 2015

This plan represents the combined vision and goals of the staff that guided its development as well as commissioners, residents, and other key stakeholders. Thank you to these staff and residents for donating their time to this project.

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ABOUT THE CONSULTANTS

This plan was produced by Active Transportation Alliance. The mission of Active Transportation Alliance is to make bicycling, walking, and public transit safe, convenient, and fun.

THE PROJECT TEAM:

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INTRODUCTION

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VISION & POLICY STATEMENT

The Village of Oak Park is committed to providing a vibrant community environment where residents and their families can participate in a healthy, inclusive, and ecologically mindful culture. Local streets bring the Village's social and economic assets into the everyday quality of life; therefore a primary community objective is to ensure a safe, convenient, multimodal transportation network.

Pursuant to this vision, a Bicycle Plan was adopted in 2008, establishing dual goals of increasing bicycle use and creating a safe and inviting environment for cycling. The Village seeks to apply new innovations and infrastructure strategies to realize this vision, and therefore embarks upon the creation two recommended strategies from the 2008 plan: 1) Developing a Bicycle Boulevard System (called Neighborhood Greenways in this plan) and 2) Implementing a bike share system.

PROJECT SUMMARY & GOALS

In accordance with the goals stated above, the Village of Oak Park has initiated a Neighborhood Greenways System Study and Bike Share Feasibility Study in two distinct components:

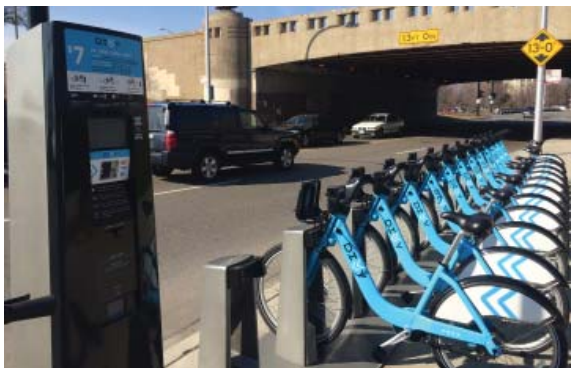
Component 1: The Neighborhood Greenways System Study contains detailed infrastructure strategies for the development of Neighborhood Greenways on Oak Park's connected grid of low-traffic, low-speed, residential streets.

Component 2: The Bike Share Feasibility Study provides specific placement recommendations for Bike Share infrastructure to ensure that an established system will support community access to transit hubs, job centers, and local businesses, as well as cultural and tourist destinations.

The Study and implementation of its recommended strategies will advance several community goals from the 2008 Bicycle Plan as well as other Village priorities, including:

- **Increase the number of people riding bikes and encourage new people to bike**
- **Create a safe and inviting environment for people of all bicycling abilities**
- **Make cycling a commonplace and easy transportation choice by developing a network of efficient routes**
- **Increase the visibility of bikeways in Oak Park**
- **Reduce congestion and improve air quality**
- **Increase the reach of transit**
- **Improve the health of residents**

NEIGHBORHOOD GREENWAYS are low traffic, slow speed streets designed to accommodate cyclists of all ages. Image credit: littlehiccups.net



BIKE SHARE provides a convenient bicycle transportation option for short trips.

METHODOLOGY & PUBLIC OUTREACH

The consultant team employed the following methods to generate the recommendations proposed in the two studies:

- **Data Analysis: Analyze available data to determine existing conditions, including traffic and crash data, land use patterns, existing infrastructure, and street geometry to reinforce the validity of the recommendations.**
- **Field Work: Conduct field work by taking street measurements and traveling potential routes on-bike to identify opportunities and barriers.**
- **Community Input: Gather valuable public input from community members through an online survey and public outreach events.**

Specific methodologies for each study are discussed in the corresponding chapters.

NEIGHBORHOOD GREENWAYS SYSTEM STUDY

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NEIGHBORHOOD GREENWAYS NETWORK

Objective: Oak Park will have a network of streets that serve cyclists ages 8 to 80.

This study aims to address the concerns of cyclists who are less confident and ensure that the Village provides a network of family-friendly bikeways that are comfortable for cyclists of any age.

WHAT ARE NEIGHBORHOOD GREENWAYS?

The Village of Oak Park has experienced a bicycling boom in recent years. On a visit to Oak Park on a warm summer day you will find teens biking to the park, families out for a leisurely ride, and bike racks filled to capacity. Many view Oak Park as an ideal place to bike due to its gridded street network and abundance of low-speed residential streets. Yet others still feel unsafe riding on-street, and even confident cyclists can point to challenging intersections and street segments throughout the Village.

Neighborhood Greenways are streets designed to prioritize bicycle travel with infrastructure features that calm and reduce vehicular traffic on neighborhood streets, and improve safety at busy intersections. When designed as a network, the result is an attractive, safe, and comfortable environment for cyclists of all ages and abilities, and more peaceful residential streets.

This plan addresses the Neighborhood Greenways concept in Oak Park in the following ways:

- **Identifies an enhanced network of residential streets to be considered Neighborhood Greenways.**
- **Provides a toolbox of facilities to be used throughout the Neighborhood Greenways system based on design principles.**
- **Classifies design challenges specific to Oak Park's network and applies the tools to those areas.**
- **Pintpoints recommendations for the Neighborhood Greenways system by route and intersection.**

PROCESS AND OUTREACH

The consultant team employed the following methodology to generate the recommendations of the Neighborhood Greenways System Study:

- **Analyzed available data to determine existing conditions. This includes traffic and crash data, land use patterns, existing infrastructure, and street geometry to reinforce the validity of the Neighborhood Greenways System recommendations.**
- **Reviewed the 2008 Oak Park Bicycle Plan for Neighborhood Greenways network recommendations and identified opportunities for alternate routes based on current standards and best practices in bikeways design.**
- **Reviewed the 2014 Comprehensive Plan for consistency with bicycle network recommendations.**
- **Presented the goals, methodology, and vision to the Plan Commission and Transportation Commission to reach a consensus on the planning process and desired project outcomes.**
- **Conducted field work by taking street measurements and traveling potential routes on-bike to identify opportunities and barriers.**
- **Gathered valuable public input from community members at a feedback session on the proposed Neighborhood Greenways System. See the Appendix for results from an online survey that was disseminated to Oak Park residents.**

SELECTION CRITERIA

Many of Oak Park's residential streets are ideal candidates for Neighborhood Greenways in that they have relatively low traffic volumes and vehicle speeds, provide access to neighborhood destinations, and are reasonably straight and easily navigable. These are the streets that cyclists are already using, but would benefit from some enhancements to inspire even the most cautious cyclist to use.

The 2008 Oak Park Bike Plan identifies approximately 23 miles of proposed "bicycle boulevard" streets. Through the current planning process, the Village of Oak Park opted to brand the bicycle boulevard system as "Neighborhood Greenways." This decision was made for a couple of reasons. First, by using the term Neighborhood Greenways, the Village's branding will be consistent with local and national cities, Chicago uses the term as do the Portland and Seattle. Second, the term was chosen to be inclusive of the types of users of the Neighborhood Greenway system, e.g., the streets in the network are not just for cyclists, but are shared by cyclists and drivers, and also provide ideal conditions corridors for pedestrians.

Additionally, the practice of bikeway design has progressed since the 2008 plan. As such, the original network has been re-examined for inclusion in the final recommendations. The project team looked at several routes that could help Oak Park achieve greater connectivity, provide a safer environment for cyclists, and serve a greater segment of Oak Park's population.

Routes evaluated in this study were chosen based on the following criteria:

- **Local streets with low automobile traffic volume**
- **Continuous or relatively easy to navigate street segments at least ½ mile long**
- **Accessible to priority community destinations, such as transit and schools**
- **Located on or adjacent to Safe Routes to Schools**
- **Linked to Oak Park's existing bike network**
- **Connected to bike routes in neighboring communities**
- **Supported by the community**

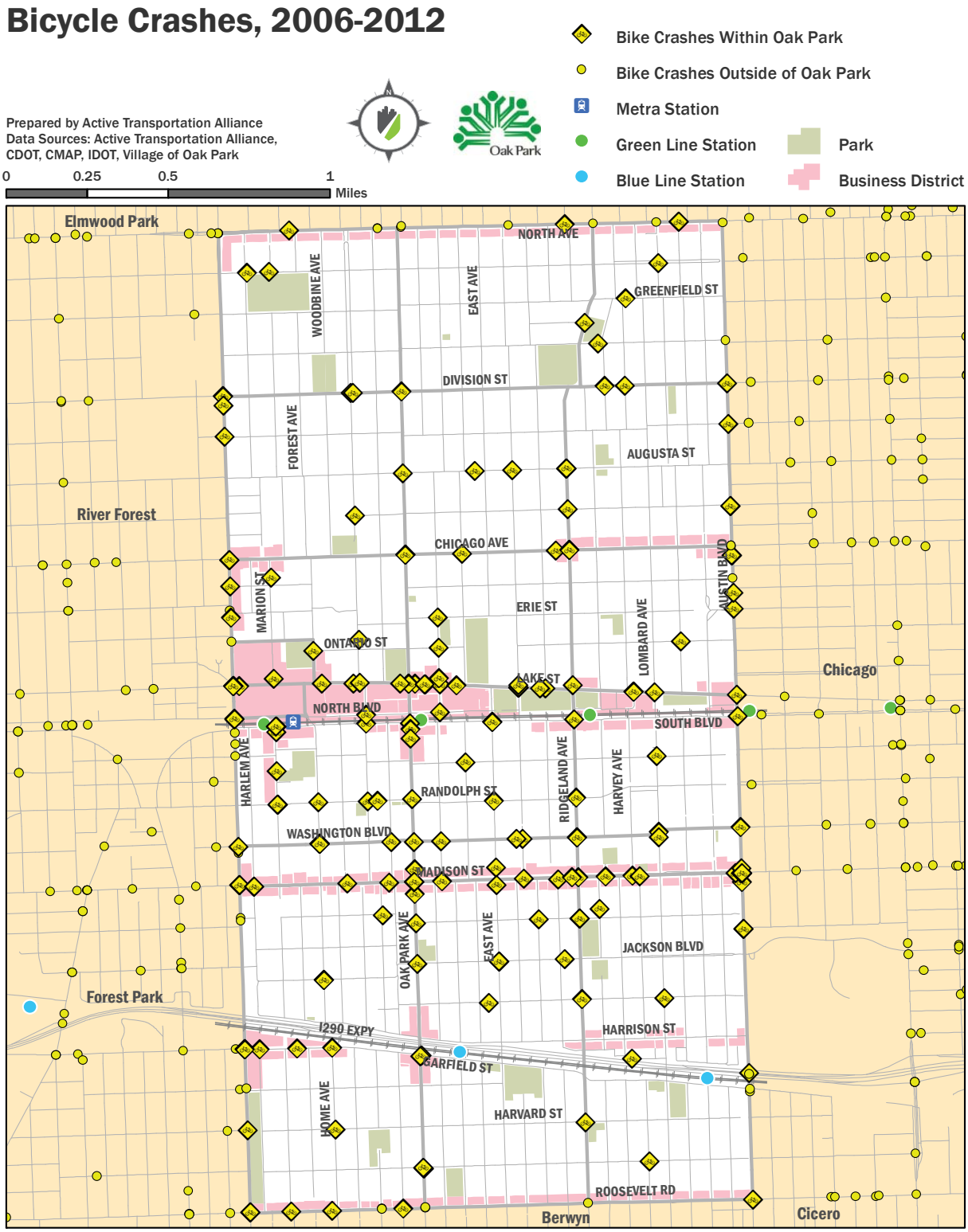
Additional considerations were made based on the following criteria:

- **Provides a crossing over the Eisenhower Expressway or a safe route to a crossing**
- **Creates a network that is accessible to more residents**
- **Bicycle crash rates**

Each route's appropriateness was evaluated using the selection criteria. The Project Team conducted an additional on-bike field check to assess the routes from a cyclist's perspective and identify problem areas.

EXISTING CONDITIONS - BICYCLE CRASHES

Biccyle crashes were one of the variables considered in the development of the Greenways network. Oak Park had 191 reported bicycle crashes from 2006 to 2012. Crashes were more likely to occur at intersections along major corridors, like Madison Street, Lake Street, and North and South Boulevard. Crashes were most likely to be caused by drivers or cyclists failing to yield right of way to one another.



OVERVIEW OF THE RECOMMENDED NEIGHBORHOOD GREENWAYS NETWORK

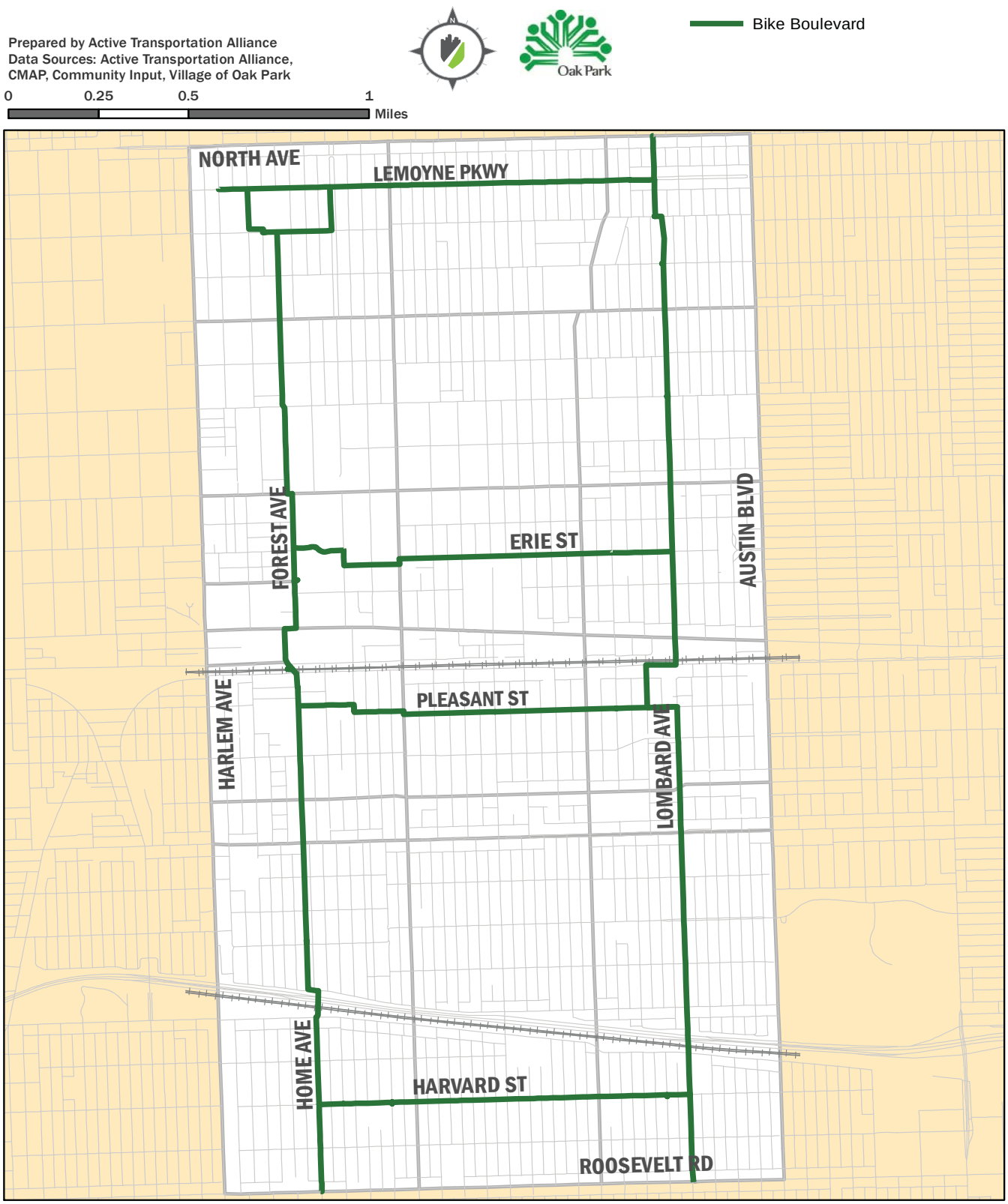
Oak Park's Neighborhood Greenways network will provide residents and visitors with an interconnected series of low-traffic roads with slow-moving vehicles that are suitable for cyclists of any age. The network provides options for children to ride safely to school, families to visit parks and libraries, and others to enjoy a comfortable ride to the store.

The 2008 plan included six main routes, two connecting the Village from north to south and four connecting the Village from east to west, see map on the following page). Based on the data collected, additional routes are recommended for inclusion in the Neighborhood Greenways network. All suggested routes are listed in Table 2A and depicted in the map on the following page.

TABLE 2A RECOMMENDED NEIGHBORHOOD GREENWAYS NETWORK

	Recommended Bike Boulevard in 2008 Bike Plan?	Direction of Travel
LeMoyne Parkway	Yes	E/W
Thomas Street	No	E/W
Erie Street	Yes	E/W
Pleasant Street	Yes	E/W
Adams/Harrison/Van Buren Street	No	E/W
Harvard Street	Yes	E/W
Kenilworth Avenue	Alternate recommendation to 2008 Bike Plan	N/S
Fair Oaks/Scoville Avenue	No	N/S
Lombard/Harvey/Lombard Avenue	Alternate recommendation to 2008 Bike Plan	N/S

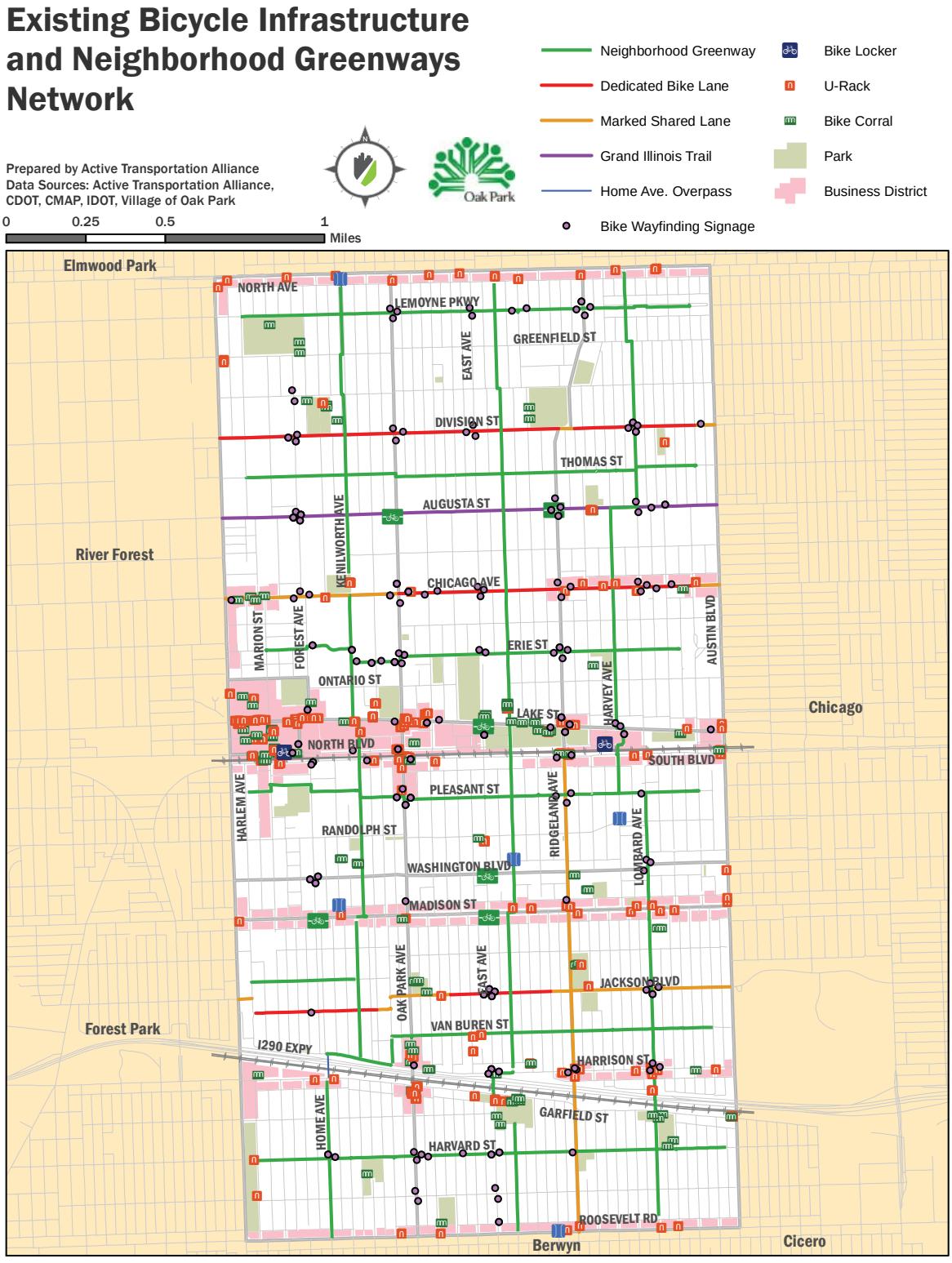
2008 Bicycle Plan Bike Boulevard Recommendations



Neighborhood Greenways Network Recommendations

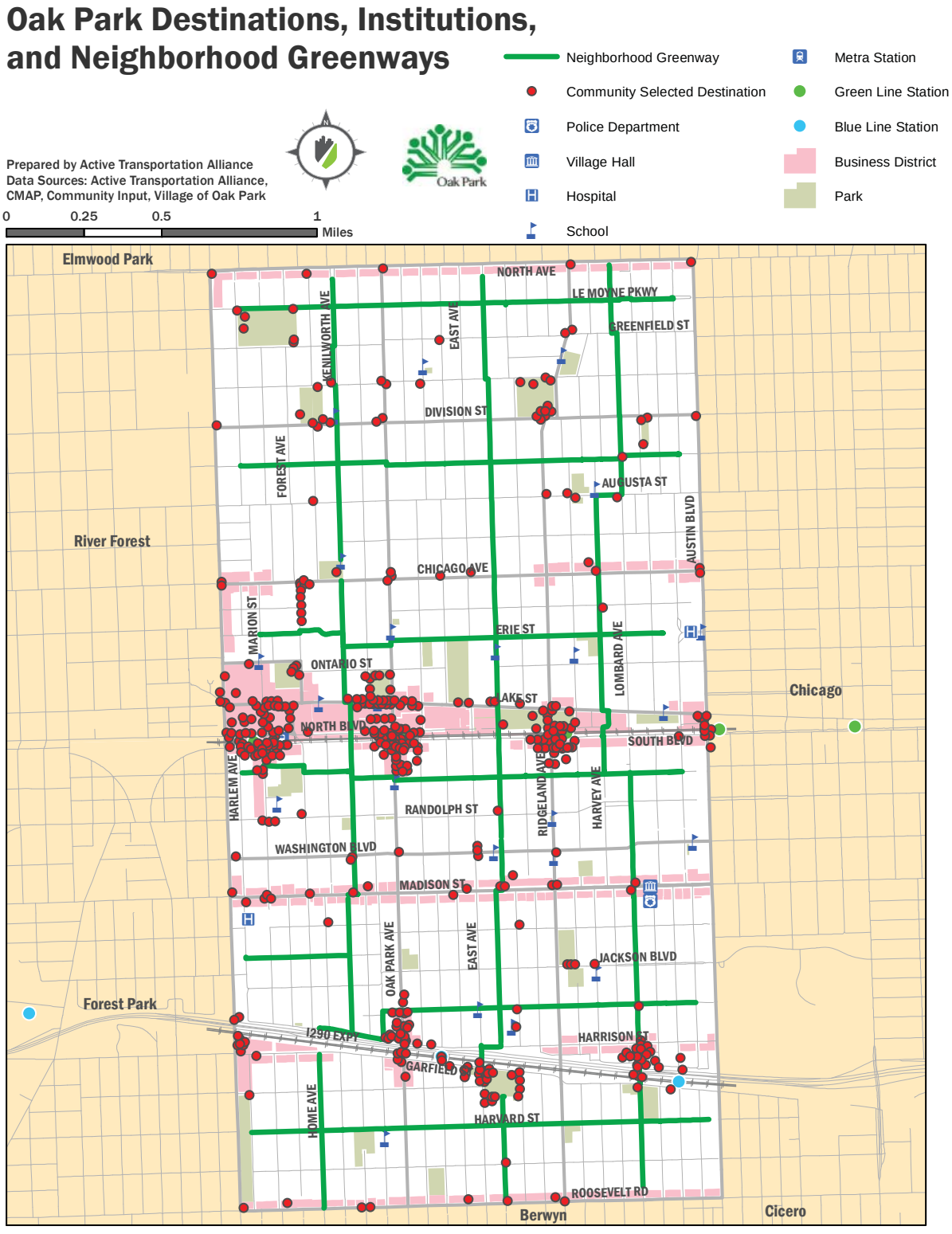
NEIGHBORHOOD GREENWAYS AND THE BICYCLE NETWORK

Oak Park's current bicycle network consists of dedicated bike lanes on Chicago Avenue and Division Street, a marked shared lane along Jackson, a signed route along the Grand Illinois Trail on Augusta Street, and numerous bike lockers and bicycle racks. The map below features the Village's bicycle facilities and amenities. The routes and bike parking facilities were accounted for in the planning process to ensure that connections were made from Neighborhood Greenways to the existing infrastructure.



NEIGHBORHOOD GREENWAYS AND DESTINATIONS

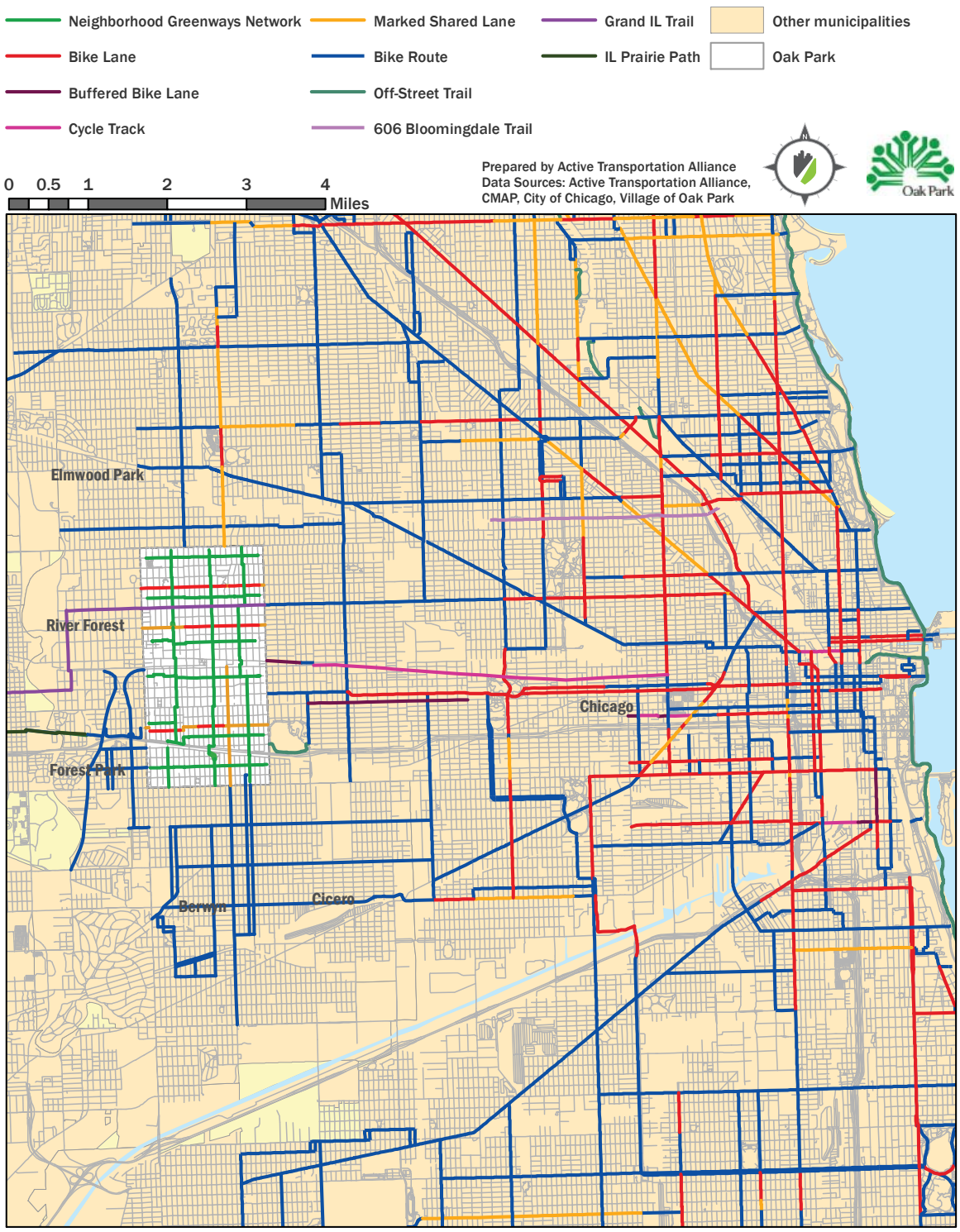
The project team looked at various Oak Park destinations to develop the Neighborhood Greenways network. These included: schools, parks, business districts, transit stations, libraries, municipal buildings, and preferred destinations selected by people who filled out the online survey and/or who participated in the mapping activity at Earth Fest and A Day in Our Village.



NEIGHBORHOOD GREENWAYS IN A REGIONAL CONTEXT

In addition to connecting bicyclists to key destinations and business corridors within the Village, the Oak Park Neighborhood Greenways network will also connect people to regional destinations by providing safe routes through the Village to reach bicycle facilities in neighboring municipalities. These include facilities and destinations such as bike routes in Berwyn and Forest Park, the Illinois Prairie Path, the Grand Illinois Trail, and downtown Chicago.

Oak Park Neighborhood Greenways in a Regional Context



STUDY COMPONENTS

NEIGHBORHOOD GREENWAYS TOOLBOX

This chapter includes a toolbox that highlights best practices in bicycle-focused facilities and amenities to calm traffic and create safe crossings grouped into seven categories:

STANDARD TOOLS

A consistent approach to be used throughout Oak Park's Neighborhood Greenways Network providing a unique identity and raising awareness of drivers and cyclists.

INTERSECTION TOOLS

Distinctive treatments applied where Neighborhood Greenways cross streets with high traffic volumes will emphasize the presence of bicyclists, and reduce crossing distance to boost safety and convenience.

TRAFFIC CALMING

Innovative design elements on street segments with high traffic volumes and fast moving vehicles will safeguard cyclists and provide a calmer environment for all users of the road.

PRIORITIZED BIKE TRAVEL

Special bike-focused facilities and amenities will provide cyclists with the confidence to ride on the Village's streets and consider biking as a mode of transportation.

VEHICLE VOLUME REDUCTION

New design features will discourage cut-through automobile traffic, but maintain motor vehicle access for residents who live along the selected routes.

UNIQUE IDENTITY

Custom signage and pavement markings will encourage cyclists to fully use the Neighborhood Greenways system and remind drivers to share the road.

GOING THE DISTANCE

Pilot a project that uniquely prioritizes bicycle travel in Oak Park.

APPLICATION: TYPOLOGIES AND MAPS

The Neighborhood Greenways network includes more than 200 intersections and crossings. To simplify recommendations, this plan groups intersections into typologies and applies appropriate tools to each. These include:

OFFSET INTERSECTIONS

- Minor Right/Left Offset
- Minor Left/Right Offset
- Major Right/Left Offset
- Major Left/Right Offset

MAJOR STREET CROSSINGS

- Major Street Crossing Signalized
- Major Street Crossing Uncontrolled
- Major Street Crossing Stop Controlled
- Major Street Crossing RRFB

MINOR INTERSECTIONS

- Intersection of Two Neighborhood Greenways
- Neighborhood Greenway Turns
- Neighborhood Greenway Connects with Off-Street Path
- Intersection of Neighborhood Greenway and Local Street
- Terminus of the Neighborhood Greenway
- Terminus of the Neighborhood Greenway at Cul de sac
- Neighborhood Greenway Cul de sac Cut-through

MID BLOCK IMPROVEMENTS

- Traffic Calming
- Wayfinding
- Pavement Markings

TABLES

Not all intersections conform to the typology maps. This section includes a list of treatments to be applied to the Neighborhood Greenways system intersection by intersection. The following tables are included:

- LeMoyne Parkway
- Thomas Street
- Erie Street
- Pleasant Street
- Adams/Harrison/Van Buren Street
- Harvard Street
- Kenilworth Avenue
- Fair Oaks/Scoville Avenue
- Lombard/Harvey/Lombard Avenue

NEIGHBORHOOD GREENWAYS TOOLBOX

In order to maximize the effectiveness of Oak Park's Neighborhood Greenways network, the Project Team has identified the following set of tools to provide cyclists with a safe, comfortable, and low-stress experience, with the goal of serving bicycle riders aged 8 to 80. See Table 2B for an overview of the recommended tools and their objectives. A detailed overview of each treatment and its recommended application is included in the Toolbox on the following pages and are grouped by the Neighborhood Greenways objectives outlined earlier in this chapter. Larger images are included in the Appendix.

Not all of the tools recommended in this Study are included in national or local design standards. However, each has been vetted and successfully used by communities implementing Neighborhood Greenways throughout the country. The Village of Oak Park should coordinate with the Federal Highway Association (FHWA) for approval on less conventional designs when using Federal funding to complete projects or when implementing projects on Federal Aid roads.

BERTEAU AVENUE NEIGHBORHOOD GREENWAYS (NEIGHBORHOOD GREENWAYS) IN CHICAGO

TABLE 2B NEIGHBORHOOD GREENWAYS DESIGN STRATEGIES AND TOOLS

	DESIGN STRATEGY	RECOMMENDED TOOLS
Standard Tools	Develop a consistent approach to be used throughout Oak Park's Neighborhood Greenways Network providing a unique identity and raising awareness of drivers and cyclists.	• Neighborhood Greenways Crossing Signs • Neighborhood Greenways Pavement Markings • Advisory Bike Lanes • Speed Limit 20 MPH Signs • Intersection Daylighting
Intersection Improvements	Apply a set of distinctive treatments where Neighborhood Greenways cross larger streets to emphasize the presence of bicyclists and reduce crossing distance to boost safety and convenience.	• Intersection Crossing Markings • High Intensity Activated (HAWK) Signals • Rectangular Rapid Flashing Beacons (RRFBs) • Bi-Directional Bike-Only Center Left Turn Lanes • Bike Boxes • Two-Stage Turn Queue Box
Traffic Calming	Identify innovative design elements on street segments with high traffic volumes and fast moving vehicles to safeguard cyclists and provide a calmer environment for all users of the road	• Mini Roundabouts • Chicanes
Prioritized Bicycle Travel	Develop special bike-focused facilities and amenities to provide cyclists with the confidence to ride on the Village's streets and consider biking as a mode of transportation.	• Stop Signs and Yield Signs • Bicycle Signal Detectors • Back-In Angle Parking • Contraflow Bike Lanes • Two-Way Cycle Track
Vehicle Volume Reduction	Identify new design features to discourage cut-through automobile traffic, but maintain motor vehicle access for residents who live along the selected routes.	• Bicycle and Pedestrian Median Refuge Island • Cul de Sac Access
Unique Identity	Create custom signage and pavement markings to encourage cyclists to fully use the Neighborhood Greenways system and remind drivers to share the road.	• Wayfinding Signage • Painted Intersections
Going the Distance	Pilot a project that uniquely prioritizes bicycle travel in Oak Park.	• Streets Converted to Trails

STANDARD TOOLS

Strategy: Develop a standard set of tools to be used throughout Oak Park's Neighborhood Greenways network providing a unique identity and raising awareness of drivers and cyclists.

Standard tools include the following (depicted left to right on the following page):

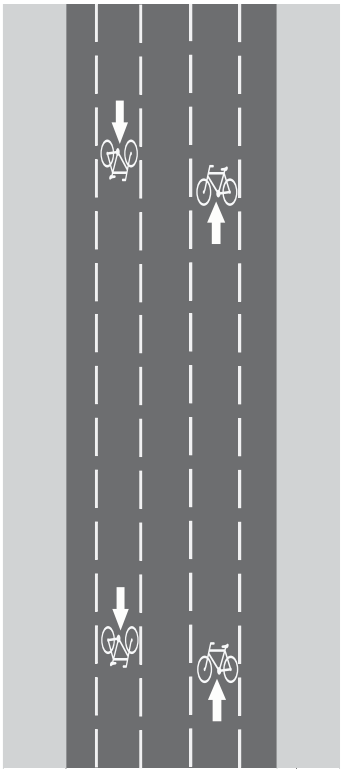
NEIGHBORHOOD GREENWAYS CROSSING SIGNS (TOP RIGHT)

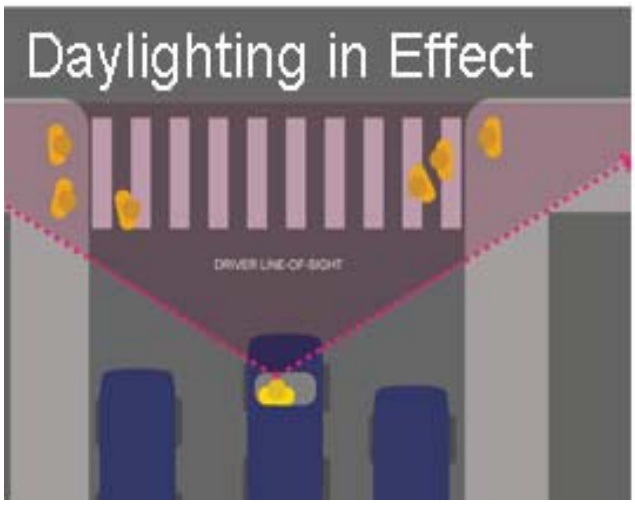
NEIGHBORHOOD GREENWAYS PAVEMENT MARKINGS WITH ADVISORY BIKE LANE MARKINGS (TOP LEFT)

SPEED LIMIT 20 MPH SIGNS (BOTTOM LEFT)

INTERSECTION DAYLIGHTING (BOTTOM RIGHT)

Standard Tools





Standard Tools:

Bicycle and Pedestrian Crossing Signs

Install bicycle and pedestrian crossing signs at all arterial and collector intersections, where two Neighborhood Greenways meet, and where cyclists enter and exit a Neighborhood Greenway from a cul de sac.

Considerations

Application: Place one sign in each direction on major streets in advance of the Neighborhood Greenway alerting, motorists traveling in each direction.

Specifications: Include the words "Neighborhood Greenways," a directional arrow, and the Neighborhood Greenway name on each sign.

Benefits

Alert motorists to high volume bicycle crossings.

Warn drivers that cyclists may cross mid-block at culs de sac.

Cost

$50 to $150 per sign

BICYCLE AND PEDESTRIAN CROSSING SIGN
Use at the intersection of two Greenways, at arterial and collector crossings, and at culs de sac. Photo credit: seattle.gov (top), NACTO (bottom)

Standard Tools:

Neighborhood Greenways Pavement Markings

Use Neighborhood Greenways Pavement Markings along a Neighborhood Greenway and at intersections.

CONSIDERATIONS

Application: Neighborhood Greenways pavement markings should be placed one per direction every other block. Additional markings may be placed at major intersections, offset intersections, culs de sac, or at intersections where the route changes direction.

Dimensions: Neighborhood Greenways pavement markings should measure approximately 21 feet long and 6 feet wide.

Spacing: Install the marking approximately 50 feet from the end of the curb radius at the beginning of the block segment.

Complementary Tools: Where a Neighborhood Greenway is re-routed or offset, use in conjunction with wayfinding signage and/or mark directional turn arrows on the pavement.

Complementary Tools: May be used together with bicycles may use full-lane signs (R4-11).

BENEFITS

Provides a highly visible, unique identity for the Neighborhood Greenways network.

Encourages cyclists to use the full lane when riding on the network.

COST

$200 to $500 dollars per stencil

NEIGHBORHOOD GREENWAYS PAVEMENT MARKING
Use along Neighborhood Greenways, spaced 250 feet apart.
Photo credit: http://www.columbusunderground.com/

NEIGHBORHOOD GREENWAYS PAVEMENT MARKINGS WITH TURN ARROW
Are used where Greenways are offset, jog, or where two Greenways intersect. Photo credit: J. Maus

BIKES MAY USE FULL LANE SIGN (R4-11)
Install together with pavement markings along Neighborhood Greenways routes.

Standard Tools:

Advisory Bike Lanes

Install advisory bike lanes in mixing zones throughout the network.

Considerations

Recommendations: Install advisory bike lanes at all conflict points in the network and in areas where traffic cannot be sufficiently calmed through other treatments.

Dimensions: Streets for consideration should be a minimum of 23-feet wide. Advisory lanes should be at least 5-feet wide.

Considerations: Mark advisory bike lanes to establish a direct line of travel for cyclists, encouraging predictable maneuvers at conflict points and areas with other hazards.

Benefits

Provide a dedicated, directional line of travel for cyclists on narrow streets with less than three thousand vehicles per day.

Enable drivers to pass cyclists when there is a break in traffic.

Cost

$5,000 to $63,000 per mile

ADVISORY BIKE LANES
Advisory bike lanes give cyclists a defined space to travel in mixing zones. Image credit from top to bottom: streets.mn (top), bikemiamibeach.org (middle), Steve Clark (bottom)

Standard Tools:

Speed Limit 20 MPH Signs

Reduce speed limits on Neighborhood Greenways to 20 MPH.

Considerations

Application: Reduce speed limits on Neighborhood Greenways to 20 MPH.

Complementary Tools: If driver compliance is low, additional traffic calming treatments may be needed to slow traffic down.

Alternative Treatment: Exceptions apply where Neighborhood Greenways re-route onto arterials and collectors.

Benefits

Reduce driver encroachment on cyclists.

Slow traffic to a similar speed to cyclists.

Encourage fewer vehicle cut-through on Neighborhood Greenways.

Decrease crash severity.

Cost

$50 to $150 per sign

20 MPH SPEED LIMIT STREETS
Reduce speed limits to 20 mph on Neighborhood Greenways. Image credit top: rEvolving Transportation, http://koonceportland.blogspot.com

Standard Tools:

Intersection Daylighting

Prohibit parking at intersections throughout the Neighborhood Greenways network.

Considerations

Application: Prohibit parking at intersections throughout the Neighborhood Greenways network.

Dimensions: Parking should be restricted within 20 to 25 feet of intersections along Neighborhood Greenways and their cross-streets.

Complementary Tools: Install no parking signs

Alternative Treatment: Removal of parking spots may not be feasible at all intersections. Priority areas are noted in the tables associated with each Neighborhood Greenway.

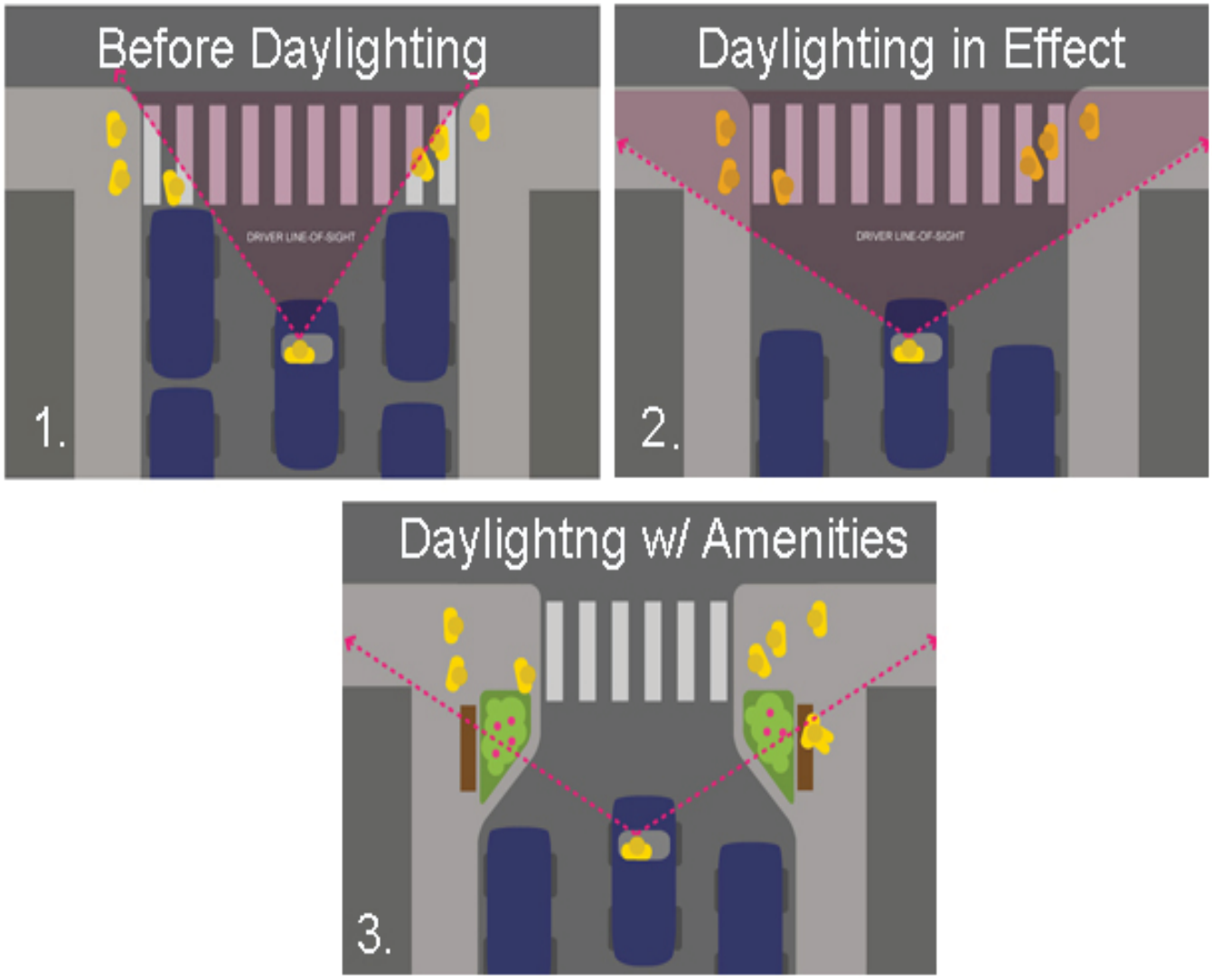
Benefits

Increases cyclist visibility at intersections.

Provides a dedicated space for cyclists to maneuver offset intersections.

Cost

$50 to $150 per No Parking sign



DAYLIGHTING

Before daylighting, drivers sightlines are limited due to parked cars blocking their view of pedestrians in crosswalks and of cyclists on cross streets. After daylighting, drivers have a much broader sightline and can see both pedestrians attempting to cross and cyclists on cross streets. Photo credit: streetswiki.com

INTERSECTION TOOLS

Strategy: Apply a set of distinctive treatments where Neighborhood Greenways cross larger streets to emphasize the presence of bicyclists and reduce crossing distance to boost safety and convenience.

Intersection tools include the following (depicted left to right on the following page):

INTERSECTION CROSSING MARKINGS (TOP LEFT)

HIGH INTENSITY ACTIVATED SIGNALS (HAWK) (TOP MIDDLE)

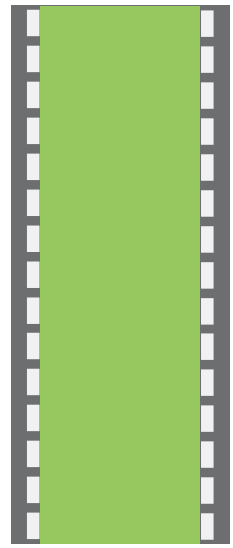
RECTANGULAR RAPID FLASHING BEACONS (RRFB) (TOP RIGHT)

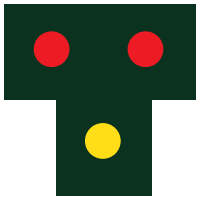
BI-DIRECTIONAL BIKE ONLY CENTER LEFT TURN LANES (BOTTOM LEFT)

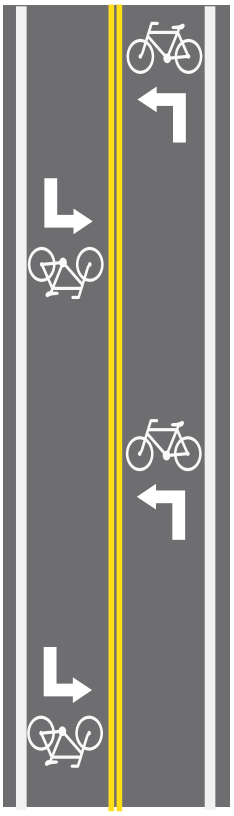
BIKE BOXES (BOTTOM MIDDLE)

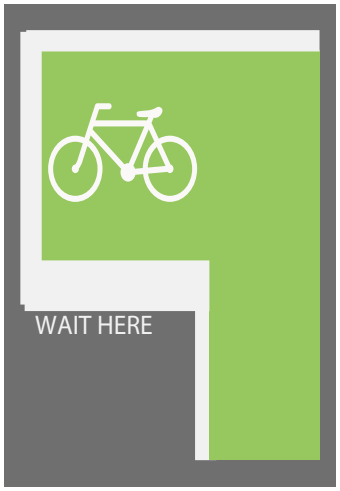
TWO-STAGE TURN QUEUE BOX (BOTTOM RIGHT)

Intersection Tools









Intersection Tools:

Intersection Crossing Markings

Add intersection crossing markings and chevron pavement markings to Neighborhood Greenways where they cross arterials and collectors or at intersections near high traffic destinations, such as schools.

Considerations

Application: Add Elephant's Feet (dashed pavement markings) and green paint to Neighborhood Greenways where they cross arterials and collectors or at intersections near high traffic destinations, such as schools.

Dimensions: The bicycle travel lane should be six-feet wide to accommodate two-abreast bicycle travel. Dashes should be a minimum of 6 inches wide, 2 feet long, and spaced 2 to 6 feet apart.

Alternative Treatments: When the Neighborhood Greenway is offset, the pavement markings should be placed in the center of the travel lane to encourage cyclists to maintain their lane position.

Alternative Treatments: Alternative intersection crossing markings can be used, including dashed crossing markings alone, green paint, shared lane markings, or elephant's feet.

Resources: See MUTCD 3B.08 or NACTO Urban Bikeway Design Guideline for additional guidance.

Benefits

Increase driver and cyclist awareness in conflict zones.

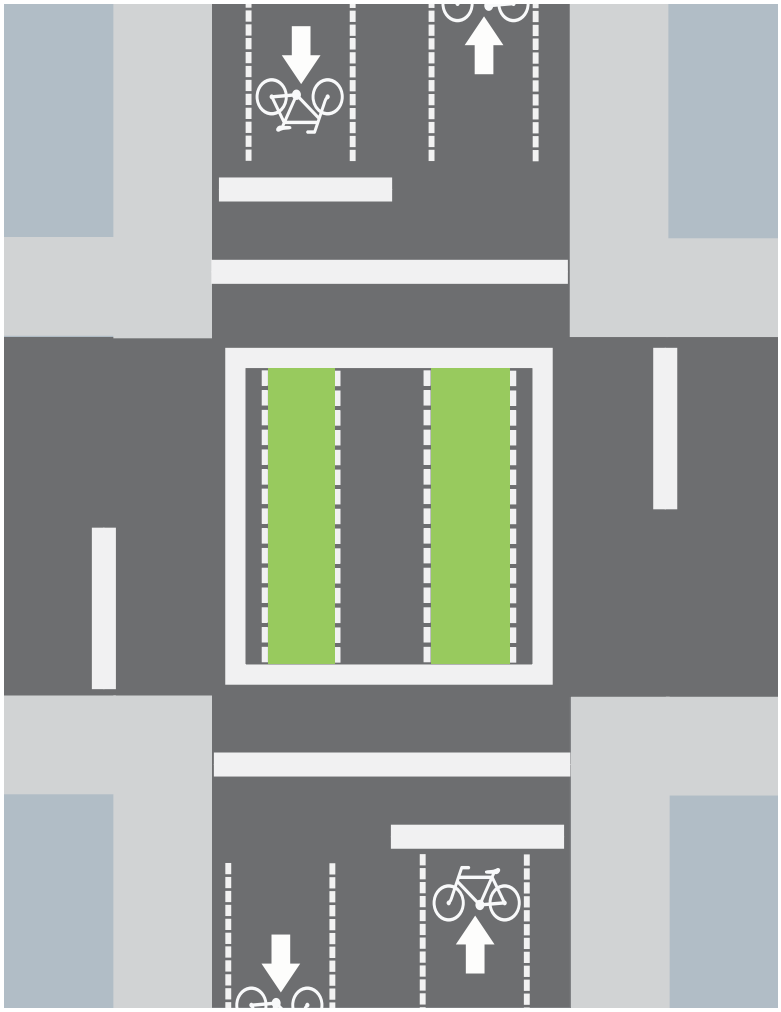
Direct cyclists through an intersection in a straight, predictable line.

Reduces cyclist stress through high traffic volume, wide, or otherwise confusing intersections.

Cost

$5 to $12 per square foot for thermoplastic

$200 to $500 per stencil



INTERSECTION CROSSING MARKINGS
Elephant's feet (dashed lines), green pavement markings, and Neighborhood Greenways pavement markings should be used in mixing zones at major intersections throughout the network.

Intersection Tools:

HAWK Signals or RRFBs

Install HAWKS or RRFBs at uncontrolled crossings with an AADT of 12,000 or greater, include in-pavement loop detector or a cyclist activated push button.

Considerations

Application: Install HAWKS or RRFBs at uncontrolled crossings with an AADT of 12,000 or greater, Seek FHWA approval, as guidance does not currently address use for bicycles.

Complementary Tools: Include in-pavement loop detector or a cyclist activated push button. Intersections should be daylighted to improve driver sightlines. Mark high visibility crosswalks for pedestrians and use green paint and intersection crossing markings for cyclists.

Notes: HAWKs are not approved for use on roads under the Illinois Department of Transportation's jurisdiction.

Resources: See the MUTCD for warrants, design and location of RRFBs and hawk signals.

Benefits

Creates safer crossings on high traffic volume streets.

Can be used when a traffic signal is not warranted or undesirable.

Affords high driver stop/yield compliance.

When coupled with signal detection, reduces cyclist wait time.

Cost

Hawk Signal – $50,000 a piece

RRFB – $10,000 to $15,000 for two signals

RECTANGULAR RAPID FLASHING BEACON
Use at uncontrolled crossings where Neighborhood Greenways intersect streets with high traffic volumes. Image credit: bloomington.in.gov

HAWK SIGNAL
Use at uncontrolled crossings where Neighborhood Greenways intersect streets with high traffic volumes. Photo credit: C. Bronson.

LOOP DETECTION
Allows cyclists to trigger a signal without needing to push a button.

Intersection Tools:

Bi-directional bike-only center left turn lanes

Install bicycle only left turn lanes on Neighborhood Greenways approaching an offset intersection. Mark bicycle only left turn lanes at off-set intersections that require cyclists to make left-turns from arterials and collectors. Use on streets with one vehicle lane in each direction. AADT should not exceed 15,000.

Considerations

Application: Install on Neighborhood Greenways approaching an offset intersection. Mark at off-set intersections that require cyclists to make left-turns from arterials and collectors. Use on streets with one vehicle lane in each direction. AADT should not exceed 15,000.

Dimensions: Turn lanes must be 10-feet wide, or 5-feet wide in each direction.

Notes: Seek FHWA approval for use.

Resources: http://www.pedbikesafe.org/BIKESAFE/case_studies/casestudy.cfm?CS_NUM=301

Benefits

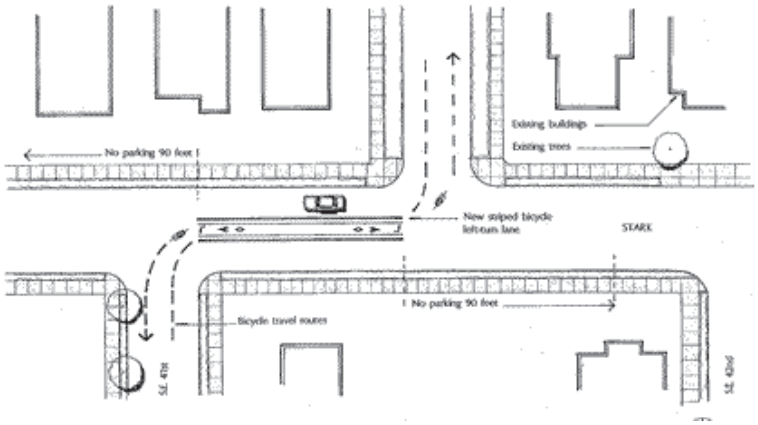
Provides cyclists with refuge when crossing the street.

Reduces the number of lanes a cyclist must cross.

Does not prohibit vehicle turning movements.

Cost

$4 per square foot for striping, additional cost for bicycle stencils and arrows



BICYCLE ONLY LEFT TURN LANES
Allow cyclists to cross fewer lanes of traffic when making left turns. Photo credit: Roger Geller.

Intersection Tools: Bike Boxes

Provide a designated space between motor vehicles and crosswalks at signalized intersections.

Considerations

Applications: Include bike symbol or helmeted bicyclist symbol in the bike box. At offset intersections that require left turns, extend across entire lane. When ingress lanes are used leading up to the bike box, use green paint and ensure green lanes are between 20–50 feet long.

Dimensions: Build bike box 10–16 feet long and as wide as the vehicle travel lane.

Complementary Tools: Use stop bars in compliance with the MUTCD Section 3B.16 and intersection crossing markings. Consider using green pavement in the bike box. Install no turn on red signs at intersections where right turns on red are currently permitted.

Benefits

Increase cyclist visibility at intersections.

Reduce risk of "right hooks" by right-turning vehicles.

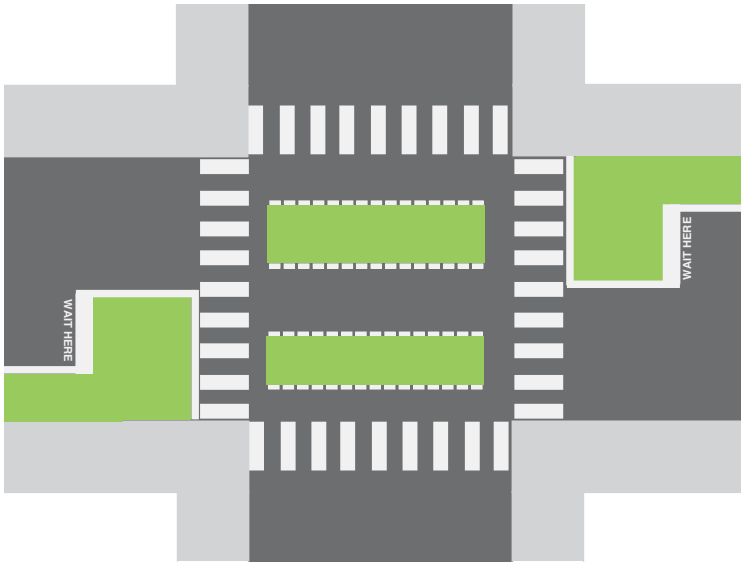
Cost

$5 to $12 per square foot for thermoplastic, $250 per pavement marking, $300 for signage

Overall cost $1900 to $5600 per intersection with two bike boxes

BIKE BOX
Use at signalized intersections and place between the crosswalk and stop bar.

NEIGHBORHOOD GREENWAYS PAVEMENT MARKING WITH TURN ARROW
Are used where Neighborhood Greenways are offset, jog, or where two Neighborhood Greenways intersect. Photo credit: J. Maus



BIKE BOX INTERSECTION DIAGRAM
Bike boxes should be used together with intersection crossing markings.

Intersection Tools:

Two-stage turn queue box

Provide a space for cyclists to make left turns without merging into a left turn lane.

Considerations

Applications: Install at offset intersections to help cyclists make left turns in a protected area, in line with the parking lane. Include a bicycle stencil and left turn arrow.

Dimensions: Turning queue boxes can be up to 10 feet long and 3 feet wide.

Complementary Tools: Use green pavement markings. Use in conjunction with green bike lanes and elephant tracks on arterials. HAWKs or RRFBs, may be necessary at high volume arterials.

Benefits

Provides cyclists with a safe space to make left turns.

Prevents cyclists from using crosswalks or stopping in bike lanes.

Increases cyclist visibility.

Cost

$5 to $12 per square foot for thermoplastic, overall cost varies greatly by other design needs

TWO STAGE TURN QUEUE BOX
Can be used at offset intersections on streets with high traffic volumes. Photo credit: NACTO

TWO STAGE TURN QUEUE BOX WITH BIKE LANE
On streets with bike lanes, install turn queue box between the bike lane and curb.

TRAFFIC CALMING

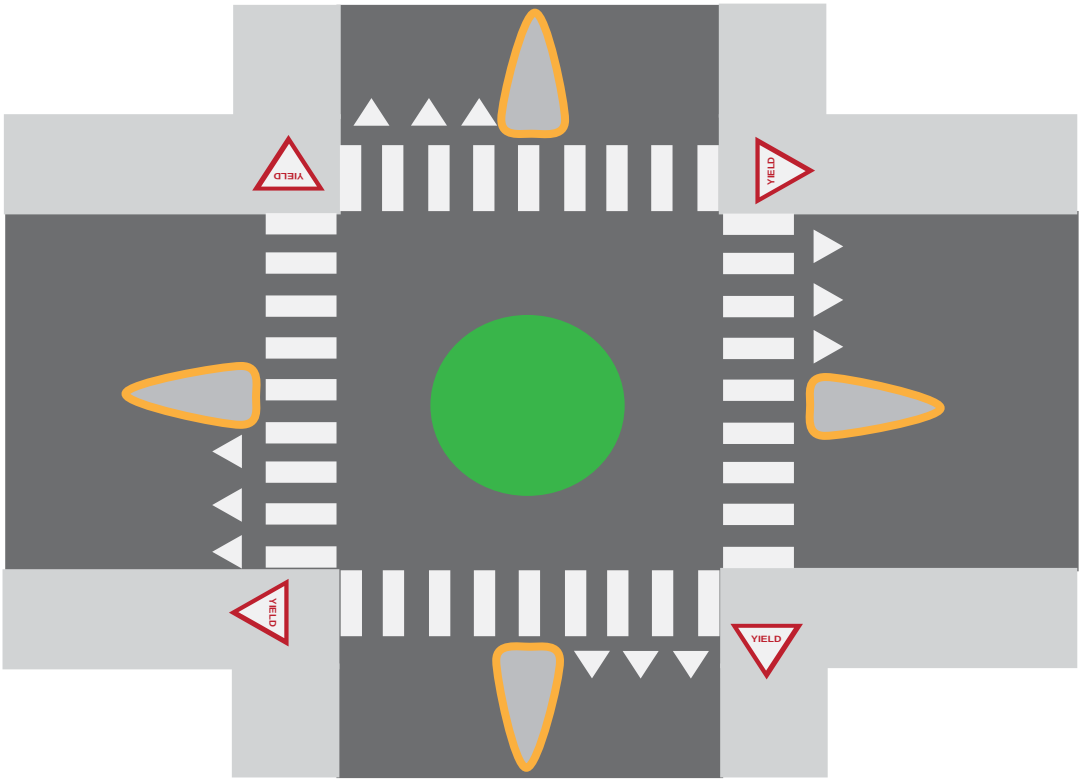
Strategy: Identify innovative design elements on street segments with high traffic volumes and fast moving vehicles to safeguard cyclists and provide a calmer environment for all users of the road.

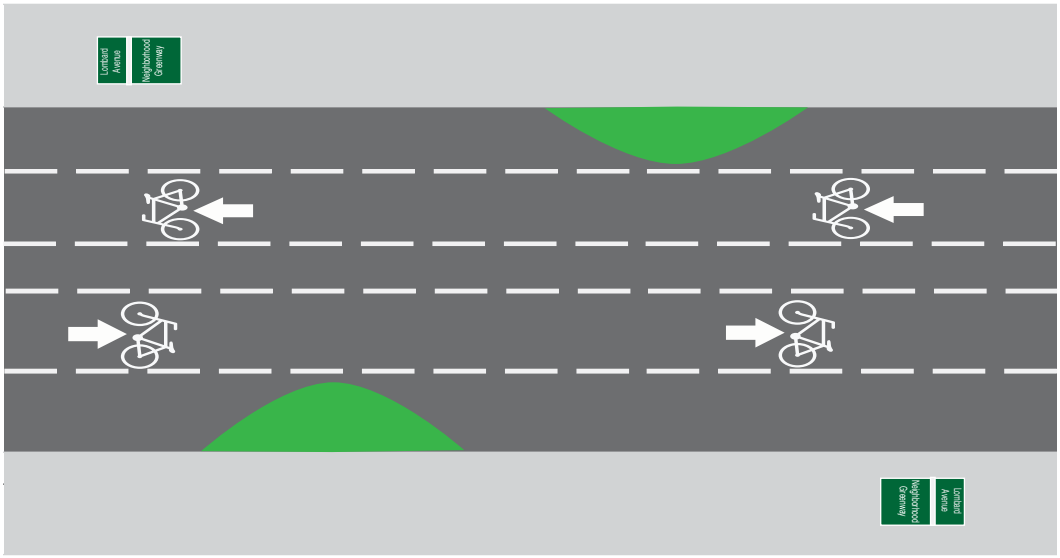
Traffic calming tools include the following (depicted top to bottom on the following page):

MINI ROUNDABOUTS (TOP)

CHICANES (BOTTOM)

Traffic Calming





Traffic Calming: Mini Roundabouts

Replace stop signs with mini roundabouts at intersections of two Neighborhood Greenways.

Considerations

Application: Replace stop signs with mini roundabouts at intersections of two Neighborhood Greenways.

Complementary Tools: Use in conjunction with splitter islands to further calm traffic. Install signage that directs users through the roundabout.

Alternative Treatments: A series of mini roundabouts produce a greater traffic calming effect than just one. The roundabout can be painted and include flexible bollards, though less effective than permanent structures. Roundabouts may include landscaping.

Considerations: May impact emergency vehicles and large trucks

Benefits

Eliminates unnecessary stopping for cyclists.

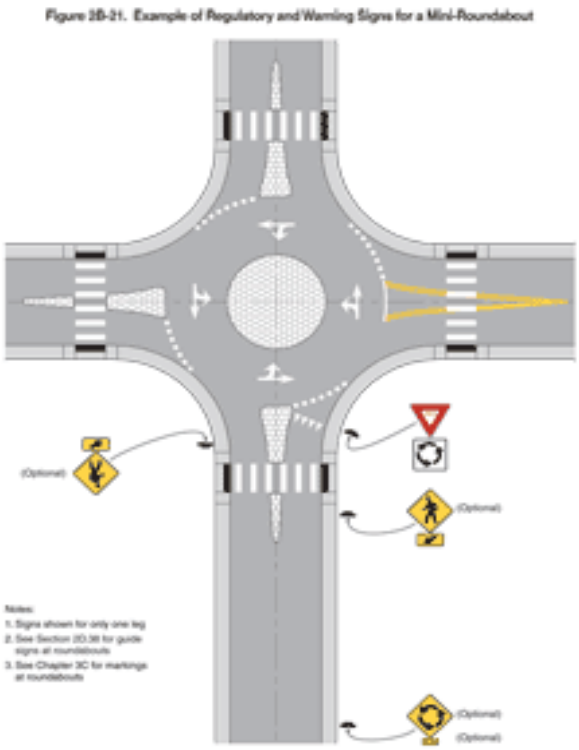
Reduces turning-related crashes at intersections.

Cost

$6,000 to $50,000 depending on materials used and location of sewer caps

MINI ROUNDABOUT
Can be used in lieu of stop signs.

PAINTED MINI ROUNDABOUTS
May be used prior to permanent installation, though they are not as effective. Photo credit: http://www.lbc.co.uk/



SPLITTER ISLANDS
Help calm traffic when used together with mini roundabouts. Photo credit: MUTCD.

SPLITTER ISLANDS
Can further calm traffic when used together with mini roundabouts.

Traffic Calming: Chicanes

Use chicanes mid-block where Neighborhood Greenways are classified as collectors or where additional traffic calming is needed.

Considerations

Application: Use chicanes mid-block along segments where Neighborhood Greenways are classified as collectors or where additional traffic calming is needed.

Dimensions: Chicanes should leave no less than 20 feet of space in the travel lanes, but 28 feet is preferred.

Alternative Treatments: Painted chicanes and flexible bollards may be used prior to a permanent installation. Though not as effective in calming traffic, paint can help make the case for permanent chicanes and get drivers accustomed to the treatment. Chokers can be used in place of chicanes.

Considerations: May result in the loss of parking spaces and may make winter plowing more difficult. Chicanes can include space for plants. Use low-lying plants to maintain sightlines.

Benefits

Slows drivers down by narrowing the travel way and providing horizontal deflection.

Encourages cyclists to travel in the center of the lane.

Cost

$10,000 to $30,000 for a set of three permanent chicanes

$5 to $12 per square foot of thermoplastic for temporary chicanes

CHICANES
calm traffic through horizontal deflection. Photo credit: wikimedia.org

TEMPORARY CHICANES
Temporary installations may be used prior to permanent installation. Temporary installations can be created through paint, temporary curbs, giant flower pots, or other creative uses. Photo credit: FHWA

CHOKERS
May be used in place of chicanes. Photo credit: nacto.org

PRIORITIZED BIKE TRAVEL

Strategy: Develop special bike-focused facilities and amenities to provide cyclists with the confidence to ride on the Village's streets and consider biking as a mode of transportation.

Prioritized Bike Travel Tools include the Following (depicted from Left to Right on the Following Page):

STOP SIGNS AND YIELD SIGNS (TOP LEFT)

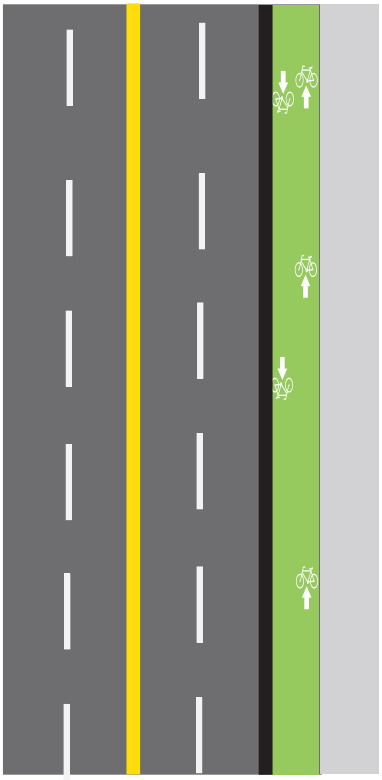
BICYCLE SIGNAL DETECTORS (TOP MIDDLE)

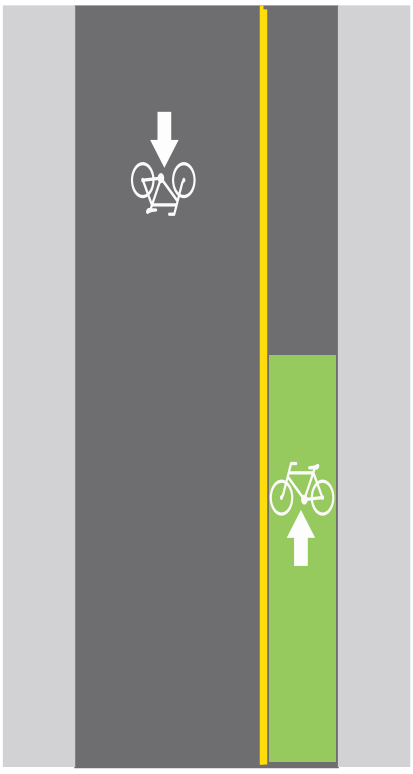
BACK-IN ANGLE PARKING (TOP RIGHT

CONTRAFLOW BIKE LANES (BOTTOM LEFT)

TWO-WAY CYCLE TRACK (BOTTOM RIGHT)

Prioritized Bike Travel





Prioritized Bike Travel:

Stop Signs and Yield Signs

Where feasible, stop signs should not be installed on the Neighborhood Greenway direction of travel. When an intersection control along a Neighborhood Greenway is deemed necessary, replace stop signs with yield signs.

Considerations

Remove stop signs along the Neighborhood Greenway's direction of travel, where feasible. When an intersection control along a Neighborhood Greenway is deemed necessary, replace stop signs with yield signs.

Complementary Tools: Include cross traffic does not stop signs to prevent confusion (W4-4P in MUTCD) at intersections.

Alternative Treatments: In some cases, mini roundabouts may be more appropriate. Additional evaluation should be conducted once the Neighborhood Greenways system is in place to understand the cost and benefit. At offset intersections, on Neighborhood Greenways with center medians, or other areas with a higher potential for conflict, stop signs should remain on the Neighborhood Greenway. Additional traffic calming on Neighborhood Greenways may be necessary after the removal of stop signs.

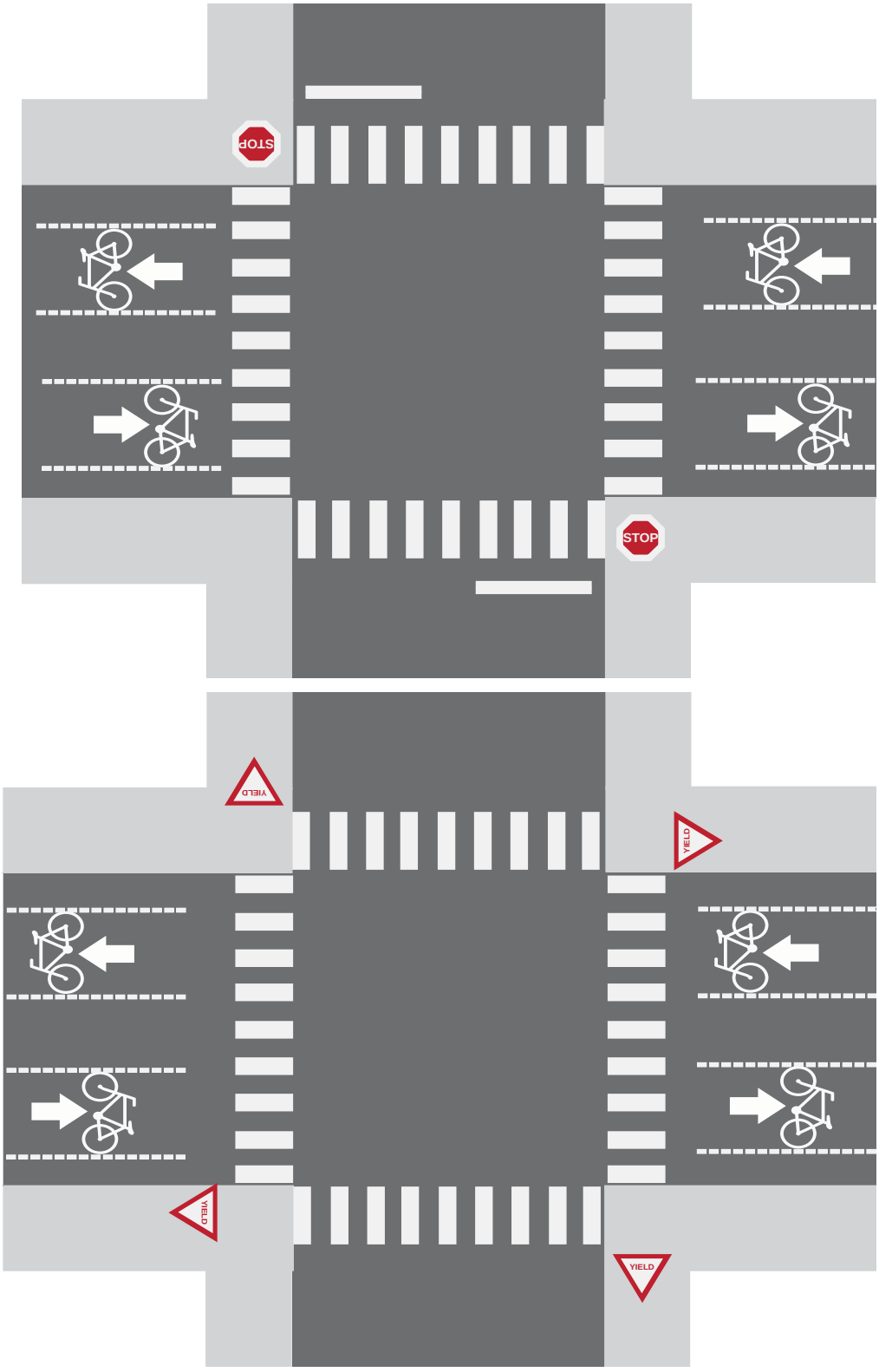
Benefits

Frequent stopping and starting at stop signs increases trip time for cyclists and requires extra energy.

Yield signs allow cyclists to travel through an intersection without stopping, preventing unnecessary expenditure of energy.

Cost

$50 to $150 per sign



STOP/YIELD SIGN DIAGRAM

Stop signs should be removed from Neighborhood Greenways where possible. Yield signs may be used when a traffic control device is necessary.

Prioritized Bike Travel:

Bicycle Signal Detectors

Install bike detectors at signalized intersections. Lengthen signal time for left turn arrows on Lake Street and Forest Avenue to ensure that cyclists make the full turning movement through the intersection.

Considerations

Application: Install bike detectors at signalized intersections. Lengthen signal time for left turn arrows on offset intersections to ensure that cyclists make the full turning movement through the intersection.

Complementary Tools: Can be used with existing signals or proposed HAWK and RRFB signals along Greenways.

Alternative Treatments: Can be accomplished in three ways – through loops embedded in the pavement, with cameras, or via push buttons. Loop detection is preferred.

Benefits

Detects cyclists at signals.

Gives cyclists guidance on signal actuation.

Reduces cyclist delay at signals.

Dissuades cyclists from running red lights.

Cost

$500 each for a loop, there are typically two loops per intersection

$1500 each for pedestrian push buttons plus $300 for each pole

BICYCLE LOOP DETECTOR
Enables cyclists to trigger signals at lights without needing to dismount. Photo credit: NACTO

LOOP DETECTOR SIGNAGE
Informs cyclists on loop detector usage. Photo credit: NACTO

PUSH BUTTONS
Enable cyclists to trigger signals, but requires them to dismount. Photo credit: NACTO

Prioritized Bike Travel:

Back-In Angle Parking

Replace angled parking along Neighborhood Greenways with back-in angle parking.

Considerations

Application: Replace angled parking along Neighborhood Greenways with back-in angle parking.

Considerations: Back-in angle parking is currently prohibited in the Village. Code will need to be amended prior to installation. Some driver education may be necessary. Work with landowners when parking spots are located on private land.

Benefits

Increases visibility of cyclists for drivers pulling out of parking spaces.

Decreases crashes between drivers and people pulling out of parking spaces.

May also calm traffic.

Cost

$50 to $150 per sign

$5 per linear foot for re-striping parking spots with paint

BACK-IN ANGLE PARKING
Back-in angle parking increases visibility of cyclists for drivers pulling out of parking spaces. Photo credit: http://walkbikejersey.blogspot.org

BACK-IN ANGLE PARKING
Photo credit: http://burnaby.civicweb.net

Prioritized Bike Travel:

Contraflow Bike Lanes

Use contraflow bike lanes on one-way segments of Neighborhood Greenways to allow two-way bike travel on one-way streets.

Considerations

Recommendation: Use contraflow bike lanes in green paint on one-way segments of Neighborhood Greenways to allow two-way bike travel on one-way streets. Install lane to the left of the direction of motor vehicle travel.

Dimensions: Must have enough space to accommodate a 6-foot wide bike lane in addition to parking and travel lanes.

Complementary Tools: Use in conjunction with Do Not Enter Except Bicycle signs (MUTCD R5-1).

Considerations: This design may pose challenges during school drop-off and pick-up times. Additional evaluation may be necessary.

Benefits

Reduces confusion and conflicts between drivers and cyclists.

Maintains a consistent Neighborhood Greenways route and connected network.

Cost

$5 to $12 per square foot for thermoplastic.

$250 to $500 per stencil

CONTRAFLOW BIKE LANES
One-way streets can become two-way bicycle streets.

DO NOT ENTER EXCEPT BIKES SIGNS
Use signage to indicate to cyclists that they are allowed to travel through on one-way streets.

GREEN PAINT
May be used near intersections to increase visibility of the contraflow bike lane.

DASHED YELLOW LINES
Help drivers and cyclists understand the appropriate lane position.

Prioritized Bike Travel:

Two-way cycle track

Install two-way cycle tracks on offset, high-volume arterial roads.

Considerations

Use bike lane symbol and arrows (MUTCD 9C-3)

Requires removal of parking spaces.

Alternative recommendations may apply if proposed road diet is implemented.

Use in conjunction with turn queue boxes and HAWK signals.

The ideal width for a cycle track is 12 feet, but 8 foot lanes may be used where space is limited.

A 3-foot painted buffer may be used as an alternative treatment. Combine with plastic bollards to provide additional protection.

Benefits

Provide a safe, protected space for Neighborhood Greenway users of all ages on Oak Park's busiest streets.

Reduce confusion at offset intersection crossings.

Cost

Costs vary greatly depending on existing conditions. The protected bike lane on Dearborn Street in Chicago cost $450,000 for 1.15 miles, including signals. Projects in Seattle have cost between $100,000 and $300,000 per mile.

TWO-WAY CYCLE TRACKS
Provide a safe space for cyclists to cross four-lane, high traffic volume streets.

STENCILS AND ARROWS
Instruct cyclists on the proper lane position.

LOOK SIGNS
Help pedestrians navigate across two-way cycle tracks.

VEHICLE VOLUME REDUCTION

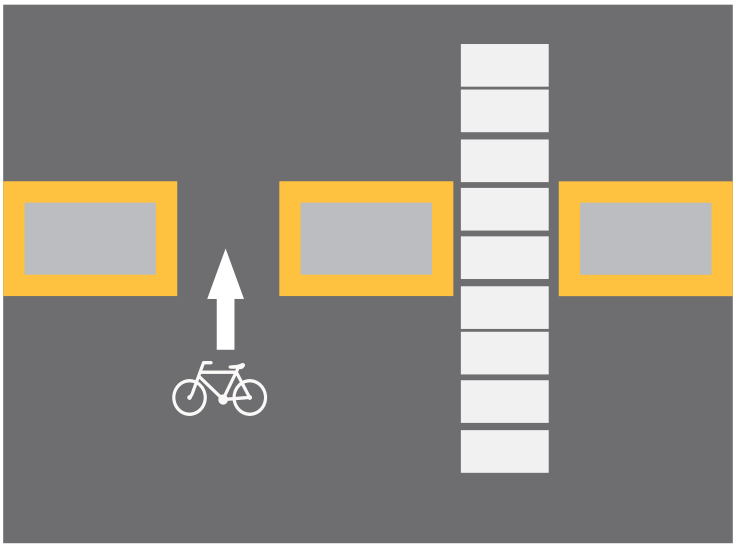
Strategy: Identify new design features to discourage cut-through automobile traffic, but maintain motor vehicle access for residents who live along the selected routes.

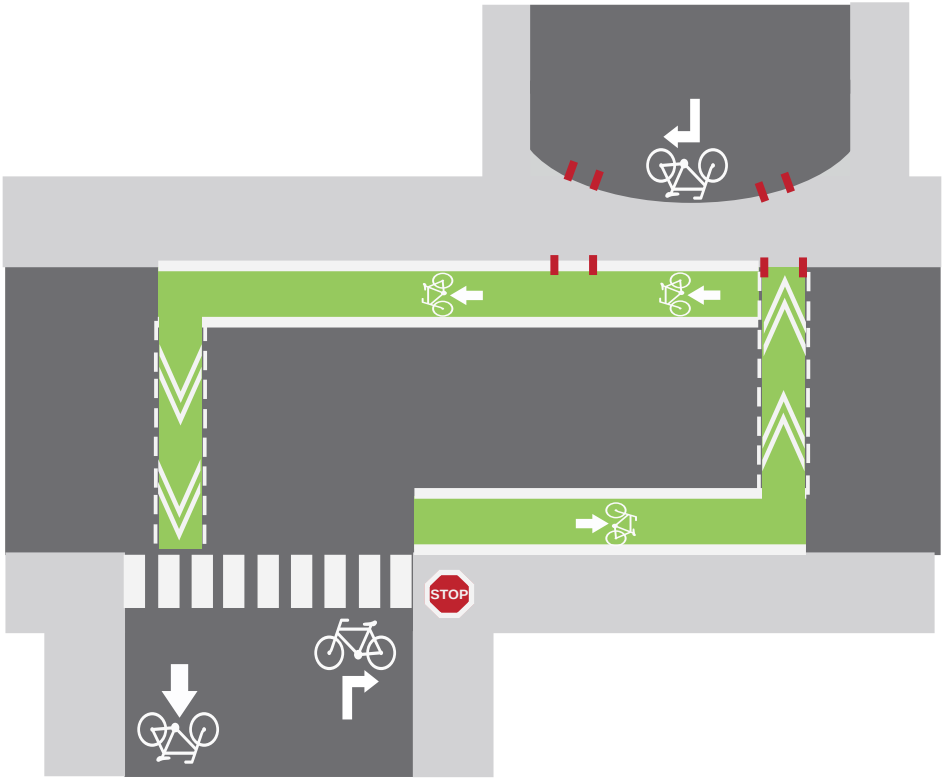
Vehicle Volume Reduction Tools include the following (depicted from top to bottom to on the Following Page):

BICYCLE AND PEDESTRIAN MEDIAN REFUGE ISLANDS (TOP)

CUL DE SAC ACCESS (BOTTOM)

Vehicle Volume Reduction





Vehicle Volume Reduction:

Bicycle and Pedestrian Median Refuge Islands

Use center lane medians on unsignalized, 4-lane arterials that intersect Neighborhood Greenways where traffic volumes exceed 10,000 vehicles per day.

Considerations

Application: Use bicycle and pedestrian median refuge islands on unsignalized, 4-lane arterials that intersect Neighborhood Greenways where traffic volumes exceed 10,000 vehicles per day. Include separate cut-outs for cyclists and pedestrians and include markings to indicate modes. Make cut-outs wide enough for two-way bicycle traffic.

Dimensions: Bicycle and pedestrian median refuge islands should be at least 6-feet wide, but a 10-foot width is preferred. The median's curb should be 6-inches high.

Complementary Tools: See MUTCD 3I.02 for pavement marking guidance.

Considerations: Where diverters already exist on Oak Park's Neighborhood Greenways Network, consider replacing with bicycle and pedestrian median refuge islands. May pose an inconvenience to residents living along the a Neighborhood Greenway.

Alternative Treatments: Temporary paint and bollard treatments can be evaluated prior to permanent installation. In these cases, include Do Not Enter Except Bicycles signs.

Benefits

Reduces cyclist crossing distance on four lane roads.

Provides a safe space for cyclists to wait for breaks in traffic.

Calms traffic on busy arterials by narrowing the roadway.

Restricts turning movements onto Neighborhood Greenways.

Cost

$10,000 to $41,000

MEDIAN REFUGE ISLANDS
Help both cyclists and pedestrians cross streets with high traffic volume.

MEDIAN REFUGE ISLANDS
May also be used to prohibit car turning movements onto Neighborhood Greenways.

CUT-THROUGHS
Should be designed to accommodate cyclists, people in wheelchairs, and strollers.

Vehicle Volume Reduction:

Cul de sac Access

Provide curb ramps at culs de sac to accommodate bicycle and two access points where space allows.

Considerations

Application: Provide curb ramps at culs de sac to accommodate bicycle and two access points where space allows.

Complementary Tools: Use Bicycle Crossing Signs at culs de sac to warn drivers to the presence of cyclists.

Considerations: Prioritize culs de sac adjacent to schools and parks, with high volumes of pedestrians and cyclists.

Benefits

Allows adequate space for two-way bicycle travel on Neighborhood Greenways Routes.

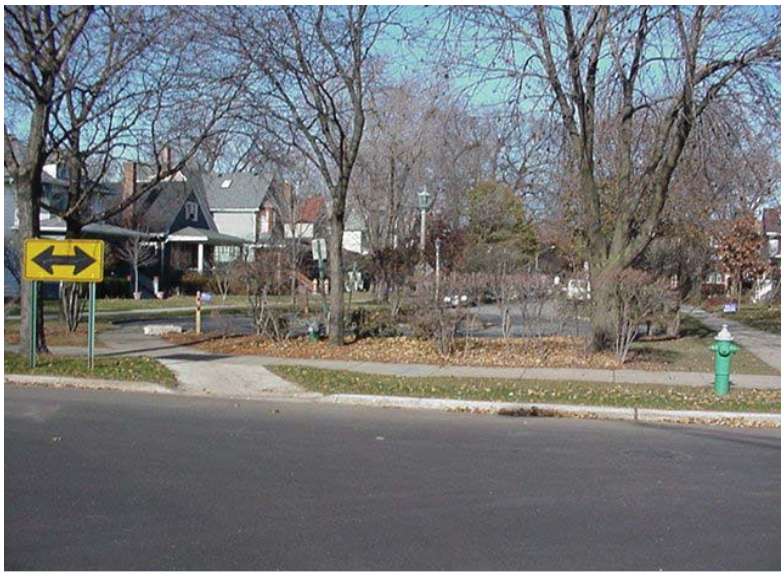
Reduces conflicts and confusion between cyclists and pedestrians.

Permits cyclists to remain on their bikes when using culs de sac.

Cost

$50 per truncated dome

$1000 to $3600 for a curb ramp



CUL DE SAC CUT-THROUGHS

Should include ADA compliant crosswalks and tactile pads to allow cyclists to pass through without dismounting.

CURB RAMPS AND TACTILE PADS

Should be installed at culs de sac along the Neighborhood Greenways network. These facilities help cyclists, wheelchair users, and people pushing strollers.

UNIQUE IDENTITY

Strategy: Create custom signage and pavement markings to encourage cyclists to fully use the Neighborhood Greenways system and remind drivers to share the road.

Unique Identity Tools include the following (depicted from left to right on the Following Page):

WAYFINDING SIGNAGE (LEFT)

PAINTED INTERSECTIONS (RIGHT)

Unique Identity

Unique Identity: Wayfinding Signage

Use wayfinding signage to help cyclists navigate offset intersections and jogs in the Neighborhood Greenways network.

Considerations

Install custom Neighborhood Greenways placards on poles with existing green bicycle wayfinding signs.

Street name signs may also be changed to reflect the Neighborhood Greenways Network identity.

Benefits

Reduces cyclist confusion at offset intersections, culs de sac, and at jogs in the network.

Helps cyclists navigate at the intersection of two Neighborhood Greenways.

Cost

$50 to $150 per sign

WAYFINDING SIGNAGE
Oak Park already uses wayfinding signage on its network. These green signs may be used along the Neighborhood Greenways network.

DIRECTIONAL SIGNAGE
The Village may also opt to use branded signage along the network. This sign indicates to cyclists that there is a jog in the Neighborhood Greenway. Photo credit: http://www.seattlepi.com/

WAYFINDING SIGNAGE WITH MILE MARKERS
This sign helps cyclists navigate to nearby destinations along the Neighborhood Greenways network. Photo credit: http://www.seattlegreenways.org

WAYFINDING SIGNAGE THROUGH ROUNDABOUT
This treatment could be used at mini roundabouts. Photo credit: http://www.wallyhood.org

Unique Identity: Painted Intersections

Identify intersections and street segments throughout the network to close down for an afternoon and encourage residents to use that time to paint the streets.

Considerations

Host painting parties in conjunction with block parties or open streets events.

Encourage local artists to participate in painting party.

Ideal locations could include intersections adjacent to schools, parks, business districts, or where two Neighborhood Greenways intersect.

Use events to generate media and educate the public about the purpose of the Neighborhood Greenways network.

Benefits

Engage neighbors in the Neighborhood Greenways network.

Low-cost alternative to traffic calming.

Calms traffic at key intersections and segments along the Neighborhood Greenways network.

Cost

$37 to $300, varies based on the cost of a water-based can of traffic paint, number of colors used, and size of intersection

PAINTED INTERSECTIONS
Enable communities to take ownership of the Neighborhood Greenways network. Photo credit: Greg Raisman

INTERSECTION TREATMENTS
May be more formal, such as the painted crosswalks on Harrison Street.

LOCAL ARTISTS
Can lead the painting activity. Photo credit: J. Maus.

UNIQUE PAINTINGS
Help to calm traffic on a new Neighborhood Greenways. Photo credit: J. Maus.

GOING THE DISTANCE

Strategy: Pilot a project that uniquely prioritizes bicycle travel in Oak Park.

In an effort to create a system that allows cyclists of all ages and abilities to use the Neighborhood Greenways System, the Village of Oak Park may want to explore closing one Neighborhood Greenways segment down to vehicle traffic. This initiative could begin with a temporary closure. If successful, the Village may make the closure permanent.

A pilot project of this nature would require buy-in from affected residents. The Village should seek community input prior to implementation of this recommendation.

STREETS CONVERTED TO TRAILS
Converting streets to trails could truly allow cyclists of all ages to experience and enjoy the Neighborhood Greenways network.
Photo credit: Minneapolis Community Design Group (top) bikesforeveryone.org (bottom).

NEIGHBORHOOD GREENWAYS APPLICATION

This study identifies several common design typologies to be used in the Oak Park Neighborhood Greenways Network. Each typology is based on a barrier to comfortable cycling for people of all ages. The barriers include:

Offset intersections: offset intersections require cyclists to make two turning movements to stay on the Neighborhood Greenway network. Often times, they cross major streets at unsignalized locations, which creates additional challenges for cyclists. This plan identifies several types of offset intersections in Oak Park and gives recommended treatments to create a more comfortable crossing.

Neighborhood Greenways turns: in several locations, Neighborhood Greenways turns in order to create better connectivity. This plan includes design treatments for locations where this happens.

Greenway connects with off-street facility or cul de sac: in some locations, the Neighborhood Greenways system uses a cul de sac as a cut-through. This plan includes design recommendations for wayfinding and for improved visibility of cyclists using these locations.

Intersection of two Neighborhood Greenways: where two Neighborhood Greenways intersect, this plan provides recommendations for wayfinding.

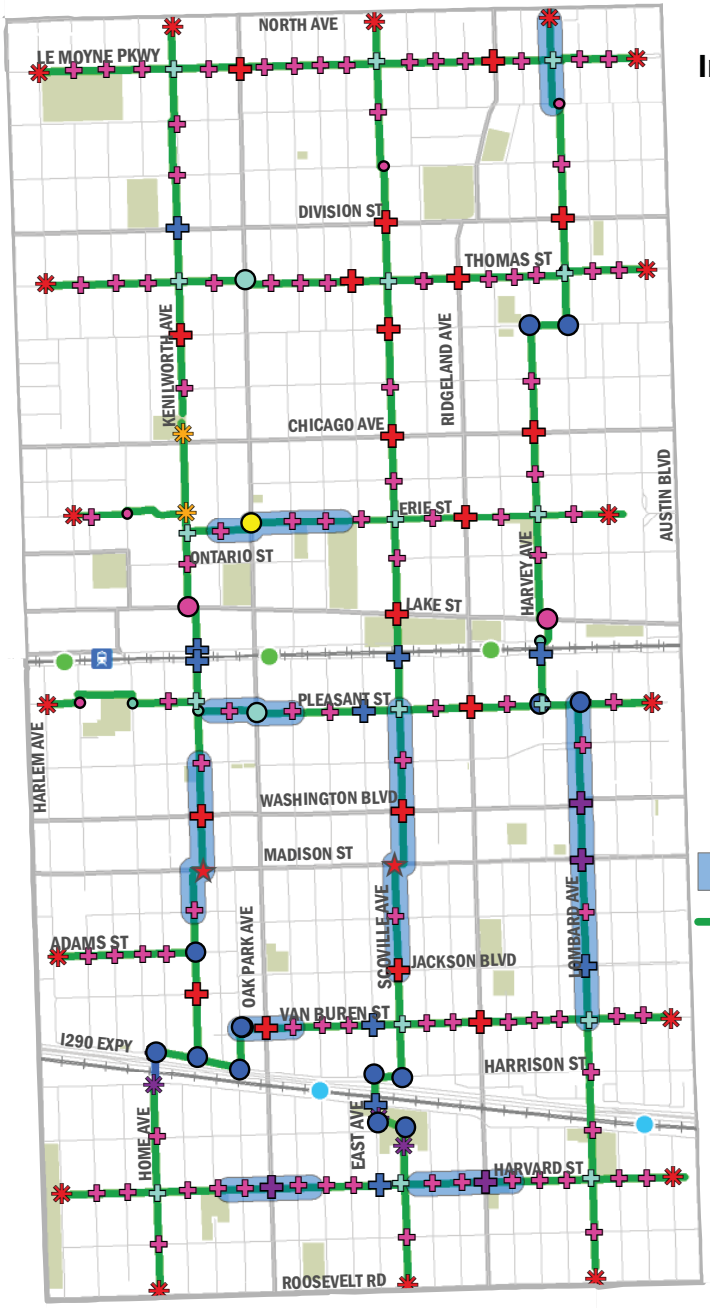
Traffic calming: Additional traffic calming may be necessary in certain locations in the Village. This plan identifies a design strategy to be used should traffic calming be implemented.

The map included on the following page provides an overview of the Neighborhood Greenways network and locations for the various typologies. Subsequent pages include further details on each typology, diagrams, and additional maps.

Intersection Typology - All

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles



Intersection Typology

- Minor R/L Offset
- Minor L/R Offset
- Major R/L Offset, Uncontrolled
- Major L/R Offset, Uncontrolled
- Major R/L Offset, Uncontrolled Special
- Major L/R Offset, Signalized
- Major Street Crossing, Stop Control
- Major Street Crossing, Uncontrolled
- Major Street Crossing, Signalized
- Intersection of Two Neighborhood Greenways
- Neighborhood Greenway Turns
- Neighborhood Greenway Connects with Off-street Path
- Minor Street Crossing
- Neighborhood Greenway Terminus
- Neighborhood Greenway Cul de sac Cut-through
- Traffic Calming
- Neighborhood Greenways Network

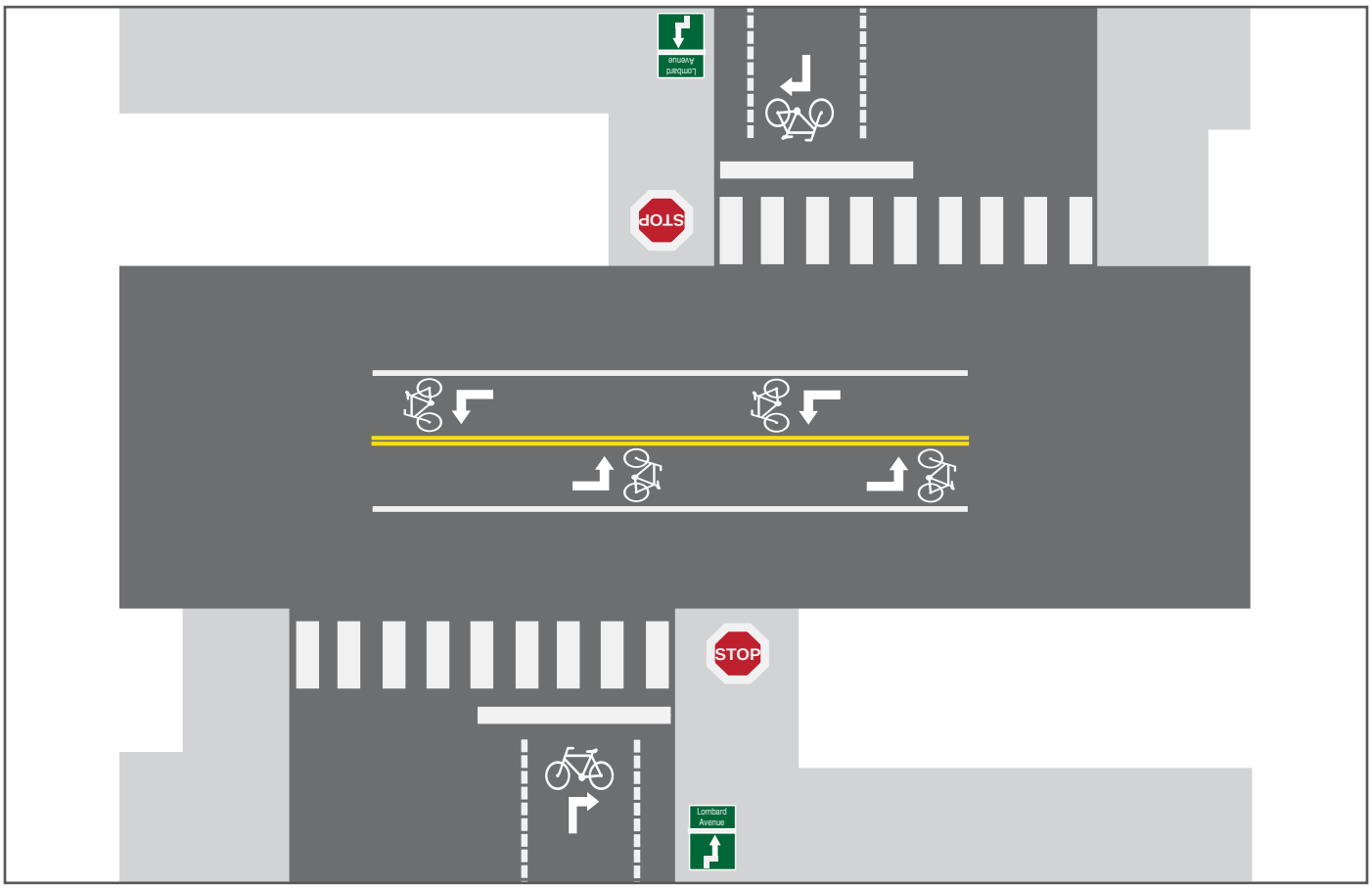
Offset Intersections: Minor Right/Left

RELEVANT INTERSECTIONS INCLUDE:

- Pleasant Street and Home Avenue
- Kenilworth Avenue and Pleasant Street
- Harvey Avenue and North Boulevard

TOOLS INCLUDE:

- Wayfinding signage
- Bi-directional bicycle-only left turn lane
- Rectangular Rapid Flashing Beacons (optional)



Intersection Typologies - Minor Right/Left Offset

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

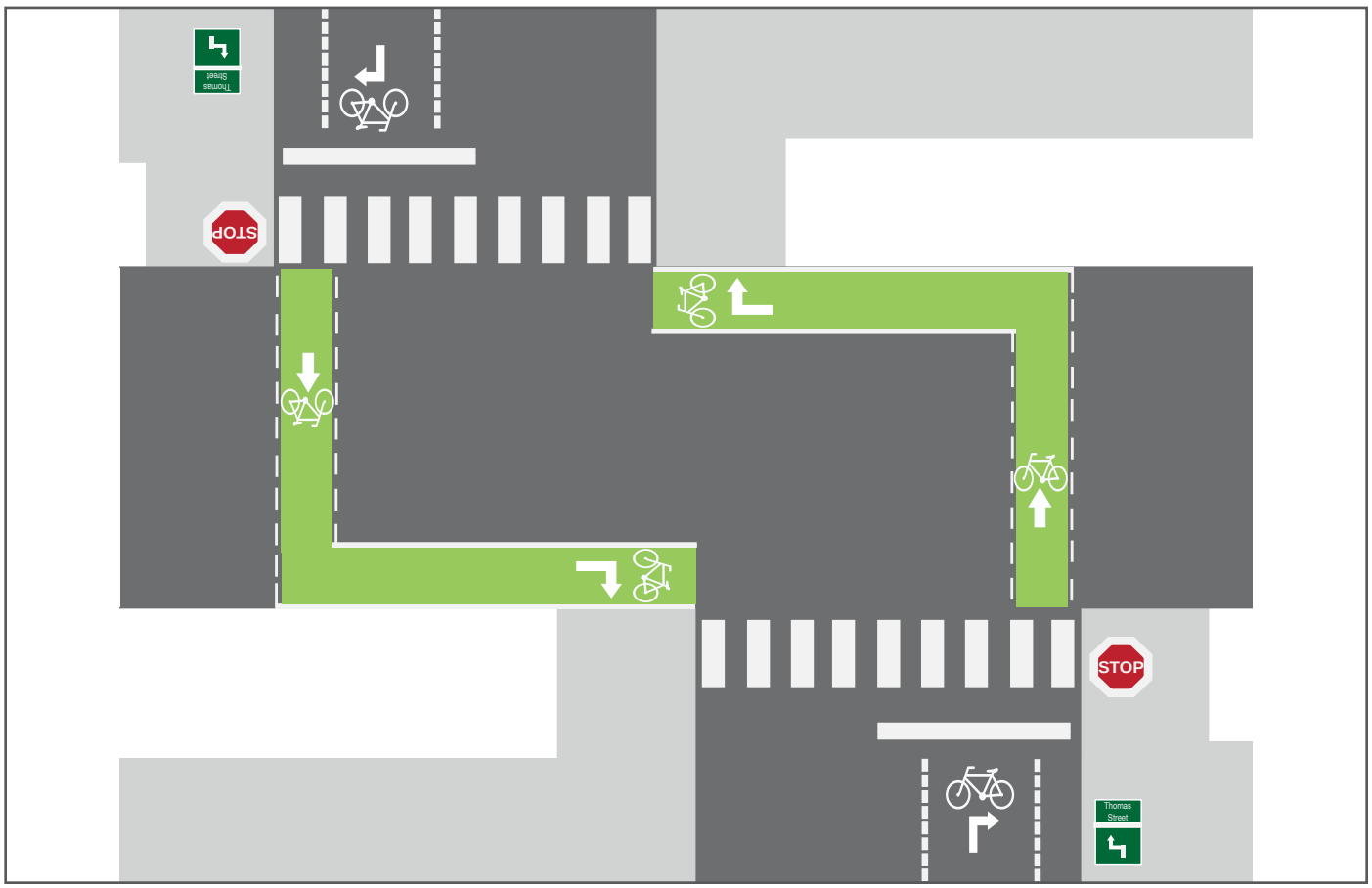
Offset Intersections: Minor Left/Right

RELEVANT INTERSECTIONS INCLUDE:

- Erie Street and Forest Avenue
- Fair Oaks Avenue and Berkshire Street
- Lombard Avenue and Greenfield Street
- Pleasant Street and Marion Street
- Thomas Street and Lombard Avenue

TOOLS INCLUDE:

- Wayfinding signage
- Intersection crossing markings
- Bike lanes with turn arrows
- Neighborhood Greenways pavement marking with green paint and directional arrow (optional)



Intersection Typologies - Minor Left/Right Offset

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

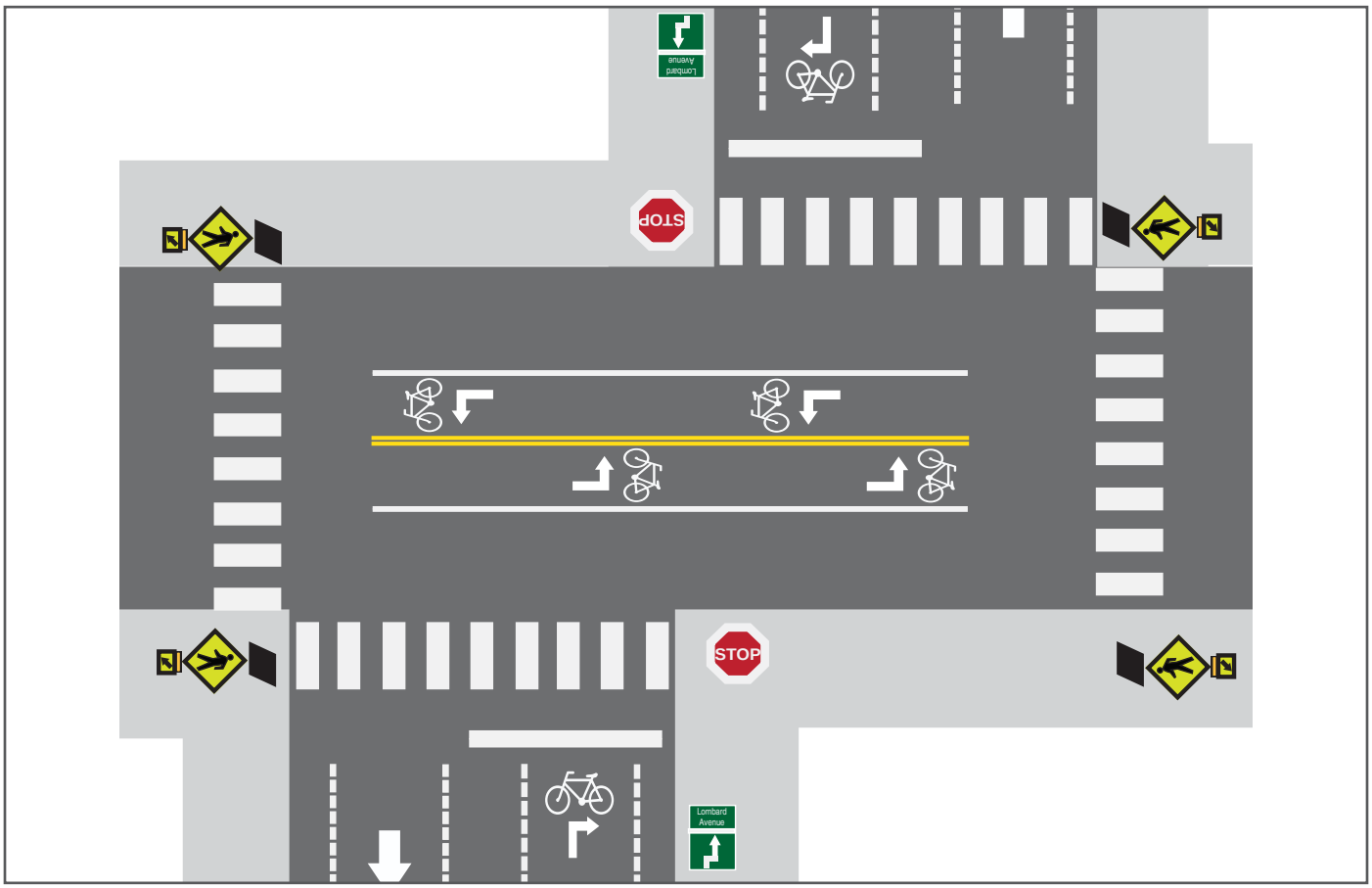
Offset Intersections: Major Right/Left, Uncontrolled

RELEVANT INTERSECTIONS INCLUDE:

- Thomas Street and Oak Park Avenue
- Pleasant Street and Oak Park Avenue

TOOLS INCLUDE:

- Wayfinding signage
- Bi-directional bicycle-only left turn lane
- Rectangular Rapid Flashing Beacons (optional)



Intersection Typology - Major Right/Left, Offset, Uncontrolled

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

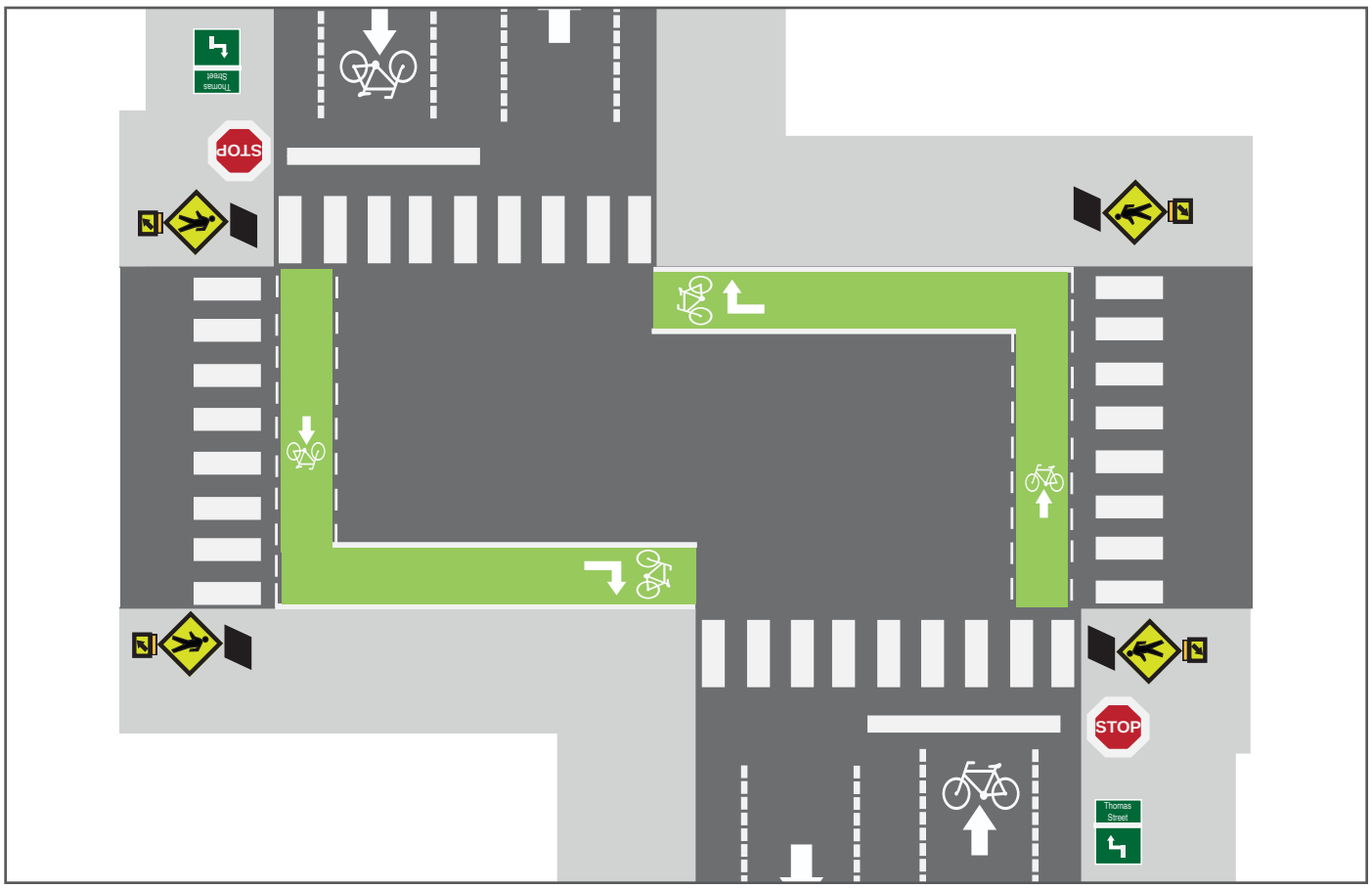
Offset Intersections: Major Left/Right Uncontrolled

RELEVANT INTERSECTIONS INCLUDE:

Erie Street and Oak Park Avenue

TOOLS INCLUDE:

- Wayfinding signage
- Intersection crossing markings
- Bike lanes with turn arrows
- Rectangular Rapid Flashing Beacon (preferred)
- Neighborhood Greenways pavement marking with green paint and directional arrow (optional)



Intersection Typology - Major Left/Right Offset, Uncontrolled

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

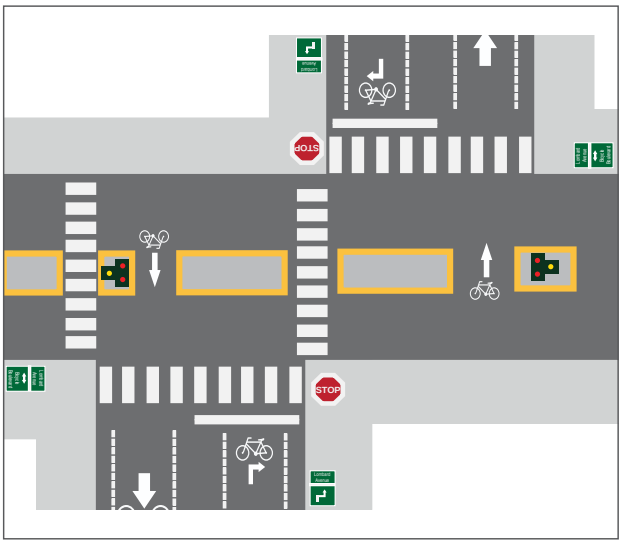
Offset Intersections: Major Right/Left, Uncontrolled, Special

RELEVANT INTERSECTIONS INCLUDE:

Scoville Avenue and Madison Street

TOOLS INCLUDE:

- Wayfinding signage
- Intersection crossing markings
- Bike lanes with turn arrows
- Bike boxes
- Neighborhood Greenways pavement marking with green paint and directional arrow (optional)

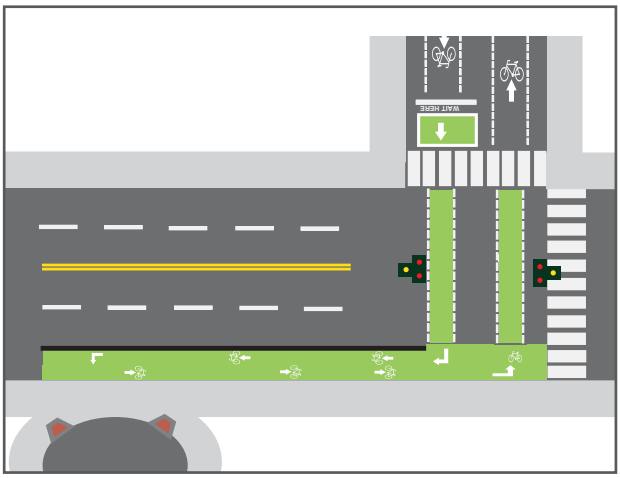


RELEVANT INTERSECTIONS INCLUDE:

Kenilworth Avenue and Madison Street

TOOLS INCLUDE:

- Two-way cycle track
- HAWK signal
- Bike box
- Intersection crossing markings
- Wayfinding signage
- Neighborhood Greenways pavement marking with green paint and directional arrow (optional)



Intersection Typologies - Major Right/Left, Uncontrolled, Special

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

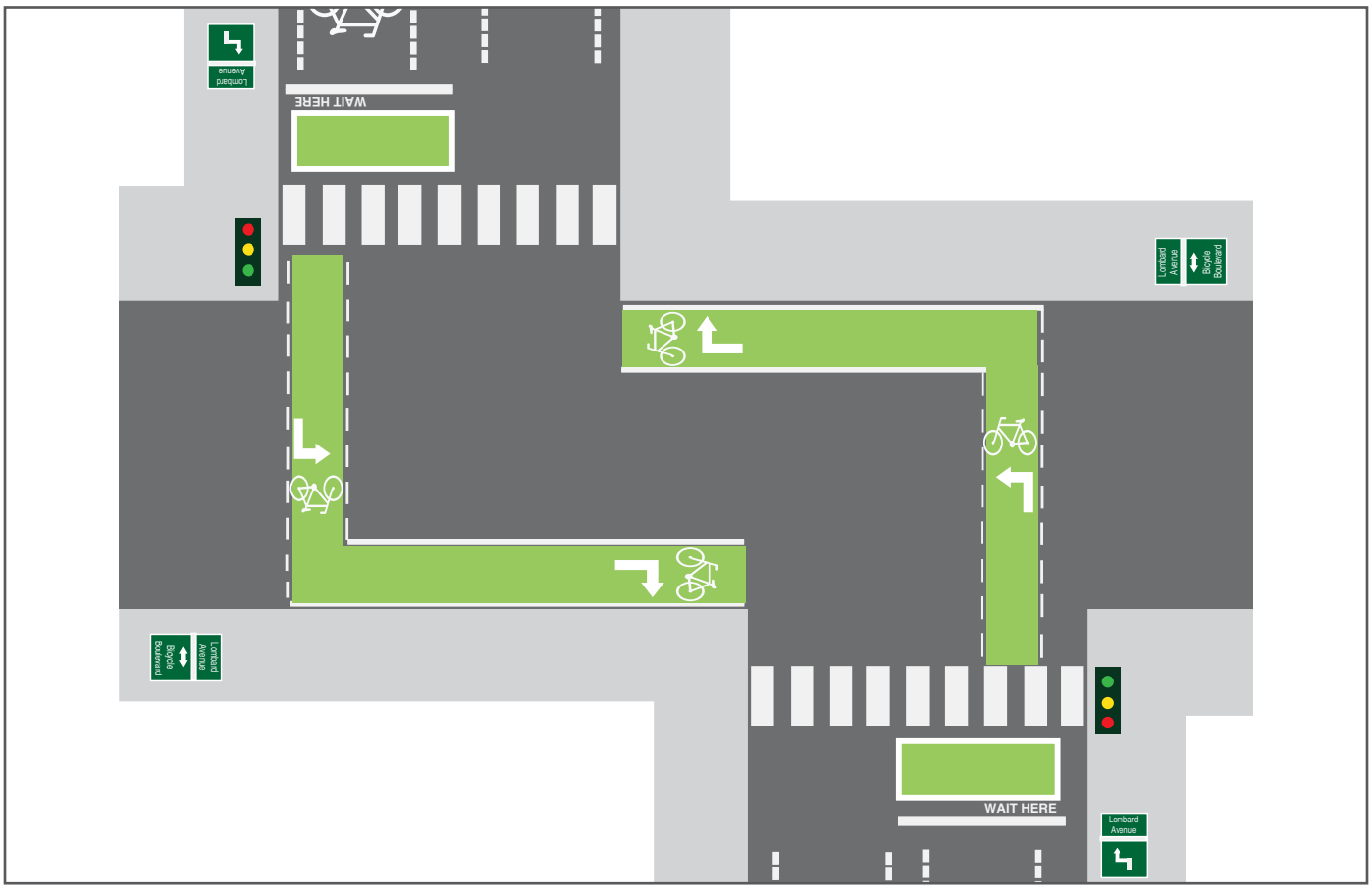
Offset Intersections: Major Left/Right, Signalized

RELEVANT INTERSECTIONS INCLUDE:

- Harvey Avenue and Lake Street
- Kenilworth Avenue and Lake Street

TOOLS INCLUDE:

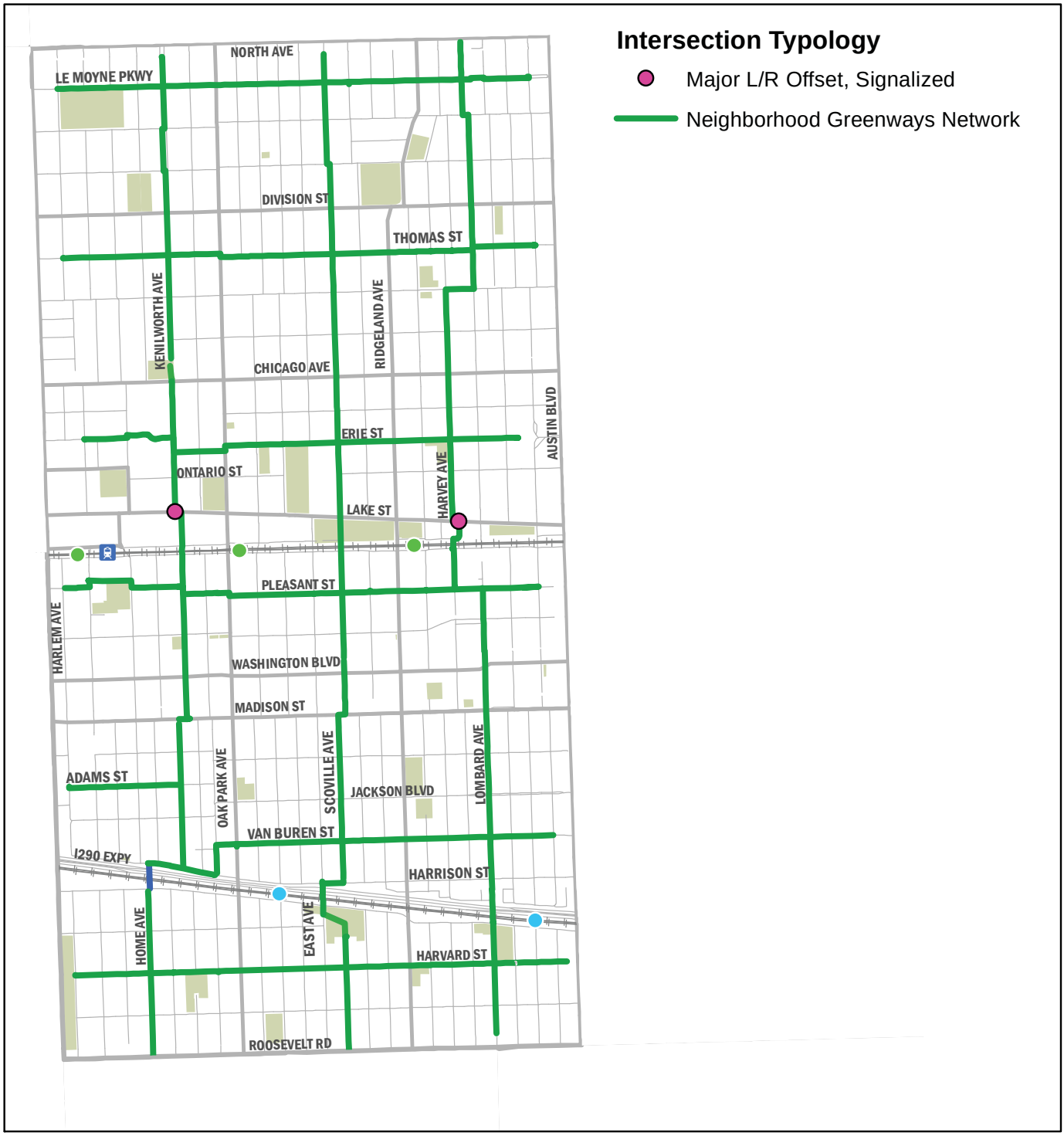
- Wayfinding signage
- Intersection crossing markings
- Bike lanes with turn arrows
- Bike boxes
- Neighborhood Greenways pavement marking with green paint and directional arrow (optional)



Intersection Typology - Major Left/Right Offset, Signalized

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles



Major Street Crossings:

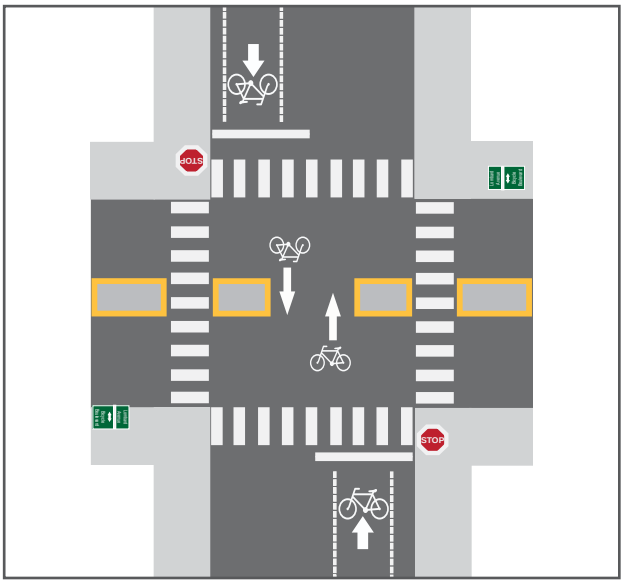
Uncontrolled

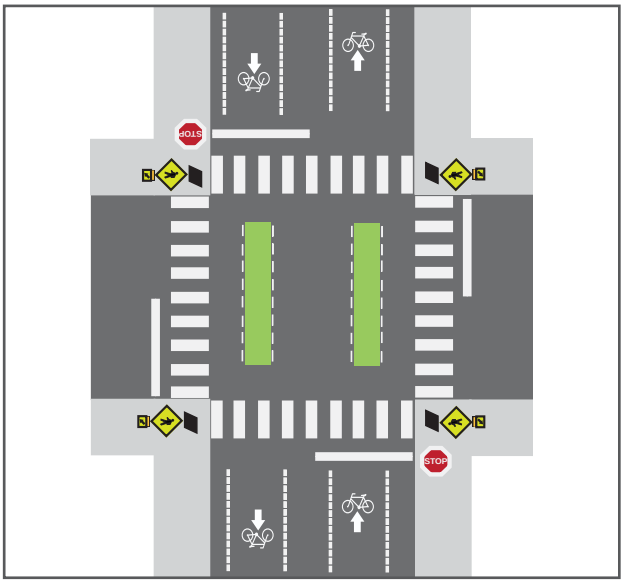
RELEVANT INTERSECTIONS INCLUDE:

- Fair Oaks Avenue and Division Street
- Fair Oaks Avenue and Augusta Street
- Fair Oaks Avenue and Chicago Avenue
- Harvey Avenue and Chicago Avenue
- Kenilworth Avenue and Augusta Street
- Kenilworth Avenue and Washington Boulevard
- Kenilworth Avenue and Jackson Boulevard
- Lombard Avenue and Division Street
- Pleasant Street and Ridgeland Avenue
- Scoville Avenue and Lake Street
- Scoville Avenue and Jackson Boulevard
- Scoville Avenue and Washington Boulevard
- Thomas Street and East Avenue
- Thomas Street and Ridgeland Avenue
- Van Buren Street and Oak Park Avenue
- Van Buren Street and Ridgeland Avenue
- LeMoyne Parkway and Oak Park Avenue
- LeMoyne Parkway and East Avenue
- LeMoyne Parkway and Ridgeland Avenue

TOOLS INCLUDE:

- Neighborhood Greenways Crossing Signs
- Bicycle and Pedestrian Median Refuge Island
- Neighborhood Greenways pavement markings with green paint and directional arrow (optional)
- Rectangular Rapid Flashing Beacon (optional)





Intersection Typologies - Major Street Crossings, Uncontrolled

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Major Street Crossings:

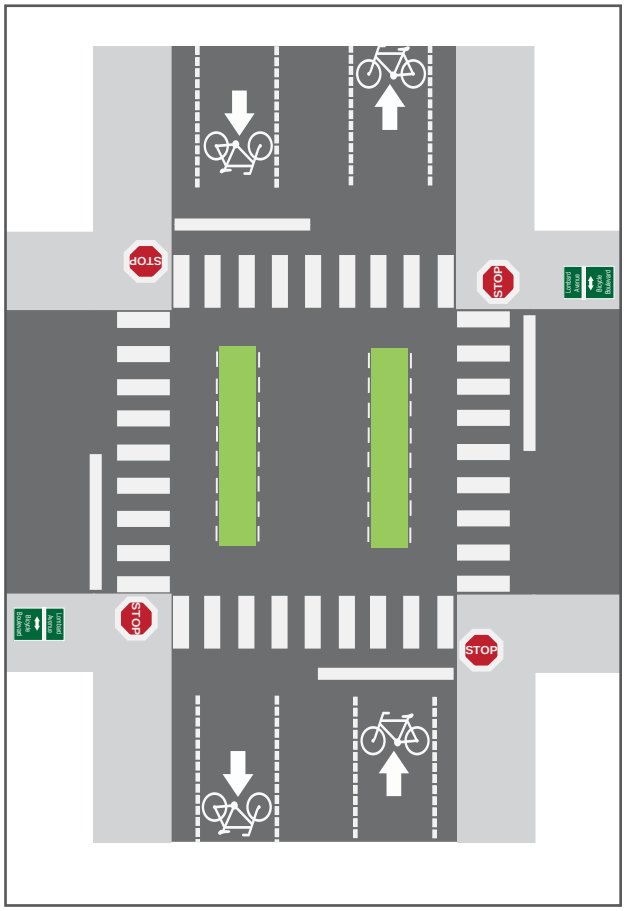
Stop Controlled

RELEVANT INTERSECTIONS INCLUDE:

- East Avenue and Garfield Street
- Harvard Street and East Avenue
- Harvey Avenue and South Boulevard
- Kenilworth Avenue and Division Street
- Kenilworth Avenue and North Boulevard
- Kenilworth Avenue and South Boulevard
- Lombard Avenue and Jackson Boulevard
- Pleasant Street and East Avenue
- Scoville Avenue and South Boulevard
- Van Buren Street and East Avenue

TOOLS INCLUDE:

- Neighborhood Greenways Crossing Sign
- Intersection pavement markings
- Neighborhood Greenways pavement markings with green paint and directional arrow (optional)



Intersection Typologies - Major Street Crossings with Stop Signs

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Major Street Crossings:

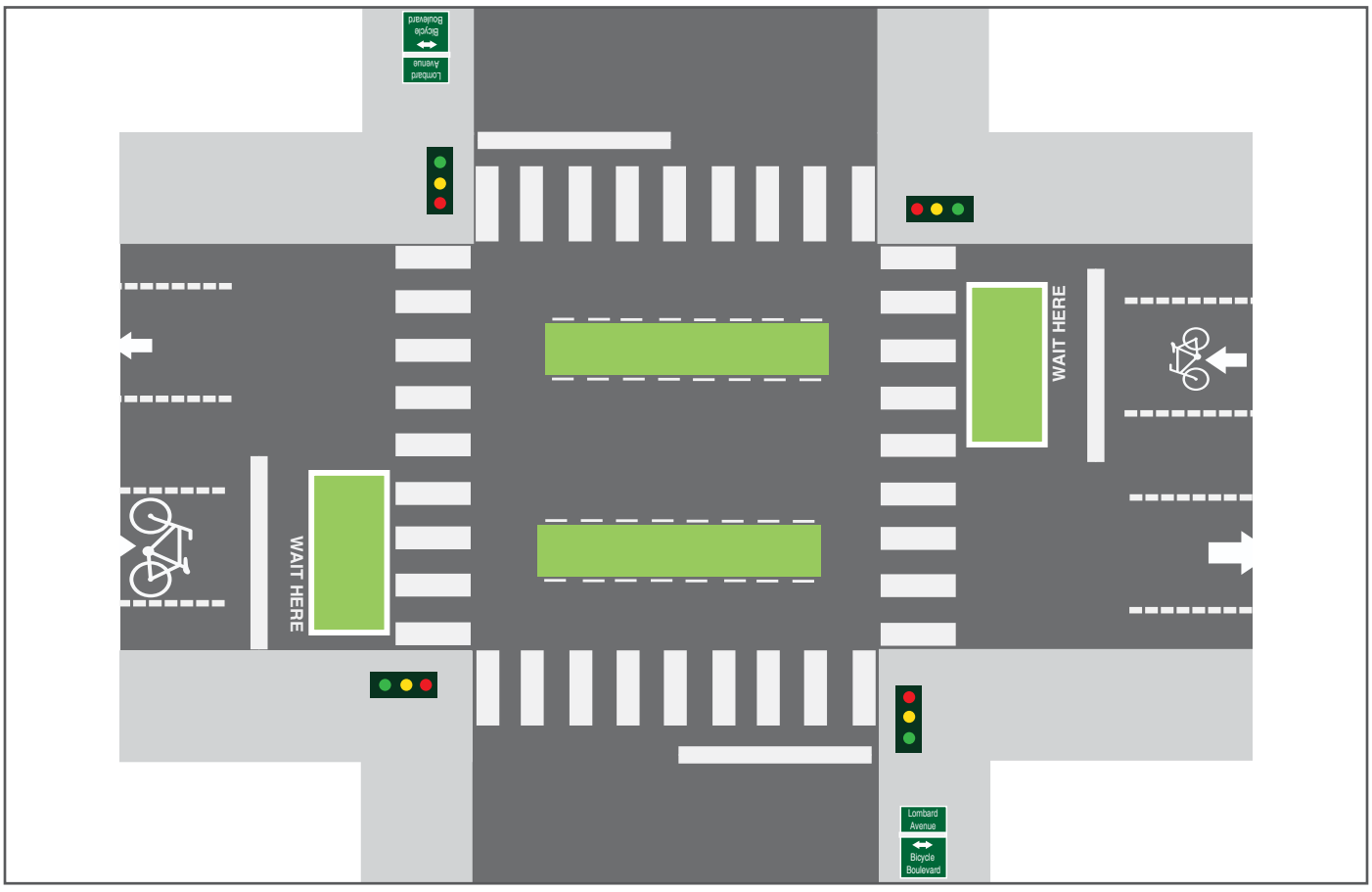
Signalized

RELEVANT INTERSECTIONS INCLUDE:

- Harvard Street and Oak Park Avenue
- Harvard Street and Ridgeland Avenue
- Lombard Avenue and Washington Boulevard
- Lombard Avenue and Madison Street

TOOLS INCLUDE:

- Intersection crossing markings
- Bike box
- Neighborhood Greenways Crossing Signs
- Neighborhood Greenways pavement markings with green paint and directional arrow (optional)



Intersection Typologies - Major Street Crossings with Signals

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Minor Street Crossings:

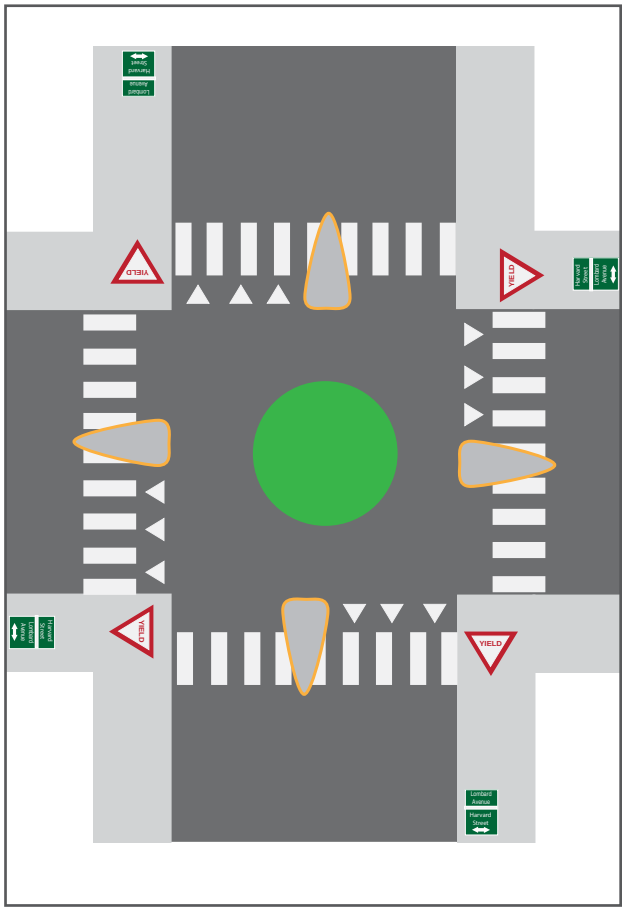
Intersection of Two Neighborhood Greenways

RELEVANT INTERSECTIONS INCLUDE:

- Erie Street and Scoville Avenue
- Erie Street and Harvey Avenue
- Fair Oaks Avenue and LeMoyne Parkway
- Fair Oaks Avenue and Thomas Street
- Harvard Street and Home Avenue
- Harvard Street and Scoville Avenue
- Harvard Street and Lombard Avenue
- Kenilworth Avenue and Lemoyne Avenue
- Kenilworth Avenue and Thomas Street
- Kenilworth Avenue and Erie Street
- Kenilworth Avenue and Pleasant Street
- Lombard Avenue and LeMoyne Parkway
- Lombard Avenue and Thomas Street
- Lombard Avenue and Van Buren Street
- Pleasant Street and Scoville Avenue
- Pleasant Street and Harvey Avenue
- Pleasant Street and Lombard Avenue
- Scoville Avenue and Van Buren Street

TOOLS INCLUDE:

- Wayfinding signage
- Mini Roundabout (optional, long-term)
- Splitter Island (optional, long-term)
- Yield signs (optional, long-term)
- Neighborhood Greenways pavement marking with directional arrow (optional)



Intersection Typologies - Intersection of Two Neighborhood Greenways

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1
Miles

Minor Street Crossings:

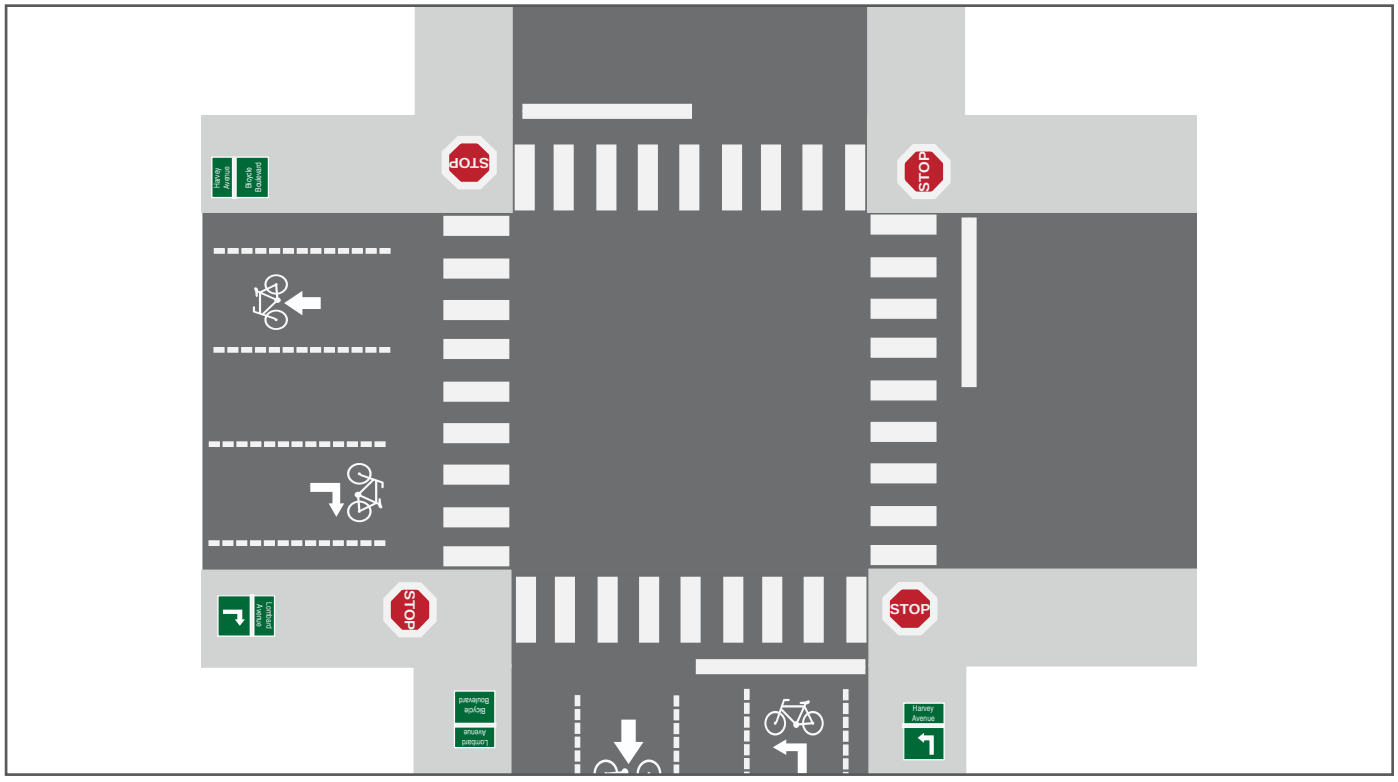
Neighborhood Greenways Turns

RELEVANT INTERSECTIONS INCLUDE:

- Augusta Avenue and Harvey Street
- East Avenue and Harvard Street
- Erie Street and Kenilworth Avenue
- Kenilworth Avenue and Harrison Street
- Lombard Avenue and Augusta Avenue
- Scoville Avenue and Harrison Street
- Scoville Avenue and East Avenue

TOOLS INCLUDE:

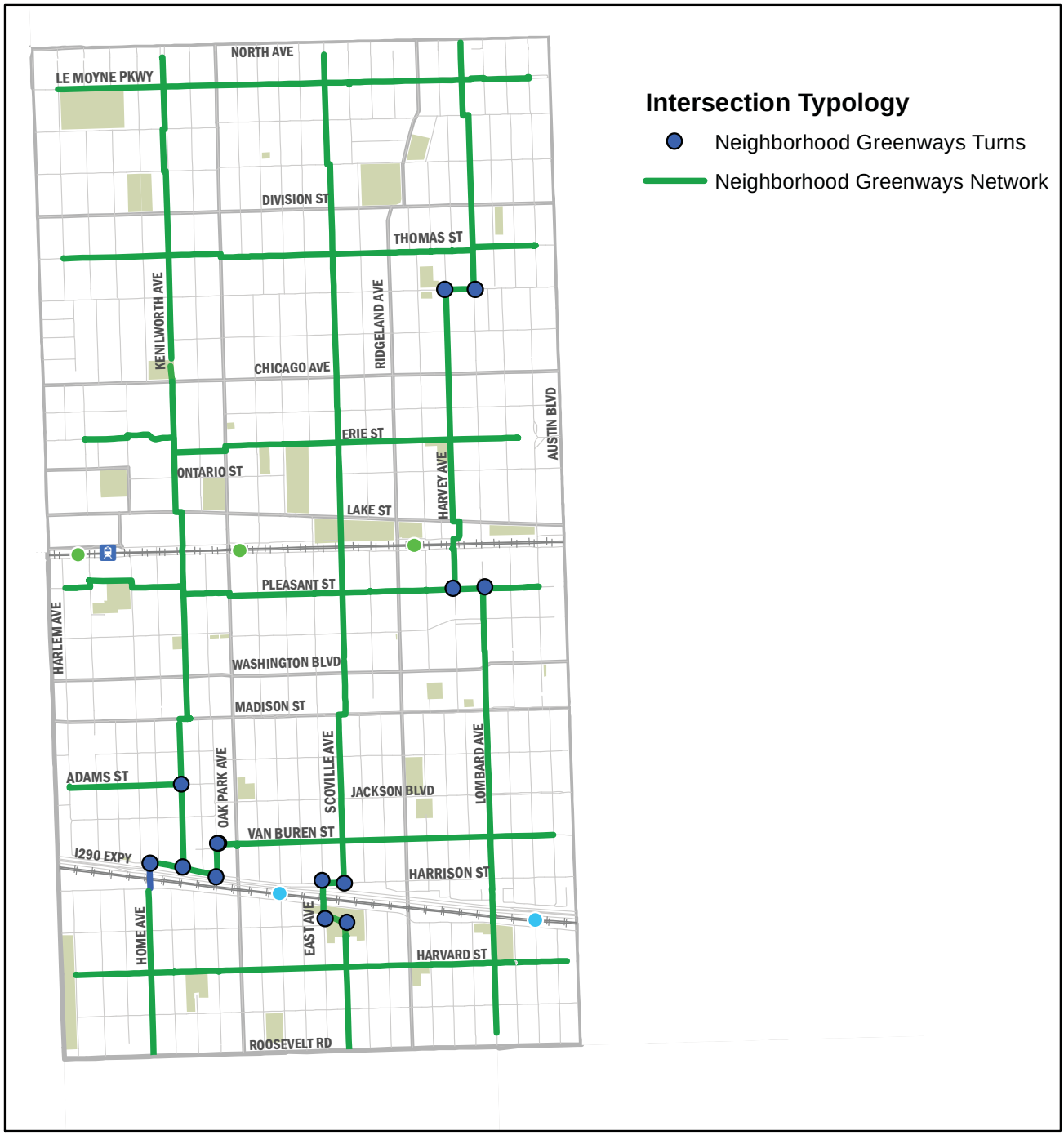
- Wayfinding Signage
- Neighborhood Greenways pavement markings with directional arrow (optional)



Intersection Typology - Neighborhood Greenways Turns

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles



Minor Street Crossings:

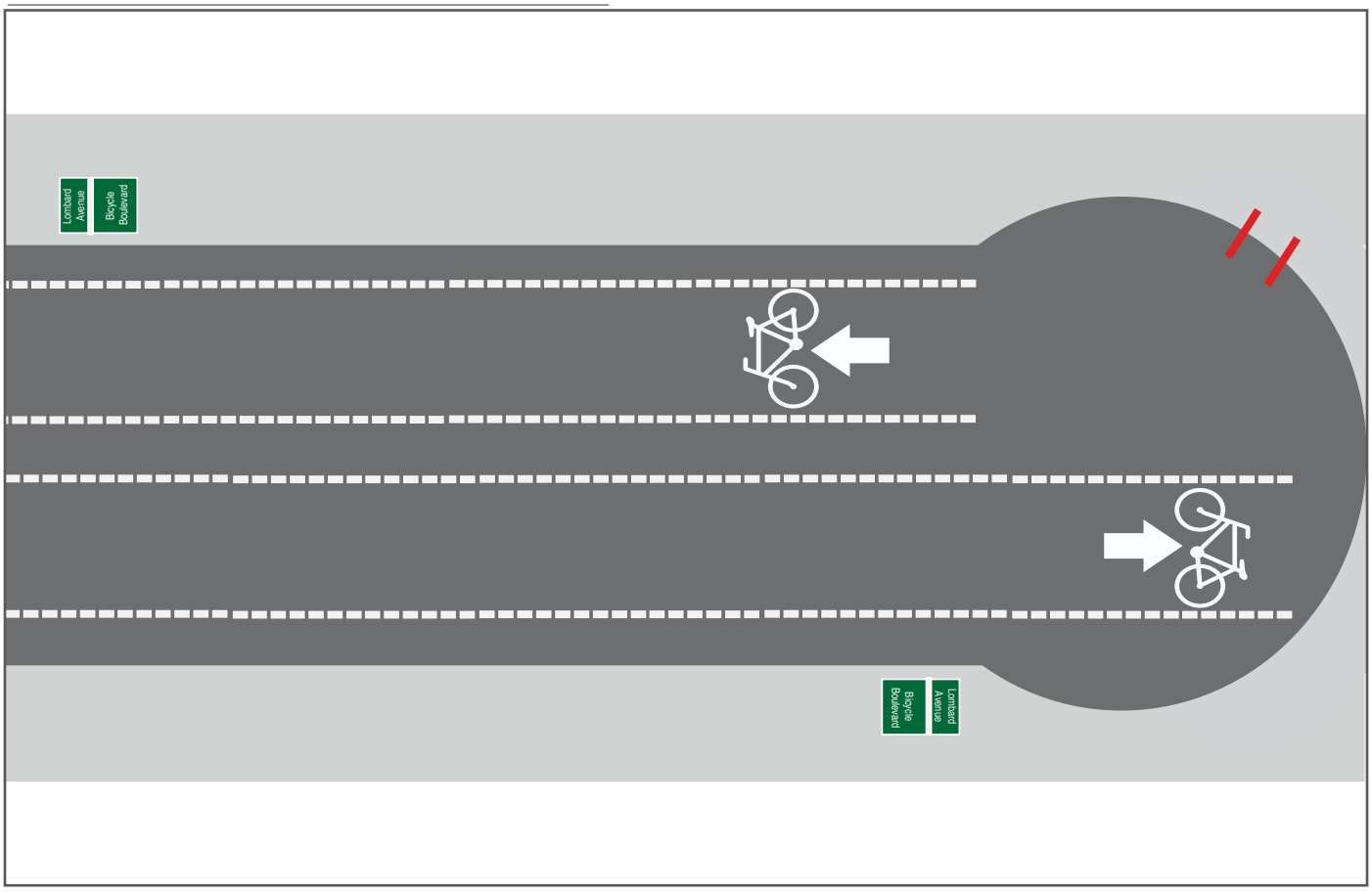
Neighborhood Greenway Intersects with Off-Street Path

RELEVANT INTERSECTIONS INCLUDE:

- Kenilworth Avenue and Harrison Street
- Home Avenue and Garfield Street
- East Avenue and Rehm Park
- Scoville Avenue and Rehm Park

TOOLS INCLUDE:

- Wayfinding signage
- Curb Ramps
- Neighborhood Greenways pavement markings directional arrow (optional)



Intersection Typology - Neighborhood Greenway Connects with Off-Street Path

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Minor Street Crossings:

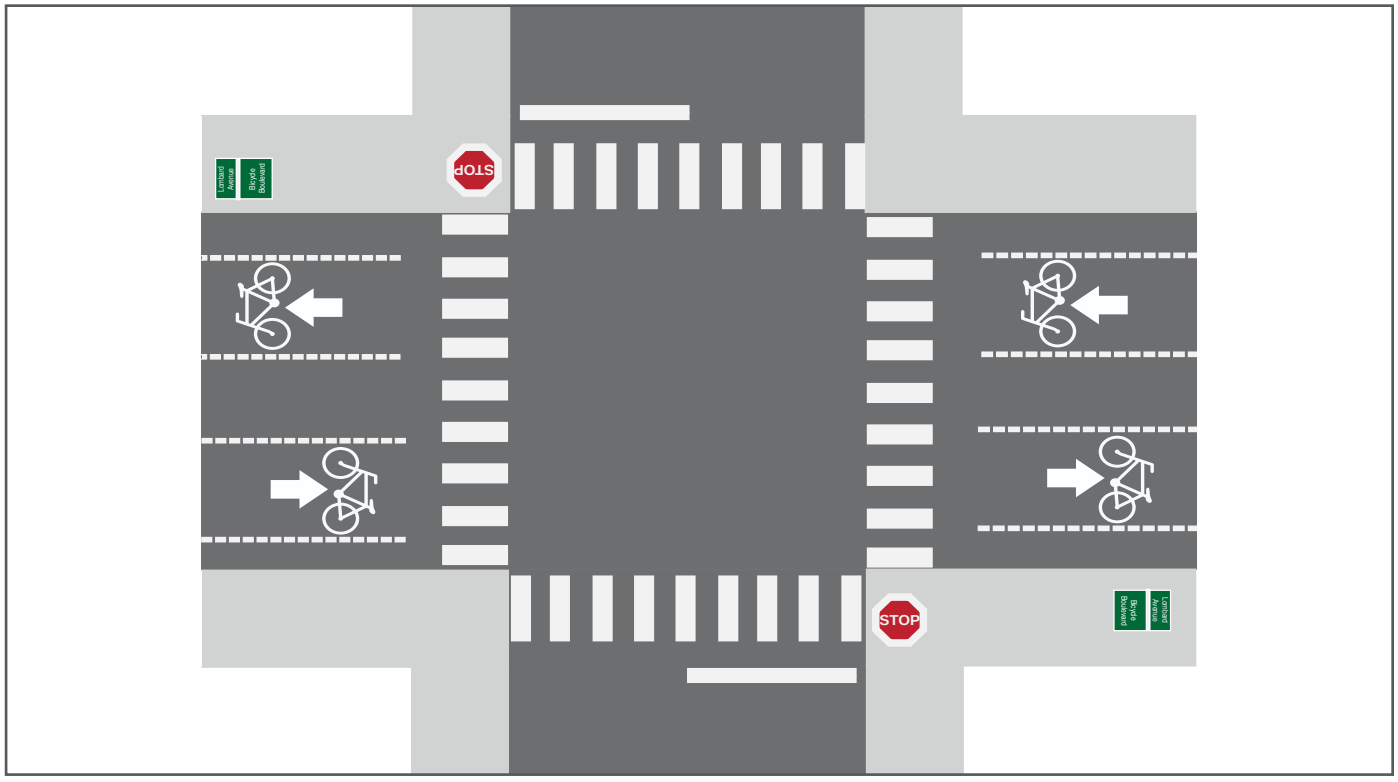
Intersection of Neighborhood Greenway and Local Street

RELEVANT INTERSECTIONS INCLUDE:

The majority of streets in the Neighborhood Greenways network meet this criteria. See the map on the following page for a complete list.

TOOLS INCLUDE:

- Wayfinding Signage
- Neighborhood Greenways pavement markings with directional arrow (optional)
- No stop sign on Neighborhood Greenways (optional)



Intersection Typologies - Minor Street Crossings

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Minor Street Crossings:

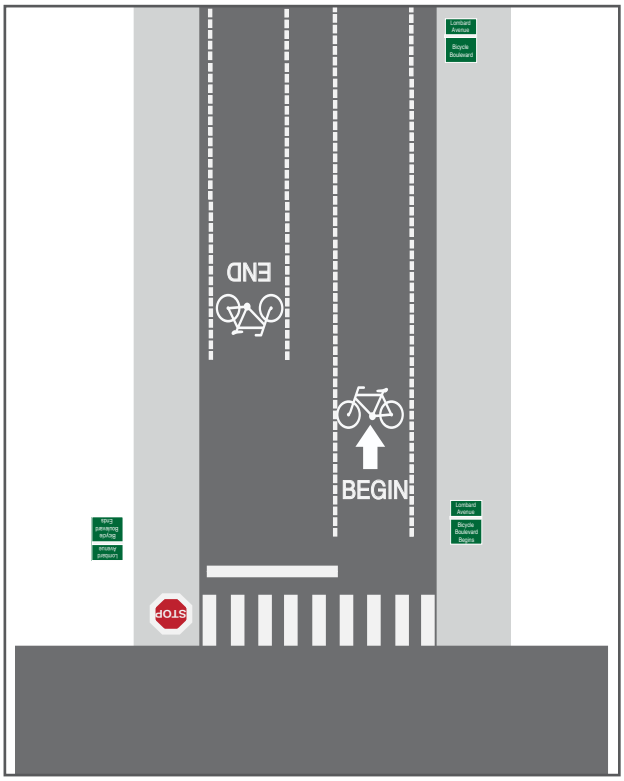
Terminus of the Neighborhood Greenway

RELEVANT INTERSECTIONS INCLUDE:

- Erie Street and Marion Street
- Erie Street and Forest Avenue
- Harvard Street and Maple Street
- Harvard Street and Humphrey Avenue
- Home Avenue and Roosevelt Road
- Kenilworth Avenue and North Avenue
- LeMoyne Parkway and Marion Street
- LeMoyne Parkway and Humphrey Avenue
- Lombard Avenue and North Avenue
- Lombard Avenue and Roosevelt Road
- Pleasant Street and Maple Street
- Pleasant Street and Humphrey Avenue
- Scoville Avenue and Roosevelt Road
- Fair Oaks Avenue and North Avenue
- Thomas Street and Marion Street
- Thomas Street and Humphrey Avenue
- Van Buren Street and Humphrey Avenue

TOOLS INCLUDE:

- Greenway Begins/Ends Signage
- Neighborhood Greenways pavement markings with directional arrow (optional)



Intersection Typologies - Neighborhood Greenways Termini

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Minor Street Crossings:

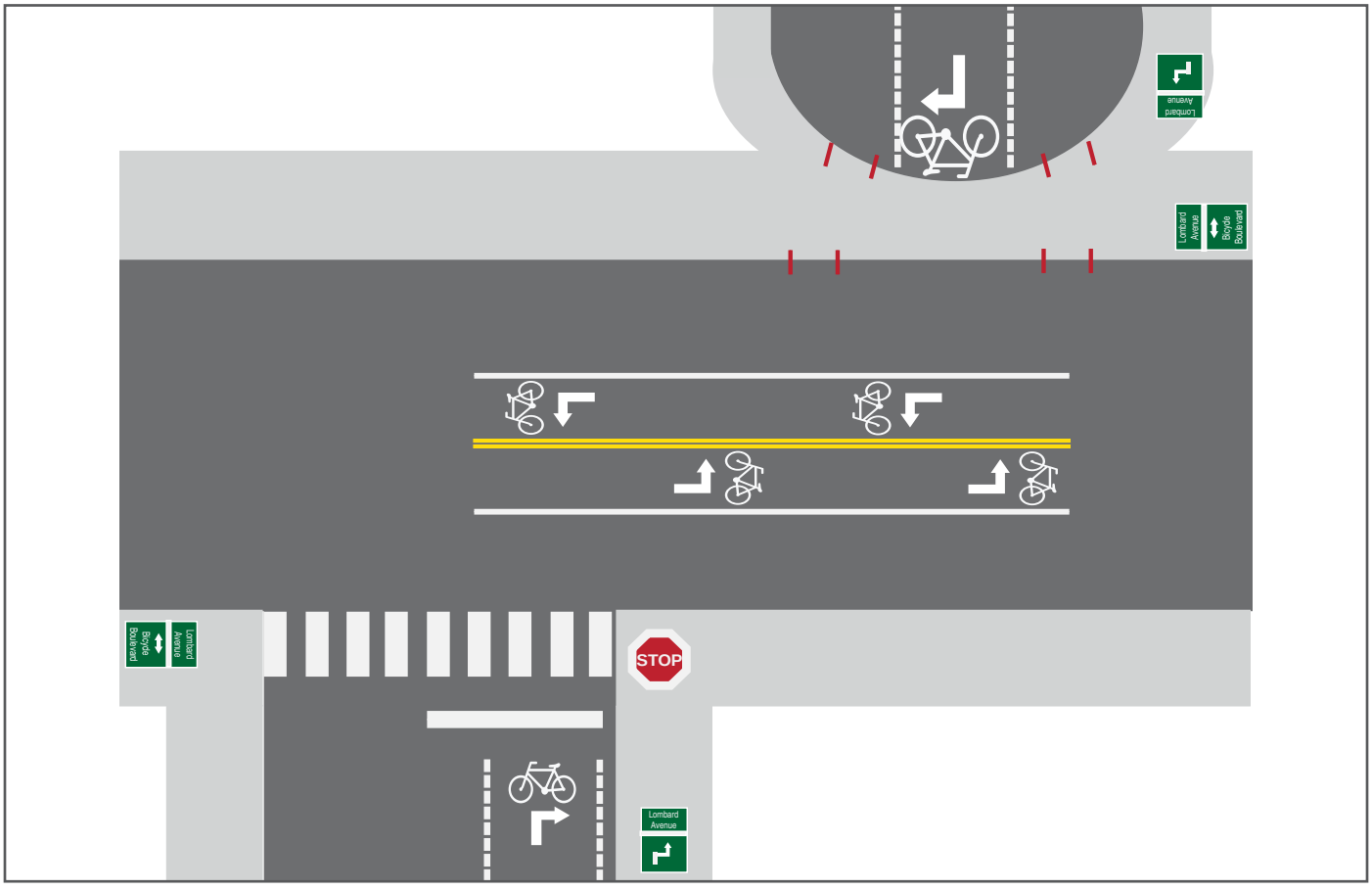
Cul de Sac Cut-Through

RELEVANT INTERSECTIONS INCLUDE:

- Elizabeth Court and Kenilworth Avenue
- Kenilworth Avenue and Oliver Wendell Holmes Elementary School
- Kenilworth Avenue and Chicago Avenue

TOOLS INCLUDE:

- Wayfinding signage
- Curb Ramps
- Neighborhood Greenways pavement marking with directional arrow (optional)



Intersection Typologies - Neighborhood Greenways Cul de Sac Cut-Throughs

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

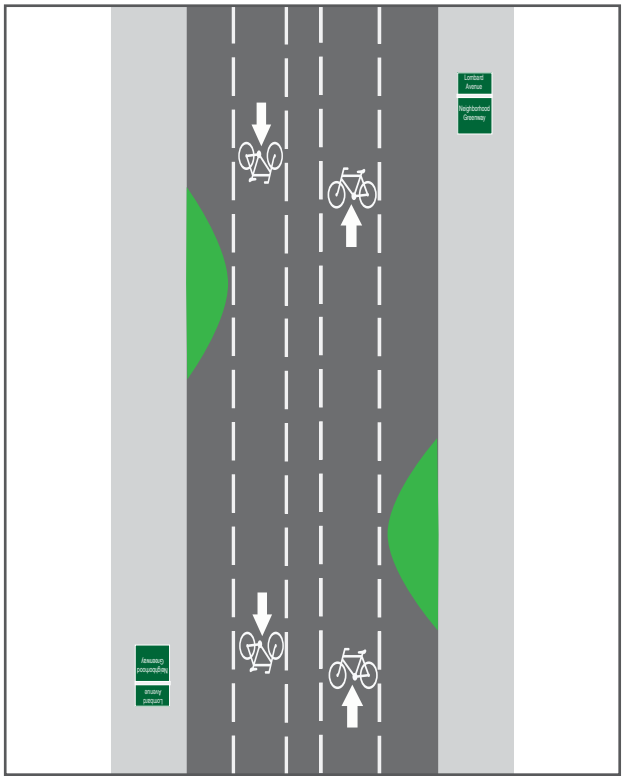
Mid-Block Improvements: Traffic Calming

RELEVANT SEGMENTS INCLUDE:

- Erie Street and Euclid Avenue
- Erie Street and Linden Avenue
- Erie Street and Oak Park Avenue
- Harvard Street and Oak Park Avenue
- Harvard Street and Ridgeland Avenue
- Harvard Street and Grove Street
- Harvard Street and Euclid Avenue
- Harvard Street and Gunderson Avenue
- Harvard Street and Elmwood Avenue
- Home Avenue and Pleasant Street
- Home Avenue and Randolph Street
- Home Avenue and Washington Boulevard
- Home Avenue and Madison Street
- Home Avenue and Monroe Street
- Lombard Avenue and Washington Boulevard
- Lombard Avenue and Madison Street
- Lombard Avenue and Jackson Boulevard
- Lombard Avenue and LeMoyne Parkway
- Lombard Avenue and Randolph Street
- Lombard Avenue and Adams Street
- Pleasant Street and Oak Park Avenue
- Pleasant Street and Grove Avenue
- Pleasant Street and Euclid Avenue
- Scoville Avenue and Madison Street
- Scoville Avenue and Pleasant Street
- Scoville Avenue and Randolph Street
- Scoville Avenue and Adams Street
- Scoville Avenue and Washington Boulevard

TOOLS INCLUDE:

- Chicanes
- No stop sign on Neighborhood Greenways (optional)



Intersection Typologies - Traffic Calming

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Mid-Block Improvements:

Wayfinding and Pavement Markings

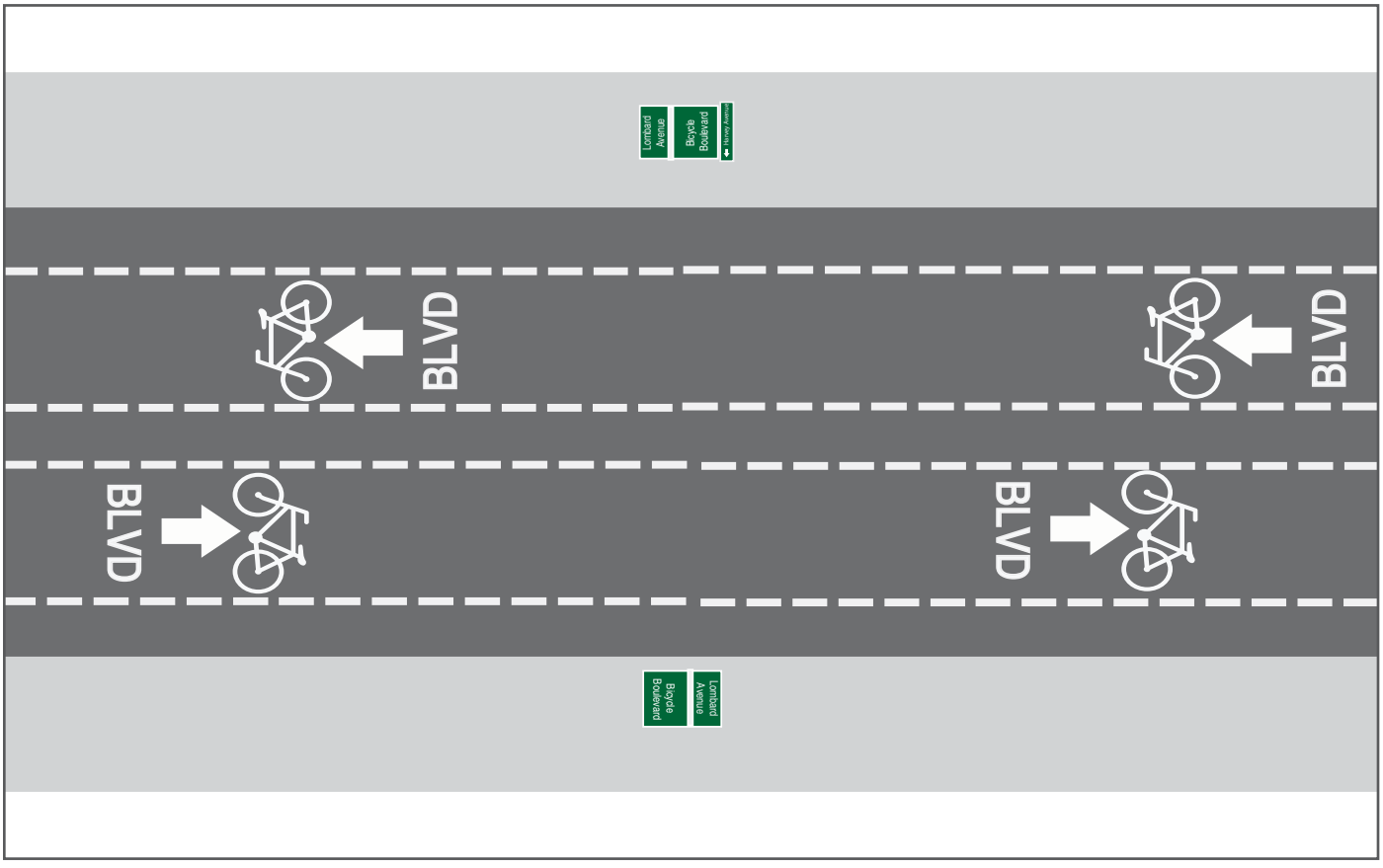
RELEVANT SEGMENTS INCLUDE:

For Use throughout the Neighborhood Greenways network.

TOOLS INCLUDE:

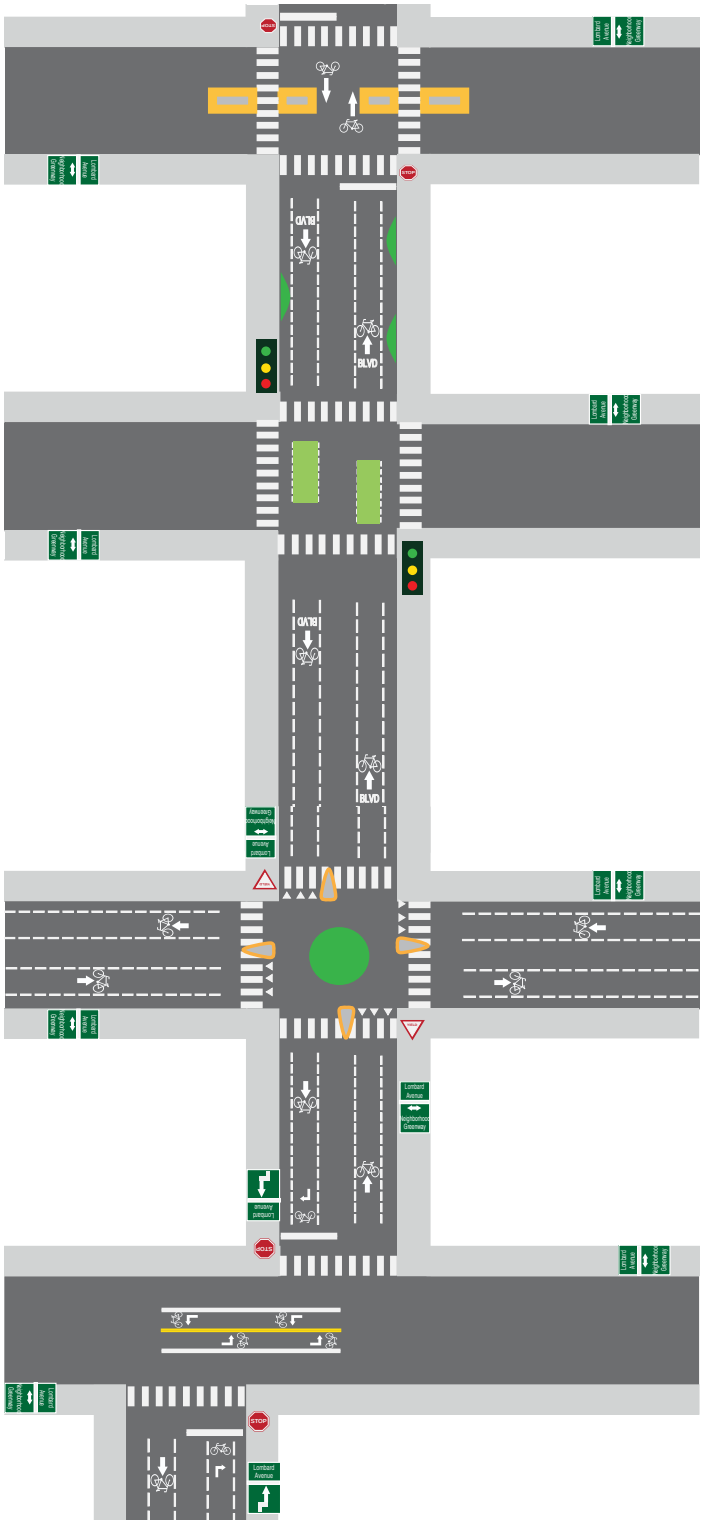
Wayfinding/confirmation signage

Neighborhood Greenways pavement markings with directional arrow (optional)



Neighborhood Greenways Put Together

The illustration on this page depicts a various treatments that can be used along a Neighborhood Greenway by typology.



Major Street Crossing, Uncontrolled with bicycle and pedestrian center median and Neighborhood Greenways crossing signs.

Mid-block traffic calming with chicanes, advisory bike lanes and Neighborhood Greenways pavement markings.

Major Street Crossing, Signalized with intersection pavement markings and Neighborhood Greenways crossing signs.

Neighborhood Greenways pavement markings.

Intersection of two Neighborhood Greenways with mini roundabout, diverters, and wayfinding signage.

Neighborhood Greenways pavement markings.

Minor, Offset intersection with bi-directional bicycle-only left turn lane, Neighborhood Greenways Pavement markings, and wayfinding signage.

Neighborhood Greenways pavement markings.

NEIGHBORHOOD GREENWAYS FACILITIES

The tables included on the following pages provide detailed recommendations for intersections and street segments throughout the network. The tables are organized by Neighborhood Greenways name and include the following columns:

Existing conditions: An overview of the current intersection design,

Near-term recommendations: Tools that are recommended to be included at the corresponding intersection. In some cases, recommendations are divided into phases.

Long-Term recommendations: Intersections where recommendations should be evaluated over time to determine if enhanced treatments are needed.

TABLE 2C	LeMoyne Parkway Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
LeMoyne Parkway	Marion Street	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			
LeMoyne Parkway	Belleforte Avenue	Intersection of Neighborhood Greenway and Local Street	Belleforte dead ends at LeMoyne. Bellefort has a one-way stop.	Use standard tools.			
LeMoyne Parkway	Forest Avenue	Intersection of Neighborhood Greenway and Local Street	Forest dead ends at LeMoyne. Forest has a one-way stop.	Use standard tools.			
LeMoyne Parkway	Woodbine Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
LeMoyne Parkway	Kenilworth Avenue	Intersection of Two Neighborhood Greenways	Kenilworth has a center median and two-way stop.	Use standard tools.	Install a mini roundabout.		
LeMoyne Parkway	Grove Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Grove.	Use standard tools.			
LeMoyne Parkway	Oak Park Avenue	Major Street Crossing Uncontrolled	Two-way stop on Lemoyne. Oak Park is a high-traffic arterial with a difficult crossing. Existing diverter on the east leg of LeMoyne prevents drivers from continuing onto LeMoyne.	Remove diverter and replace with a bicycle and pedestrian median refuge island on Oak Park Avenue to allow with and high-visibility crosswalks. Install bicycle and pedestrian advanced warning signs.	Consider installing an RRFB on Oak Park Avenue.	Retain diverter and allow bicycles to continue west on Oak Park Avenue. Install bump-outs on Oak Park Avenue to reduce crossing distance. Install high visibility crosswalks and Neighborhood Greenways crossing signs. Consider installing an RRFB on Oak Park Avenue.	
LeMoyne Parkway	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
LeMoyne Parkway	Linden Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Linden.	Use standard tools.			
LeMoyne Parkway	Columbian Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
LeMoyne Parkway	East Avenue	Major Street Crossing Uncontrolled	Two-way stop on East Avenue.	Add intersection crossing markings across East Avenue.			
LeMoyne Parkway	Fair Oaks Avenue	Intersection of Two Neighborhood Greenways	LeMoyne has a two-way stop.	Use standard tools.	Install a mini roundabout.		
LeMoyne Parkway	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Elmwood.	Use standard tools.			

TABLE 2C, CON'T	LeMoyne Parkway Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
LeMoyne Parkway	Rossell Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on LeMoyne.	Use standard tools.			
LeMoyne Parkway	Edmer Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Edmer	Use standard tools.			
LeMoyne Parkway	Ridgeland Avenue	Major Street Crossing Uncontrolled	Two-way stop on Lemoyne. Ridgeland is a high-traffic arterial with a difficult, uncontrolled crossing.	Add intersection crossing markings across Ridgeland Avenue.	Consider installing an RRFB on Ridgeland Avenue.		
LeMoyne Parkway	Harvey Avenue	Intersection of Neighborhood Greenway and Local Street	Lemoyne splits into a single lane boulevard with a wide grassy median. Harvey has a two-way stop.	Add intersection crossing markings across LeMoyne in each direction. Add Neighborhood Greenways pavement markings to the east and west legs of the intersection			
LeMoyne Parkway	Lombard Avenue	Intersection of Two Neighborhood Greenways	All-way stop with a center median on LeMoyne.	Use standard tools.	Install a mini roundabout.		
LeMoyne Parkway	Hayes Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Hayes.	Use standard tools.			
LeMoyne Parkway	Taylor Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
LeMoyne Parkway	Humphrey Avenue	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			

TABLE 2B	Thomas Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Thomas Street	Marion Street	Terminus of the Neighborhood Greenway	Two-way stop on Thomas.	Mark route with Neighborhood Greenway ends/begins.			
Thomas Street	Belleforte Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Belleforte.	Use standard tools.			
Thomas Street	Forest Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Thomas Street.	Use standard tools.			
Thomas Street	Woodbine Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Woodbine.	Use standard tools.			
Thomas Street	Kenilworth Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Thomas.	Use standard tools.	Install a mini roundabout.	Opportunity for intersection art.	
Thomas Street	Grove Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Grove	Use standard tools.			
Thomas Street	Oak Park Avenue	Major Right/Left Offset, uncontrolled	Two-way stop on Thomas. Offset intersection at arterial with no traffic control.	Install bi-directional bicycle only left turn lanes on Oak Park Avenue. Use wayfinding signage to indicate the Neighborhood Greenway extends.			
Thomas Street	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	Euclid dead ends into Thomas with no control.	Use standard tools.			
Thomas Street	Linden Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Thomas.	Use standard tools.			
Thomas Street	Columbian Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Columbian.	Use standard tools.			
Thomas Street	East Avenue	Major Street Crossing Uncontrolled	Two-way stop on Thomas. East is a collector with an uncontrolled crossing.	Mark intersection crossing markings across East Avenue.			
Thomas Street	Fair Oaks Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Fair Oaks.	Use standard tools.	Install a mini roundabout.	Opportunity for intersection art.	
Thomas Street	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Thomas Street.	Use standard tools.			
Thomas Street	Ridgeland Avenue	Major Street Crossing Uncontrolled	Two-way stop on Thomas Street. Ridgeland is an arterial with an uncontrolled crossing.	Install a Bicycle and Pedestrian Center Refuge Island on Ridgeland. Mark intersection crossing markings across Ridgeland Avenue.			
Thomas Street	Cuyler Avenue	Intersection of Neighborhood Greenway and Local Street	Cuyler is offset with a two-way stop.	Install Neighborhood Greenway crossing signs on Cuyler Avenue.			

TABLE 2B, CON'T	Thomas Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Thomas Street	Harvey Avenue	Intersection of Neighborhood Greenway and Local Street	Harvey is offset.	Use standard tools.			
Thomas Street	Mapleton Avenue	Intersection of Neighborhood Greenway and Local Street	Mapleton dead ends into Harvey with a one-way stop.	Use standard tools.			
Thomas Street	Lombard Avenue	Minor Left/Right Offset, Uncontrolled	Thomas is offset with a two-way stop.	Remove parking on Thomas between the offset street segments. Use wayfinding signage to guide cyclists to Thomas Street.			
Thomas Street	Hayes Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Hayes.	Use standard tools.			
Thomas Street	Taylor Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Thomas.	Use standard tools.			
Thomas Street	Humphrey Avenue	Terminus of the Neighborhood Greenway	Two-way stop on Humphrey.	Use standard tools.			
Thomas Street	Taylor Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.	Install a mini roundabout.		
Thomas Street	Humphrey Avenue	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			

TABLE 2C	Erie Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Erie Street	Marion Street	Terminus of the Neighborhood Greenway	Maple Avenue dead ends, intersection has a three-way stop.	Use standard tools.			
Erie Street	Forest Avenue	Minor Left/Right Offset, Uncontrolled	Erie/Elizabeth Court is offset with a two-way stop	Restrict parking on Forest where the intersection is offset. Use signage to direct cyclists to stay on Erie/Elizabeth Court.			
Elizabeth Court	Kenilworth Avenue	Neighborhood Greenways Cul de sac Cut-through	Elizabeth Court is cul de saced on the west side of Kenilworth Avenue.	Restrict parking on Kenilworth where Erie is offset. Install bi-directional left turn lane on Kenilworth with wayfinding signage.			
Erie Street	Grove Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Grove.	Use standard tools.			
Erie Street	Oak Park Avenue	Major Left/Right Offset, uncontrolled	Two-way stop on Erie.	Install wayfinding signage on Erie. Mark green bike lanes on the east and west lanes of Oak Park Avenue with marked bicycle right turn lanes to continue on Erie.			Yes
Erie Street	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			Yes
Erie Street	Linden Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Erie Street	East Avenue	Intersection of Neighborhood Greenway and Local Street	East dead ends with one-way stop.	Use standard tools.			
Erie Street	Scoville Avenue	Intersection of Two Neighborhood Greenways	Intersection of two Neighborhood Greenways with an all-way stop. Adjacent to a school.	Retain all-way stop. Mark contraflow bike lane on north-bound lane of Scoville, between Lake and Erie			
Erie Street	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Erie Street	Ridgeland Avenue	Major Street Crossing Uncontrolled	Two-way stop on Erie. Ridgeland is uncontrolled and maintained by Illinois Department of Transportation (IDOT).	Use standard tools. Work with IDOT to install an RRFB on Ridgeland and/or intersection pavement markings.			
Erie Street	Cuyler Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Erie Street	Harvey Avenue	Intersection of Two Neighborhood Greenways	All-way stop.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Erie Street	Lombard Avenue	Terminus of the Neighborhood Greenway	Two-way stop on Lombard	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	

TABLE 2D	Pleasant Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Pleasant Street	Maple Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Pleasant Street	Marion Street	Minor Left/Right Offset, Uncontrolled	Pleasant is offset at Marion with a two-way stop on Marion. Marion has bump-outs. Marion has cobblestones along this segment.	Install wayfinding signage directing cyclists through intersection.			
Pleasant Street	Home Avenue	Minor Right/Left Offset, Uncontrolled	Pleasant is offset at Home.	Install wayfinding signage, bicycle lanes with turn arrows and intersection pavement markings.			
Pleasant Street	Clinton Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Pleasant Street	Kenilworth Avenue	Intersection of Two Neighborhood Greenways	Pleasant is offset with a two-way stop.	Remove parking on Kenilworth between the offset streets segments. Install bi-directional bicycle only left turn lanes on Kenilworth. Stamp Neighborhood Greenways pavement marking on Home in center of vehicle travel lane for north/southbound cyclists. Use wayfinding signage to indicate the Neighborhood Greenway extends.			
Pleasant Street	Grove Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Grove	Use standard tools.			Yes
Pleasant Street	Oak Park Avenue	Major Right/Left Offset, signalized	Signalized intersection. Pleasant is slightly offset.	Install bike boxes on the east and west sides of the intersection and mark an ingress bicycle lane leading up to it (20' minimum in length.) Install bi-directional bicycle only left turn lanes on Home. Use wayfinding signage to indicate Greenway extends.			Yes
Pleasant Street	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop, near school.	Use standard tools.			Yes
Pleasant Street	Wesley Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Wesley.	Use standard tools.			
Pleasant Street	East Avenue	Major Street Crossing Stop Controlled	All-way stop with collector crossing.	Mark intersection crossing markings through the intersection.			
Pleasant Street	Scoville Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Scoville Avenue.	Use standard tools.	Install mini roundabout.		
Pleasant Street	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Pleasant Street.	Use standard tools.		If traffic control is needed on Pleasant, replace with yield signs.	
Pleasant Street	Ridgeland Avenue	Major Street Crossing Uncontrolled	Two-way stop on Pleasant Street. Ridgeland is an arterial with an uncontrolled crossing controlled and maintained by Illinois Department of Transportation (IDOT.)	Install a bicycle and pedestrian center median on Ridgeland. Mark intersection crossing markings across Ridgeland Avenue. Install stop signs to Ridgeland if warranted. Seek IDOT approval for changes.			

TABLE 2D, CON'T	Pleasant Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Pleasant Street	Cuyler Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Pleasant Street	Harvey Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Harvey. The Harvey Greenway jogs over to Lombard using Pleasant Street.	Add Neighborhood Greenways pavement markings and wayfinding signage on all legs with directional arrows that guide/s cyclists in the right direction.	Install mini roundabout.	Opportunity for intersection art.	
Pleasant Street	Lombard Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Lombard. The Lombard Greenway jogs over to Harvey using Pleasant Street.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Pleasant Street	Taylor Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Pleasant	Use standard tools.			
Pleasant Street	Humphrey Avenue	Terminus of the Neighborhood Greenway	Two-way stop on Humphrey	Mark route with Neighborhood Greenway ends/begins.			

TABLE 2E	Adams/Harrison/Van Buren Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Adams Street	Maple Street	Terminus of the Neighborhood Greenway	Three-way stop.	Use standard tools.			
Adams Street	Wisconsin Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Adams Street.	Use standard tools.			
Adams Street	Wenonah Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Wenonah.	Use standard tools.			
Adams Street	Home Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Adams.	Use standard tools.			
Adams Street	Kenilworth Avenue	Intersection of Two Neighborhood Greenways	Yield signs on the east and west legs of Kenilworth. Neighborhood Greenways turns onto/ off of Kenilworth.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art.	
Harrison Avenue	Carpenter Avenue	Intersection of Neighborhood Greenway and Local Street	One-way stop on Carpenter. Carpenter dead ends.	Use standard tools.			
Harrison Avenue	Grove Avenue	Neighborhood Greenways Turns	One-way stop on Grove. Grove dead ends. Neighborhood Greenways turns onto/from Grove.	Use Neighborhood Greenways pavement markings and wayfinding signage to guide cyclists to Van Buren/Home/Kenilworth Neighborhood Greenways.			
Van Buren Street	Oak Park Avenue	Major Street Crossing Uncontrolled	Two-way stop on Van Buren.	Mark intersection crossing markings across Oak Park on Van Buren.			
Van Buren Street	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Van Buren Street	Wesley Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Wesley	Use standard tools.			
Van Buren Street	Clarence Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop adjacent to a school.	Mark intersection crossing markings on Van Buren. Install bicycle advanced warning signs on Clarence.			
Van Buren Street	East Avenue	Major Street Crossing Stop Controlled	All-way stop at a collector.	Mark intersection crossing markings across East.			
Van Buren Street	Scoville Avenue	Intersection of Two Neighborhood Greenways	Two-way stop on Scoville.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art.	
Van Buren Street	Gunderson Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Van Buren.	Use standard tools.			
Van Buren Street	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Elmwood.	Use standard tools.			

TABLE 2E, CON'T	Adams/Harrison/Van Buren Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Van Buren Street	Ridgeland Avenue	Major Street Crossing Uncontrolled	Two-way stop on Van Buren. Crosses Ridgeland, an arterial with no control. Ridgeland is uncontrolled and maintained by Illinois Department of Transportation (IDOT).	Install a bicycle and pedestrian center median on Ridgeland. Mark intersection crossing markings across Ridgeland Avenue. Move stop signs to Ridgeland if warranted.			
Van Buren Street	Cuyler Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Cuyler	Use standard tools.			
Van Buren Street	Highland Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop on Highland	Use standard tools.			
Van Buren Street	Harvey Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Harvey.	Use standard tools.			
Van Buren Street	Lombard Avenue	Intersection of Two Neighborhood Greenways	All-way stop.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art.	
Van Buren Street	Taylor Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Taylor.	Use standard tools.			
Van Buren Street	Lyman Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Lyman.	Use standard tools.			
Van Buren Street	Humphrey Avenue	Terminus of the Neighborhood Greenway	Two-way stop on Humphrey.	Use standard tools.			

TABLE 2F	Harvard Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Harvard Street	Maple Street	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			
Harvard Street	Wisconsin Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Harvard Street.	Use standard tools.			
Harvard Street	Wenonah Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Wenonah.	Use standard tools.			
Harvard Street	Home Avenue	Intersection of Two Neighborhood Greenways	All-way stop.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Harvard Street	Clinton Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Clinton.	Use standard tools.			
Harvard Street	Kenilworth Avenue	Intersection of Neighborhood Greenway and Local Street	Kenilworth dead-ends with a three-way stop, Harvard is adjacent to a school.	Mark intersection crossing markings.			
Harvard Street	Grove Street	Intersection of Neighborhood Greenway and Local Street	Three-way stop, Grove is one-way on the south leg.	Use standard tools.			Yes
Harvard Street	Oak Park Avenue	Major Street Crossing Signalized	Signalized intersection at an arterial.	Install bike box on Harvard. Mark intersection crossing markings across Oak Park Avenue.			Yes
Harvard Street	Euclid Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Harvard.	Use standard tools.			Yes
Harvard Street	Wesley Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Wesley.	Use standard tools.			
Harvard Street	Clarence Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Harvard Street	East Avenue	Major Street Crossing Stop Controlled	All-way stop on collector.	Mark intersection crossing markings through the intersection.			
Harvard Street	Scoville Avenue	Intersection of Two Neighborhood Greenways	All-way stop.	Add wayfinding pavement markings to direct cyclists to use Harvard/East Avenue.		Consider re-routing Greenway back onto Scoville through Rehm Park.	
Harvard Street	Gunderson Avenue	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Gunderson	Use standard tools.			Yes
Harvard Street	Elmwood Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			Yes

TABLE 2F, CON'T	Harvard Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Harvard Street	Ridgeland Avenue	Major Street Crossing Signalized	Signalized intersection at an arterial. Ridgeland is controlled and maintained by Illinois Department of Transportation (IDOT.)	Install bike box on Harvard. Mark intersection crossing markings along Ridgeland. Changes require IDOT approval.			Yes
Harvard Street	Cuyler Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Harvard Street	Highland Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Harvard Street	Harvey Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Harvard Street	Lombard Avenue	Intersection of Two Neighborhood Greenways	All-way stop. Adjacent to a park.	Replace stop signs with yield signs.	Install mini roundabout.	Opportunity for intersection art.	
Harvard Street	Taylor Avenue	Intersection of Neighborhood Greenway and Local Street	All-way stop with bump-out on north side of Taylor.	Use standard tools.			

TABLE 2G	Kenilworth/Home Avenue Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Kenilworth Avenue	North Avenue	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			
Kenilworth Avenue	Lemoyne Avenue	Intersection of Two Neighborhood Greenways	Kenilworth has a center median and two-way stop.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art. See Option 1 for alternate route.	
Kenilworth Avenue	Greenfield Street	Intersection of Neighborhood Greenway and Local Street	Kenilworth has a center median and two-way stop.	Use standard tools.			
Kenilworth Avenue	Berkshire Street	Intersection of Neighborhood Greenway and Local Street	Kenilworth has a center median and two-way stop.	Use standard tools.			
Kenilworth Avenue	Division Street	Major Street Crossing Stop Controlled	Kenilworth has a center median. Intersection has an all-way stop. Division has bike lanes.	Mark intersection crossing markings through the intersection.			
Kenilworth Avenue	Thomas Street	Intersection of Two Neighborhood Greenways	Two-way stop on Thomas.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Kenilworth Avenue	Augusta Street	Major Street Crossing Uncontrolled	Kenilworth has a two-way stop and intersects a collector.	Mark intersection crossing markings across Augusta Street. Install a stop sign on Augusta if warranted.		Install an RRFB on Augusta.	
Kenilworth Avenue	Iowa Street	Intersection of Neighborhood Greenway and Local Street	Iowa dead ends into Kenilworth. Intersection has a three-way stop. Approach to a school drop-off area.	Use standard tools.			
Kenilworth Avenue	Oliver Wendell Holmes Elementary School	Neighborhood Greenways Cul de sac Cut-through	Cul de sac adjacent to school.	Widen sidewalk to 8' or add additional 4' sidewalk on west side of cul de sac. Install curb ramp on pathway. Add Neighborhood Greenways pavement markings on western sidewalk to indicate continuation of Neighborhood Greenways. Add pedestrian only pavement markings to sidewalk on the east side.			
Kenilworth Avenue	Chicago Avenue	Neighborhood Greenways Cul de sac Cut-through	Kenilworth has a cul de sac on the north side of Chicago Avenue. Chicago Avenue includes marked shared lanes, a traffic signal, a school crossing, and a center left turn lane on the east side. Parking is restricted on Chicago.	Mark intersection crossing markings adjacent to the existing crosswalks on Chicago and on the north leg of Kenilworth. Stamp Neighborhood Greenways pavement markings on the south legs of Kenilworth. Add Neighborhood Greenways pavement markings on western sidewalk to indicate continuation of Neighborhood Greenways. Add pedestrian only pavement markings to sidewalk on the east side.			
Kenilworth Avenue	Erie Street	Intersection of Two Neighborhood Greenways	Erie dead ends into Kenilworth and has a one-way stop.	Use standard tools.			
Kenilworth Avenue	Ontario Street	Intersection of Neighborhood Greenway and Local Street	All-way stop with a bump-out on the east leg of Ontario.	Use standard tools.			
Kenilworth Avenue	Lake Street	Major Left/Right Offset, signalized	Signalized, offset arterial crossing.	Install bike boxes on the north and south lanes. Remove parking on Kenilworth at least 20' from the intersection on each side. Use intersection crossing markings to guide cyclists to green bike lane on north and south sides of Lake Street. Install wayfinding signage			
Kenilworth Avenue	North Boulevard	Major Street Crossing Stop Controlled	North Boulevard is a one-way, east-bound street. It is controlled by a one-way stop.	Mark intersection crossing markings through the intersection.			

TABLE 2G, CON'T	Kenilworth/Home Avenue Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Kenilworth Avenue	South Boulevard	Major Street Crossing Stop Controlled	South Boulevard is a one-way, west-bound street. It is controlled by a one-way stop.	Mark intersection crossing markings through the intersection.			
Kenilworth Avenue	Pleasant Street	Intersection of Two Neighborhood Greenways	Two-way stop on Pleasant.	Remove parking on Kenilworth between the offset streets segments. Install bi-directional bicycle only left turn lanes on Kenilworth. Stamp Neighborhood Greenways pavement marking on Home in center of vehicle travel lane for north/southbound cyclists. Use wayfinding signage to indicate Greenway extends n/s/e/w.			
Kenilworth Avenue	Randolph Street	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Kenilworth Avenue	Washington Boulevard	Major Street Crossing Uncontrolled	A diverter on the north side of Kenilworth prevents vehicles from making left turns onto Washington. Washington is maintained by Illinois Department of Transportation (IDOT).	Retain diverter and allow bicycles to continue north on Kenilworth.	Remove diverter and replace with a center median with bicycle and pedestrian cut-throughs on Washington Boulevard.		
Kenilworth Avenue	Madison Street	Major Right/ Left Offset, Uncontrolled, protected	Madison is an unsignalized arterial with four lanes and parking in either direction. Kenilworth is offset and has a cul de sac on the south side of Madison.	Install a HAWK signal with bicycle loop detectors and pedestrian push buttons. Remove parking on the south side of Madison and replace with a bi-directional green bicycle lane. If space permits, include barrier protection. Mark a bi-directional bicycle crosswalk adjacent to the existing high-visibility crosswalk. Install a curb ramp on the sidewalks adjacent to the cul de sac on the south side of Madison.		Recommendations may change if Madison Road diet is implemented.	
Kenilworth Avenue	Monroe Street	Intersection of Neighborhood Greenway and Local Street	Yield signs on the north and south legs of Kenilworth.	Use standard tools.			
Kenilworth Avenue	Adams Street	Intersection of Neighborhood Greenway and Local Street	Yield signs on the east and west legs of Kenilworth.	Use standard tools.			
Kenilworth Avenue	Jackson Boulevard	Major Street Crossing Uncontrolled	Cross street includes bump-outs and two-way stop.	Install Neighborhood Greenways pavement markings on the north and south legs of the intersection.			
Kenilworth Avenue	Harrison Street	Neighborhood Greenways Turns	Neighborhood Greenways turns onto/off of Harrison.	Use wayfinding signage.			
Home Avenue	Garfield Street	Neighborhood Greenways Connects with Off-Street Path	Pedestrian overpass ends. 3-way stop.	Mark route with Neighborhood Greenway ends/begins.			
Home Avenue	Lexington Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Home.	Use standard tools.			
Home Avenue	Harvard Street	Intersection of Two Neighborhood Greenways	All-way stop.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art.	
Home Avenue	Roosevelt Road	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			

TABLE 2H	Fair Oaks/Scoville Avenue Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Fair Oaks Avenue	North Avenue	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			
Fair Oaks Avenue	LeMoyne Parkway	Intersection of two Neighborhood Greenways	Two-way stop on LeMoyne.	Use standard tools.	Install mini roundabout with wayfinding signage.		
Fair Oaks Avenue	Greenfield Street	Minor street crossing.	Two-way stop on Fair Oaks.	Use standard tools.			
Fair Oaks Avenue	Berkshire Street	Minor Left/ Right Offset, Uncontrolled	Fair Oaks is slightly offset. Berkshire has a two-way stop.	Use intersection crossing markings to guide cyclists through intersection.			
Fair Oaks Avenue	Division Street	Major Street Crossing Uncontrolled	Two-way stop on Fair Oaks. Division is an arterial with a bike lane and no control for pedestrians and cyclists crossing.	Add intersection crossing markings across Division Street.	Consider installing a RRFB on arterial with bicycle loop detectors.		
Fair Oaks Avenue	Thomas Street	Intersection of Two Neighborhood Greenways	Two-way stop on Fair Oaks.	Use standard tools.	Install mini roundabout with wayfinding signage.		
Fair Oaks Avenue	Augusta Street	Major Street Crossing Uncontrolled	Two-way stop on Fair Oaks. Augusta is a collector with no control for pedestrians and cyclists crossing.	Add intersection crossing markings across Augusta.	If crossings are too difficult for cyclists, install RRFB on Augusta.		
Fair Oaks Avenue	Iowa Street	Minor street crossing.	Two-way stop on Iowa Street.	Use standard treatments.			
Fair Oaks Avenue	Chicago Avenue	Major Street Crossing Uncontrolled	Two-way stop on Fair Oaks. Chicago is an arterial with bike lanes.	Add intersection crossing markings across Chicago Avenue.	Consider installing a RRFB on arterial with bicycle loop detectors.		
Scoville Avenue	Superior Street	Minor street crossing	All way stop.	Use standard treatments			
Scoville Avenue	Erie Street	Intersection of Two Neighborhood Greenways	All-way stop. Adjacent to a school.	Mark contraflow bike lane on north-bound lane of Scoville, between Lake and Erie			
Scoville Avenue	Ontario Street	Intersection of Neighborhood Greenway and Local Street	Ontario dead-ends into Scoville with a one-way stop. On the approach to Lake Street, a diverter prevents traffic from heading northbound.	Add a Do Not Enter Except Bicycles sign on the diverter. Install a contraflow bike lane on the one-way segment north of the diverter.			
Scoville Avenue	Lake Street	Major Street Crossing Uncontrolled	A diverter on the north side of Scoville prevents vehicles form making left turns onto Lake	Retain diverter and allow bicycles to continue south on Scoville.	Remove diverter and replace with a center median with bicycle and pedestrian cut-throughs on Lake Street. Between Lake Street and North Boulevard, convert parking to back-in angle parking.		
Scoville Avenue	North Boulevard	Minor Street Crossing	North Boulevard dead ends at Scoville.	Use standard tools.			
Scoville Avenue	South Boulevard	Major Street Crossing Stop Controlled	Two-way stop on Scoville.	Mark intersection crossing markings through the intersection.			

TABLE 2H, CON'T	Harvard Street Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Scoville Avenue	Pleasant Street	Intersection of Two Neighborhood Greenways	Two-way stop on Scoville Avenue.	Use standard tools.	Install mini roundabout with wayfinding signage.	Opportunity for intersection art.	Yes
Scoville Avenue	Randolph Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Randolph.	Use standard tools.			Yes
Scoville Avenue	Washington Boulevard	Major Street Crossing Uncontrolled	Two-way stop on Scoville. Arterial crossing. Washington is owned and maintained by Illinois Department of Transportation (IDOT.)	Mark intersection crossing markings across Washington Boulevard. Install an RRFB on Washington with bicycle loop detectors. Seek IDOT approval for changes.			Yes
Scoville Avenue	Madison Street	Major Right/ Left Offset, uncontrolled, mid-block	Madison is a high-traffic volume 4-lane arterial. Scoville is offset at Madison.	Install a HAWK signal with bicycle loop detectors and pedestrian push buttons. Install a center lane median with bicycle and pedestrian cut-throughs on the east leg of Madison. Remove parking on the south side of Madison and replace with a bi-directional green bicycle lane. If space permits, include barrier protection.		Recommendations may change if Madison Road diet is implemented.	Yes
Scoville Avenue	Adams Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Scoville.	Use standard tools.		If traffic control is necessary on Scoville, use yield signs.	Yes
Scoville Avenue	Jackson Boulevard	Major Street Crossing Uncontrolled	Two-way stop on Scoville.	Mark intersection crossing markings across Jackson Boulevard.			
Scoville Avenue	Van Buren Street	Intersection of Two Neighborhood Greenways	Two-way stop on Scoville.	Use standard tools.		Remove stop signs and add mini roundabout.	
Scoville Avenue	Harrison Street	Neighborhood Greenways Turns	Two-way stop on Scoville Avenue.	Use Neighborhood Greenways pavement markings and directional arrows to guide cyclists onto/off of Harrison.			
Harrison Street	East Avenue	Neighborhood Greenways Turns	Neighborhood Greenways turns onto/off of East Avenue to cross the Eisenhower Expressway. Intersection includes an all-way stop.	Use Neighborhood Greenways pavement markings, directional arrows, and wayfinding signage to guide cyclists onto/off East Avenue.			
East Avenue	Garfield Street	Major Street Crossing Stop Controlled	All-way stop.	Mark intersection crossing markings through the intersection.			
Scoville Avenue	Rehm Park	Neighborhood Greenways Connects with Off-Street Path	Greenway enters/exits an off-street path.	Add wayfinding pavement markings to direct cyclists onto/off of Scoville.			
Scoville Avenue	Harvard Street	Intersection of Two Neighborhood Greenways	All-way stop intersecting Neighborhood Greenways.	Add wayfinding pavement markings to direct cyclists to use Harvard/East Avenue.		Consider re-routing Greenway back onto Scoville through Rehm Park.	
Scoville Avenue	Fillmore Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Scoville Avenue.	Use standard tools.			
Scoville Avenue	Roosevelt Road	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			

TABLE 21	Harvey/Lombard Avenue Neighborhood Greenway						
	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Lombard Avenue	North Avenue	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			
Lombard Avenue	LeMoyne Parkway	Intersection of Two Neighborhood Greenways	All-way stop with a center median on LeMoyne.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	Yes
Lombard Avenue	Greenfield Street	Minor Left/ Right Offset, Uncontrolled	Lombard is slightly offset, Lombard includes a two-way stop.	Remove parking on Lombard between the offset streets. Use intersection crossing markings and wayfinding signage to guide cyclists to a green bike lane on the north and south sides of Greenfield Street.			
Lombard Avenue	Berkshire Street	Intersection of Neighborhood Greenway and Local Street	Intersection includes an all-way stop.	Use standard tools.			
Lombard Avenue	Division Street	Major Street Crossing Uncontrolled	Two-way stop on Lombard. Division is an arterial with a bike lane and no control for pedestrians and cyclists crossing.	Add intersection crossing markings across Division Street. Install stop sign on Division if warranted.			
Lombard Avenue	Thomas Street	Intersection of Two Neighborhood Greenways	Thomas is offset with a two-way stop.	Remove parking on Thomas between the offset street segments. Use intersection crossing markings to guide cyclists to a green bike lane on the east and west sides of Thomas Street. Use bicycle symbol with turn arrow to indicate turning movements in green lanes.			
Lombard Avenue	Augusta Avenue	Neighborhood Greenways Turns	Greenway turns onto/ off of Augusta.	Use Neighborhood Greenways pavement markings, directional arrows, and wayfinding signage to guide cyclists onto/off Augusta.			
Harvey Avenue	Iowa Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Harvey Avenue.	Use standard tools.			
Harvey Avenue	Chicago Avenue	Major Street Crossing Uncontrolled	Two-way stop on Harvey. Chicago is an arterial with bike lanes.	Add intersection crossing markings across Chicago Avenue. If warranted, install stop signs on Chicago.	Consider installing an RRFB on Chicago Avenue.		
Harvey Avenue	Superior Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Harvey Avenue.	Use standard tools.		If traffic control is needed on Harvey, use yield signs.	
Harvey Avenue	Erie Street	Intersection of Two Neighborhood Greenways	All-way stop.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Harvey Avenue	Ontario Street	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Harvey Avenue	Lake Street	Major Left/Right Offset, signalized	Greenway is offset. Intersects an arterial with a traffic signal. Greenway makes a left/ right turn onto/off of Lake Street before/after the train underpass to stay on Harvey.	Install bike boxes on the north and south lanes. Remove parking on Harvey at least 20' from the intersection on each side. Convert angled parking on northeast leg of Harvey to back-in angled parking. Mark green bike lane on northeast leg of Harvey through parking conflict zone. Intersection crossing markings guide cyclists to green bike lane on north and south sides of Lake Street. Install wayfinding signage.			

TABLE 21, CON'T

Harvard Street Neighborhood Greenway

	Cross Street	Application	Existing Condition	Near-Term Recommendation	Long-Term Recommendation	Alternative Recommendation	Traffic Calming
Harvey Avenue	North Boulevard	Minor Right/ Left Offset	Greenway is offset with a 3-way stop.	Stamp Neighborhood Greenways symbols and directional arrows and wayfinding signage to help cyclists stay on the Greenway.			
Harvey Avenue	South Boulevard	Major Street Crossing Stop Controlled	Greenway intersects South Boulevard with an all-way stop.	Mark intersection crossing markings across South.			
Harvey Avenue	Pleasant Street	Intersection of Two Neighborhood Greenways	Two-way stop. The Harvey Greenway jogs over to Lombard using Pleasant Street.	Use standard treatments	Install mini roundabout.	Opportunity for intersection art.	
Lombard Avenue	Pleasant Street	Neighborhood Greenways Turns	Two-way stop on Lombard. The Harvey Greenway jogs over to Lombard.	Use standard treatments.	Install mini roundabout.	Opportunity for intersection art.	
Lombard Avenue	Randolph Street	Intersection of Neighborhood Greenway and Local Street	All-way stop. The west side of Randolph is a two-lane road divided by a grassy boulevard.	Use standard treatments.			Yes
Lombard Avenue	Washington Boulevard	Major Street Crossing Signalized	Wide signalized arterial crossing. Washington Boulevard is owned and maintained by Illinois Department of Transportation (IDOT.)	Use intersection crossing markings on Washington. Install bike boxes.			Yes
Lombard Avenue	Madison Street	Major Street Crossing Signalized	Crosses a four-lane, signalized arterial with a center turn lane.	Mark intersection crossing markings across Madison. Add bicycle boxes to the north and south side of the intersection.			Yes
Lombard Avenue	Adams Street	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			Yes
Lombard Avenue	Jackson Boulevard	Major Street Crossing Stop Controlled	All-way stop with center medians on Jackson.	Mark intersection crossing markings through the intersection.			Yes
Lombard Avenue	Van Buren Street	Intersection of Two Neighborhood Greenways	All-way stop. Lombard is a collector.	Use standard tools.	Install mini roundabout.	Opportunity for intersection art.	
Lombard Avenue	Harrison Street	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.		Consider pavement markings that reflect the unique identity of the art district.	
Lombard Avenue	Garfield Street	Intersection of Neighborhood Greenway and Local Street	Two-way stop on Garfield.	Use standard tools.			
Lombard Avenue	Harvard Street	Intersection of Two Neighborhood Greenways	All-way stop. Adjacent to a park.	Use wayfinding signage to alert cyclists to intersection.	Install mini roundabout.	Opportunity for intersection art.	
Lombard Avenue	Fillmore Street	Intersection of Neighborhood Greenway and Local Street	All-way stop.	Use standard tools.			
Lombard Avenue	Roosevelt Road	Terminus of the Neighborhood Greenway	Terminus of the Neighborhood Greenway	Mark route with Neighborhood Greenway ends/begins.			

POLICIES & PROGRAMS

Attracting new cyclists ranging from ages 8 to 80 is the goal of this study, and many new riders will be enticed to try Oak Park's Neighborhood Greenways Network simply upon installation of the infrastructure improvements recommended in this chapter. However, the Village of Oak Park can attract a larger segment of the population by implementing additional education and encouragement programs focused on getting less confident cyclists to use the network and comfortable with the rules of the road. Updates and additions to the Village Code will provide consistency in the goals of the network with written policy.

PROGRAMS

A variety of education and encouragement strategies can be implemented to attract new cyclists to use the Greenways Network:

PRINT AND SOCIAL MEDIA: Many residents will have questions about what the Neighborhood Greenways network is and how to use it. Educational materials and articles should be developed to answer questions and posted on the Village's blog, social media accounts, and in local newspapers. Possible topics can include the goals of the Network, bicycle safety tips, share the road education for drivers and cyclists, and information on ways that cyclists can use the Neighborhood Greenways System to travel to destinations in Oak Park.

NEIGHBORHOOD GREENWAYS SYSTEM MAP: The Village of Oak Park can develop a Neighborhood Greenways system user map that includes the Neighborhood Greenways network, adjoining bike routes, and bike parking locations. Popular destinations such as business districts, schools, and parks should be added to help users plan their route.

PROMOTE NEIGHBORHOOD GREENWAYS AT THE BLOCK LEVEL: To unveil the concept of Neighborhood Greenways, the Village can work with residents to hold street and intersection painting events. The paintings can serve as temporary traffic calming and encourage use of the new Neighborhood Greenways system. These events can be coupled with "Open Streets" days, allowing residents to test ride the Neighborhood Greenways System free from traffic.

ORGANIZE GROUP RIDES: Local cycling clubs or the Park District can organize group rides on the Neighborhood Greenways Network geared towards new or inexperienced riders. The rides could include stops at community destinations.

POLICIES

In addition to design and planning guidance, the Village code can be updated to support the infrastructure recommendations included in this study and ensure that they are used to their full potential in the following ways:

ALLOW CYCLISTS TO USE THE FULL LANE: Pavement markings on the Neighborhood Greenways network encourage cyclists to travel down the center of the vehicle lane. Currently, Section 15-2-7(A) of the Oak Park Village code prohibits cyclists from using the full lane when travelling on street. This rule should be amended to allow cyclists to use the full lane on Neighborhood Greenways.

ALLOW CYCLISTS TO RIDE TWO ABREAST: While riding two-abreast on typical Village streets can cause traffic to back-up and create unsafe situations, Neighborhood Greenways are designed for slow moving vehicle traffic to co-mingle with bicycle traffic. Allowing riders to travel two abreast can help to further calm traffic and will enable parents to ride with young children on the Neighborhood Greenways network. Thus, Section 15-2-7(C) of the Village code should be amended to allow cyclists to ride two abreast on Neighborhood Greenways.

DO NOT REQUIRE CYCLISTS TO DISMOUNT: The Neighborhood Greenways system is designed to prioritize bike travel, ensuring that cyclists can travel quickly and efficiently through the Neighborhood Greenways system. Dismounting from a bicycle takes and forces cyclists to expend additional energy. Thus, Section 15-2-13(B) of the Village code should be updated to allow cyclists to make right or left turns onto Neighborhood Greenways where restrictions exist without requiring them to dismount.

DEVELOP A POLICY AND SCHEDULE FOR EVALUATION: The infrastructure recommended in this study will result in significant changes to Oak Park's transportation system, and some unintended consequences may arise. Crash rates, bicycle traffic volume, vehicle speed violations, traffic flow on adjacent and intersecting streets, and user feedback should be collected and analyzed.

IMPLEMENTATION

Effective implementation of this plan will require leadership by Village staff and elected officials, and a continued partnership with the community members and community organizations in Oak Park.

The rate of bicycling on the network will only increase if this plan's recommendations are implemented in a timely manner.

Although portions of this plan can be completed for little to no cost, this plan cannot be fully implemented without financial support. Many outside funding sources are available, and there are many opportunities to integrate bicycle infrastructure into the Village's budget. The chart on the following page lists many of the funding opportunities currently available, and project types that are eligible.

FEDERAL FUNDING SOURCES FOR TRANSPORTATION PROJECTS

	Transportation Enhancements (TE)	Congestion Mitigation and Air Quality (CMAQ)	Surface Transportation Program (STP)	Safe Routes to School (SRTS)	Recreational Trails Program (RTP)	Highway Safety Improvement Program (HSIP)	Section 402- State and Community Highway Safety Grant Program
Program Purpose	To foster cultural, historic, aesthetic and environmental aspects of our transportation infrastructure	To improve air quality and reduce traffic congestion in areas that do not meet air quality standards.	To fund state and local road and transit projects.	To enable and encourage children to walk and bike to school through the 5 Es.	To develop and maintain recreational trails and trail related facilities for both non-motorized recreational trail users.	To fund highway infrastructure safety projects aimed at reducing highway fatalities and serious injuries.	To create safety programs aimed at reducing traffic crashes.
Eligible Projects	Bike lanes, paved shoulders, network signage, path/ trail, bike racks on busses, bike parking, trail/ highway intersection improvements, bike storage, sidewalks, crosswalks, signal improvements, curb cuts, helmet promotion, educational materials, and training	All bike/ped infrastructure, active transportation plans, helmet promotion, educational materials, bike/ ped maps, bike/ ped coordinator position, safety/ education position, and training.	All bike/ped infrastructure, active transportation plans, bike/ ped coordinator position, safety/ education position, bike/ped maps, enforcement campaign, helmet promotion, educational materials, and training.	Bike lanes, paved shoulders, network signage, path/ trail, bike parking, bike/ped maps, trail/highway intersection improvements, bike storage, sidewalks, crosswalks, signal improvements, curb cuts, helmet promotion, educational materials, bike/ ped coordinator position, safety/ education position and training	Trails/paths, Trail/Highway intersection improvements, trailheads, educational materials, and training.	Bike lanes, paved shoulders, Trail/Highway intersection improvement, crosswalks, signal improvement, and curb cuts.	Bike/ped maps, Safety/education position, enforcement campaigns, helmet promotion, educational materials, and training.
Key Project Requirements	Must relate to surface transportation	1)Must be spent in non-attainment and maintenance areas. 2) Will be evaluated on air quality emissions.	N/A	Can only be spent within 1 ½ miles of a school.	30% spent on non-motorized trail project, 30% for motorized, 40% for diversity of trail use	Must address goals written in State Highway Safety Plan	Must address goals written in State Highway Safety Plan
Application Process	Irregular schedule at call of IL Dept. of Transportation	Generally, an annual call for proposals	Varies	Irregular schedules at call of IDOT	Irregular schedules at call of Illinois Department of Natural Resources	Generally every year there is an update to the Plan at call of IDOT division of Traffic Safety	Generally each summer at call of IDOT division of Traffic Safety
Local Match Required	Typically 20%	Typically 20%	20%	20%	Typically 20%, some 50%	10%	No match required
Who Can Apply	Local Government	Local or state government agency	Local government	Any government entity or non-profit	Any government entity or non-profit	Any government entity or non-profit	Any government entity or non-profit

BIKE SHARE FEASIBILITY STUDY

Table of Contents

BIKE SHARE OVERVIEW

Objective: The Village will establish a system for siting bike share stations that ensures community access to transit hubs, job centers and local businesses, as well as cultural and tourist destinations.

WHAT IS BIKE SHARE?

Bike sharing is an innovative, automated system that allows people to check out and return bicycles for one-way, short distance trips. Worldwide, it is an increasingly popular strategy for supporting community access and a healthy, green transportation system. Unlike personal vehicle ownership and use, bike share systems provide users with transportation from an origin point to a destination point without the need to find parking or return the vehicle to its origin. In this way, it is more similar to typical public transit systems than to traditional bike rental programs or bike ownership.

Most bike share systems are made up of three basic components: bikes, stations, and back-end operation systems. Modern bike share bikes are generally built to be very sturdy, and lock to stations for security. Users can generally pay a fee per use or for a period of time, such as a month or a year, and use bikes by signing one out of a station, riding to a station near their destination, and locking the bike into the new station. Back-end systems often include payment schemes and unlocking technologies such as cards and readers, key fobs, etc. Modern systems also often include tracking systems such as GPS to monitor bike position and time elapsed during check out.

BENEFITS OF BIKE SHARE

Bike sharing systems offer many benefits to the communities they serve, including:

Expanded transit system: Bike share solves the "last mile" issue of transit service, enabling users to travel on bike from a transit station to their destination.

Environmentally friendly: Bike share reduces the need for private vehicle trips for many users.

Provide opportunities for physical activity: Bike share has proven to increase bicycle mode share by 1.0 to 1.5 percent of all trips in cities with previously low mode share.

Economic: Bike share also helps to link businesses with potential customers and helps both by eliminating constraints placed on commercial areas by parking availability and cost.

PLANNING PROCESS

The consultant team employed the following methods to form the recommendations of the Bike Share component of the study:

Conducted a GIS demand analysis by weighting a variety of variables, such as population density, employment density, rail transit stations, and demographics to determine the best coverage area for bike share in Oak Park.

Conducted on-bike field work to measure potential bike share station sites and to determine the best sites and positioning of stations within Oak Park. The consultant team also checked for any physical or perceived barriers that could impede use of those Bike Share sites.

Surveyed members of the public to gain valuable input on where they would like to use Bike Share in Oak Park. The consultant team also participated in Earth Fest and A Day in Our Village to survey members of the community in person.

STUDY COMPONENTS

This study aims to address two key questions about bringing bike share to the Village of Oak Park:

Which destinations in Oak Park will best serve bike share users?

Which locations near those destinations make ideal sites for bike share docking stations?

The study is divided into two parts to address those questions. Part one is a Demand Analysis focused on identifying the best destinations for bike share users in Oak Park. Findings were derived through a geographic statistical analysis. Building off of the demand analysis, part two of the study offers recommended station locations based on the findings in part one.

DEMAND ANALYSIS

The goal of the demand analysis was to determine which Oak Park destinations have the highest potential for bike share use and which will equitably serve Oak Park's diverse population. The demand analysis includes three sections:

- Indicators
- Heat Map Analysis
- Results & Findings

The methodologies used were modelled after best practices in bike share implementation. The demand analysis addressed two key questions:

- Where in Oak Park is bike share most likely to be successful, and
- Where in Oak Park are populations that are traditionally underserved by bike share and other transit systems located?

METHODOLOGY OVERVIEW

The following process was used to determine ideal placement for bike share stations in Oak Park:

- Identify indicators favorable to bike-share use (potential indicators) and diverse populations (equity indicators).
- Convert the potential and equity indicators into GIS raster data, single variable, equal weight heat maps, for an equal comparison.
- Use a weighted sum raster analysis to develop a heat map of the combined potential indicators.
- Use a weighted sum raster analysis to develop a heat map of the combined equity indicators.
- Add the potential and equity maps together to produce a master station siting map which shows the ideal locations for bike share stations in Oak Park.

Indicators

Potential indicators are geographic variables that are likely to contribute to the success of bike share in Oak Park. Eight potential indicators were used in the analysis. Each of these variables was mapped in GIS raster data within the boundaries of Oak Park on to a 0-10 scale, with 0 indicating no demand for bike share generated by the variable, and 10 indicating the highest level of demand generated. Raster datasets were combined using a weighted sum function to produce an integrated Potential map.

Three additional equity indicators were chosen to help ensure that the proposed bike share system in Oak Park serves a diverse segment of the population. These variables were mapped in GIS raster data within the boundaries of Oak Park on to a 0-10 scale, with 0 indicating no underserved populations present, and 10 indicating the highest percentage of habitually underserved populations. Raster datasets were combined using a weighted sum function to produce an integrated Equity map.

An overview of each indicator and its heat map are included on the following pages.

TABLE 3A
INDICATORS

	Indicator	Scale	Metric	Buffer	Weight	Source
Potential Indicators	Population Density	Census Block Group	Residents per Acre	N/A	1	2010 U.S. Census
	Employment Density	10 foot cell size	Jobs Within 1/8 Mile	1/8 Mile	1	SimplyMap, D & B U.S. Company Database 2013
	Commercial Employment Density	10 foot cell size	Commercial Jobs Within 1/8 Mile	1/8 Mile	1	SimplyMap, D & B U.S. Company Database 2013
	CTA Rail Transit Stations	10 foot cell size	2013 Ridership	1/4 Mile	1.5	Chicago Data Portal
	Metra Transit Stations	10 foot cell size	Estimated 2013 Ridership	1/4 Mile	1.5	Metra 2006 Ridership Report, RTAMS
	Parks	10 foot cell size	Proximity Distance	1/8 Mile	1	Online Community Survey
	Community Input	10 foot cell size	Point Density	1/8 Mile	1	Community Meetings
	Age	Census Tract	% of Pop. Aged 20-41	N/A	1	2012 American Community Survey
Equity Indicators	Income	Census Tract	Median Income	N/A	1	2012 American Community Survey
	Educational Attainment	Census Tract	% of Pop. H.S. Diploma or Lower	N/A	1	2012 American Community Survey
	Race	Census Tract	% of Pop. Non-White	N/A	1	2012 American Community Survey

POTENTIAL INDICATORS

Successful bike share systems are designed to serve trip origins and destinations and need to serve areas with both population density and destination density.

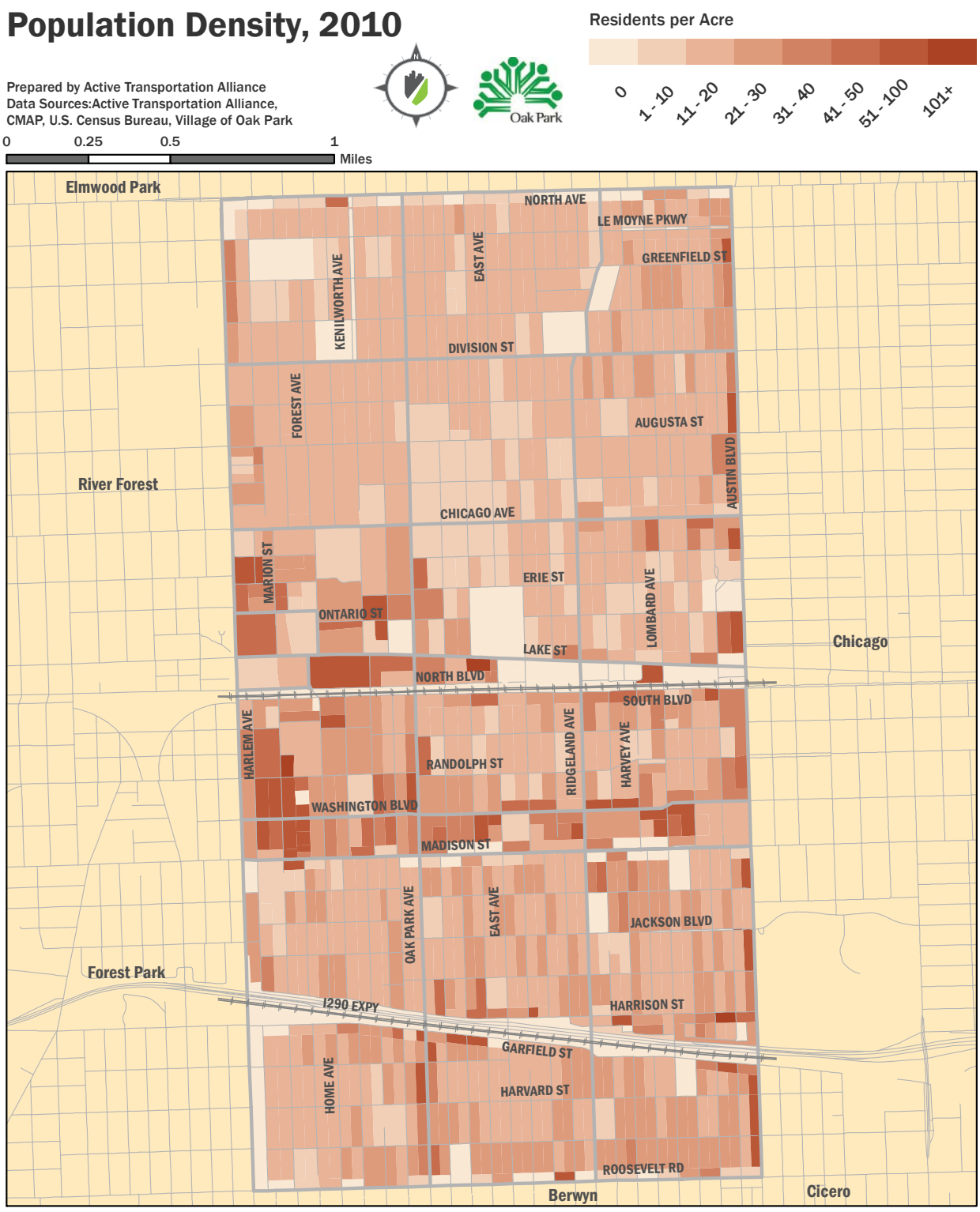
The following section includes a summary of the potential indicators used and a heat map that demonstrates the level of demand expected to be generated by the variable. Darker areas on each map indicate a higher level of demand. The following variables were analyzed in this Study:

- Population density
- Employment density
- Commercial employment density
- CTA rail transit stations
- Metra transit stations
- Parks
- Community input
- Age

FROM TOP TO BOTTOM: TRANSIT, TOURIST ATTRACTIONS, AND EMPLOYMENT CENTERS are among the potential indicators used to develop the recommendations in this study.

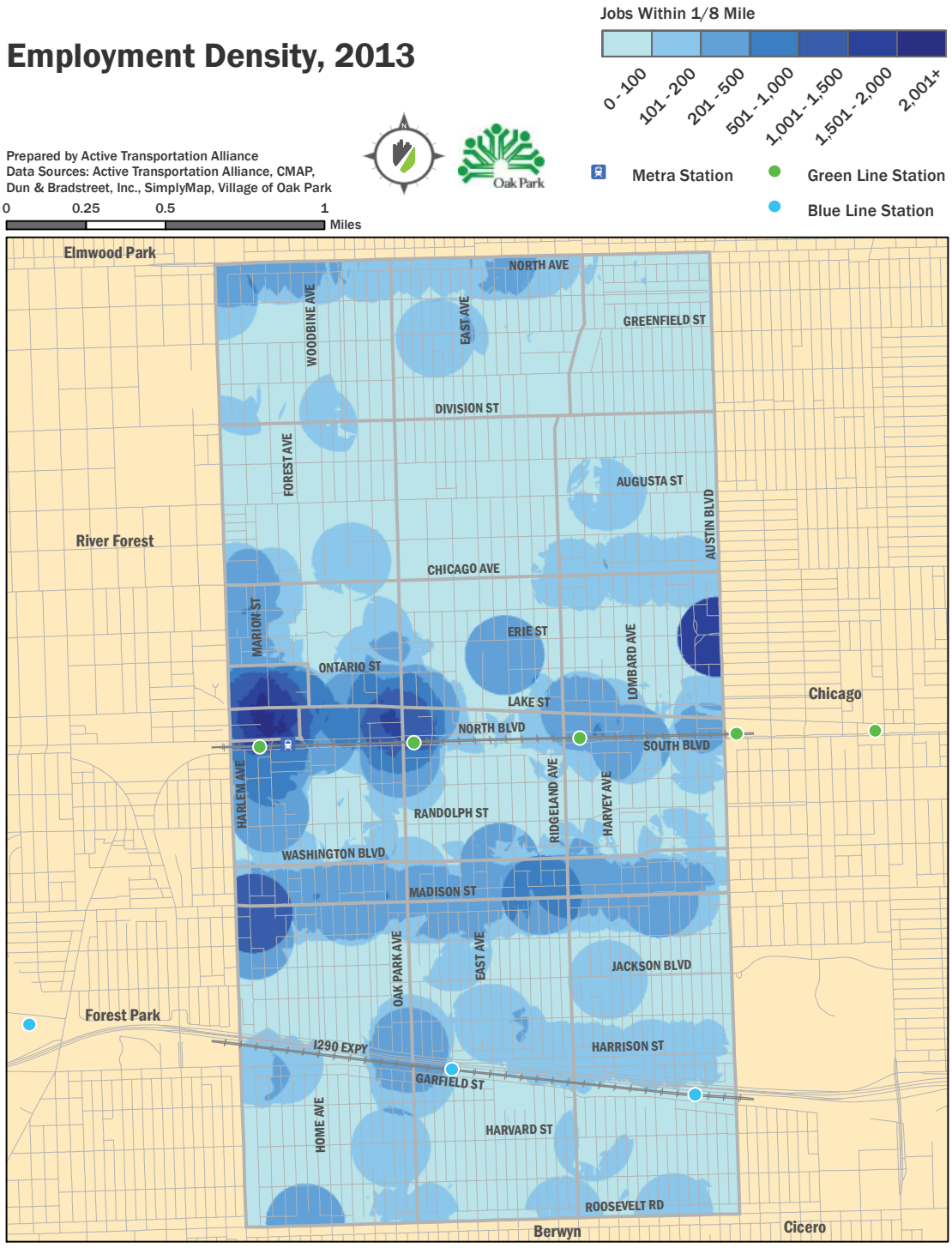
POPULATION DENSITY

Block Group-level census data from 2010 show that residential blocks in the Village range in population density from under ten residents per acre to well over 100. Areas with higher population densities were given more weight than lower densities because a large number of residents translates to a higher number of potential bike share users originating from said areas. Residential blocks were weighted by quantile to minimize the effect of outliers and to evenly distribute score assignment.



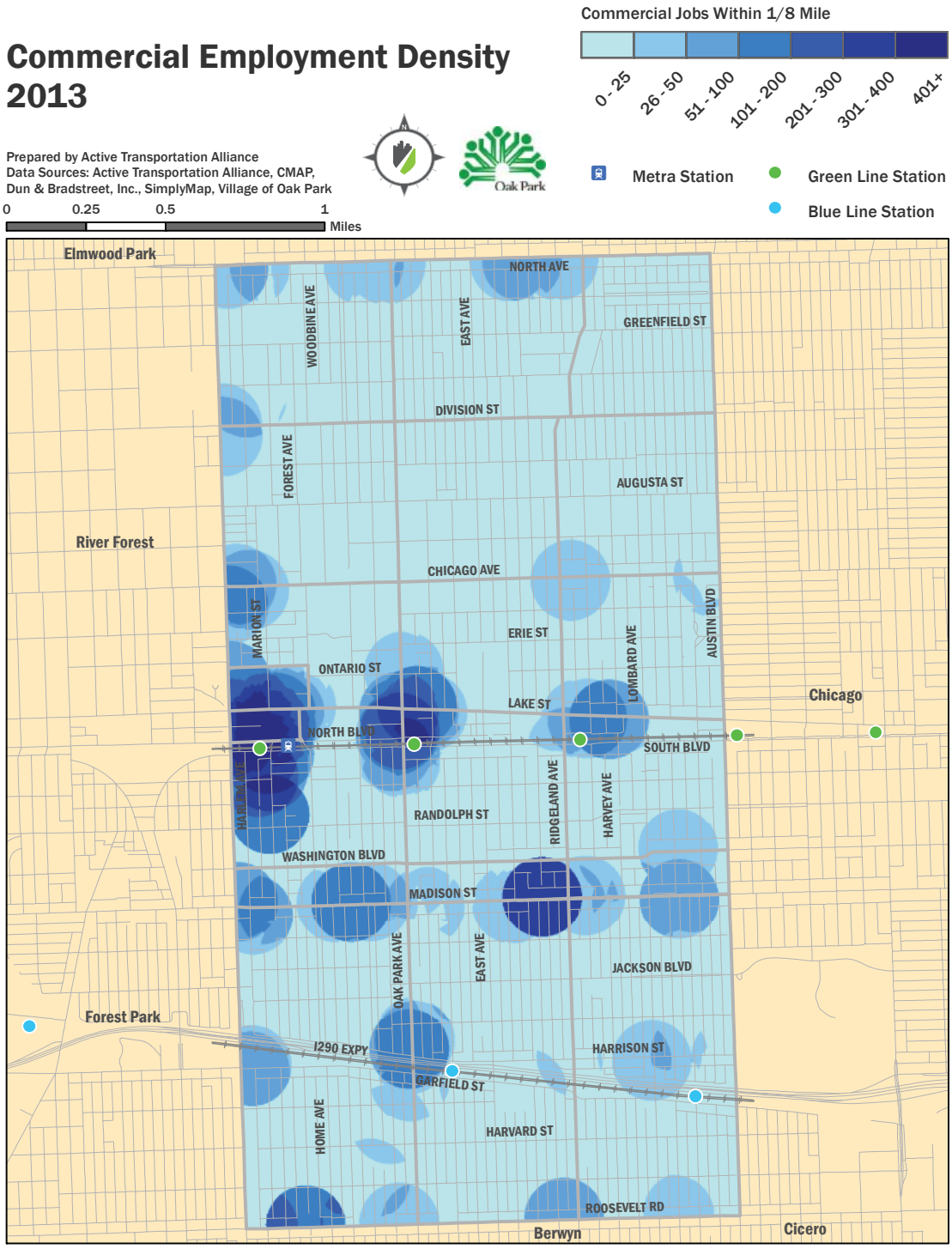
EMPLOYMENT DENSITY

Employment data from over 4,000 Oak Park establishments was used to estimate the number of jobs within one eighth of a mile of every point in the Village. Point values ranged from less than ten to 3,153 jobs within an eighth-mile radius, and were weighted on a scale from zero to ten by dividing each value by 315.3. Quantiles were not used in this case so that the data would show major employment center hot spots, and due to the large number of employer establishments with less than five employees in residential areas of the Village. An eighth-mile radius was chosen because although a quarter mile is the standard walking shed for public transit, the smaller buffer resulted in a more detailed and nuanced representation of the "hot spots" of employment in the relatively small area of Oak Park.



COMMERCIAL EMPLOYMENT DENSITY

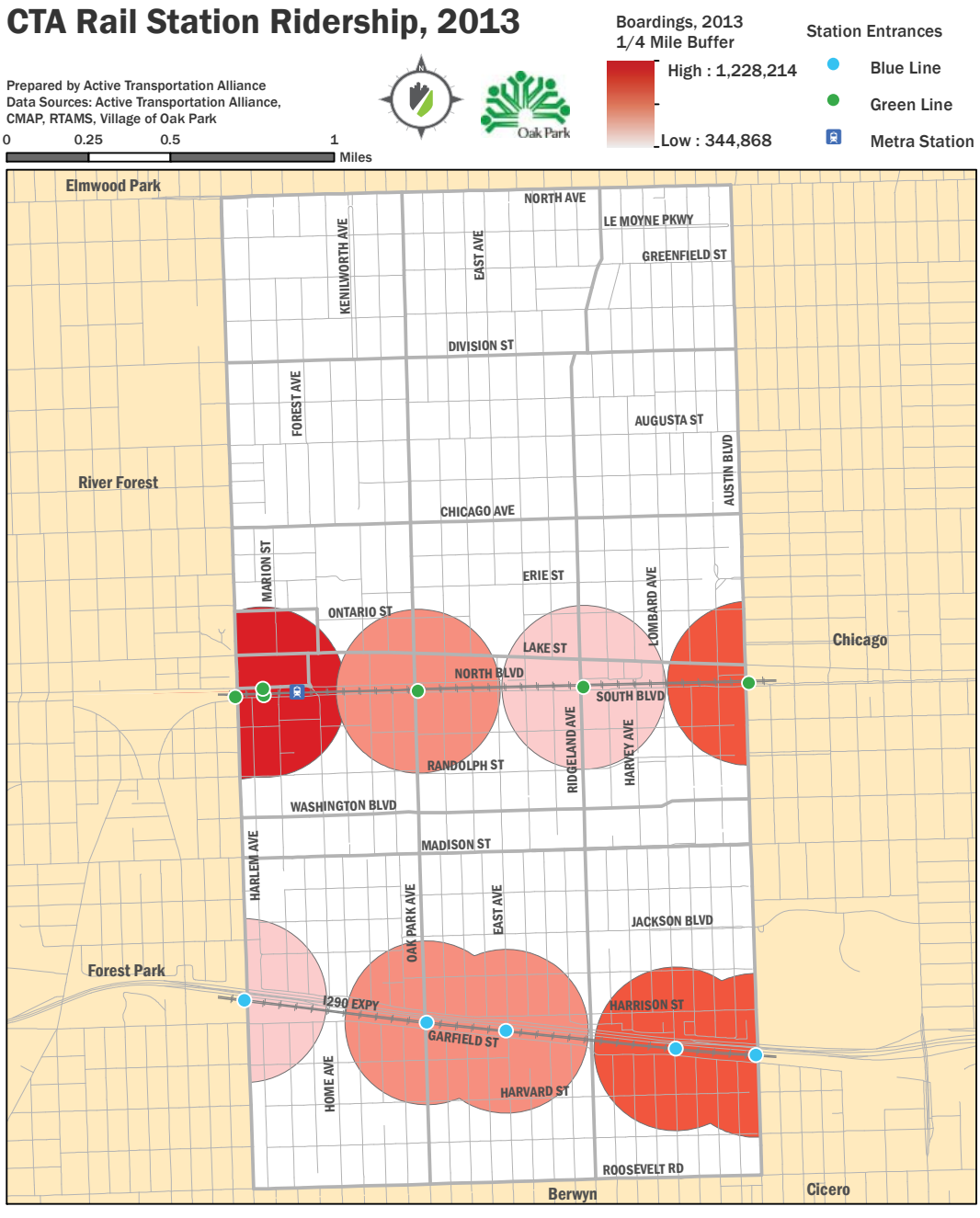
Retail and other commercial firms represent not only destination points for employees, but also for shoppers, diners, or other customers visiting the establishments. In an online survey conducted by the project team, 94% of Oak Park residents who participated indicated that they would like to visit local businesses by bicycle. Employment data for those companies with NAICS codes 44 and 45 (retail trade), 71 (arts, entertainment, and recreation), and 72 (accommodation and food services) was used to estimate trip attraction for those establishments which are significant destinations for commercial activity.



RAIL TRANSIT STATIONS

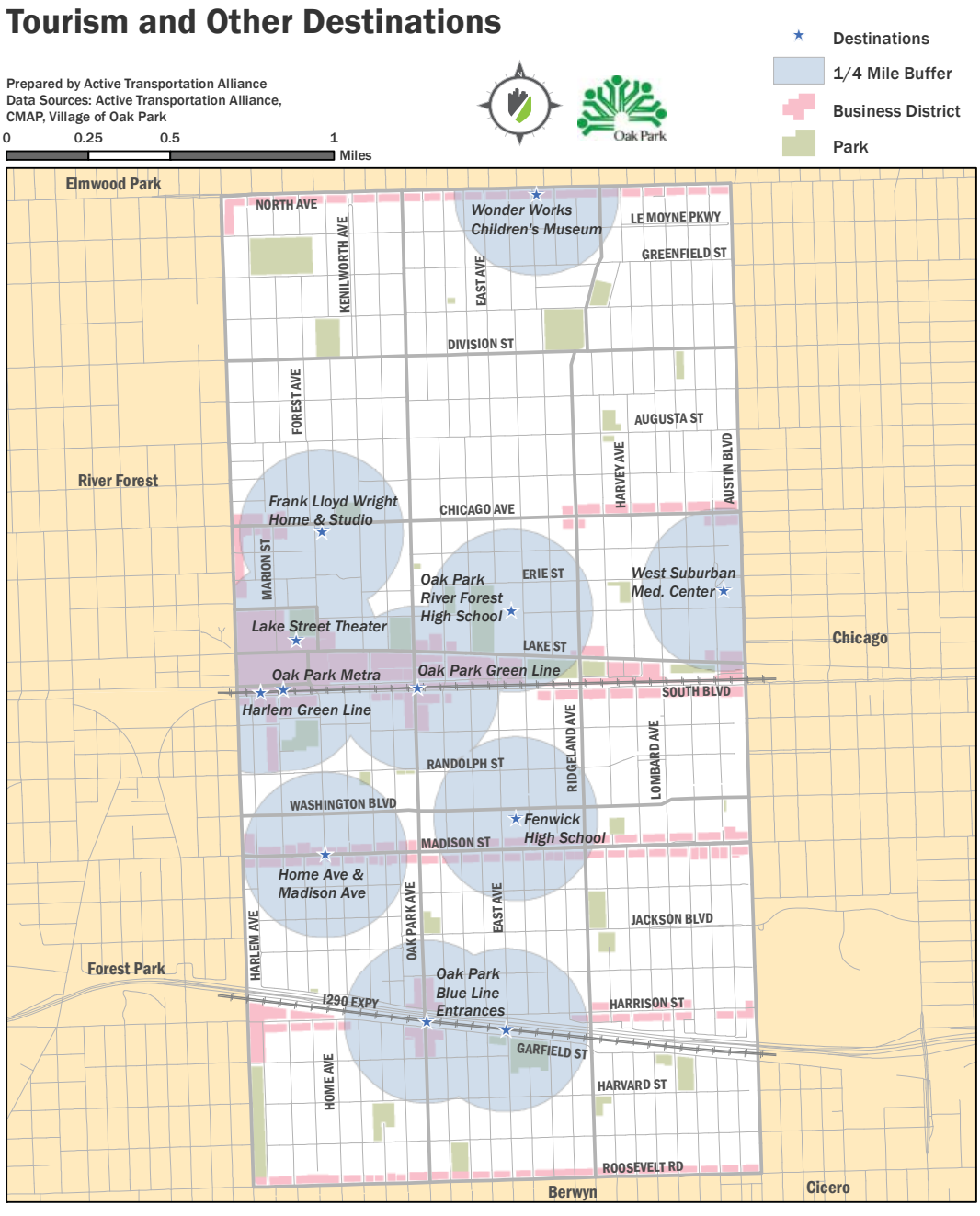
Areas within ¼ mile of transit stations were included in the analysis because this is a standard walking shed for public transit. CTA stations were weighted according to their ridership (boardings) in 2013. The Harlem Green Line station, the busiest station with a ridership of more than 1.2 million boardings last year, was assigned the full weight of ten points; the Harlem Blue Line station, last year's least-used station with just under 345,000 riders, was assigned a weight of three points. This weighting system allowed the project team to estimate demand for bike share at each station.

The Oak Park Metra station, on the Union Pacific West line, was also weighted according to ridership. Due to operational constraints actual ridership data was not available at the station level for 2013. The project team used the 2006 Station Boarding/Alighting Count along with UP West line ridership data from 2006 and 2013 to estimate boardings for the Oak Park station in 2013.



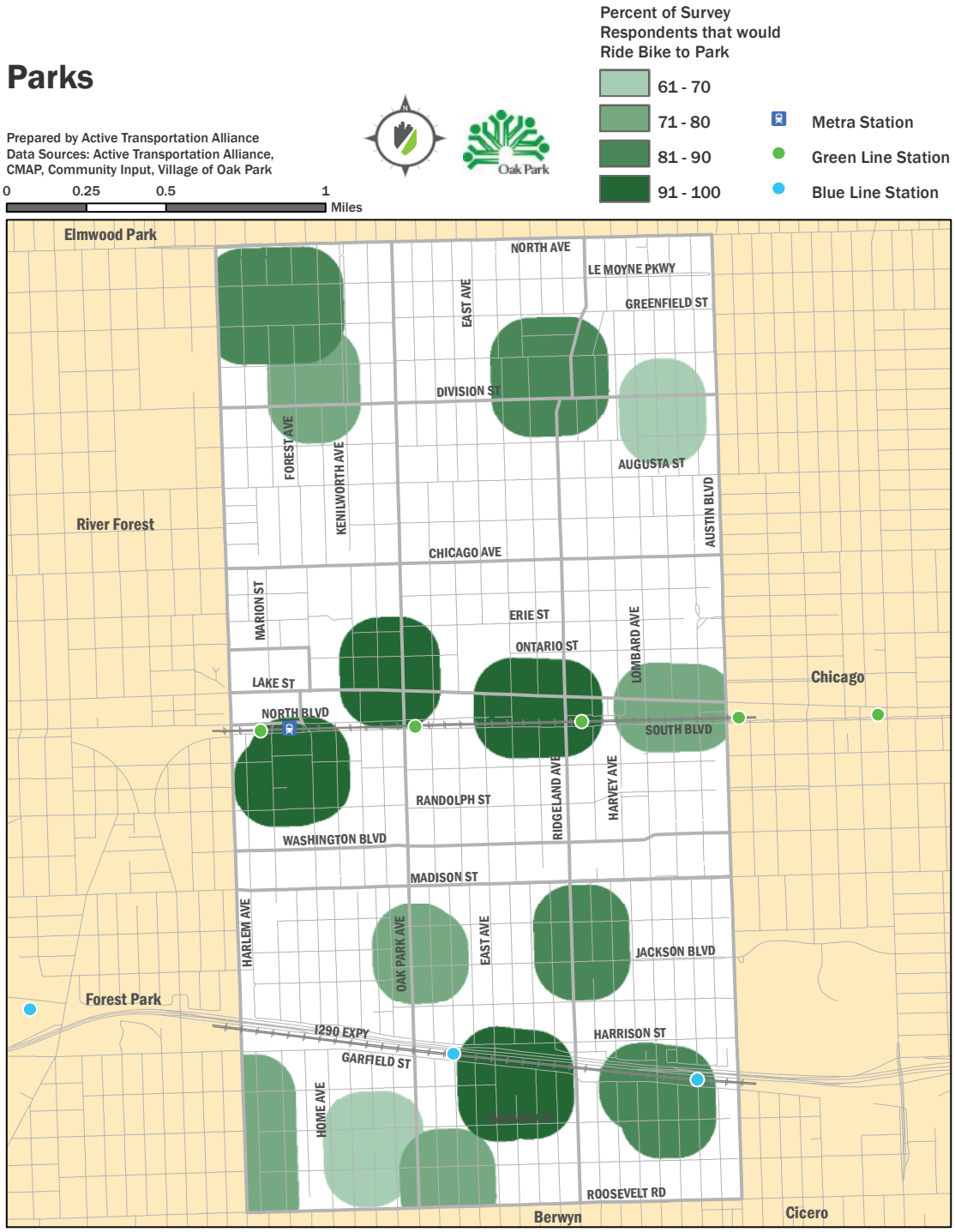
TOURISM & OTHER DESTINATIONS

A list of destination points was provided to the project team by the Village of Oak Park, and these were included as variables in the demand analysis due to their relevance as trip attractors. Some points are tourist attractions, such as the Frank Lloyd Wright home and studio, and others are major retail or employment centers, like West Suburban Medical Center. Other destinations of importance to the Village include key transit stations and Oak Park's two large high schools. A quarter-mile walking shed was used as the buffer around these destinations as well.



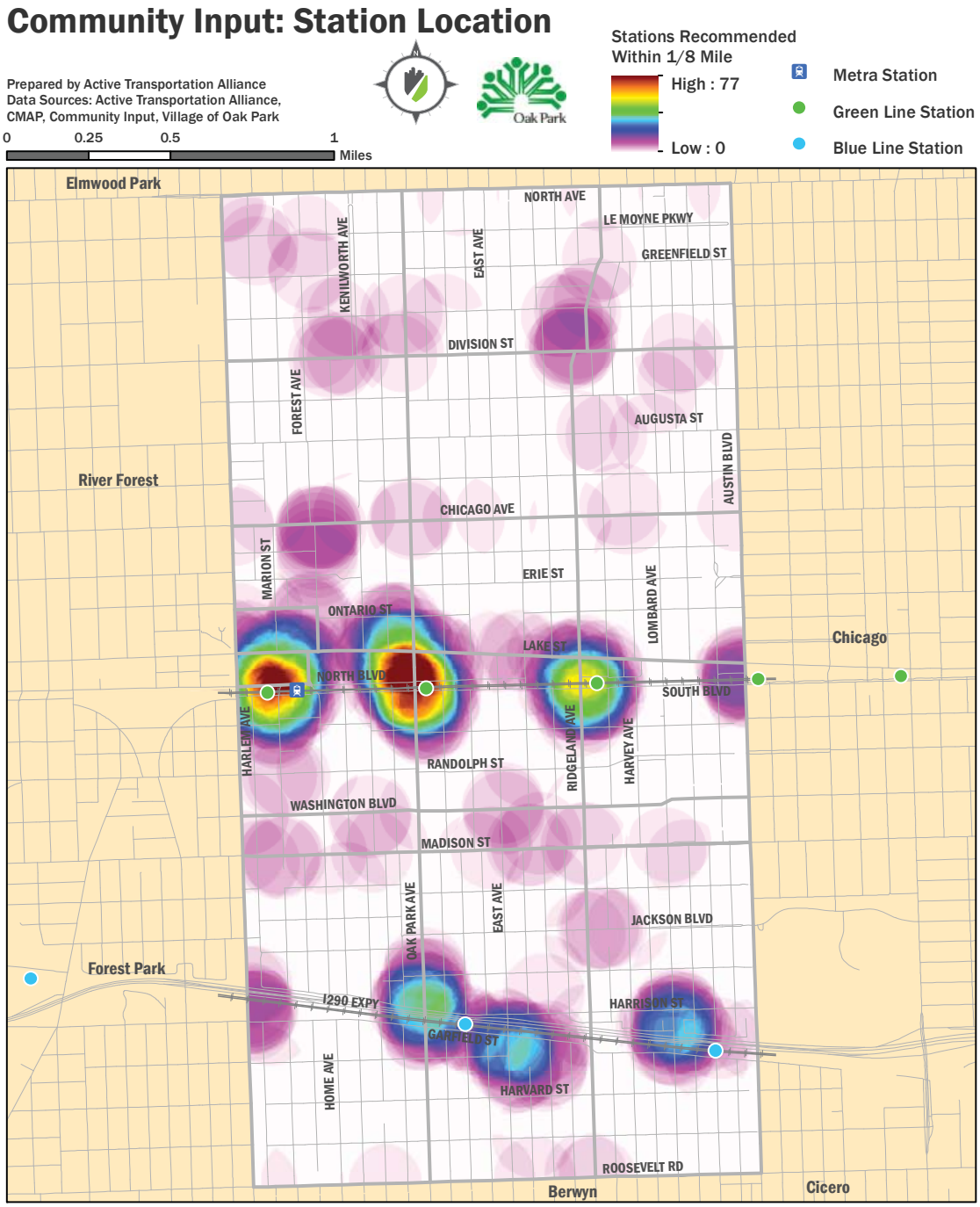
PARKS

In an online survey carried out by the project team which asked what destinations residents would like to visit by bicycle, Oak Park residents indicated that parks would be their second most favored destination next to local businesses. Respondents also indicated which parks they would be most likely to visit by bicycle, and parks were weighted according to the average rating given. Areas within an eighth of a mile of a park were considered for the demand analysis, because although a quarter-mile walking shed is standard, more than two thirds of Oak Park is within ¼ mile of a park due to the large number of parks in the Village.



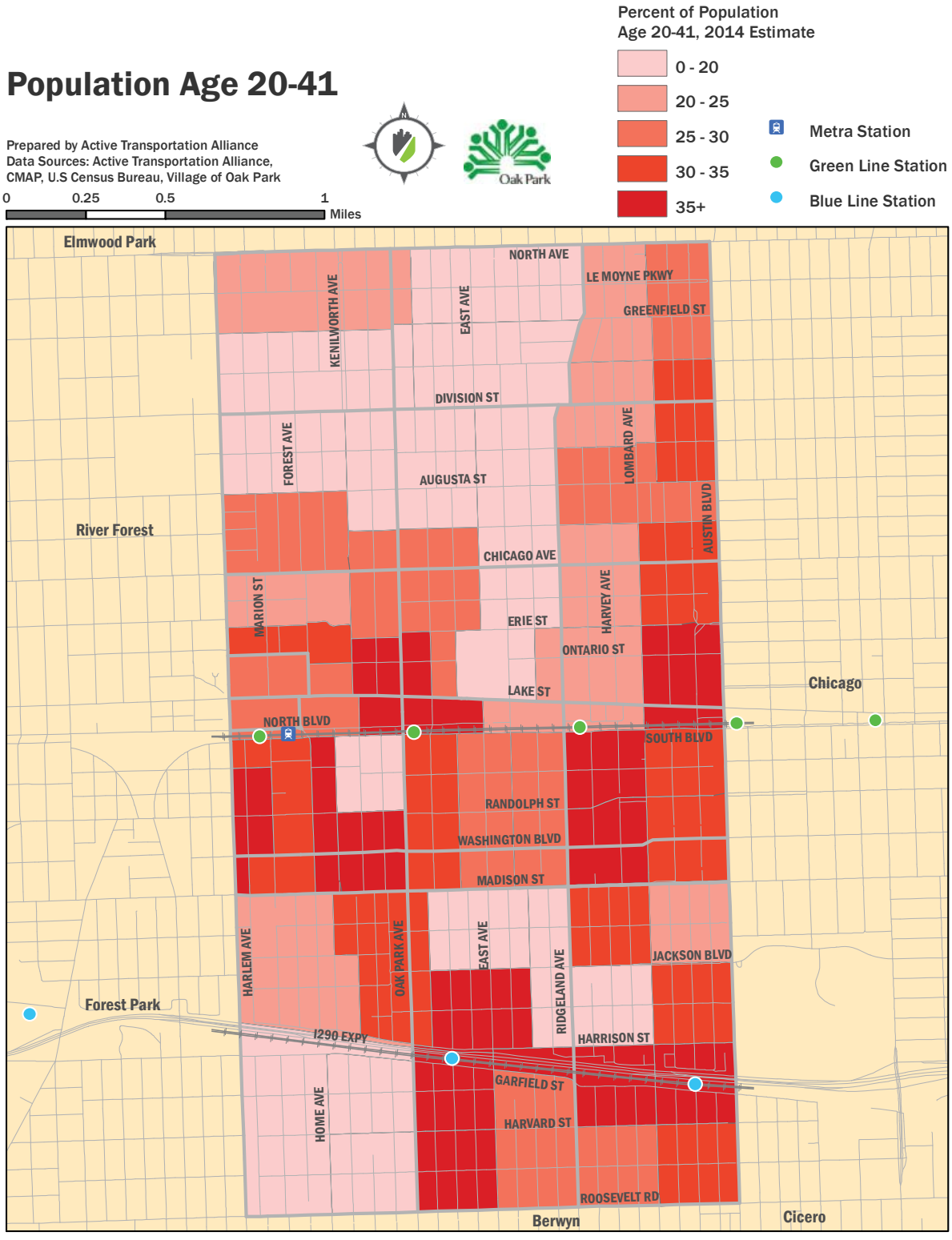
COMMUNITY INPUT

Input from stakeholders on preferred station locations was added to the analysis to capture demand for bike share at both origin and destination points. Residents and business association members were asked to indicate on a map where they would like to see a bike share station, and respondents provided 439 location suggestions to the project team. Each point in Oak Park was then assigned a weight according to the number of preferred locations within one eighth of a mile. The smaller buffer was used to show more detail in respondent preferences than a ¼-mile radius would have provided.



RESIDENT AGE

The age of Oak Park residents was included as a variable in the analysis because certain age groups may be more likely than others to take advantage of a bike share system. In Chicago in 2013, 73% of annual Divvy subscribers' trips were taken by riders between the ages of 20 and 41. To help the project team capture the large potential demand of this age group, census tracts were assigned a weight according to the percentage of their population that was between the ages of 18 and 39 in 2012 – a close estimation of the population aged 20 to 41 in 2014.



EQUITY INDICATORS

Bike share programs in many U.S. cities struggle to provide access to minority populations that have historically been underserved by transit systems, such as those with low income and education levels and racial minority groups. Including equity variables in the analysis can help Oak Park's bike share program address this challenge. Thus, an equity analysis was conducted to help the project team identify bike share station locations which provide access to all of Oak Park's residents. The heat maps on the following pages depict the three equity variables included in the Feasibility Study:

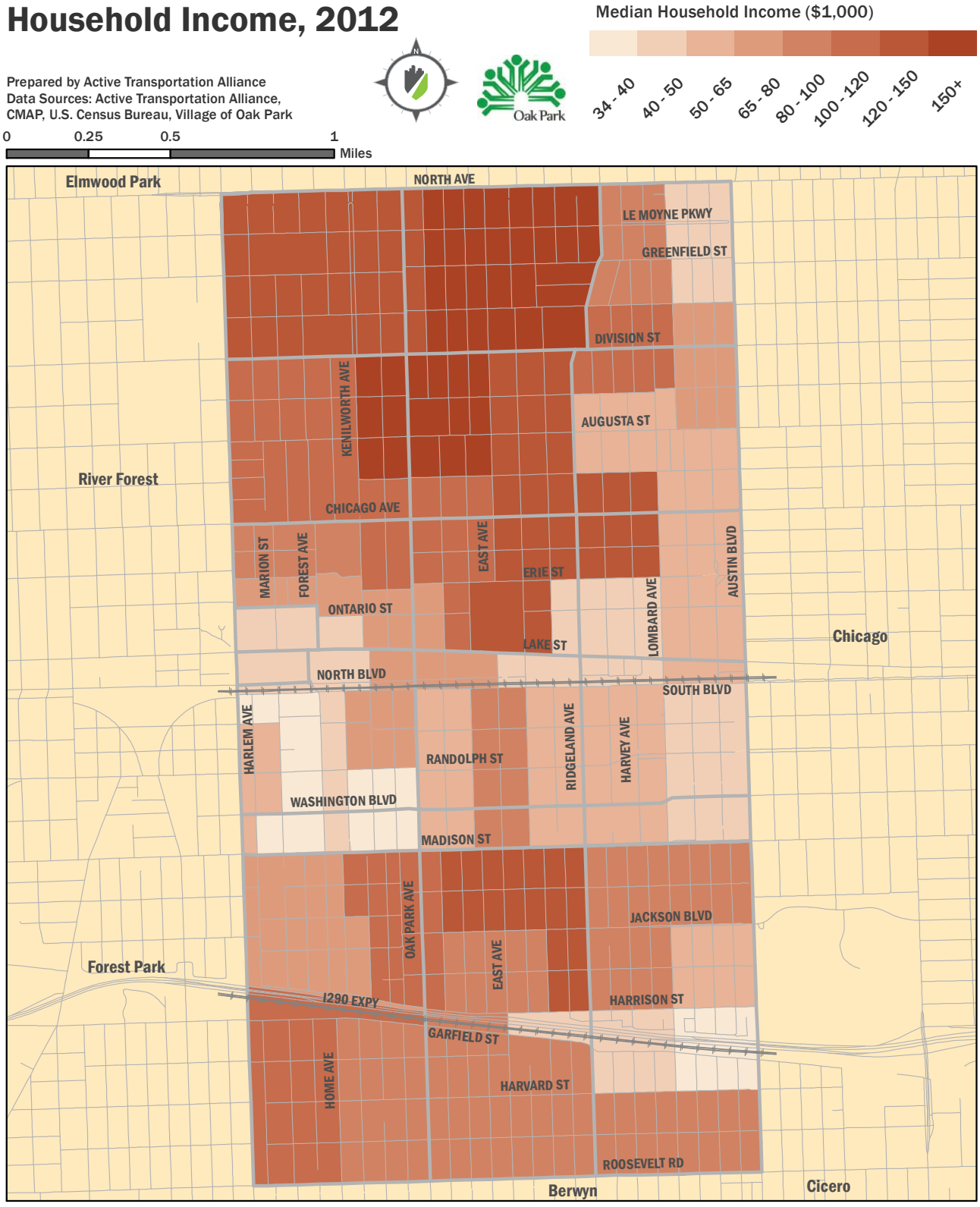
Household income

Educational attainment

Race

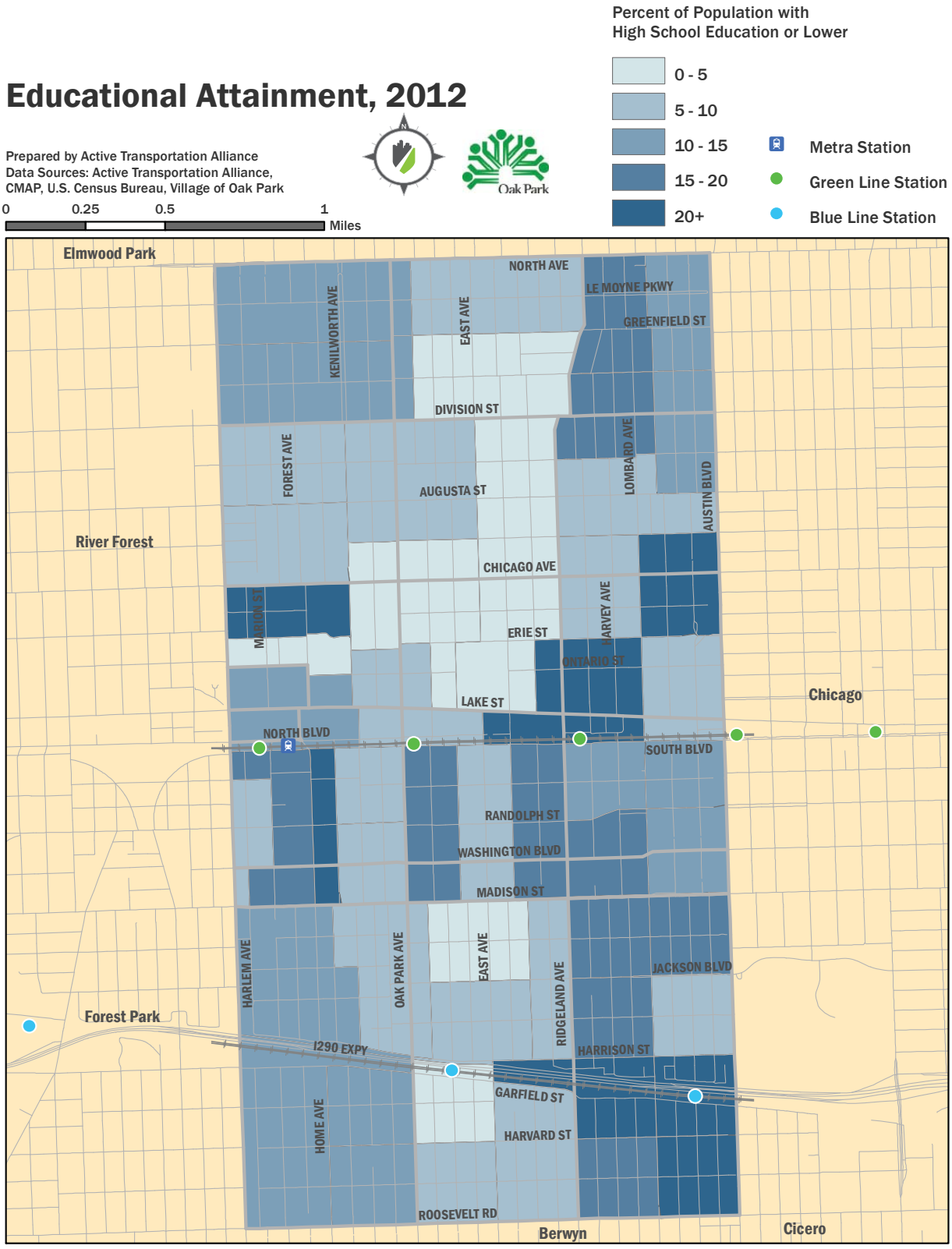
HOUSEHOLD INCOME

Census tracts with the lowest median income in Oak Park were assigned higher scores to help ensure that lower-income residents have access to bike share.



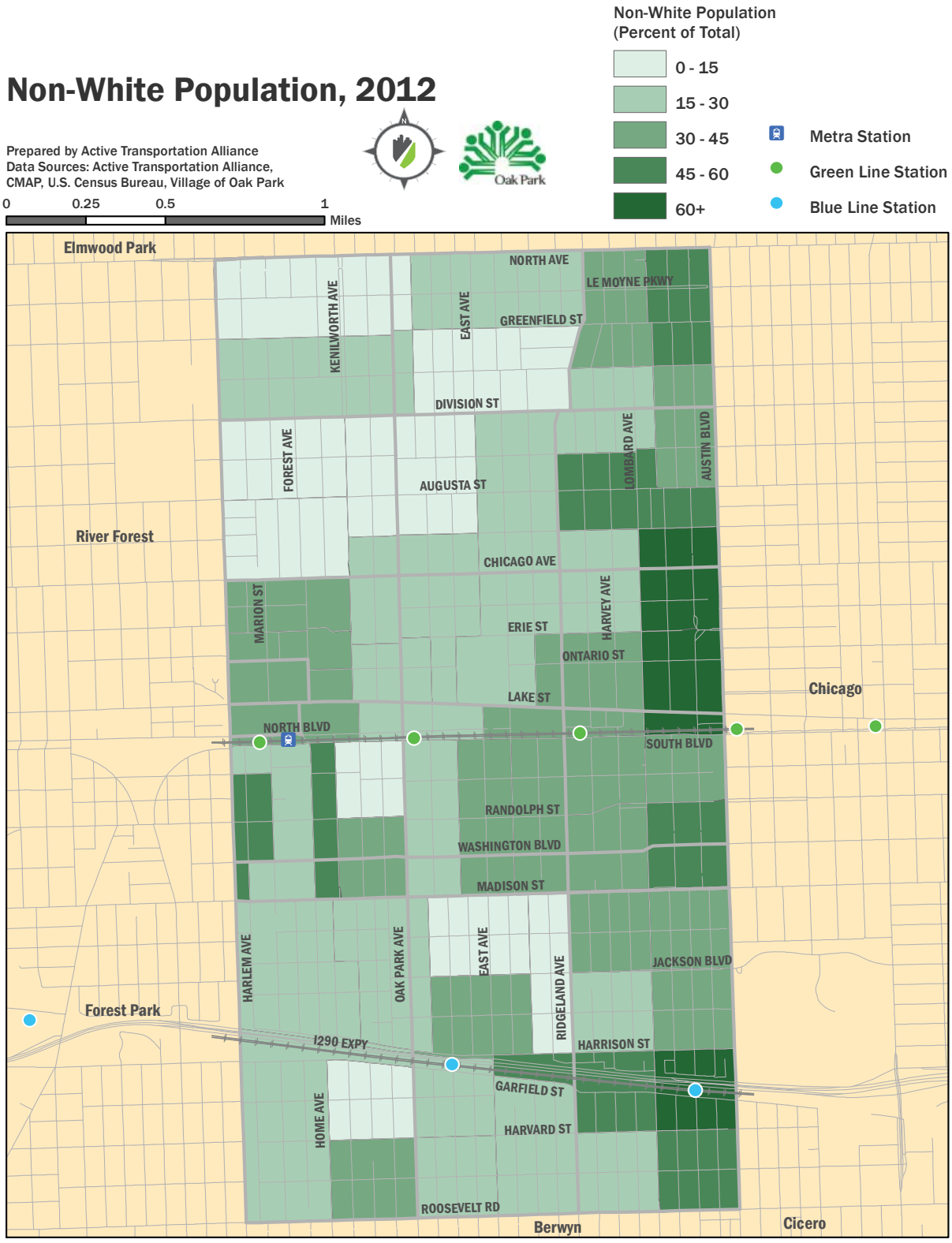
EDUCATIONAL ATTAINMENT

Census tracts in Oak Park were scored according to percentage of adult residents with a high school education or lower, with those census tracts with lower education levels being assigned a higher score.



RACE

Census tracts were assigned scores by percentage of non-White residents; those with higher percentages were given higher scores than those with mostly White residents.



HEAT MAP ANALYSIS

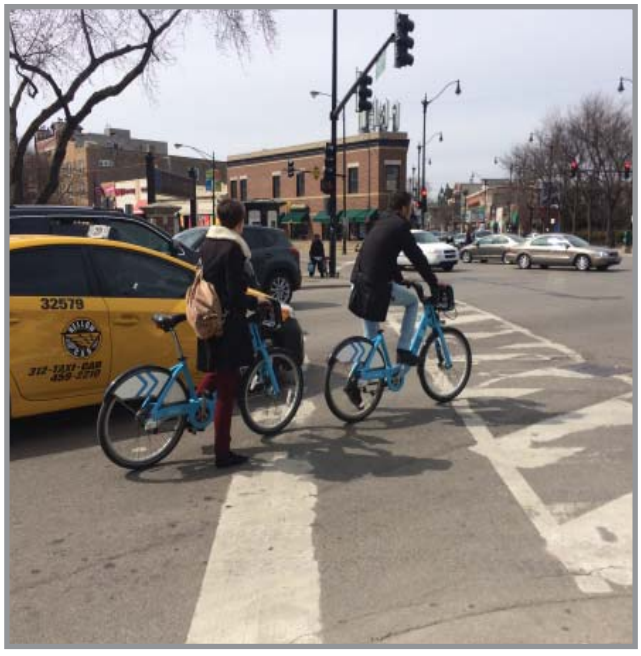
After producing individual heat maps for each of the individual potential and equity indicators, the data were weighted and combined to better understand the aggregate impact of each variable on the demand for bike share in Oak Park. Three final maps were produced:

Potential map: Depicts the weighted sum of all eight potential indicators

Equity map: Summarizes the weighted sum of all three equity indicators

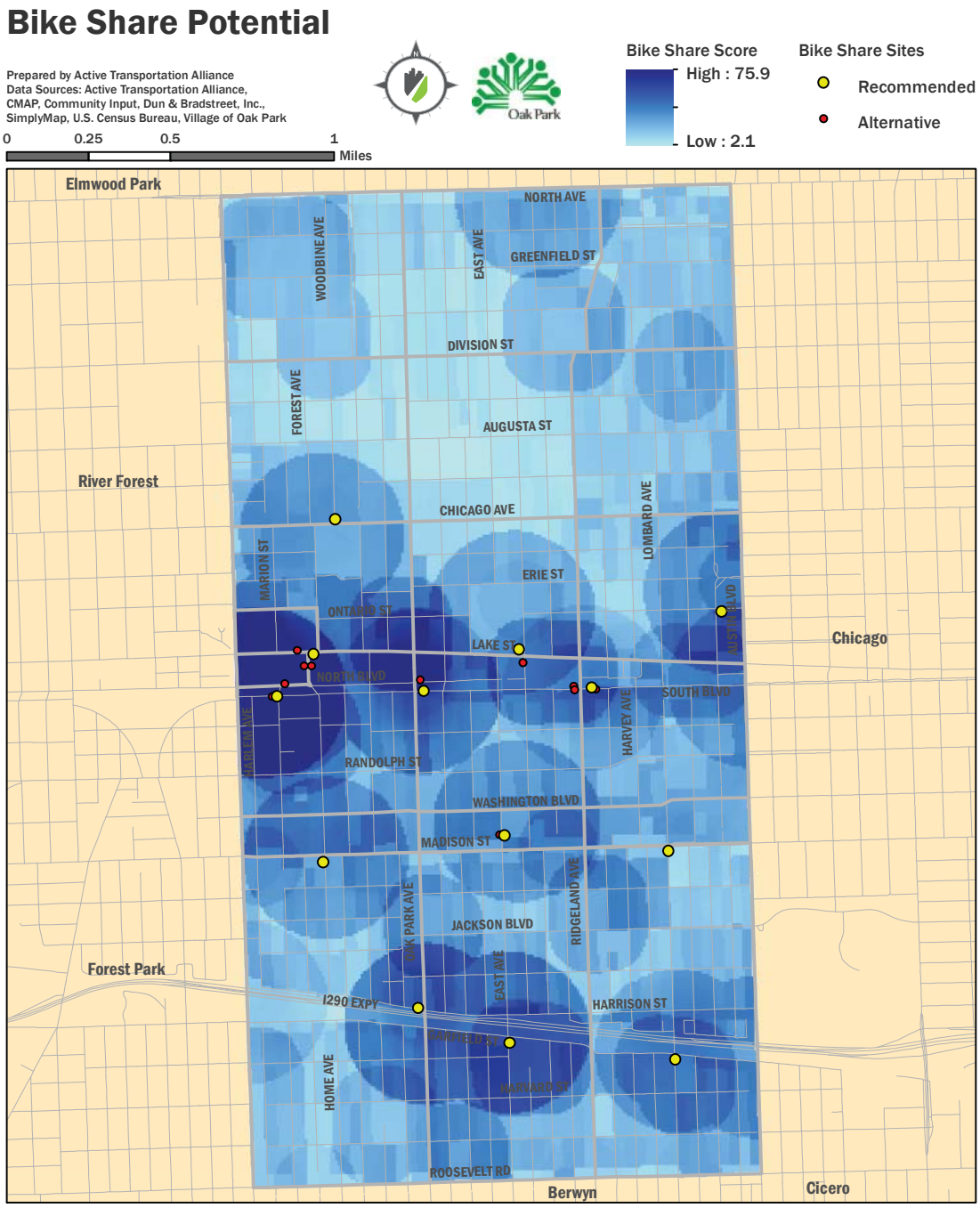
Combined equity and potential map: Demonstrates the combined weighted sums of all Potential and All equity variables

A summary of the methodology and each map is included on the following pages.



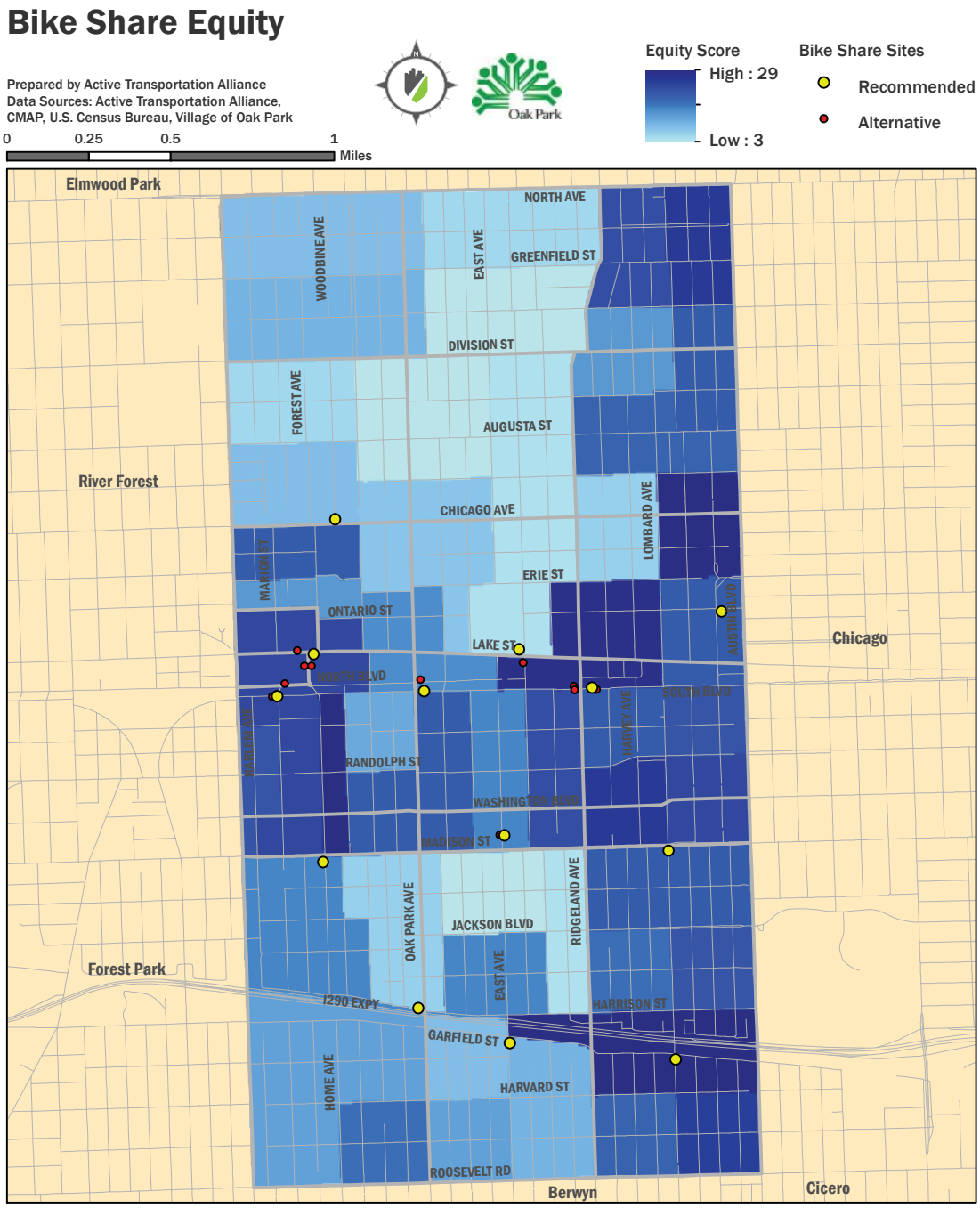
POTENTIAL MAP

A weighted sum raster analysis was used in GIS to combine each of the seven potential indicators to create one Potential heat map. In this process, scores from each variable for every ten foot square segment of Oak Park were added together to create a composite score indicating their suitability as locations for bike share stations. Some variables were given more or less weight than others according to their importance in determining bike share success, and according to public input on their preferred types of destinations when using bike share. For example, about twice as many respondents indicated that they would travel by bicycle to local businesses as would travel to work. To reflect this in the analysis, employment density was given the default weight of 1, and those businesses which also served as commercial destinations were assigned a weight of 1 in an additional raster, essentially doubling their weight. The resulting map highlights the areas in Oak Park which are most suited for bike share stations. Areas receiving a higher bike share score are more appropriate for stations.



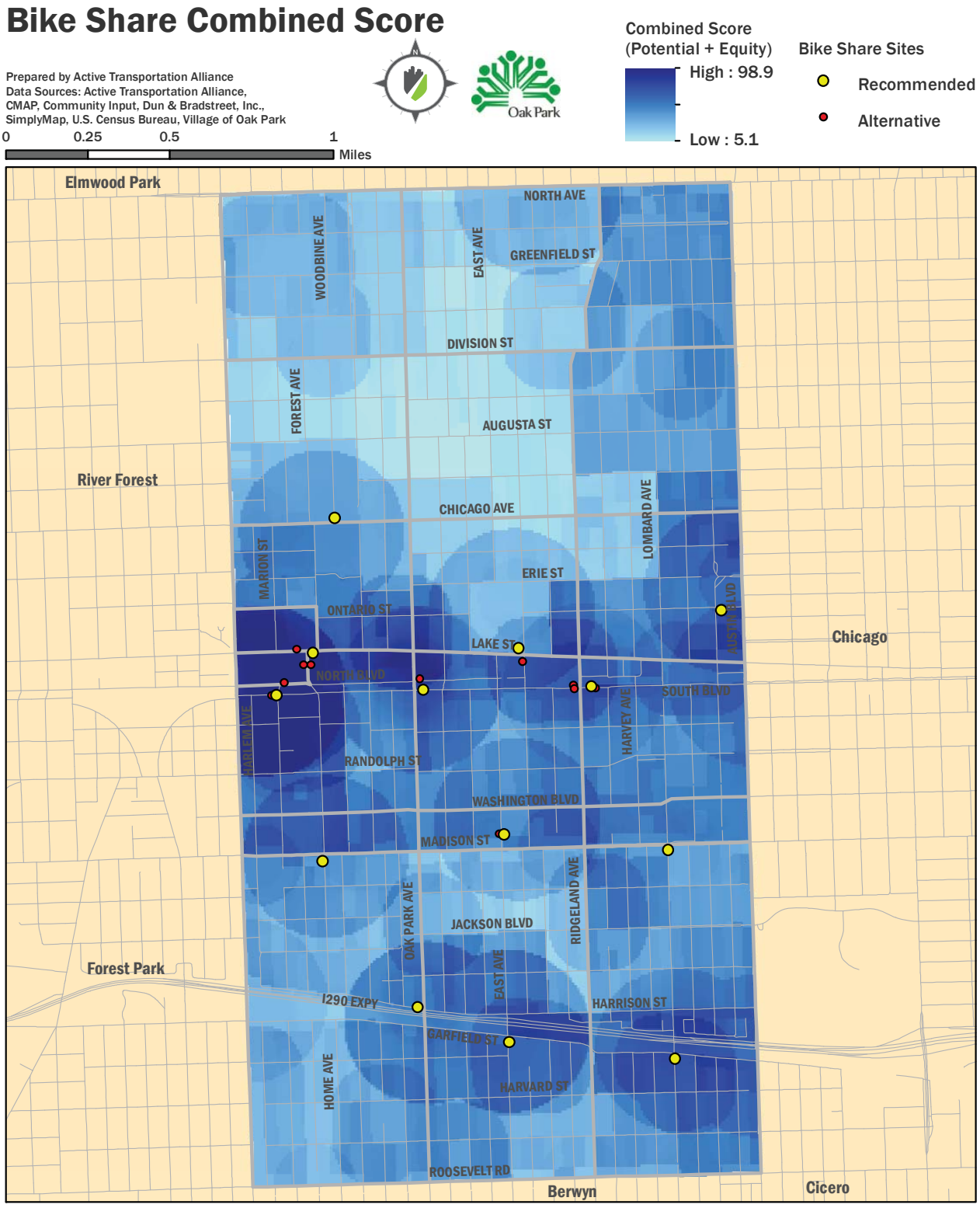
EQUITY MAP

A weighted sum analysis was also used with the three equity variables to produce one Equity heat map. Each variable was assigned the default weight of one, and scores were from each were added together for every ten foot square in the Village to create a composite score. The resulting map highlights sections of Oak Park in which bike share stations should be placed to ensure that they are accessible to populations that are often underserved by bike share: those with low levels of income and education, and a high percentage of racial minorities. Areas receiving a higher score better serve minority and low-income populations.



COMBINED EQUITY AND POTENTIAL MAP

Finally, the Equity and Potential maps were added together to produce a master station siting map which shows the ideal locations for bike share stations in Oak Park, adjusted for equity. Areas receiving a higher bike share score ranked high in both potential and equity variables. The results are below.



RESULTS AND FINDINGS

The bike share demand analysis demonstrates that some areas in Oak Park are more suitable for bike share than others. The potential indicators heat map shows that Downtown Oak Park, the West Suburban Medical Center, CTA rail stations, and areas with high population density receive the highest score, and are therefore more suitable locations for bike sharing stations. These areas are concentrated in the western and southern sections of the Village. The equity map, on the other hand, demonstrates that the eastern and central sections of Oak Park would be best served by bike sharing stations. When combined, the two maps indicate that bike share stations would function best if located south of Chicago Avenue, north of Harvard Street, east of Harlem Avenue, and west of Austin Boulevard.

As this study is focused on identifying bike share station locations for the first phase of implementation, stations should be placed near areas receiving high bike share scores (CTA rail stations and the West Suburban Medical Center) and areas receiving medium scores that contribute to a denser network within the system coverage area (see the coverage area map on the following page). Future phases of implementation should focus on filling in more network gaps and providing new sections of Oak Park with bike share.

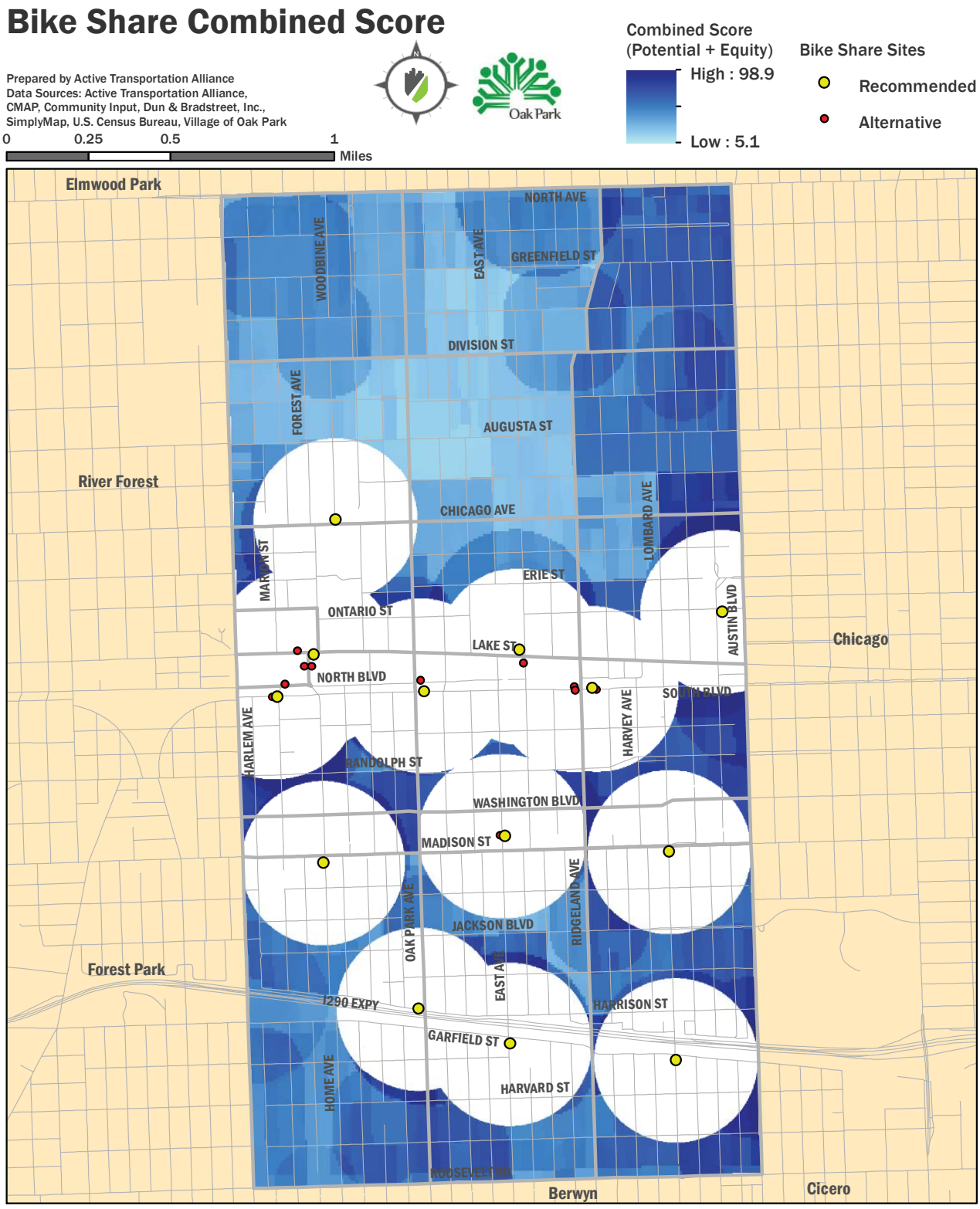
An additional Future Phases map is provided on page 163 with potential locations for new stations. These stations might be located adjacent to the following destinations:

- **Andersen Park**
- **Taylor Park**
- **Dole Library**
- **Lindberg Park**
- **Carroll Park**
- **Maple Park**

To provide access to additional residents, the Village should consider reaching out to businesses along Roosevelt Road and North Avenue to install bike share stations. The Village may also want to reach out to homeowners and apartment building owners to provide additional stations in predominantly residential areas.

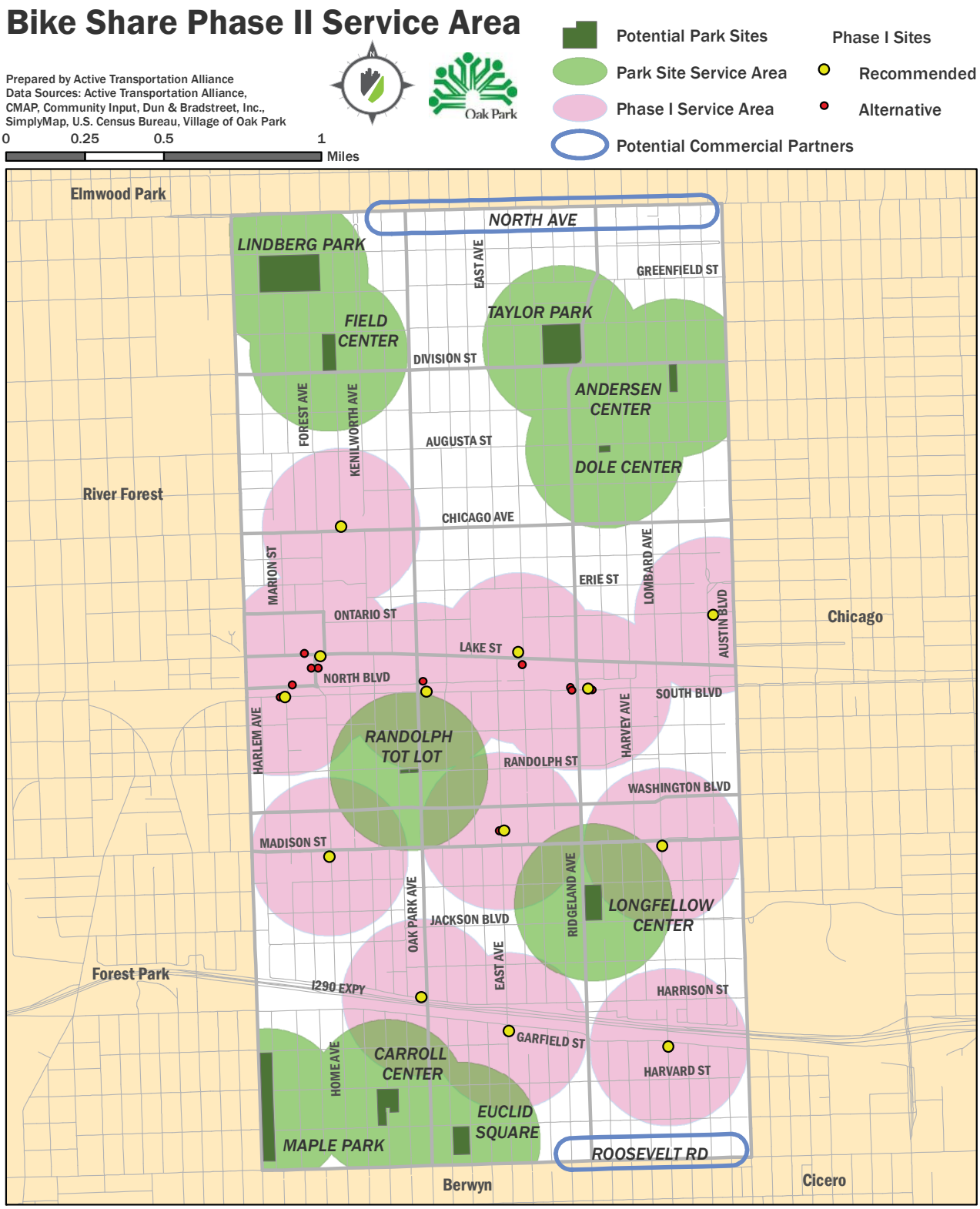
BIKE SHARE COVERAGE AREA

The map (below) shows the recommended bike share stations with a one-quarter mile buffer around each station. This is the system coverage area for Phase I of Oak Park's bike share implementation.



FUTURE PHASES AND COVERAGE AREA

The map (below) shows additional sites that can be explored for bike share stations. These sites will provide access to a greater number of Oak Park residents. Remaining gaps in the coverage area can be addressed by working with businesses, landlords, and homeowners to identify places that stations could be sited on-street in front of homes or in parking lots.



BIKE SHARE STATION SITING

Using the results from the Demand Analysis, thirteen locations were identified as potential places to host bike share docking stations. Additional criteria guided the placement of Bike Share infrastructure sites:

- Sufficient and available on-street or off-street right-of-way
- Not on an arterial roadway
- No accessibility barriers
- Not in front of a residence
- Does not require the removal of trees
- Along Oak Park's network of existing and planned bikeways
- On a corner or accessible from multiple directions
- Ideally low crash rate near station
- Enhances network connections within Oak Park

RECOMMENDED STATIONS & STATION SITE PLACEMENT PROFILES

An overview map of the recommended sites is included on the following page, and detailed maps are included thereafter. In some cases, the project team identified alternative locations for stations. For each map, the recommended location is depicted in yellow and the alternative location is marked in red.

While the project team selected each location in the field and measured to ensure that a standard bike share docking station would fit, the scale of the stations and location depicted in the maps are for demonstration purposes only. Additional measurements will need to be taken once the Village of Oak Park implements its system to ensure consistency with planned station widths.

Additionally, due to limited off-street right-of-way, many of the recommended sites will require the removal of on-street parking spaces. The Village will need to balance the needs of all residents as system implementation advances.

Bike Share Station Siting

Prepared by Active Transportation Alliance
Data Sources: Active Transportation Alliance, CMAP, Village of Oak Park

0 0.25 0.5 1 Miles

Destinations

1. Frank Lloyd Wright Home & Studio
2. Oak Park River Forest High School
3. West Suburban Medical Center
4. Lake Street Theater
5. Harlem Green Line
6. Oak Park Metra
7. Oak Park Green Line
8. Ridgeland Green Line
9. Home & Madison
10. Fenwick High School
11. Village Hall
12. Oak Park Blue Line
13. Austin Blue Line

Station Siting

- Recommended Site
- Alternative Site

- Business District
- Park

Bike Share Station Siting: Frank LLoyd Wright Home and Studio

1 Frank Lloyd Wright Home & Studio

Recommended Site

Station Placement

FRANK LLOYD WRIGHT HOME AND STUDIO OVERVIEW

The Frank Lloyd Wright Home and Studio is a popular tourist destination and received a medium score in the demand analysis. Based on available right of way, the recommended station location is off-street on Chicago Avenue in between a clearing of trees.

Bike Share Station Siting: Oak Park River Forest High School

2 Oak Park River Forest High School

Recommended Site

Alternative Site

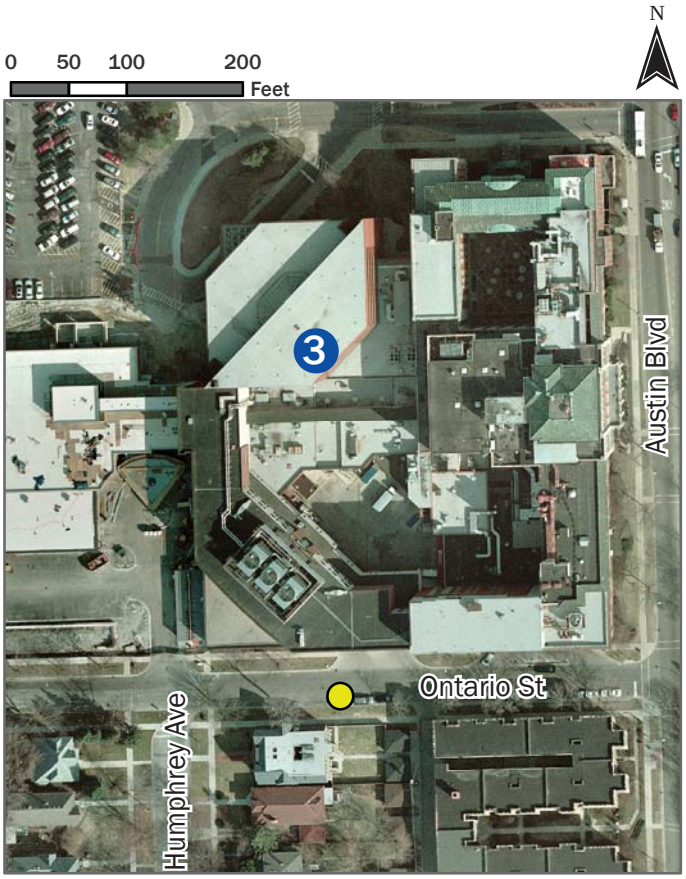
Station Placement

Alternative Station Placement

OAK PARK RIVER FOREST HIGH SCHOOL OVERVIEW

Oak Park River Forest High School received a medium score for all three demand analyses and helps contribute to a more robust bike share network. Two sites were identified as potential candidates for bike share stations. The first is off-street on Lake Street at the corner of Scoville Avenue and the second is on Scoville Avenue near Lake Street. The northwest corner site is preferable because it is off-street and does not require the Village to remove on-street parking spaces. The Scoville Avenue location is less ideal as it would require the removal of several off-street parking spaces adjacent to the school's soccer fields.

Bike Share Station Siting: West Suburban Medical Center



3 West Suburban Medical Center

Recommended Site

Station Placement

WEST SUBURBAN MEDICAL CENTER OVERVIEW

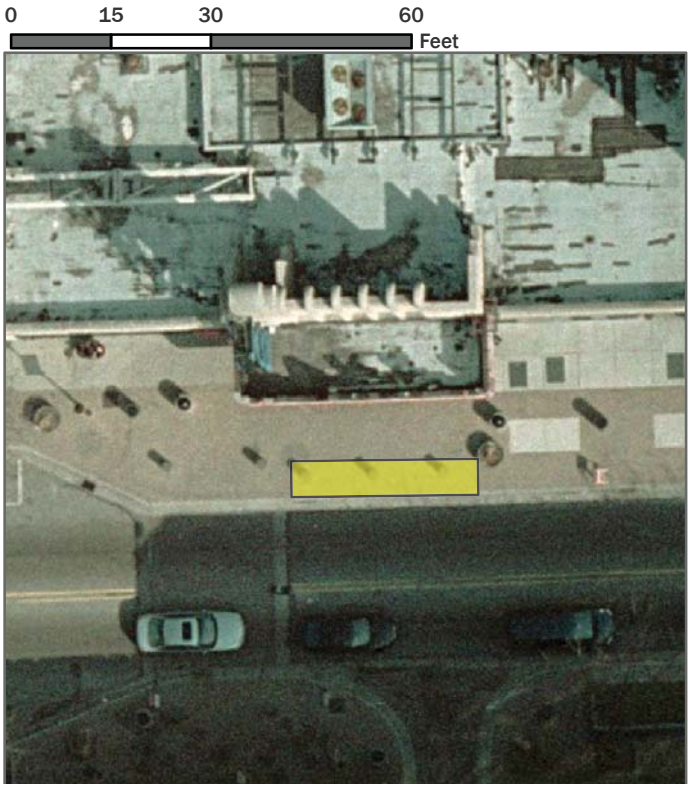
The West Suburban Medical Center is a major Oak Park employer. If Oak Park opts to use Chicago's Divvy Bike Share System, this location also provides a close linkage to planned stations in Chicago's Austin neighborhood. The recommended location for this site is on the south side of Ontario Street, providing easy access to the medical center and its neighboring residential area.

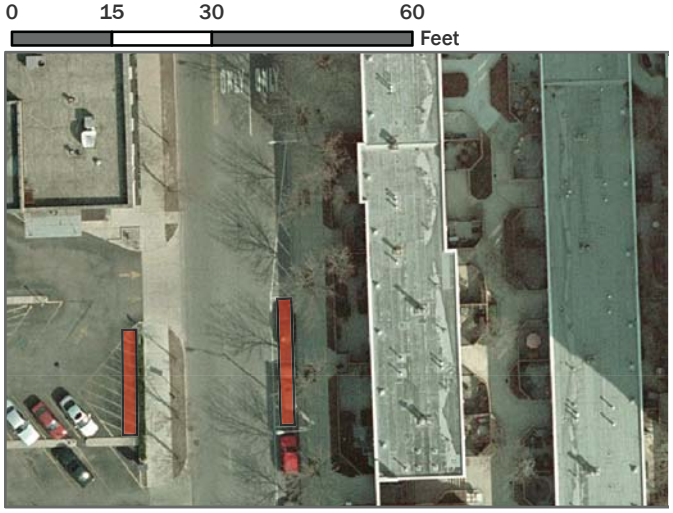
Bike Share Station Siting: Lake Street Theater

- 4 Lake Street Theater
- Recommended Site
- Alternative Site
- Station Placement
- Alternative Station Placement

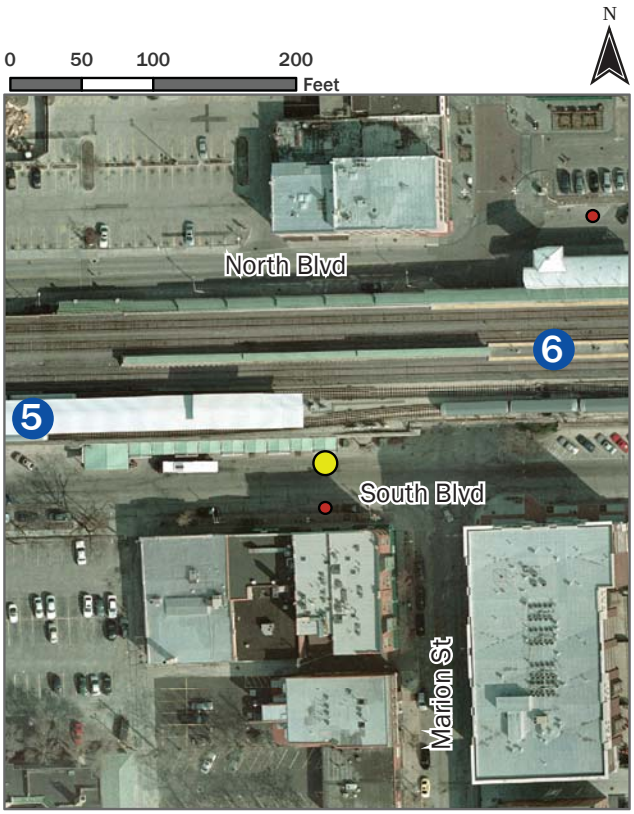
DOWNTOWN OAK PARK OVERVIEW

Downtown Oak Park received very high scores in the demand analysis as it is a major Village destination for shopping and entertainment. Four locations were considered for this area, all with challenges. The recommended site is on the southwest corner of Lake Street and Forest Avenue on the sidewalk is privately owned and will require an easement. The location is slightly removed from high pedestrian volumes, making it easier for bike share users to access docking stations. An alternative site is in front of the Lake Street Theatre. This location presents challenges, as it is a high activity area. Other recommended sites would require removal of parking spaces are along Forest Avenue or an easement in a privately-owned parking lot.





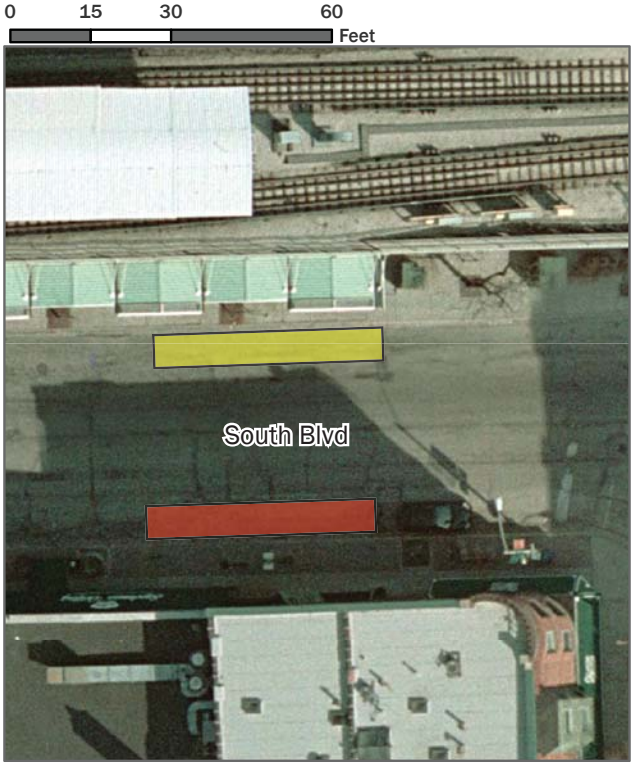
Bike Share Station Siting: Harlem CTA and Metra

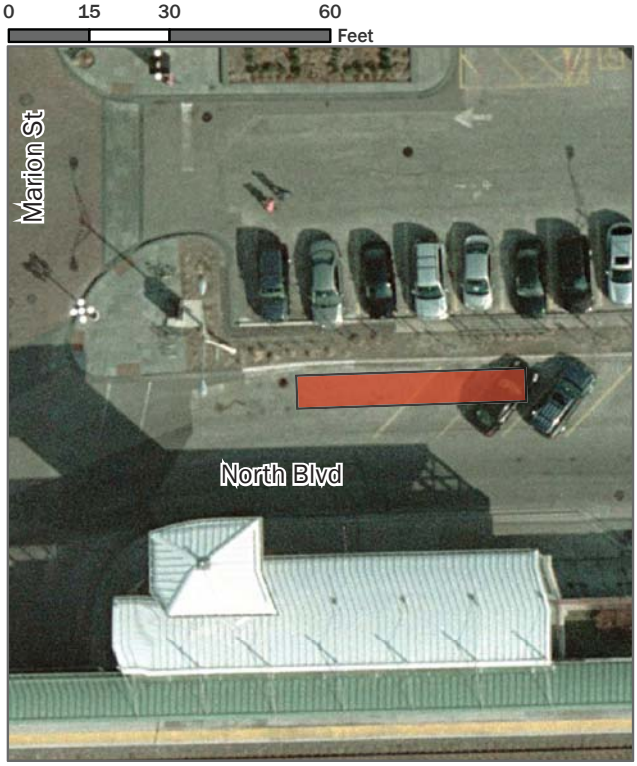


- 5 Harlem Green Line Entrance
- 6 Oak Park Metra
- Recommended Site
- Alternative Site
- Station Placement
- Alternative Station Placement

HARLEM CTA AND METRA STATIONS OVERVIEW

The CTA Station at Harlem is the most heavily used in the Village and is enhanced by the adjoining Metra station. Two sites were identified for this destination: the northwest corner of South Boulevard at Marion Street and the southwest corner of the same intersection. Each location will require the removal of on-street parking spaces, but the north location is preferred as it does not require bike share users to cross the street to access the stations.





Bike Share Station Siting: Oak Park Green Line

7 Oak Park Green Line

Recommended Site

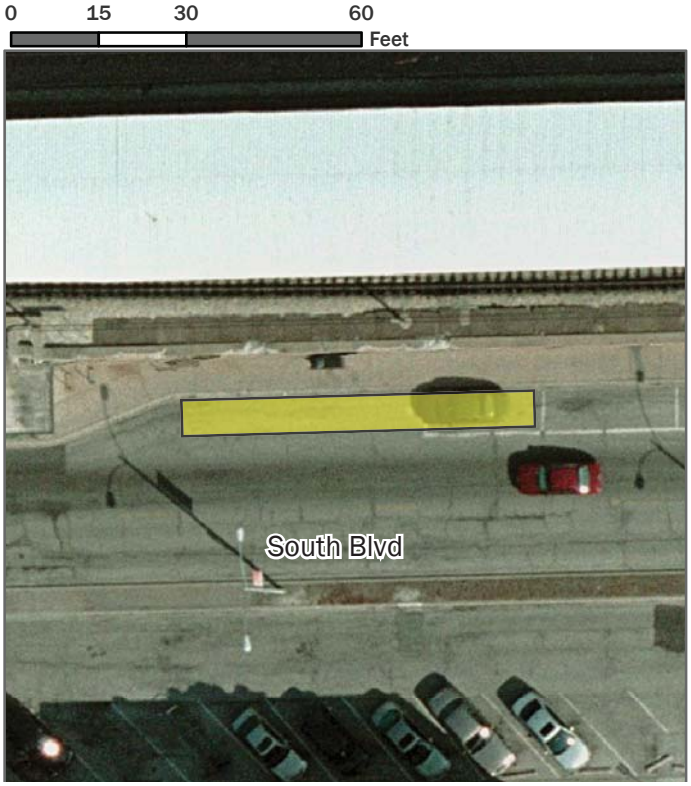
Alternative Site

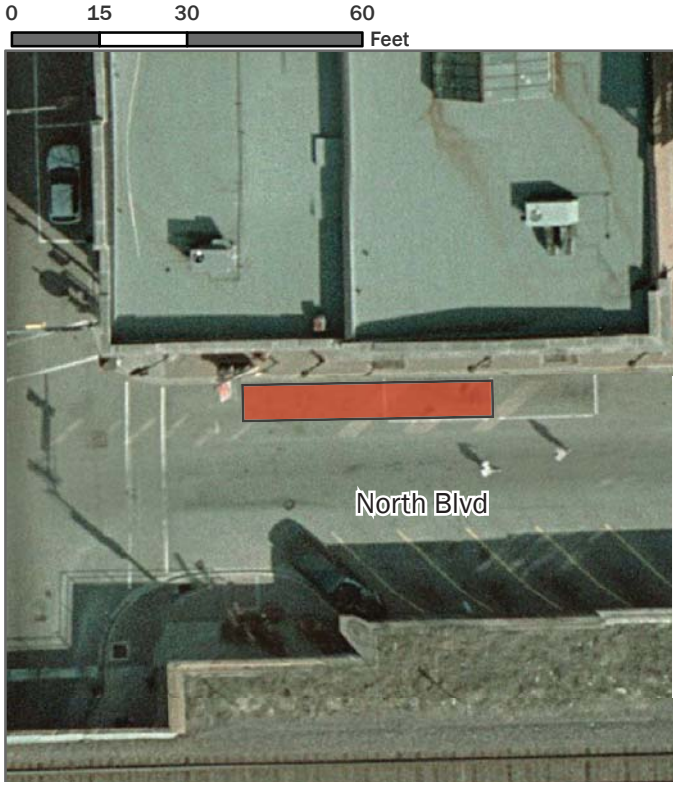
Station Placement

Alternative Station Placement

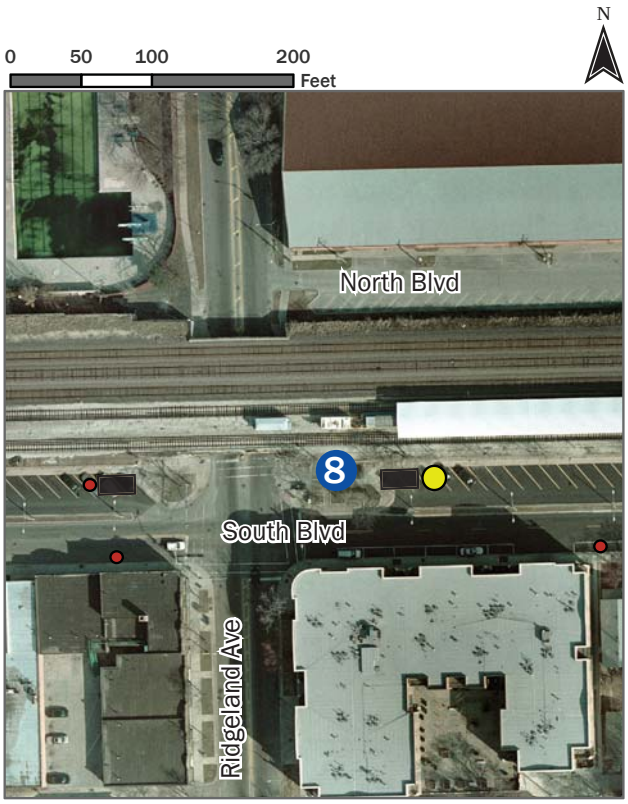
OAK PARK GREEN LINE OVERVIEW

The Oak Park Green Line station is another popular station and received a high score in the demand analysis. Two locations are recommended to serve this destination. The preferred location is near the northwest corner of South Boulevard and Oak Park Avenue. This spot offers easy access to the station and is adjacent to a heavily used covered bike parking facility. The second location on North Boulevard would require users to cross the street to access the station, but it provides additional access to the commercial properties north of the station. Both sites would require the removal of parking spaces.





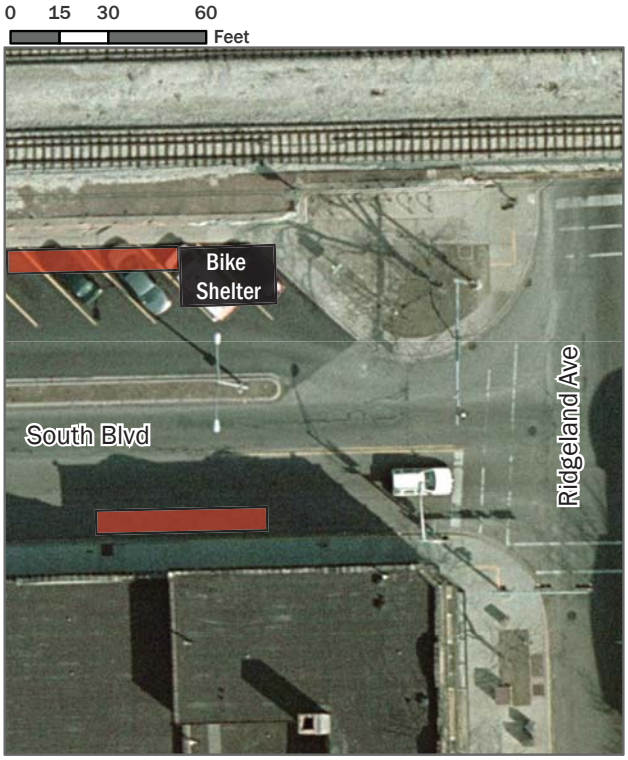
Bike Share Station Siting: Ridgeland Green Line

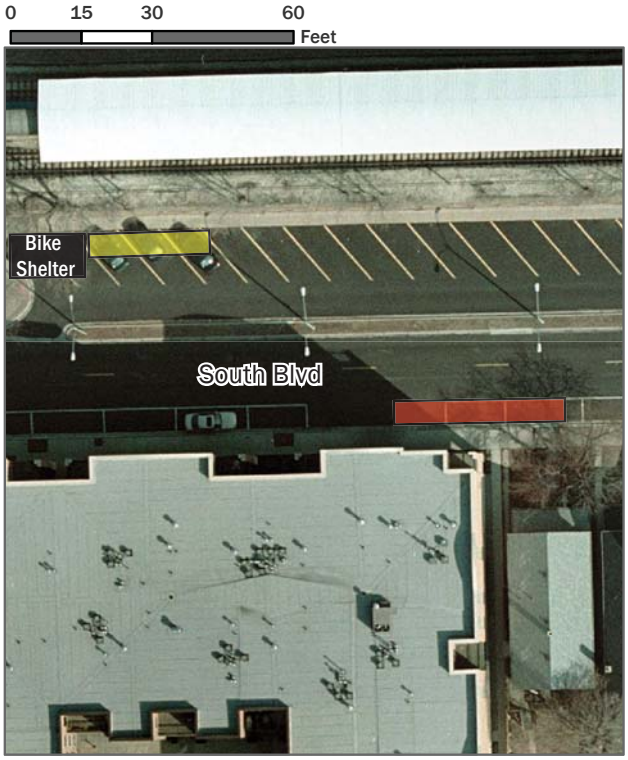


Ridgeland Green Line
Recommended Site
Alternative Site
Station Placement
Alternative Station Placement

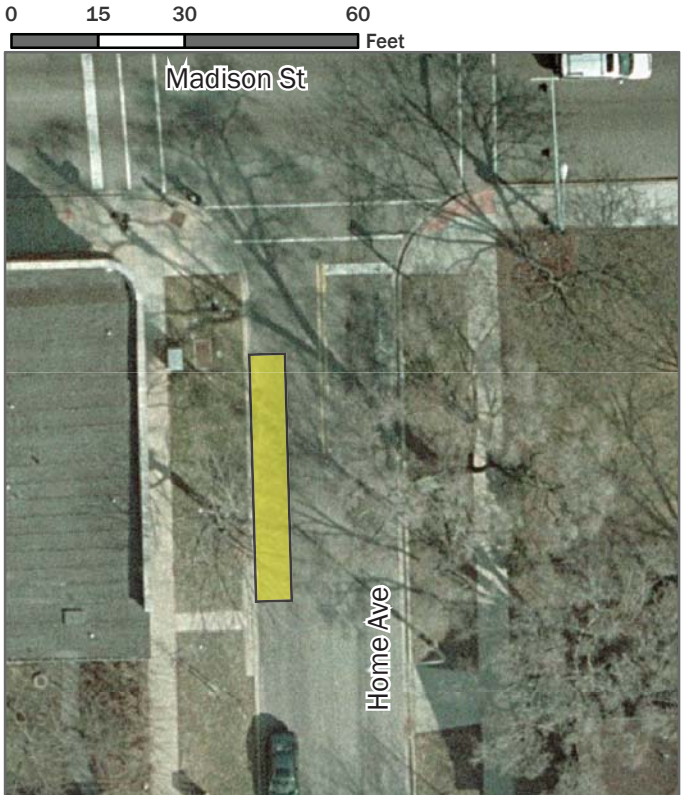
RIDGELAND GREEN LINE STATION OVERVIEW

The Ridgeland Green Line Station is another popular transit destination and offers access to high density housing and the Village's Public Works Department. Several alternatives were identified for this location. The preferred location is near the northeast corner of South Boulevard and Ridgeland Avenue in the parking spot. In this location, three off-street parking spots will need to be removed to place the station. A second location was identified in the parking lot on the northwest side of South Boulevard and Ridgeland Avenue. This location would also require off-street parking removal. Two final locations across the street from the station were identified. These sites would require the removal of several on-street spaces.





Bike Share Station Siting: Home and Madison



9 Home & Madison

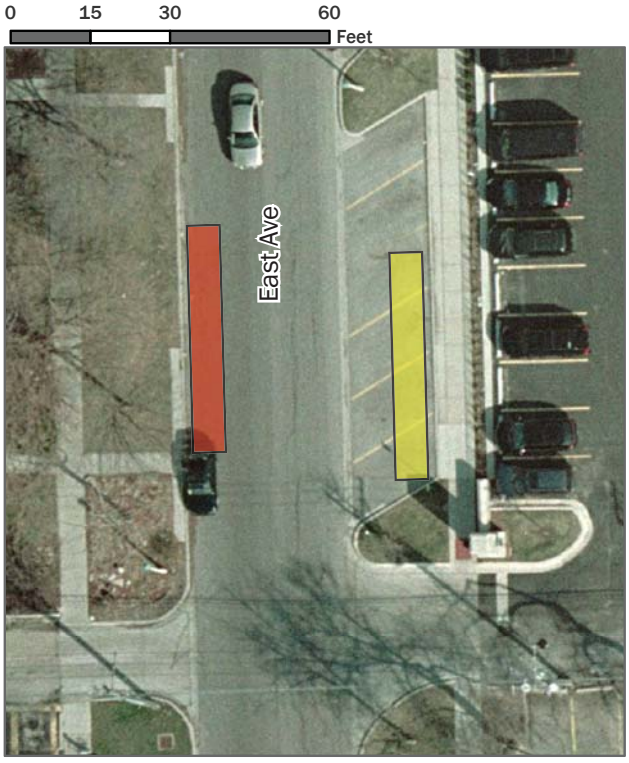
Recommended Site

Station Placement

HOME AND MADISON OVERVIEW

The intersection of Home Avenue and Madison Street received a medium score in the demand analysis, but was selected due to its proximity to retail. It also helps to fill in a gap in the proposed bike share network. One site was identified as an ideal station location - the southwest corner of Home Avenue at Madison Street. This on-street location would have the added benefit of calming traffic that is entering the proposed Home/Forest Neighborhood Greenways.

Bike Share Station Siting: Fenwick High School



10 Fenwick High School

Recommended Site

Alternative Site

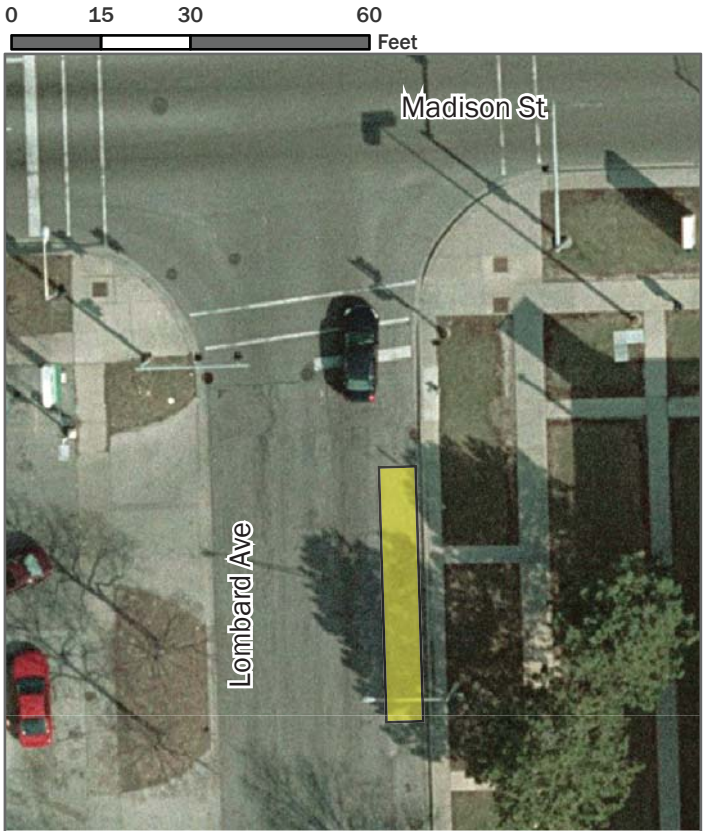
Station Placement

Alternative Station Placement

FENWICK HIGH SCHOOL OVERVIEW

Fenwick High School receives a medium-low to medium score in the demand analysis, but provides an additional north/south linkage in the proposed bike share network. Two site alternatives were identified. The recommended site is on East Avenue adjacent to Fenwick High School's parking lot. This location will require the removal of off-street parking spaces and may not be feasible as a result. A second location requiring the removal of on-street parking on East Avenue was identified and is situated directly across from the preferred site.

Bike Share Station Siting: Village Hall



11 Village Hall

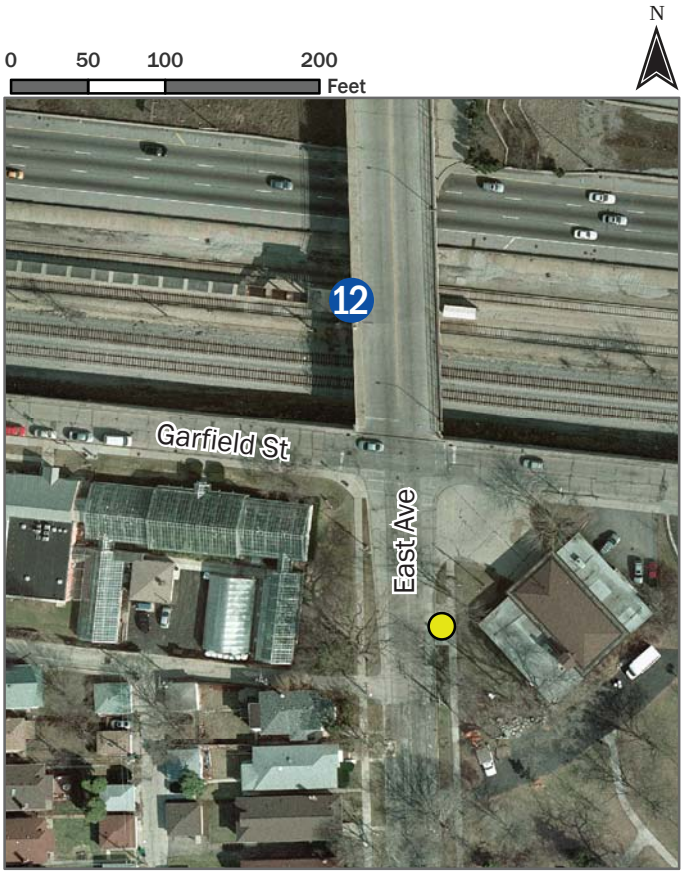
Recommended Site

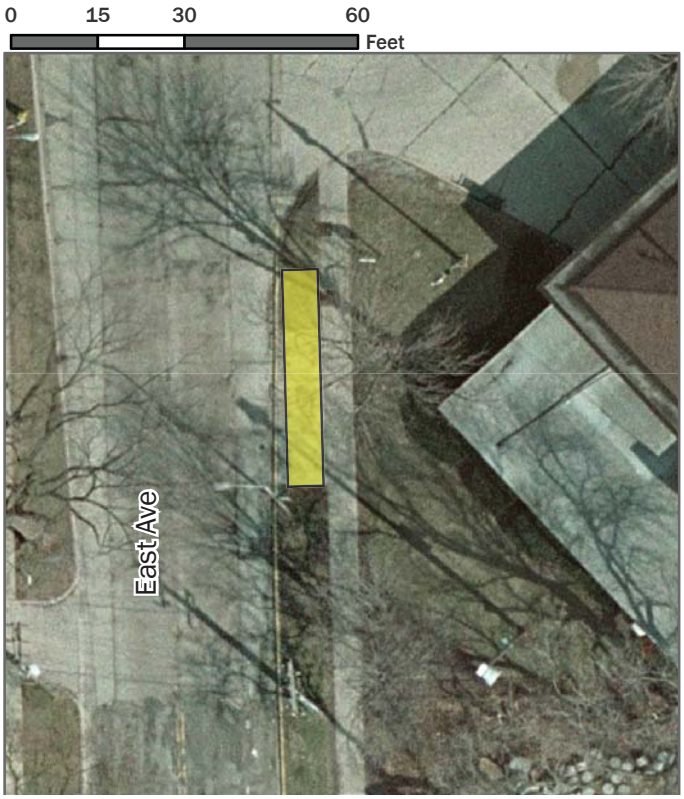
Station Placement

VILLAGE HALL OVERVIEW

Oak Park Village Hall is a major employer and destination for residents. It received a medium-low to medium score on the demand analysis, but also helps to provide better linkages throughout the network. One station location is recommended on the east side of Lombard Street south of Madison Street.

Bike Share Station Siting: Oak Park Blue Line East





12 Oak Park Blue Line

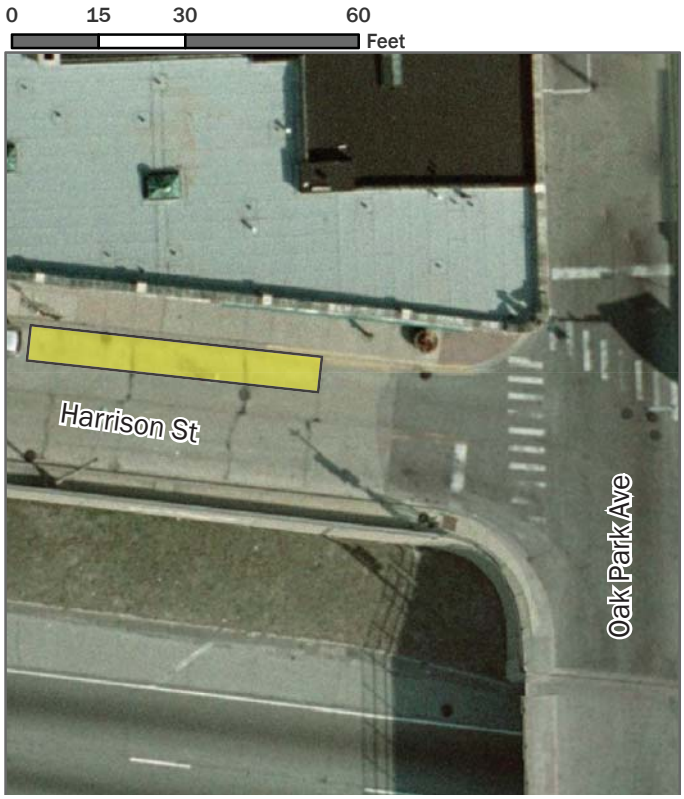
Recommended Site

Station Placement

OAK PARK BLUE LINE EAST OVERVIEW

The Oak Park Blue Line station gives bike share access to residents on the south side of Oak Park and provides a new "transit" connection between Blue and Green Line stations. One site is recommended for this location on the east side of East Avenue, south of Garfield Street. The recommended location is located off street, adjacent to Rehm Park. Bike racks are currently located in this spot, but may be moved to accommodate a docking station. Coordination may be required with the Park District of Oak Park for this site.

Bike Share Station Siting: Oak Park Blue Line West



12 Oak Park Blue Line

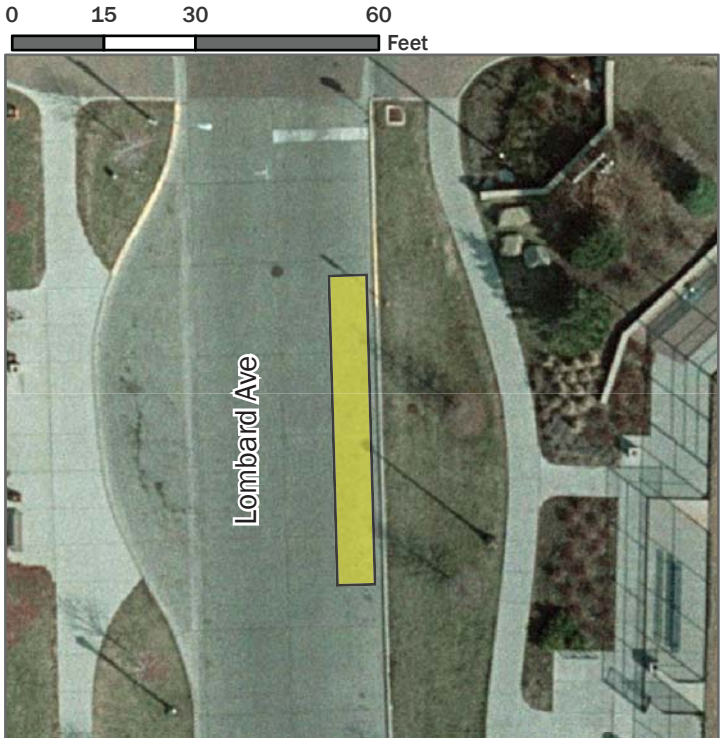
Recommended Site

Station Placement

OAK PARK BLUE LINE WEST OVERVIEW

A second Blue Line location is recommended on the North side of Harrison Street, west of Oak Park Avenue. This side provides access to the Southtown Business District, but would require users to walk about a half block to access the Blue Line Station. The location recommended for this destination is on street, and would require the removal of parking spaces.

Bike Share Station Siting: Austin Blue Line



3 Austin Blue Line

Recommended Site

Station Placement

AUSTIN BLUE LINE OVERVIEW

A docking station adjacent to the Austin Blue Line would serve Blue Line users on the east side of the Village and provide an opportunity to connect to Chicago's planned bike share stations in Austin. The recommended station location is on the east side of Lombard Avenue, south of Garfield Avenue. The site is on street and adjacent to Barrie Park.

IMPLEMENTATION

The recommendations in this plan were created based on best practices and available data. Upon implementation of the system, the Village of Oak Park should evaluate station placement and use and determine whether or not the bike share system is serving the greatest number of users. User surveys, evaluation of user data, and observations of stations should be employed to help the Village refine its system. Results from these analyses may indicate that stations should be adjusted, relocated, or that additional stations should be added in future phases.

INTRODUCING THE SYSTEM

Publicize the program and encourage and sustain more Divvy members by recreating the Design a Divvy program in Oak Park: The City of Chicago previously held a competition in which Divvy users could download a fender template and create a design that captured what best represented the community. Oak Park could recreate this program to build momentum and community branding.

Use social media to create a buzz: Prior to installation of the first station in the Village, publicity materials should be prepared for social media. Coordinate with Divvy to include information about the Oak Park expansion on their website, which will be the first central place people will search. A secondary source should be the Village's website.

Gain media attention to spread Divvy information: Local papers are great at covering the opening of local businesses and other community assets in the Village. Coordinate with journalists on stories about the opening of the bike share system. Perhaps have key stakeholders interviewed, such as village employees working on the system or business owners sponsoring the system.

Launch a bike share membership drive: Upon hearing about Divvy's expansion to Oak Park, many members of the community will be interested in signing up. Holding this drive about two months in advance of the system launch will help create a successful opening day. The Village should use community events, media, and social media to promote membership.

SUPPORTING THE SYSTEM

Encourage local businesses and business districts to sponsor a Divvy station. Bike share stations generate additional economic activity for local businesses. It was estimated that $150,000 extra was spent at businesses around the Twin Cities' Nice Ride bike share stations during the season that bikes are available, April through November. And in Chicago, 80% of Divvy Members were "somewhat more likely" or "more likely" to patronize businesses near Divvy stations. Businesses or business districts sponsoring Divvy stations can have stations sited in close proximity. At a minimum, these sponsorship agreements should cover the cost of installation, operation, and maintenance of the station. This can be determined by categorizing the stations into different phases of sponsorship level.

The Village may also want to consider placing business logos on Divvy bikes if a minimum sponsorship goal is met. The location of branding on the station should also be standardized and coordinated with sponsor branding location in Chicago.

DEVELOPING A BUSINESS MODEL AND COORDINATION

Create a committee to see the plan through: Oak Park is set apart from many other suburban communities with a unique asset: strong and extensive community involvement. Community meetings in Oak Park are heavily attended and there are almost twenty citizen commissions that residents can apply to be a part of, such as the Farmers' Market, Disability Access, and Community Design commissions. Create either a new bike share commission or a subcommittee within the transportation commission. Recruit people familiar with the planning work to be a part of this group, but also encourage newcomers with fresh ideas and excitement for implementation to join. This group can help execute many of the implementation recommendations in this plan and be ambassadors for the program. It is important that the people chosen for this committee are local champions for the bike share system and spread the word.

The Village can also work with other organizations to co-promote the expanded bike share program, such as local schools, the library, Frank Lloyd Wright Historic District, etc.

Partnerships with other organizations should be established early with roles clearly defined.

Divvy already has a relationship with CTA from working in Chicago. The Village should join the table in conversations and planning decisions made with Pace as new connections to this transit provider are explored.

LAUNCHING THE SYSTEM

According to the Bike Share Planning Guide by ITDP, customer service should be available at the stations during the launch to help with any issues or to guide newcomers on how to use the system. Divvy personnel can also be available to sign those interested up for annual Divvy memberships. The launch should also include local people of note and city officials to make it a celebration that garners notoriety. Host ribbon cutting ceremonies with elected officials and stakeholders at station launches. The launches could also include social rides.

Involve Divvy in co-promotion opportunities in Oak Park, before and after the station launches. This could involve having a Divvy table at events such as the Oak Park Farmers Market, Frank Lloyd Wright Race Marathon, Oaktoberfest, and Thursday Nights Out in Oak Park. Coordinate with Divvy to give people free half hour/day passes to test the system. Tabling at these events could also be another potential opportunity to survey current and potential users on where they would like to bike while using the Divvy system and their general observations.

Encourage local businesses to provide discounts to patrons who either show a Divvy card or helmet. Refer users who may be interested in longer term rentals or buying a bike to local shops such as Green Line Wheels. Ask these shops to also include Divvy materials at the counter or a table near the entrance.

Coordinate with business districts in Oak Park, such as Downtown Oak Park, Hemingway District, and the Harrison Arts District, to create a business district map highlighting the Divvy station locations in relation to other key destinations such as the Hemingway Museum, Oak Park River Forest High School, and the Frank Lloyd Wright Home and Studio. This will help users to understand how the stations connect key destinations in the community.

ASSESSING THE SYSTEM

Divvy collects data on station usage, bike usage, and riders. Oak Park should use these data to better understand the needs of users and system use. The Village may also want to survey Oak Park Divvy members to improve upon existing stations and identify new locations for stations.

The methodology for modeling station siting locations can be used and updated over time to further inform the effectiveness of Oak Park's Divvy system.

ONGOING CONSIDERATIONS

Continually communicate with the City of Chicago to stay abreast of the siting of Divvy stations in adjacent neighborhoods, such as Austin.

Engage residents in an ongoing dialogue by encouraging Oak Park users to visit the existing Divvy webpage to suggest new stations or provide other comments. This will help create the most usable network in the future.

Develop a planning mechanism to incentivize developers to site bike share stations. In Arlington, Virginia, developers can site bike share stations on their developments to mitigate traffic impacts and reduce parking requirements. This or other models may be successful in Oak Park.

Work with the tourist market in Oak Park. Coordinate updated bike share informational materials for visitors at key tourist destinations such as the Oak Park Visitors Bureau, museums, and hotels. Emphasize the ease with which visitors can obtain a 24 hour pass.

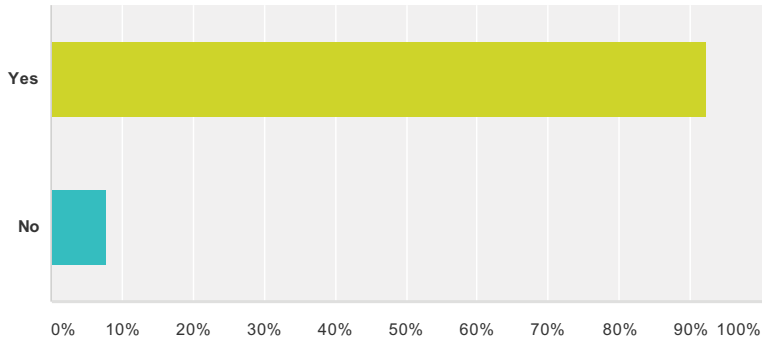
APPENDIX

Table of Contents

Oak Park Bicycle Boulevard and Bike Share Study

Q1 Do you currently own a bicycle?

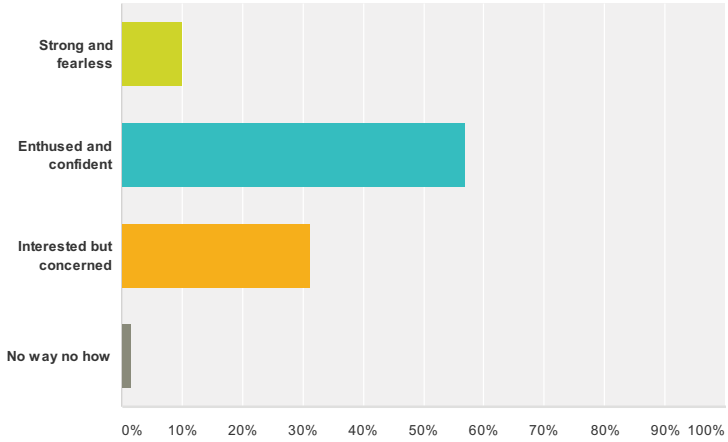
Answered: 230 Skipped: 2



Answer Choices	Responses
Yes	92.17%
No	7.83%
Total	

Q2 What type of cyclist would you consider yourself to be?

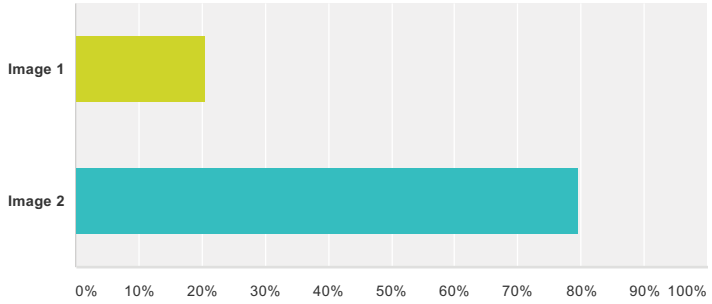
Answered: 230 Skipped: 2



Answer Choices	Responses	
Strong and fearless	**10.00%**	23
Enthused and confident	**56.96%**	131
Interested but concerned	**31.30%**	72
No way no how	**1.74%**	4
Total		**230**

Q3 Look at Image 1 and Image 2 (below). Which street would you feel more comfortable biking on?

Answered: 229 Skipped: 3



Answer Choices	Responses	
Image 1	**20.52%**	47
Image 2	**79.48%**	182
Total		**229**

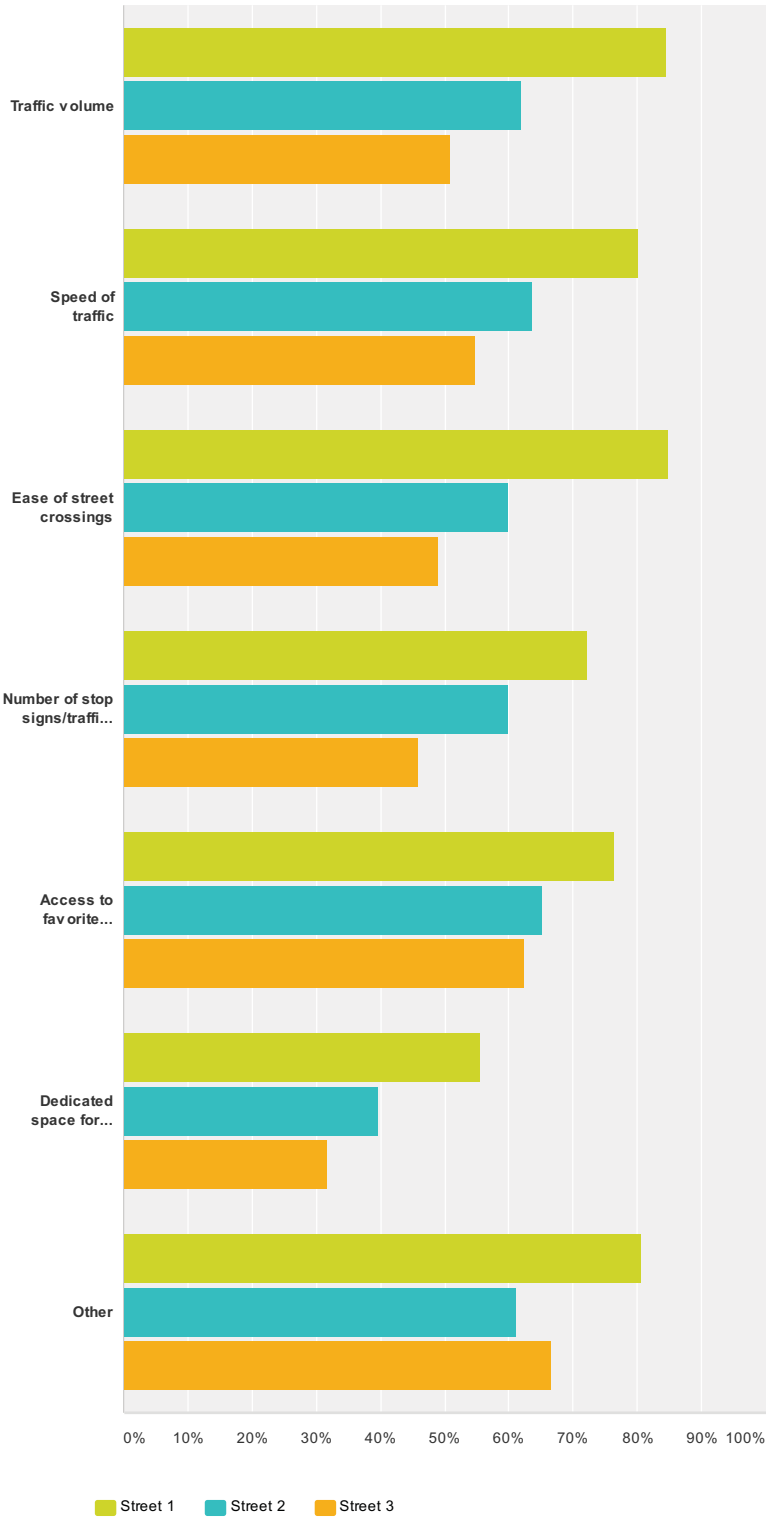
Q4 Name your three favorite streets to ride on in Oak Park.

Answered: 189 Skipped: 43

Answer Choices	Responses	
1.	100.00%	189
2.	94.18%	178
3.	92.06%	174

Q5 What do you enjoy about riding on each of your favorite streets listed in question 5? Please select all that apply.

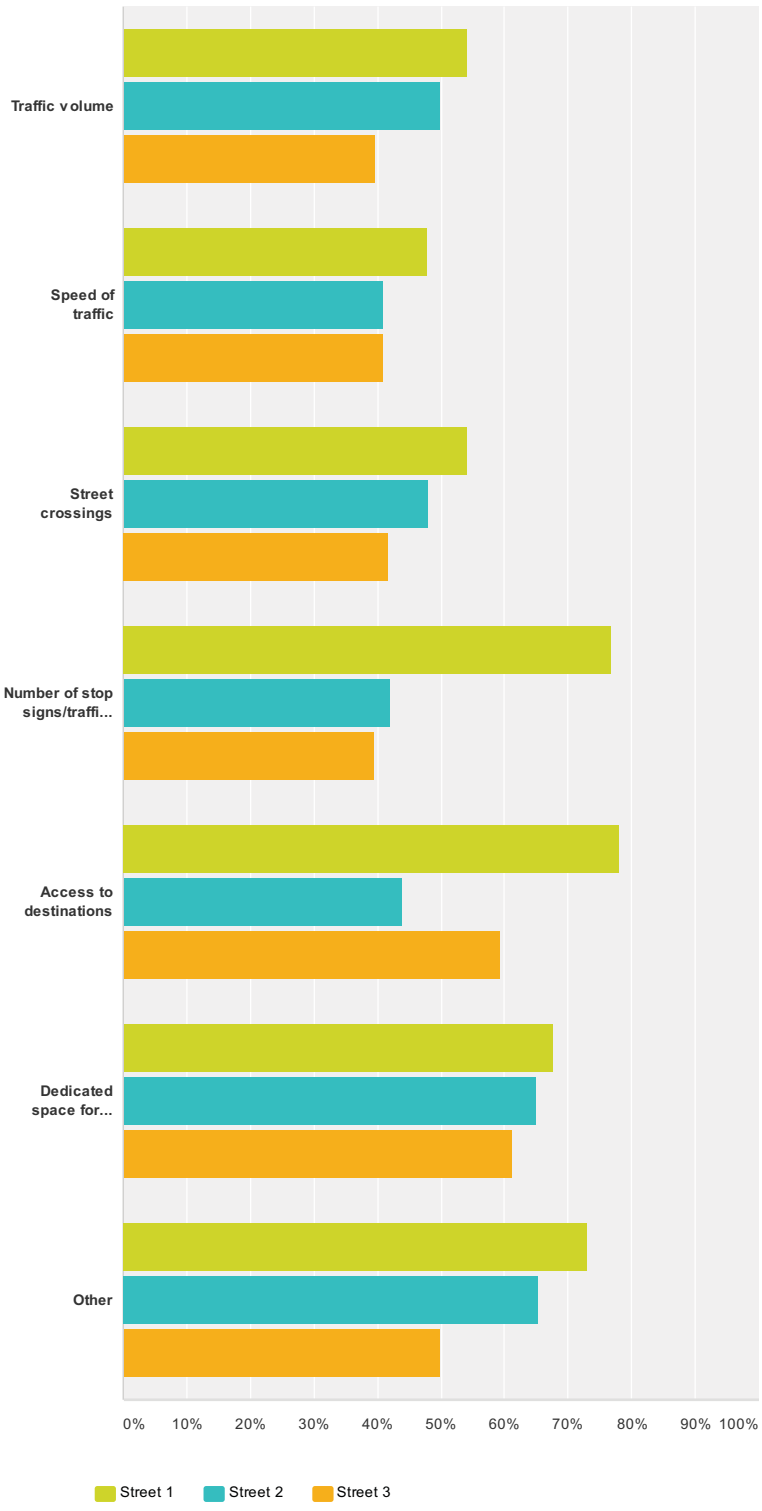
Answered: 192 Skipped: 40



Traffic volume	**84.52%** 131	**61.94%** 96	**50.97%** 79	155
Speed of traffic	**80.14%** 117	**63.70%** 93	**54.79%** 80	146
Ease of street crossings	**84.83%** 123	**60.00%** 87	**48.97%** 71	145
Number of stop signs/traffic signals	**72.13%** 88	**59.84%** 73	**45.90%** 56	122
Access to favorite destinations	**76.51%** 114	**65.10%** 97	**62.42%** 93	149
Dedicated space for bicycles	**55.56%** 35	**39.68%** 25	**31.75%** 20	63
Other	**80.56%** 29	**61.11%** 22	**66.67%** 24	36

Q6 What would you change about riding on your each of your favorite streets? Please select all that apply.

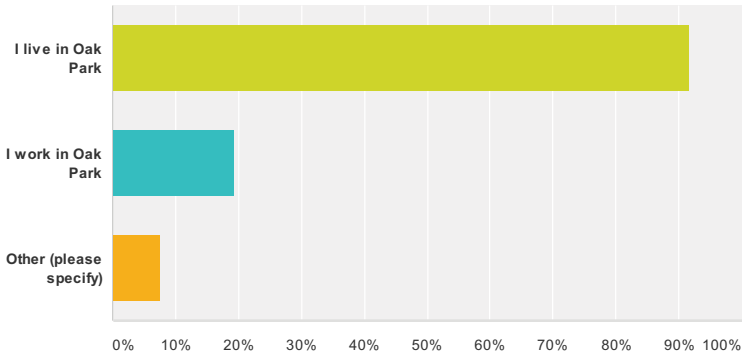
Answered: 162 Skipped: 70



Traffic volume	**54.17%** 26	**50.00%** 24	**39.58%** 19	48
Speed of traffic	**47.73%** 21	**40.91%** 18	**40.91%** 18	44
Street crossings	**54.17%** 26	**47.92%** 23	**41.67%** 20	48
Number of stop signs/traffic signals	**76.74%** 33	**41.86%** 18	**39.53%** 17	43
Access to destinations	**78.13%** 25	**43.75%** 14	**59.38%** 19	32
Dedicated space for bicycles	**67.57%** 75	**64.86%** 72	**61.26%** 68	111
Other	**73.08%** 19	**65.38%** 17	**50.00%** 13	26

Q7 What is your connection to Oak Park? Please select all that apply.

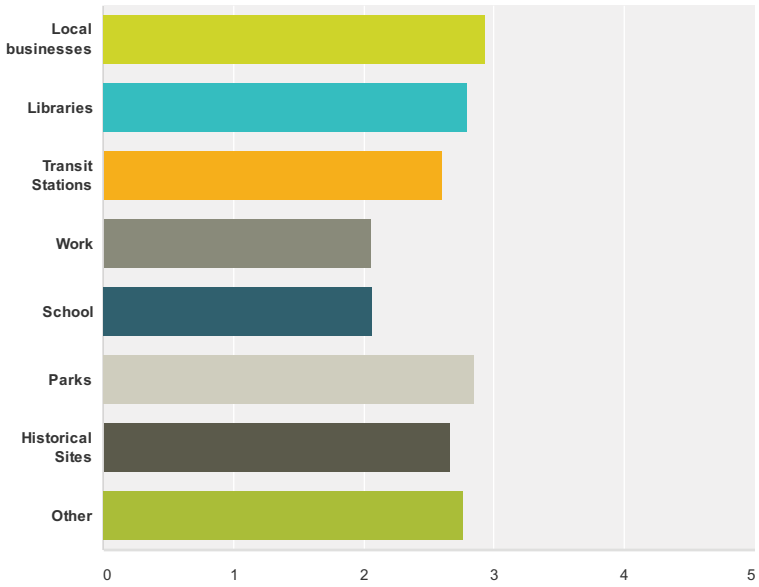
Answered: 227 Skipped: 5



Answer Choices	Responses	
I live in Oak Park	**91.63%**	208
I work in Oak Park	**19.38%**	44
Other (please specify)	**7.49%**	17
Total Respondents: 227		

Q8 What destinations in Oak Park would you like to visit by bicycle?

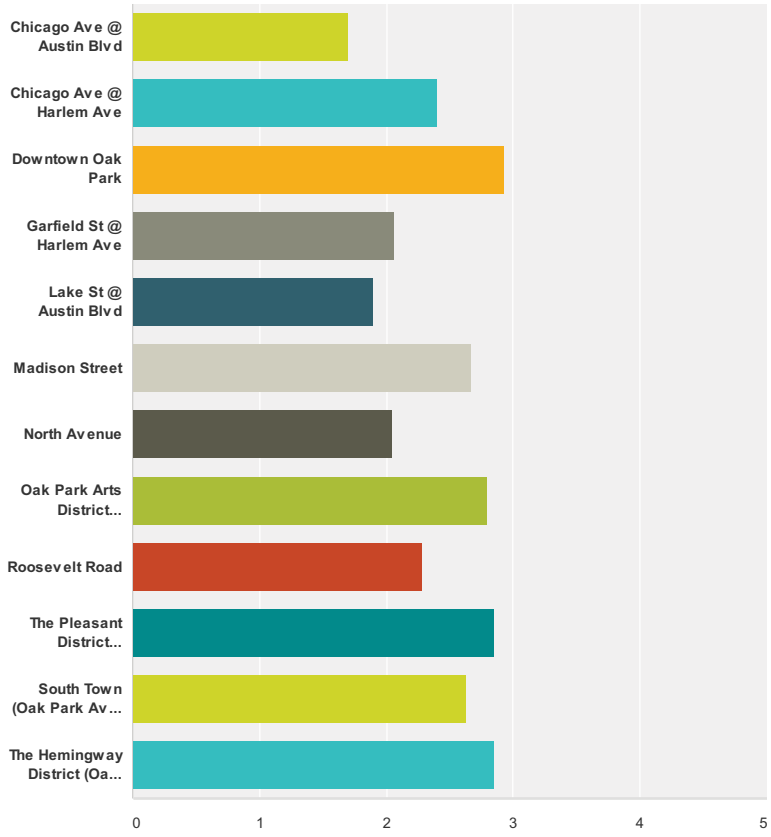
Answered: 212 Skipped: 20



	Yes	Maybe	No	Total	Average Rating
Local businesses	**94.29%** 198	**4.76%** 10	**0.95%** 2	210	2.93
Libraries	**84.47%** 174	**10.68%** 22	**4.85%** 10	206	2.80
Transit Stations	**71.73%** 137	**16.75%** 32	**11.52%** 22	191	2.60
Work	**47.50%** 76	**11.25%** 18	**41.25%** 66	160	2.06
School	**46.63%** 76	**14.11%** 23	**39.26%** 64	163	2.07
Parks	**87.13%** 176	**10.40%** 21	**2.48%** 5	202	2.85
Historical Sites	**69.66%** 124	**26.97%** 48	**3.37%** 6	178	2.66
Other	**86.05%** 37	**4.65%** 2	**9.30%** 4	43	2.77

Q9 Which Oak Park business districts, if any, would you likely visit by bicycle?

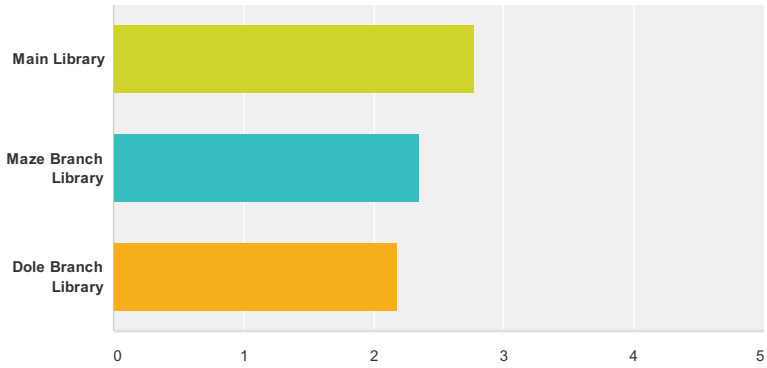
Answered: 213 Skipped: 19



	Yes	Maybe	No	Total	Average Rating
Chicago Ave @ Austin Blvd	25.00% 41	20.12% 33	54.88% 90	164	1.70
Chicago Ave @ Harlem Ave	55.80% 101	28.73% 52	15.47% 28	181	2.40
Downtown Oak Park	94.63% 194	3.90% 8	1.46% 3	205	2.93
Garfield St @ Harlem Ave	34.91% 59	36.69% 62	28.40% 48	169	2.07
Lake St @ Austin Blvd	31.79% 55	26.01% 45	42.20% 73	173	1.90
Madison Street	74.87% 140	17.11% 32	8.02% 15	187	2.67
North Avenue	34.50% 59	35.67% 61	29.82% 51	171	2.05
Oak Park Arts District (Harrison St @ Lombard Ave)	82.59% 166	14.93% 30	2.49% 5	201	2.80
Roosevelt Road	49.72% 90	29.83% 54	20.44% 37	181	2.29
The Pleasant District (Marion St @ Pleasant St)	87.31% 172	10.15% 20	2.54% 5	197	2.85
South Town (Oak Park Ave @ IKE)	71.20% 136	20.42% 39	8.38% 16	191	2.63
The Hemingway District (Oak Park Ave @ Lake St)	87.37% 173	10.10% 20	2.53% 5	198	2.85

Q10 Which Oak Park libraries, if any, would you like to visit by bicycle?

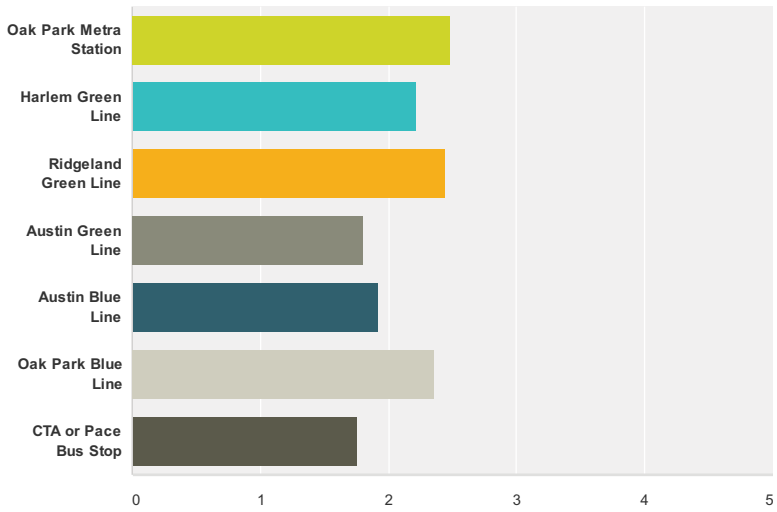
Answered: 210 Skipped: 22



	Yes	Maybe	No	Total	Average Rating
Main Library	**84.13%** 175	**9.62%** 20	**6.25%** 13	208	2.78
Maze Branch Library	**51.81%** 100	**31.61%** 61	**16.58%** 32	193	2.35
Dole Branch Library	**40.33%** 73	**37.57%** 68	**22.10%** 40	181	2.18

Q11 Which Oak Park transit stations and stops, if any, would you like to access on a bicycle?

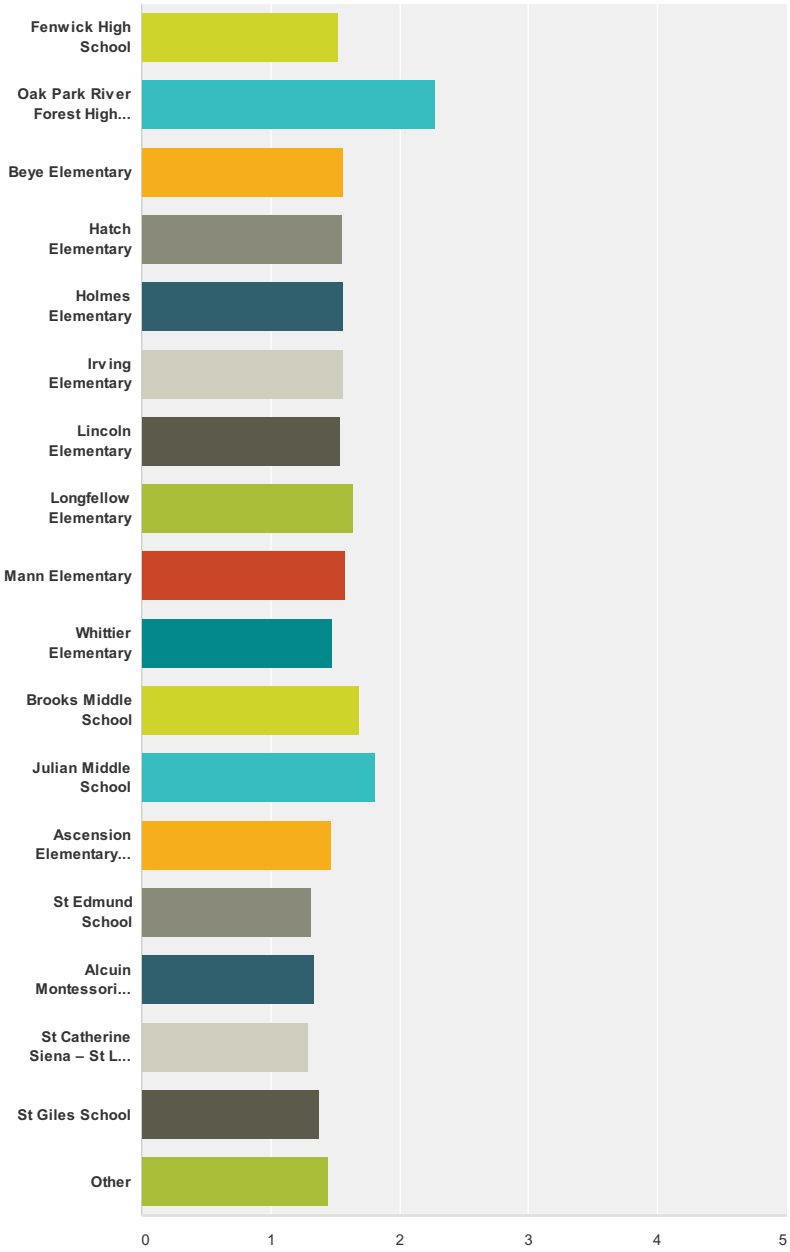
Answered: 205 Skipped: 27



	Yes	Maybe	No	Total	Average Rating
Oak Park Metra Station	**60.92%** 106	**26.44%** 46	**12.64%** 22	174	2.48
Harlem Green Line	**50.30%** 83	**20.61%** 34	**29.09%** 48	165	2.21
Ridgeland Green Line	**61.11%** 110	**22.22%** 40	**16.67%** 30	180	2.44
Austin Green Line	**33.12%** 52	**14.65%** 23	**52.23%** 82	157	1.81
Austin Blue Line	**39.38%** 63	**13.13%** 21	**47.50%** 76	160	1.92
Oak Park Blue Line	**56.74%** 101	**22.47%** 40	**20.79%** 37	178	2.36
CTA or Pace Bus Stop	**26.87%** 36	**21.64%** 29	**51.49%** 69	134	1.75

Q12 Which Oak Park schools, if any, would you like to visit by bicycle?

Answered: 172 Skipped: 60

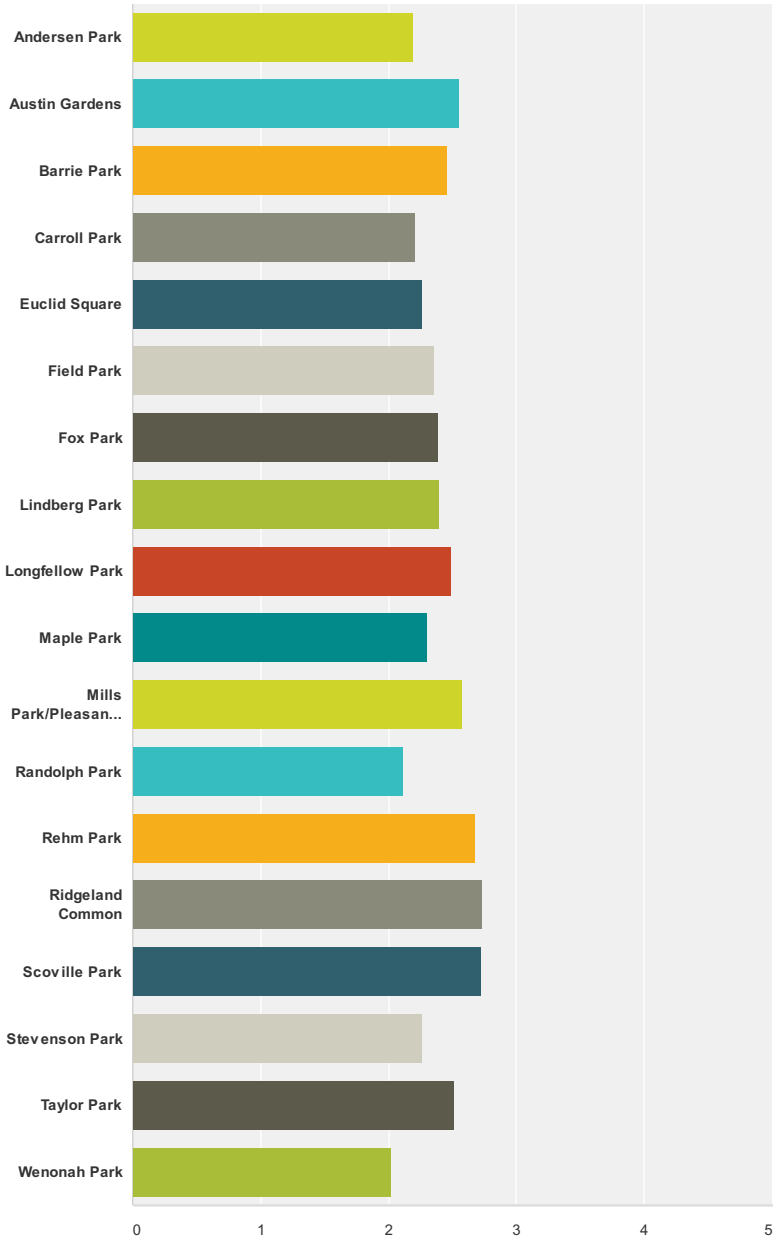


	Yes	Maybe	No	Total	Average Rating
Fenwick High School	**18.25%** 23	**15.08%** 19	**66.67%** 84	126	1.52
Oak Park River Forest High School	**58.28%** 95	**11.04%** 18	**30.67%** 50	163	2.28
Beye Elementary	**23.66%** 31	**9.92%** 13	**66.41%** 87	131	1.57
Hatch Elementary	**22.22%** 28	**11.11%** 14	**66.67%** 84	126	1.56
Holmes Elementary	**21.88%** 28	**13.28%** 17	**64.84%** 83	128	1.57

Irving Elementary	**20.80%** 26	**15.20%** 19	**64.00%** 80	125	1.57
Lincoln Elementary	**20.00%** 25	**15.20%** 19	**64.80%** 81	125	1.55
Longfellow Elementary	**24.41%** 31	**14.96%** 19	**60.63%** 77	127	1.64
Mann Elementary	**19.84%** 25	**18.25%** 23	**61.90%** 78	126	1.58
Whittier Elementary	**16.13%** 20	**16.13%** 20	**67.74%** 84	124	1.48
Brooks Middle School	**27.07%** 36	**15.04%** 20	**57.89%** 77	133	1.69
Julian Middle School	**35.29%** 48	**11.76%** 16	**52.94%** 72	136	1.82
Ascension Elementary School	**16.94%** 21	**12.90%** 16	**70.16%** 87	124	1.47
St Edmund School	**10.00%** 12	**11.67%** 14	**78.33%** 94	120	1.32
Alcuin Montessori School	**10.00%** 12	**14.17%** 17	**75.83%** 91	120	1.34
St Catherine Siena – St Lucy School	**7.56%** 9	**13.45%** 16	**78.99%** 94	119	1.29
St Giles School	**11.86%** 14	**14.41%** 17	**73.73%** 87	118	1.38
Other	**21.43%** 12	**1.79%** 1	**76.79%** 43	56	1.45

Q13 Which parks in Oak Park, if any, would you like to visit by bicycle?

Answered: 195 Skipped: 37



	Yes	Maybe	No	Total	Average Rating
Andersen Park	41.43% 58	36.43% 51	22.14% 31	140	2.19
Austin Gardens	66.67% 114	22.22% 38	11.11% 19	171	2.56
Barrie Park	59.48% 91	27.45% 42	13.07% 20	153	2.46
Carroll Park	42.14% 59	36.43% 51	21.43% 30	140	2.21
Euclid Square	46.04% 64	35.25% 49	18.71% 26	139	2.27

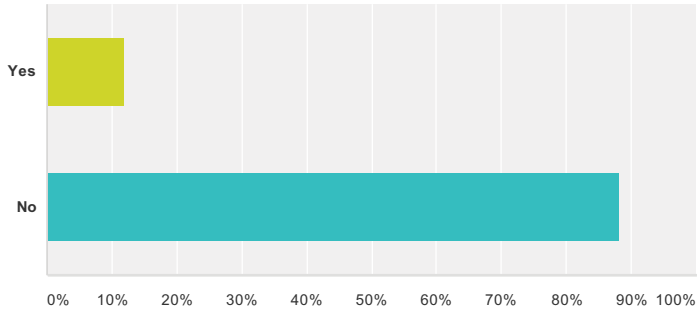
Field Park	**51.75%** 74	**32.17%** 46	**16.08%** 23	143	2.36
Fox Park	**54.17%** 78	**30.56%** 44	**15.28%** 22	144	2.39
Lindberg Park	**54.48%** 79	**31.03%** 45	**14.48%** 21	145	2.40
Longfellow Park	**60.54%** 89	**27.89%** 41	**11.56%** 17	147	2.49
Maple Park	**50.69%** 73	**29.86%** 43	**19.44%** 28	144	2.31
Mills Park/Pleasant Home	**67.53%** 104	**22.73%** 35	**9.74%** 15	154	2.58
Randolph Park	**36.64%** 48	**38.93%** 51	**24.43%** 32	131	2.12
Rehm Park	**76.51%** 127	**15.06%** 25	**8.43%** 14	166	2.68
Ridgeland Common	**80.47%** 136	**13.02%** 22	**6.51%** 11	169	2.74
Scoville Park	**79.17%** 133	**13.69%** 23	**7.14%** 12	168	2.72
Stevenson Park	**43.26%** 61	**39.01%** 55	**17.73%** 25	141	2.26
Taylor Park	**65.13%** 99	**21.71%** 33	**13.16%** 20	152	2.52
Wenonah Park	**32.03%** 41	**39.06%** 50	**28.91%** 37	128	2.03

Q14 Is there anything else you would like to share with us about bicycling in Oak Park?

Answered: 116 Skipped: 116

Q15 Are you currently a member of Chicago's Divvy Bike Share Program (https://divvybikes.com)?

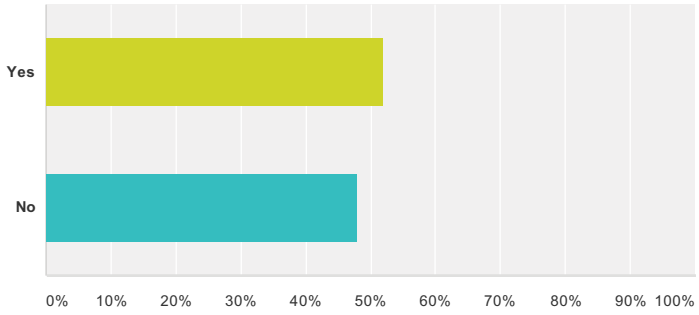
Answered: 209 Skipped: 23



Answer Choices	Responses	
Yes	11.96%	25
No	88.04%	184
Total		209

Q16 Would you sign up for bike share if it were availble in Oak Park?

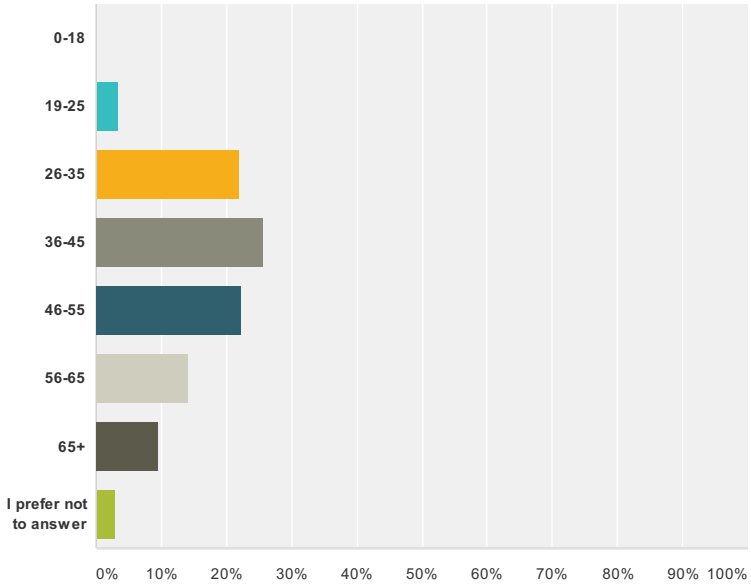
Answered: 206 Skipped: 26



Answer Choices	Responses	
Yes	**51.94%**	107
No	**48.06%**	99
Total		**206**

Q17 What is your age range?

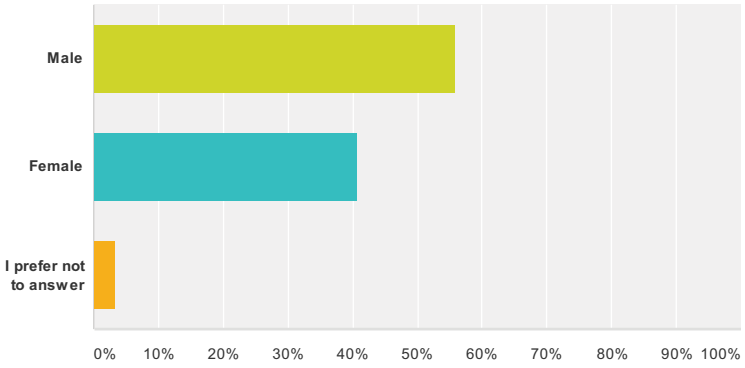
Answered: 210 Skipped: 22



Answer Choices	Responses	
0-18	0.00%	0
19-25	3.33%	7
26-35	21.90%	46
36-45	25.71%	54
46-55	22.38%	47
56-65	14.29%	30
65+	9.52%	20
I prefer not to answer	2.86%	6
Total		210

Q18 What is your gender?

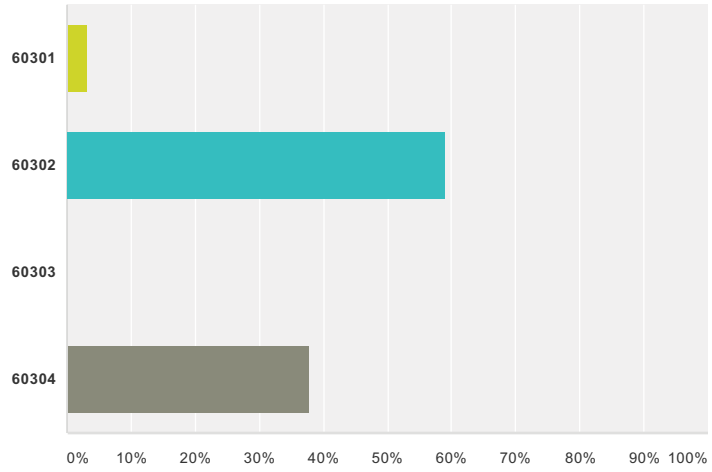
Answered: 209 Skipped: 23



Answer Choices	Responses	
Male	**55.98%**	117
Female	**40.67%**	85
I prefer not to answer	**3.35%**	7
Total		**209**

Q19 What is your home zip code?

Answered: 196 Skipped: 36



Answer Choices	Responses	
60301	**3.06%**	6
60302	**59.18%**	116
60303	**0.00%**	0
60304	**37.76%**	74
Total		**196**

Q20 If you would like to be kept up to date about the progress of the study, please provide your contact information below.

Answered: 83 Skipped: 149

Answer Choices	Responses	
Name:	91.57%	76
Company:	0.00%	0
Address:	85.54%	71
Address 2:	13.25%	11
City/Town:	85.54%	71
State:	89.16%	74
ZIP:	85.54%	71
Country:	0.00%	0
Email Address:	100.00%	83
Phone Number:	62.65%	52