Oak Park Bike Plan

2024 Update

DRAFT

Oak Park

CONTENTS

1 | EXECUTIVE SUMMARY

The Oak Park Bike Plan Update 2024 builds on the Village's foundational work over the past decade in creating a safer and more accessible community to bike. The Bike Plan Update serves as an update to previous bicycle planning efforts while setting out to achieve a welcoming network to support a continually growing bicycle culture.

PLAN OBJECTIVES

By bringing together perspectives from across the Oak Park community, this plan defines the Village's objectives for growing and maintaining a bicycle network today and into the future:

- This 2024 Bike Plan Update is the **next generation plan** for the Village. Oak Park is ready to start taking on more ambitious infrastructure to support a continually growing bicycle culture.
- This is an **All Ages and Abilities plan**, meaning we're focused on a network where old residents, young residents, and less-confident cyclists see bicycling as a safe and comfortable option.
- This plan aims to provide specific **infrastructure recommendations** with prioritized timelines and cost estimates to help guide implementation.
- This plan will surface **ambitious and creative ideas** for the community to give their feedback on.

ENGAGEMENT SUMMARY

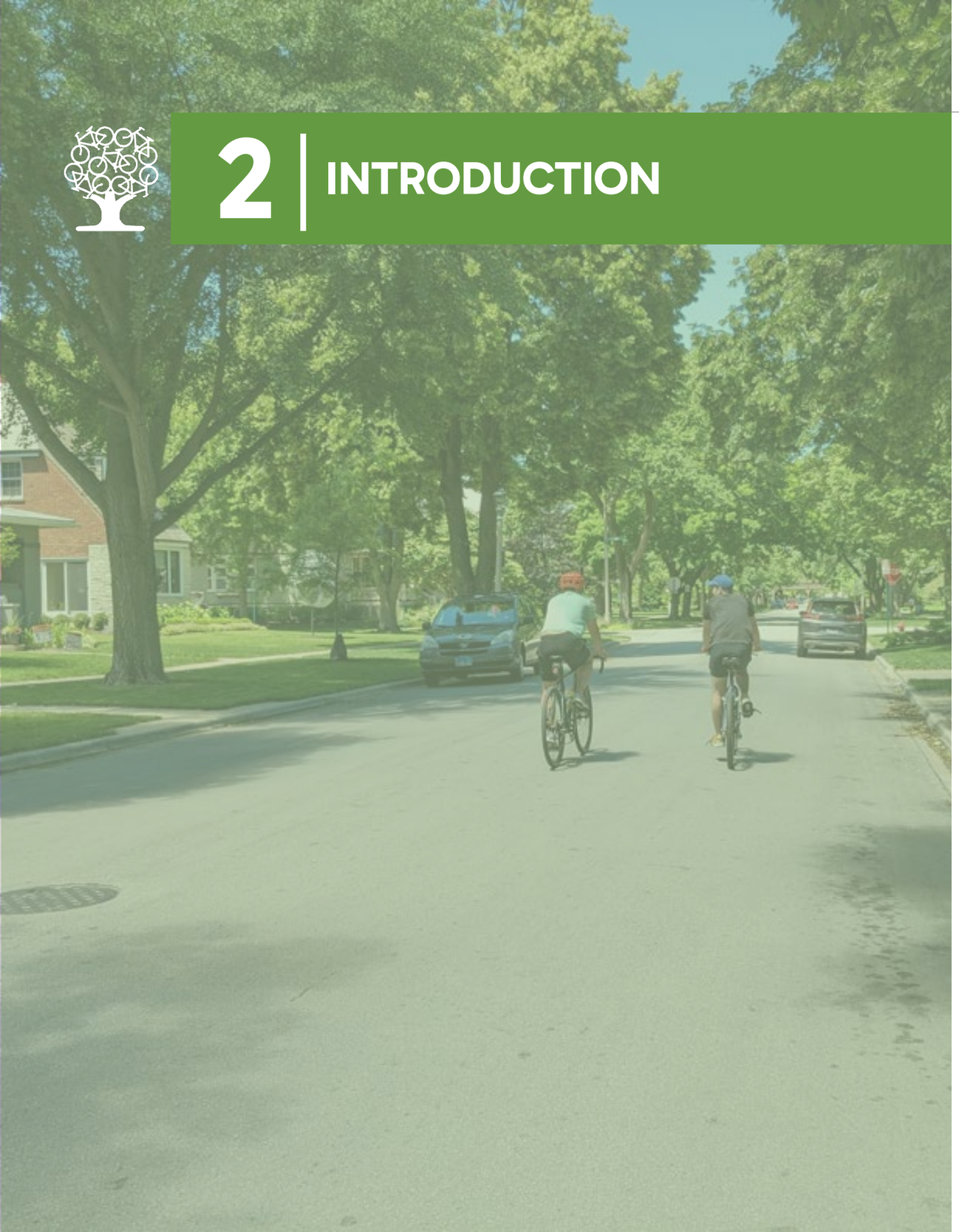
The Bike Plan Update network received input from community members, community groups, Village staff, and stakeholders to help us identify bike network updates. We heard a lot of feedback about the growing number of youth traveling by bike and the need to make bicycling safer for children in Oak Park. We consistently heard bike safety and traffic calming should be prioritized around schools and parks and that there is a strong desire for more bicycle infrastructure to improve the sense of safety and comfort, especially protected bike lanes. Additionally, it was highlighted that improvements are needed at intersections where neighborhood streets crossing major streets.

NETWORK UPDATES

The Bike Plan Update network recommendations detail actions along 20 corridors we will pursue over the coming years, with short-, mid-, and long-term timelines. To meet the plan's objectives, we must act on different scales – at the intersection, corridor, and Village-wide while considering regional connections. While this plan focuses on infrastructure, we will embrace a holistic approach. We must upgrade our infrastructure, test new street designs, and continue to support new policies and programs that promote a culture of safety.

BIKE SHARE ANALYSIS

Assessing the Oak Park Divvy ridership trends and the current state of the shared micromobilty industry, the Bike Plan Update provides initial information and recommendations intended to help the Village of Oak Park decide whether and how to pursue future bikeshare service in the Village.



2 | INTRODUCTION

PROJECT BACKGROUND, PROCESS, AND PURPOSE

The Oak Park Bike Plan Update 2024 builds on the Village's foundational work over the past decade in creating a safer and more accessible community to bike. Oak Park's first bicycle plan set the Village's first goals to increase bicycle use and cultivate a more bicycle-friendly community. Over the years, the Village has advanced its goals, pioneering a Neighborhood Greenway plan, installing bicycle infrastructure, and building a bicycle culture. This plan serves as an update to previous bicycle planning efforts while setting out to achieve a bike network welcome to people of all ages and abilities.

By analyzing various data, studying successful best practice, collaborating with stakeholders, and engaging with community members, Oak Park has created a **plan update that will guide the evolution of its bicycle network and system** for the next 20 years.

Oak Park's first comprehensive bike plan was published in 2008, followed by the 2015 Neighborhood Greenways plan. This 2024 Bike Plan Update is the **next generation plan** for the Village. Oak Park is ready to start taking on more ambitious infrastructure to support a continually growing bicycle culture. This is also not the last bike plan ever, but it lays out the next right steps for the Village.

This is an **all ages and abilities plan**, meaning we're focused on a network where older residents, younger residents, and less-confident bicyclists see bicycling as a safe and comfortable option. We've heard a lot about a growing number of children in Oak Park bicycling. This plan needs to establish streets and bikeways that are safe for children.

PLANNING PROCESS

Data Collection & Analysis

- Stakeholder Meetings & Focus Groups
- Online Engagement
- Transportation Commission Engagement

Draft Network Recommendations

- Draft Bike Share Study
- Community Open House
- Transportation Commission Engagement

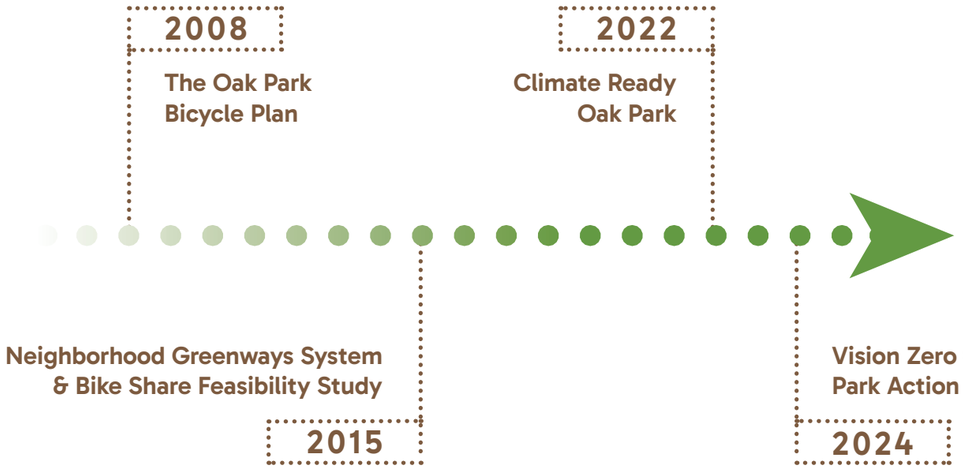
Draft Report

- Final Report
- Transportation Commission Engagement

EXISTING AND PAST PLANS REVIEW

The Village of Oak Park has a strong foundation of planning to build upon. Four relevant plans served as guideposts throughout the the 2024 Bike Plan Update planning process:

OVERVIEW OF PLANS



OAK PARK BICYCLE PLAN (2008)

The original Oak Park Bicycle Plan laid foundational goals to increase bicycle use and make Oak Park a more bicycle-friendly community. The plan envisioned a safe, accessible, and connected bikeway network that would ensure every resident and key destination are within two blocks of a designated east-west or north-south bikeway. The plan recommended bike lanes, shared lane markings, and bicycle boulevards tailored to the specific needs of each street while also planning for complementary infrastructure such as signage and bicycle parking.

The plan also set forth programmatic and educational campaigns, such as Safe Routes to School and Bike to Work Day, that would raise awareness and promote greater bicyclist safety. The robust series of network recommendations helped further a vibrant, multimodal transportation environment and set the stage for the current updates to the Village's growing bicycle culture.

OAK PARK NEIGHBORHOOD GREENWAYS SYSTEM STUDY & BIKESHARE FEASIBILITY STUDY (2015)

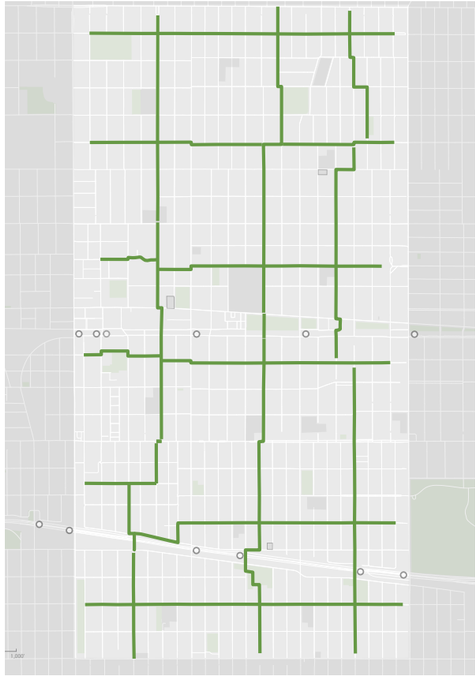
This study built on the progress of the 2008 Bicycle Plan by providing insights on how to create a family-friendly, inclusive, and sustainable bicycling environment in Oak Park. A centerpiece of the plan is the development of Neighborhood Greenways, a network of low-traffic, residential streets designed to prioritize bicycle travel and improve safety for cyclists of all ages and abilities. These greenways are intended to calm vehicular traffic, enhance street crossings, and provide seamless connections to key destinations like schools, transit hubs, and local businesses.

The study identified an initial series of east-west and north-south routes and a toolbox of infrastructure components that can help prioritize bike travel through the community. Separately, this study also explored the feasibility of implementing a bike share system in Oak Park by profiling key destinations, analyzing local demand, and considering criteria for future station siting.

CLIMATE READY OAK PARK (2022)

The Climate Ready Oak Park plan outlines a bold, long-term vision for achieving a net-zero greenhouse gas emissions community by 2050 while fostering resilience, equity, and environmental justice. Key commitments include reducing community-wide greenhouse gas emissions by 60% by 2030, achieving net-zero emissions by 2050, and allocating 40% of climate funding to the most vulnerable populations.

AT A GLANCE:
PROPOSED NEIGHBORHOOD GREENWAYS



The Climate Ready Oak Park plan emphasizes the critical importance of reducing transportation-related emissions, which account for 27% of the community' carbon footprint, and highlights bicycling as a key strategy to transition local trips and commutes to low-carbon, active modes. Supporting more biking in Oak Park can also enhance community resilience by improving air quality and promoting equitable mobility choices for all residents.

VISION ZERO OAK PARK ACTION PLAN (2024) NOT YET ADOPTED

This Action Plan commits the Village of Oak Park to eliminate fatalities and serious injuries from traffic crashes while creating safer, more connected, and more equitable streets for all. The plan prioritizes improvements along high-risk corridors by expanding traffic calming measures and creating more walkable and bikeable neighborhoods.

The plan highlights equity as a cornerstone of its approach to safer streets, acknowledging that Black and Hispanic or Latino community members are significantly more exposed to traffic violence than White residents. Additionally, bicyclists of any race are 12 times more likely to be involved in serious or fatal crashes than motorists – as a result, the plan centers people bicycling as vulnerable users that must be protected.

CURRENT CONDITIONS

The proposed network updates within this plan build off of the Village's existing bike network and carefully consider other roadway factors including but not limited to vehicle traffic volumes, emergency routes, and street jurisdiction. The following pages provide maps to reflect roadway factors.

EXISTING BICYCLE NETWORK

The existing bicycle network offers nearly ten miles of bikeways including four miles of bike lanes and one mile of protected bike lanes. There are several upcoming implementation plans for various types of bikeways that originated from previous planning efforts.

VEHICLE TRAFFIC VOLUMES

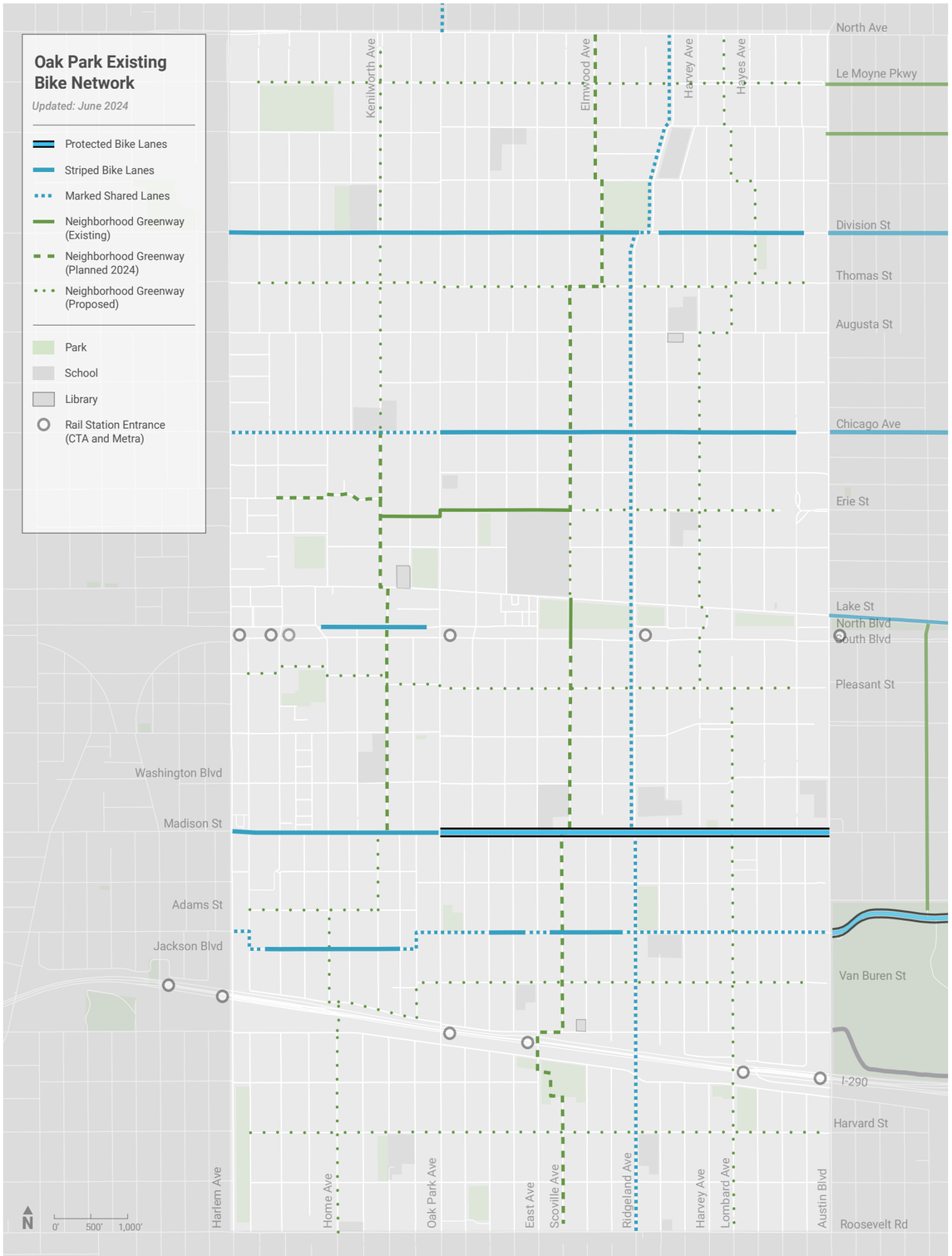
Vehicular traffic volumes impact a bicyclist's sense of safety and comfort. The average daily traffic volumes were evaluated in developing network recommendations, and guided where facilities should go and what type of facilities should be installed.

EMERGENCY ROUTING

Emergency and fire routes were reviewed to ensure recommendations do not restrict medium or high use routes.

JURISDICTION MAP

The majority of streets within Oak Park are owned by the Village with the exception of state-owned roads (North Avenue, Harlem Avenue, parts of Ridgeland Avenue, Washington Boulevard, and Roosevelt Road) and the east side of Austin Boulevard (shared with the City of Chicago). The jurisdiction map visualizes the routes managed by the Illinois Department of Transportation (IDOT). Improvements along streets not owned by the Village will require additional coordination and communication with the State or City of Chicago.


Oak Park Existing Bike Network
Updated: June 2024
Protected Bike Lanes
Striped Bike Lanes
Marked Shared Lanes
Neighborhood Greenway (Existing)
Neighborhood Greenway (Planned 2024)
Neighborhood Greenway (Proposed)
Park
School
Library
Rail Station Entrance (CTA and Metra)
North Ave
Le Moyne Pkwy
Division St
Thomas St
Augusta St
Chicago Ave
Erie St
Lake St
North Blvd
South Blvd
Pleasant St
Washington Blvd
Madison St
Adams St
Jackson Blvd
Van Buren St
I-290
Harvard St
Roosevelt Rd
Kenilworth Ave
Elmwood Ave
Harvey Ave
Hayes Ave
Harlem Ave
Home Ave
Oak Park Ave
East Ave
Scoville Ave
Ridgeland Ave
Lombard Ave
Austin Blvd
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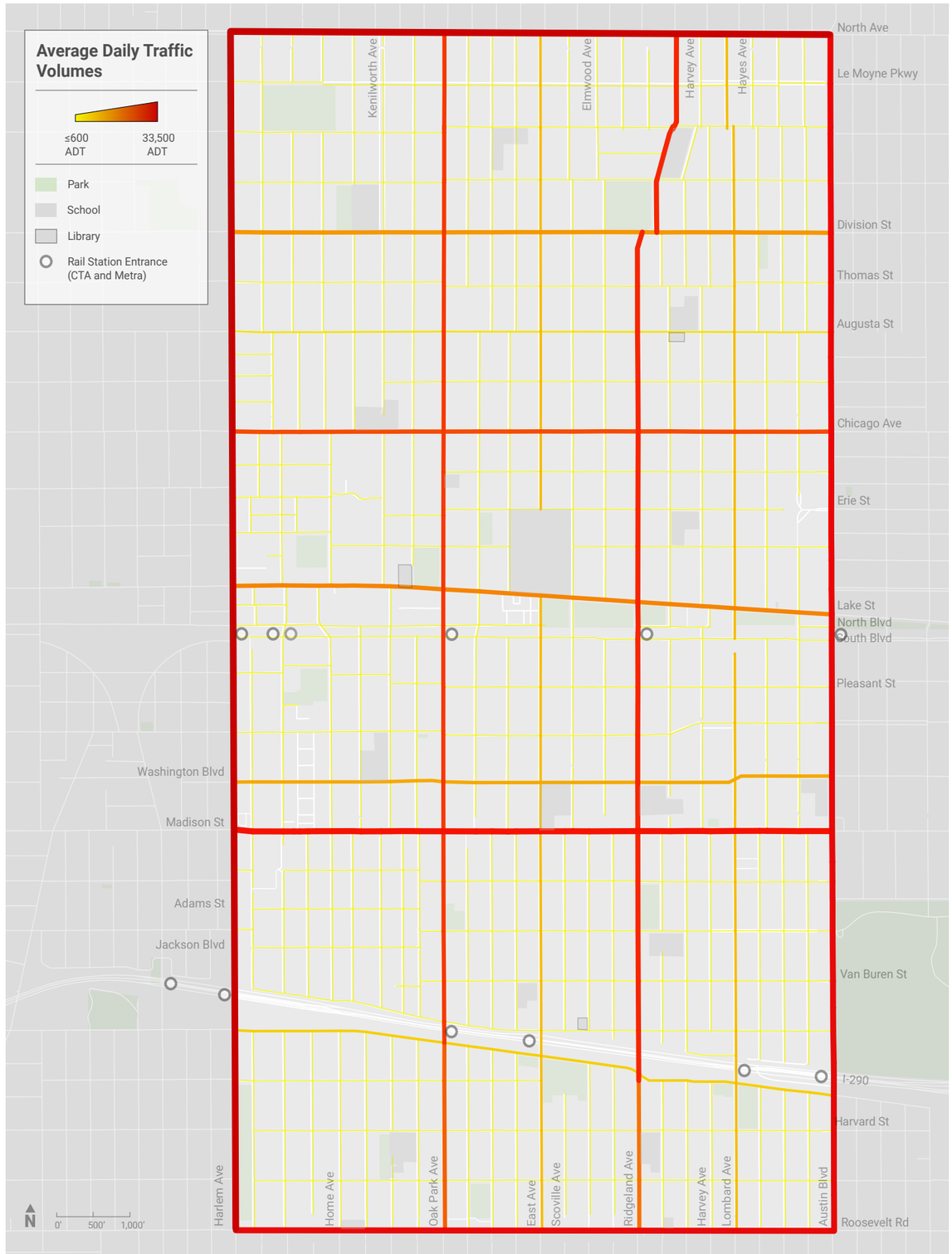
Average Daily Traffic Volumes
≤600 ADT
33,500 ADT
Park
School
Library
Rail Station Entrance (CTA and Metra)
North Ave
Le Moyne Pkwy
Division St
Thomas St
Augusta St
Chicago Ave
Erie St
Lake St
North Blvd
South Blvd
Pleasant St
Washington Blvd
Madison St
Adams St
Jackson Blvd
Van Buren St
I-290
Harvard St
Roosevelt Rd
Kenilworth Ave
Elmwood Ave
Harvey Ave
Hayes Ave
Harlem Ave
Home Ave
Oak Park Ave
East Ave
Scoville Ave
Ridgeland Ave
Lombard Ave
Austin Blvd
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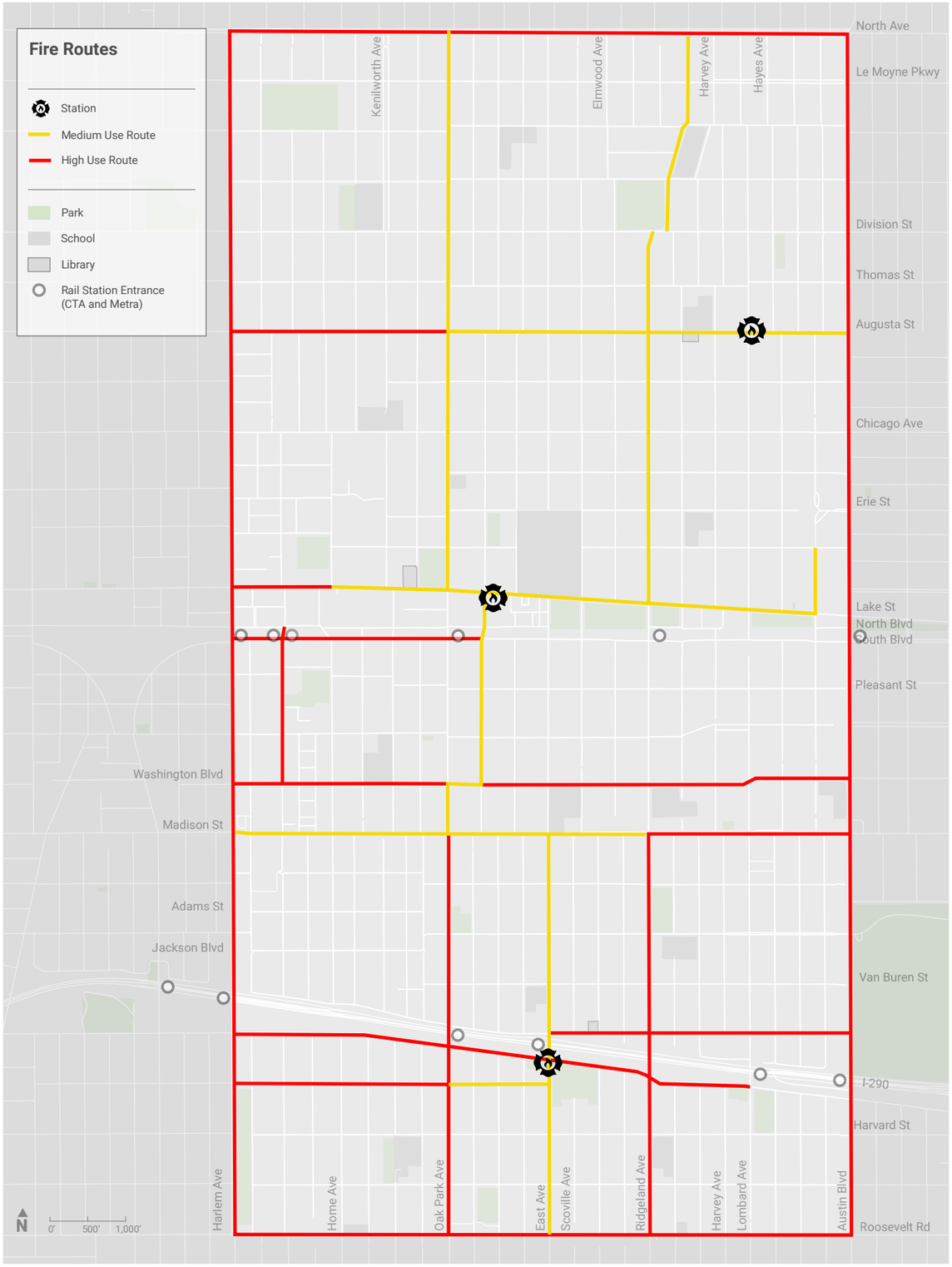
Fire Routes
Station
Medium Use Route
High Use Route
Park
School
Library
Rail Station Entrance (CTA and Metra)
North Ave
Le Moyne Pkwy
Division St
Thomas St
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Harvard St
Roosevelt Rd
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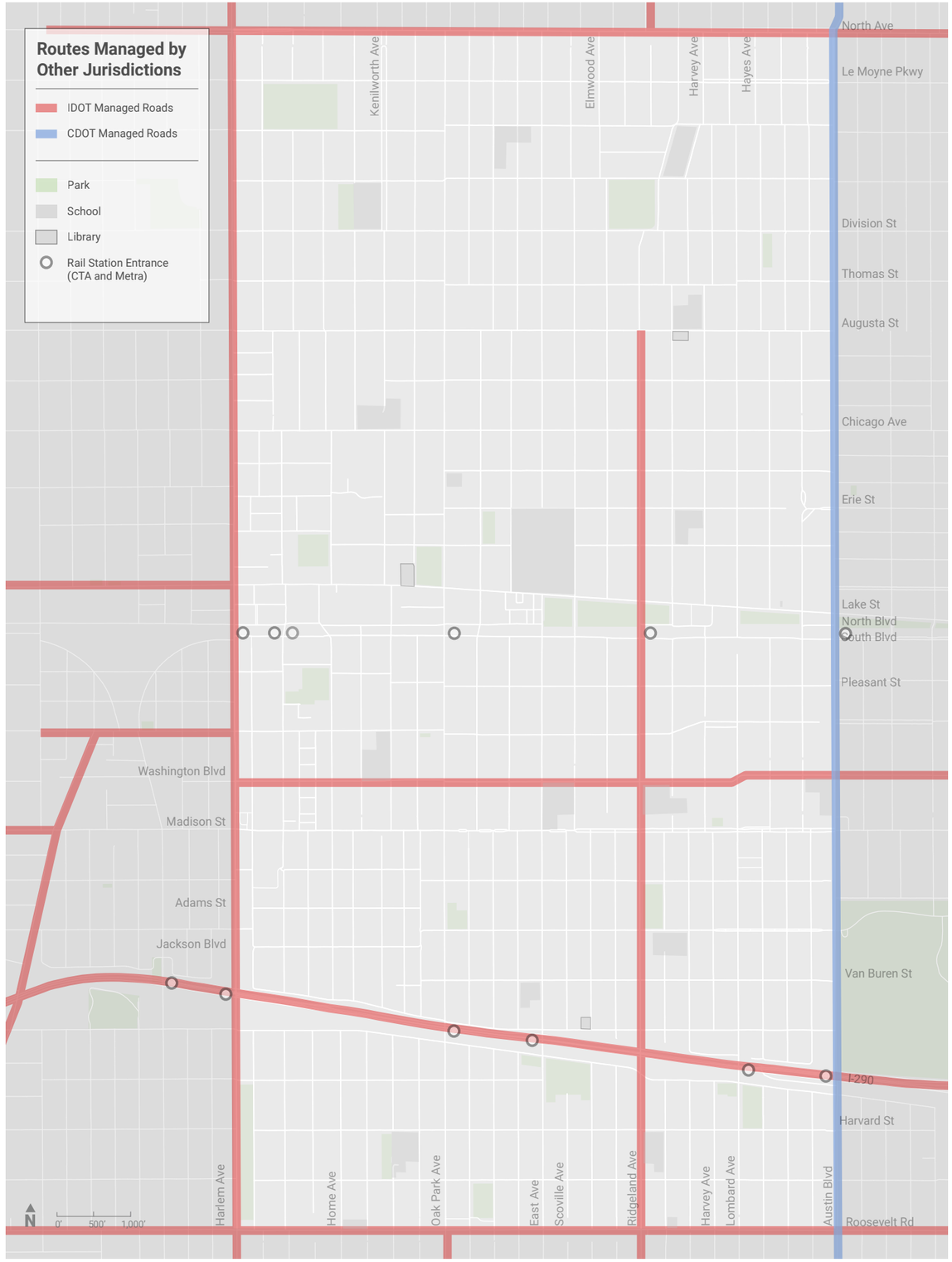
Routes Managed by Other Jurisdictions
IDOT Managed Roads
CDOT Managed Roads
Park
School
Library
Rail Station Entrance (CTA and Metra)
North Ave
Le Moyne Pkwy
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Harvey Ave
Hayes Ave
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Home Ave
Oak Park Ave
East Ave
Scoville Ave
Ridgeland Ave
Lombard Ave
Austin Blvd
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3 | STAKEHOLDER ENGAGEMENT & FEEDBACK

CONCURRENT PLANNING EFFORTS

The project team learned about opportunities and challenges around bicycling in Oak Park through various forms of stakeholder and community engagement. The project team launched an online interactive map and survey and had conversations with residents, advocates, Village staff, the Transportation Commission, and school district representatives.

VISION ZERO SAFETY ACTION PLAN

The Village of Oak Park underwent a concurrent planning process, Vision Zero Oak Park, to develop a safety action plan. The project team reviewed Vision Zero Oak Park's engagement for relevant active mobility feedback. Overall, engagement efforts found there is a desire for more bicycle infrastructure to improve the sense of safety and comfort for people bicycling, and to prioritize bicycle safety near schools and parks. Many community members shared feedback around the need for safer driving behavior to create a safer, more welcoming environment for people bicycling.

WHAT THEY HEARD

> "I would never have biked on Madison Street [before the protected bike lane] but I do now.
>
> "Traffic calming in neighborhoods, targeting diverted rush hour traffic.

OTHER PLANNING EFFORTS

Throughout the planning process, the project team communicated with Village staff about planned and proposed projects. Additionally, the Village is conducting an ongoing study to evaluate the Ridgeland Avenue corridor independently from the Bike Plan Update. As the Ridgeland Avenue Bike Lane Feasibility Study remained underway upon the Bike Plan Update completion, Ridgeland Avenue was represented in its current conditions. The study findings should inform the future conditions for the Ridgeland Avenue corridor.

TRANSPORTATION COMMISSION

The project team met with the Transportation Commission four times throughout the planning process. Two representatives from the Plan Commission were in attendance at these meetings. In July 2024, the project team introduced the planning effort and learned more about current and future opportunities and challenges for bicycling in the Village. In October 2024, the project team reviewed and received feedback on draft short-, medium-, and long-term networks. In January 2025, the project team presented the draft Oak Park Bike Plan Update. And, in February 2025, the project team presented the final version.

Overall, the Transportation Commission emphasized the Bike Plan Update should seek to make streets safer for everyone, prioritize bicycle safety around schools, identify intersection improvements along the bicycle network, and understand how bike share could be successfully implemented in Oak Park.

PUBLIC ENGAGEMENT

ONLINE ENGAGEMENT

The Village of Oak Park hosted a travel survey and interactive map on the Village's Engage Oak Park platform that received hundreds of responses. The travel survey asked community members about their bicycle habits, how comfortable they are biking on different types of streets, and experiences. In the interactive map, community members identified locations where they felt safe and comfortable bicycling, and vice versa. Overall, community members emphasized schools and parks as key destinations where safety, traffic calming, and the overall bike network should be prioritized.

Online engagement social media post

284 Survey respondents

95 Interactive map entries

WHAT WE HEARD

> "Protected bike lanes on busy streets and a truly connected network.
>
> "My 6 year old just asked if he could bike to middle school when he's old enough. I couldn't think of a good route for him to do it safely.

KEY FINDINGS

- **People feel bikeways need to be safer, especially for children.** 70% of respondents with children living in their household felt unsafe about their children bicycling in Oak Park.
- **Generally, people would like an easy-to-follow bicycle network of comfortable, low-stress streets.** 66% of respondents said it wasn't always easy to figure out the safest and most comfortable streets to bike on. Meanwhile, most respondents, 87%, prefer to take an indirect route that keeps them on more comfortable and lower stress streets for bicycling.
- **There is a desire for more bicycle infrastructure to improve the sense of safety and comfort for people bicycling.** 55% of respondents said infrastructure was most important to make Oak Park a better place to bike, followed by 20% who listed traffic enforcement.
- **Improvements are needed at intersections where neighborhood streets cross major streets.** Two-thirds of the locations people identified as places where they feel unsafe or uncomfortable biking were along major streets.

FOCUS GROUPS

The project team held two focus groups with Village residents. The project team asked focus group members about bicycling in Oak Park, strategies that could be used to improve the bicycling environment, and their familiarity with different types of bike facilities and infrastructure. Generally, focus group members highlighted schools as key locations for investment, encouraged traffic calming along neighborhood greenways, and supported more protected bike lanes throughout the network.

COMMUNITY OPEN HOUSE

The Village and project team held a community Open House in October 2024. Community members shared feedback on the drafted short-, mid-, and long-term bicycle networks. Additionally, community members rated their support for various bicycle network treatments, such as flashing beacons, traffic diverters, and different types of bicycle facilities.

The project team listened to and collected comments on network routing, signals and crossings, facility types, and traffic calming which guided the refinement of network recommendations.

Community members shared feedback on draft short-, mid-, and long-term networks along with bicycle facility treatments.

Project team and Village staff listened to community comments on draft short-, mid-, and long-term networks along with bicycle facility treatments.

WHAT WE HEARD

> “Definitely looking forward to seeing more traffic calming measures in neighborhoods. We need more infrastructure to slow speeds down.

ADDITIONAL STAKEHOLDER ENGAGEMENT

SCHOOL ENGAGEMENT

The project team met with staff from Oak Park River Forest High School (OPRFHS) and Oak Park Elementary School District 97 (D97) to understand key challenges and opportunities for bicycling to/from/near schools. OPRFHS staff shared that Scoville Avenue is the preferred bicycle route for students riding a bicycle to school. Meanwhile, D97 staff stressed the need for people driving to slow down along streets adjacent to schools, supporting traffic calming efforts.

NEIGHBORING COMMUNITIES

The Village and project team communicated with representatives from Village of River Forest, Village of Forest Park, and the City of Chicago about Oak Park’s Bike Plan Update, the respective Villages’ future plans for bicycle improvements, and opportunities for future collaboration. Future engagement will continue to reach out to and collaborate with neighboring communities, including the Town of Cicero and City of Berwyn.

4 | DESIGN STANDARD & TOOLKIT

LEVEL OF TRAFFIC STRESS

For over a decade, the Village of Oak Park has fostered a culture that supports bicycling. From neighborhood greenways to re-imagining Madison Street through protected bike lanes, Oak Park has and continues to invest in bicycle facilities. Yet, bicycling on many streets can still feel uncomfortable or stressful due to vehicle speeds, traffic volumes, or travel behaviors. The online survey found that 87% of respondents who bike prefer to take an indirect route that keeps them on lower-stress bikeways.

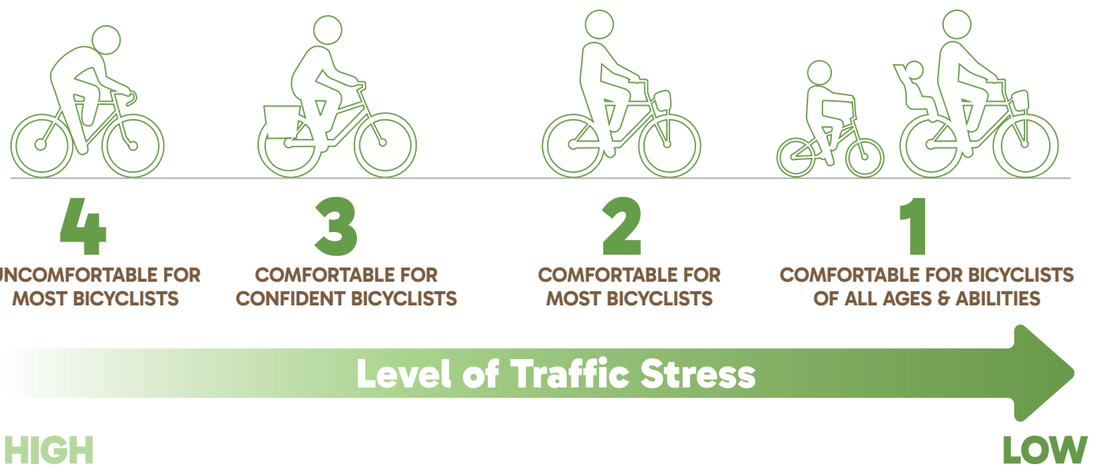
Creating a safe, comfortable, and low-stress bicycle network is necessary for fostering a bicycle environment that is friendly to people of all ages and abilities – including school-aged children bicycling to schools, parks, and around town. **Going forward, the Village will only plan for low- to lower-stress bikeways.**

> A low-stress bikeway is a facility, or street, that feels comfortable, safe, and friendly for any person riding a bicycling.

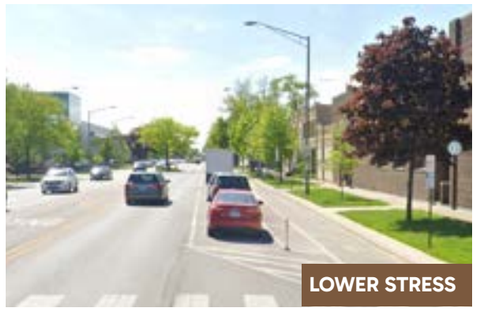
The stress level of a bikeway can be assessed through a 'level of traffic stress' (LTS) analysis, a quantitative approach that categorizes street segments based on factors such as speed limit, traffic volume, and the presence of a bicycle facility[1]. While this analysis does not fully capture the lived experiences of people who bike, particularly at intersections, it guides the design and level of separation a planned bikeway needs.

Neighborhood greenway on Erie Street.

LEVEL OF TRAFFIC STRESS CATEGORIES



Level of traffic stress (LTS) typically scores a street based on four categories where LTS 1 is comfortable for bicyclists for all ages and abilities and LTS 4 is comfortable for the few fearless riders. This plan aims for bikeways that offer low-stress riding, LTS 1 or 2 facilities. As such, streets along the bike network with higher speeds or traffic volumes call for additional accommodations (traffic calming, physical barriers or separation, and intersection improvements).

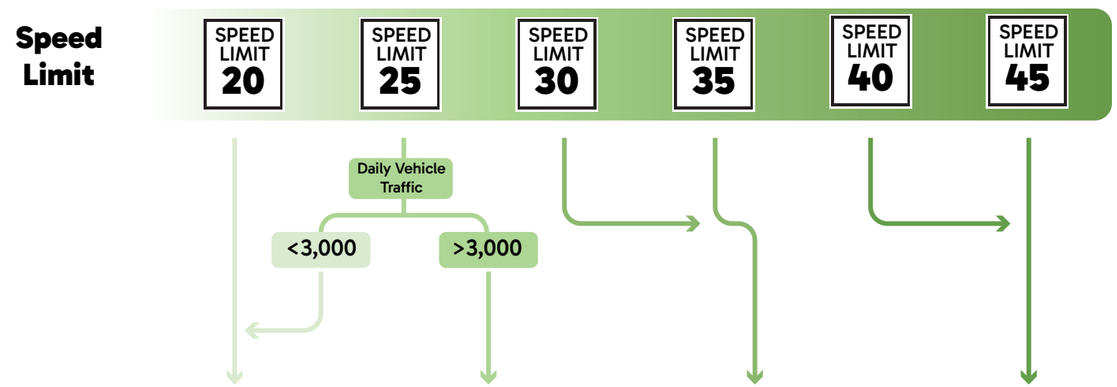


The images above show Madison Street before and after corridor improvements. To the left, the lack of bicycle facility, 30 MPH speed limit, and number of travel lanes equated to a high level of traffic stress for people bicycling prior to improvements. To the right is a lower stress facility with fewer travel lanes, a parking protected bike facility, and a lower speed limit. Source: Google Maps

BIKEWAY TYPOLOGIES

Developing a low-stress bicycle network for all ages and abilities requires careful planning and design tailored to the context of each street. With a toolbox of resources at hand (previous planning efforts, existing conditions data, and engagement findings), the project team applied national best practice guidance to aid in determining what bicycle facilities may be most appropriate for a given street.

MINIMUM ACCOMMODATIONS OF BIKEWAY BY SPEED LIMIT



Adapted from the National Association of City Transportation Officials' (NACTO) Designing for All Ages and Abilities guide.[2]

As a companion to the bikeway selection criteria, the project team outlined bikeway typologies for implementing a comfortable network. The bikeway typologies presented in the following pages provide a description, best practice standards, and considerations for the respective bikeway tool. Additional treatments, from curb extensions to raised crossings, are expected to complement the typologies. For more information on the bikeway typologies and additional treatments, the National Association of City Transportation Officials (NACTO) provides useful guides and resources like the Urban Bikeway Design Guide, Designing for All Ages and Abilities: Contextual Guidance for High-Comfort Facilities, and Don't Give Up at the Intersection: Designing All Ages and Abilities Bicycle Crossings.

OFF-STREET TRAILS

An off-street trail (shared use path, sidepath) is a facility physically separated from vehicular travel - through an open space or barrier - and commonly shared by people bicycling, rolling, and walking. Off-street trails are recommended for streets with high vehicle speeds and/or traffic volumes. Compared to other types of facilities, off-street trails offer superior safety by providing physical separation that protects bicyclists from vehicle traffic, reducing the likelihood of crashes[3].

STANDARDS & GUIDANCE[4]

- Desired width is 10 to 14 feet. A minimum of eight feed is permitted if space is physically constrained.
- A 6 foot physical separation recommended between the trail and road. A minimum of two feet is permitted when space is physically constrained. When truck volumes exceed 5% of the traffic mix, additional space should be provided.

CONSIDERATIONS

- Depending on levels of activity, space may need to be delineated for people walking and bicycling
- Special attention should be given at driveways and intersections. Potential visibility and sight distance issues, along with other safety conflicts, should be assessed.

PROTECTED BIKE LANES

Protected bike lanes are on-street facilities that provide physical protection between people bicycling and driving through barriers such as concrete curbs, parked cars, planters, flexible delineators or bollards, or raising the bike lane to the level of the sidewalk. With physical barriers, protected bike lanes reduce the likelihood of crashes between people bicycling and driving[5].

STANDARDS & GUIDANCE[6]

- A one-way protected bike lane should have a minimum width of 5 feet along with a desired buffer of 3 feet between the bike lane and vehicle traffic or parking. The width must accommodate anticipated resurfacing. For example, facilities less than 5 feet in width may require hand paving if standard equipment cannot fit.
- Conflict markings should be installed where the bicycle path of travel intersects with vehicle path of travel (e.g., intersections, transit stops, driveways, and alleys). See: Conflict Markings
- Physical separation may include a painted buffer with flexible delineators or bollards, curb or concrete medians, planters, or parking lanes. The type of physical separation may vary based on curbside or street activity and demand, right-of-way space available, or implementation timeline.

CONSIDERATIONS

- Protected bike lanes can be installed along the stretch of a corridor or applied as a spot treatment in a high-conflict area.
- Special attention should be given to areas where lanes intersect with vehicles or pedestrians, such as bus stops, driveways, alleys, and intersections. These locations should be examined for potential visibility and sight distance issues, curbside conflicts and other safety conflicts.
- Intersection evaluations should be conducted to ensure clarity and comfort throughout the crossing. Carrying a protected bike lane through an intersection is critical for maintaining bicyclist safety. Intersections are where most bicycle-vehicle collisions occur[7]. The Oak Park Vision Zero Plan found that 77% of crashes invovling people walking or bicycling occured

PROTECTED BIKE LANES (CONTINUED)

CONSIDERATIONS (CONTINUED)

at the intersection. Extending the protection eliminates gaps where bicyclists might be forced to merge into mixed traffic, reducing confusion and conflict points.
- Sweeping and snow/ice removal should be included in routine operations, especially during autumn and winter.

SIDEWALK-LEVEL FACILITY

Sidewalk-level bike lanes, or raised cycle tracks, are at the level of, and often adjacent to, the sidewalk. If raised bike lanes are designed to be at sidewalk level, use of varying pavement types, markings, or tactile warning indicators are helpful in preventing conflicts between people bicycling and walking. Additionally, sidewalk-level bike lanes are recommended to have a minimum 6.5 foot lane.

CURB-PROTECTED FACILITY

Protected bike lanes can be constructed through cast-in-place, or pour-in-place, concrete curbs or installed with pre-cast concrete curbs.

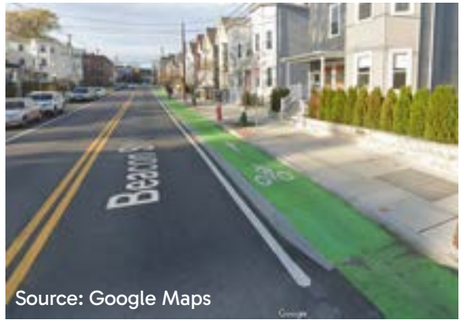
- **Cast-in-place concrete curbs** are typically more durable. However, maintenance can be more challenging because repairing damage may require full removal and replacement. Cast-in-place curbs include drainage gaps where inlets and other drainage structures are present.
- **Pre-cast concrete curbs** typically take less time to install and can be replaced after damage fairly easily by simply swapping out the individual damaged unit. Pre-cast concrete curbs leave 4 foot gaps approximately every 40 feet to allow proper drainage.

PARKING-PROTECTED FACILITY

Parking-protected bike lanes position a bike lane between the curb and a row of parked cars, using the parked vehicles as a physical barrier to separate cyclists from moving traffic. This design enhances safety and comfort for bicyclists by creating a dedicated, protected space, reducing the risk of “dooring”. However, they require careful design to ensure proper visibility at intersections and crossings and sufficient ADA-compliant parking spaces.

RAISED BIKE LANES

Raised bike lanes are raised a few inches from the roadbed, installed against the curb and feature a mountable curb that slopes at a 4-to-1 ratio. Separated from vehicular traffic, raised bike lanes give the bicyclist an elevated riding position and are more comfortable to bicyclists of all ages and abilities than a striped or marked shared lane. Through its raised nature and sloping mountable curb, the facility reduces drainage issues. The raised bike lane is mountable for emergency access.



STANDARDS & GUIDANCE[8]

- Mountable curb should have 4:1 slope (1 inch wide on 3 inch rise)
- Mountable curb is not included within rideable width of lane
- Desired minimum width of bike lane is 5 feet
- Flexible delineators may be installed, as needed.

Image of bi-directional raised bike lane in Atlanta, GA.

CONSIDERATIONS

- Generally, raised bike lanes require reconstructing the roadway and existing curbs to account for drainage issues.
- Special attention should be given at driveways and intersections. Potential visibility and sight distance issues, along with other safety conflicts, should be assessed. Daylighting should be provided for a minimum of 20 feet from a minor crossing and 10 feet from a driveway.
- At intersections and storm drains, the raised bike lane can go back down to street level with green MMA paint. However, the raised bike lane may be maintained at alleyways and driveways.
- Vertical separation between the roadway and the raised bike lane should be between 1 and 6 inches (higher separation values discourage illegal parking); vertical separation between the raised bike lane and the sidewalk should be between zero and 5 inches (a separation of 3 inches or greater discourages conflicts with pedestrians).
- Two-stage turn boxes should be provided to assist in making left-turns from the raised bike lane facility onto an intersecting street.

NEIGHBORHOOD GREENWAY

Neighborhood greenways are very low-volume, low-speed streets where bicyclists can safely share the street surface. Neighborhood greenways feature physical traffic calming and diversion in addition to markings and signage. The facility provides a more pleasant, less stressful alternative to bicycling on busy roads and encourages more people, including children and less experienced riders to bike.

STANDARDS & GUIDANCE

- Use clear and consistent signage indicating the presence of a neighborhood greenway (e.g., shared bike lane markings with symbols and arrows, advance warning signs for upcoming intersections).
- Incorporate wayfinding directing people bicycling to and from the network.

CONTRA-FLOW LANE

Neighborhood greenways along one-way streets often feature **contra-flow lanes**, which allow bicyclists to travel in the opposite direction of vehicular traffic. In addition to necessary striping, contra-flow lanes require appropriate signage and traffic controls.

Neighborhood greenway with contra-flow bike lane in Chicago, IL.

CONSIDERATIONS

- Neighborhood greenways should always be accompanied by robust traffic calming measures, and, where possible, traffic diversion, to encourage safe speeds and discourage vehicular through trips. Tools such as diverters, curb bumpouts, and speed tables create safer environments for all road users.
- Neighborhood greenways are prime candidates for incorporating additional features such as green infrastructure and enhanced landscaping.
- Special attention should be given at major street crossings, particularly at uncontrolled locations.

STRIPED BIKE LANES

Striped bike lanes feature a painted lane on the street surface designating space for bicyclists. They are relatively inexpensive to implement since they only require pavement markings and signs, utilizing existing road space without the need for significant infrastructure changes. Striped bike lanes can be adapted to a variety of roadway types and widths, making them a versatile option. While less protective than other facilities, striped bike lanes still provide dedicated space for bicyclists.

STANDARDS & GUIDANCE[9]

- Minimum 5 foot width

CONSIDERATIONS

- Green (methyl-methacrylate, MMA) paint can be used to draw additional attention to the bicycle lane or specific conflict points (e.g., intersection approaches, bus stops, crosswalks, driveways).
- If space is available, marking a buffer can increase comfort for people bicycling.
- If space is limited, the stripe shared with the travel lane can be dashed, creating an **Advisory Bike Lane.** This permits drivers to entering the bike lane if needed and safe, while still designating space for bicyclists.

ADVISORY BIKE LANE

STRIPED BIKE LANE

PAINTED BIKE LANE

BUFFERED BIKE LANE

MARKED SHARED LANES

Marked Shared Lanes, or “sharrows,” are road markings used to indicate a shared space for people driving and bicycling. Marked shared lanes remind and reinforce the presence of bicyclists to all road users. Marked shared lanes encourage bicyclists to position themselves safely in travel lanes too narrow for a motor vehicle and a bicyclist to comfortably travel side by side within the same traffic lane.

STANDARDS & GUIDANCE

- Marked shared lanes are a pavement marking with a variety of uses to support a complete bikeway network; it is not a facility type and should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits.

CONSIDERATIONS

- Marked shared lanes can be used as a standard element in the development of neighborhood greenways to identify streets as bikeways and to provide wayfinding along the route.
- Marked shared lanes should be monitored and evaluated for bikeway facility promotion.

TRAFFIC DIVERSION

The goal of traffic diversion is to create high-comfort routes for bicyclists of all ages and abilities by filtering unnecessary vehicle traffic while maintaining access for emergency vehicles and local traffic. This plan aims to use traffic diversion techniques at targeted locations adjacent to major roadways to direct non-essential and non-local traffic away from the bicycle network. Staff will evaluate potential traffic impacts for proposed diverters prior to implementation.

TRAFFIC DIVERTERS

Traffic diverters help disrupt lengthy vehicle straightaways that can lead to high speeds and volumes on neighborhood streets, thus allowing for low-stress bikeways[10]. The design of traffic diverters should limit conflict between bicyclists and drivers. Traffic diverters can delay emergency response vehicles by blocking direct routes but designs like collapsible barriers and permeable diverters can mitigate these challenges. While diverters improve safety by reducing traffic and congestion, they may require emergency services to navigate detours or use alternative routes. To minimize delays, it is essential to involve emergency services in the planning process and incorporate features that accommodate their vehicles while allowing designs to accommodate bicyclist travel in all directions.

FULL DIVERTERS

Physical barriers that completely block motor vehicle traffic at intersections or mid-block but allow bicyclists, pedestrians, and, where required emergency vehicles, to pass.


Source: NearMap

BENEFITS

- Effectively eliminates through traffic, reducing congestion and noise.
- Enhances pedestrian and bicyclist safety by reducing car conflicts.
- Prevents cut-through traffic in residential areas.

CONSIDERATIONS

- Can increase travel time for local residents who need to reroute.
- May divert traffic to adjacent streets, potentially causing issues elsewhere.

DIAGONAL DIVERTERS

Barriers placed diagonally across intersections, forcing vehicles to turn while allowing pedestrian and bicyclists to continue through.


Source: NearMap

BENEFITS

- Reduces through traffic effectively without fully blocking streets.
- Maintains local access for residents and businesses.
- Encourages safer speeds and improved neighborhood livability.

CONSIDERATIONS

- Can confuse drivers unfamiliar with the area.
- Increases travel distances for some trips.
- May push traffic to surrounding streets.

MEDIAN BARRIERS DIVERTERS

Raised medians placed at intersections to block left turns and through traffic while allowing right turns.


Source: NearMap

BENEFITS

- Reduces conflict points at intersections, improving safety.
- Limits cut-through traffic while maintaining general accessibility.
- Cost-effective compared to full diverters.

CONSIDERATIONS

- Increases travel distances for some trips.

PARTIAL OR PERMEABLE DIVERTERS

Barriers or signage that block one direction of motor vehicle travel on a two-way street while allowing pedestrian and bike access.


Source: NearMap

BENEFITS

- Reduces traffic volume and speed while preserving some access.
- More affordable than full diverters.
- Can be removable or temporary to accommodate emergency vehicles

CONSIDERATIONS

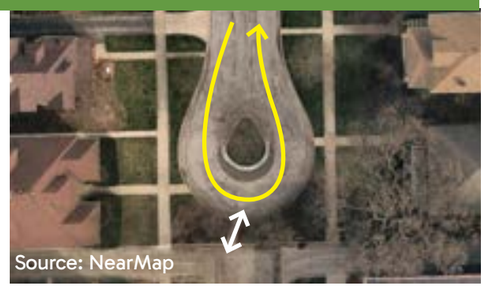
- Can confuse drivers or lead to illegal driving behaviors.
- Less effective at eliminating cut-through traffic compared to full diverters.
- May still impact nearby streets with traffic diversion.

CUL-DE-SAC

Cul-de-sacs offer benefits such as reduced traffic, enhanced safety, funneling traffic to concentrated access points, and a strong sense of community, making them appealing for families and improving property values. However, they can create challenges like limited connectivity, increased car dependency, longer travel distances, and higher infrastructure costs.

While ideal for quiet residential areas, their impact on emergency response, walkability, and environmental sustainability must be carefully considered when planning.

If cul-de-sacs are used, they should always maintain through-access for people pedestrians and bicyclists.


Source: NearMap

CONFLICT MARKINGS

Conflict markings are highly visible pavement markings used in bicycle facilities at potential points of interaction or conflict between bicyclists and motor vehicles, such as driveways, intersections, or merge zones. Their purpose is to alert all road users to potential crossing or merging situations, improving safety and clarity. Typically, they use bright green paint with diagonal or dashed white striping, making them easily recognizable to both bicyclists and motorists.

SOLID MARKING AT INTERSECTION

DASHED MARKING AT INTERSECTION

DASHED MARKINGS AT ALLEY

MAINTENANCE CONSIDERATIONS

Creating a culture of bicycle safety and comfort does not stop at network installation. It is an ongoing effort to maintain low-stress bikeways. Infrastructure requires routine upkeep and preventative maintenance, such as sweeping, debris removal, minor surface repairs, and snow removal that occur monthly or at least annually, along with larger maintenance such as markings resurfacing and sign replacement, which may be required every few years. Maintenance efforts, such as resurfacing, snow-removal and debris and leaf collection, should be fully integrated into operations:

- The Village should continue regular inspection standards for bicycle infrastructure, recording and tracking maintenance needs and requests.

  The City of Chicago sweeps protected and raised bicycle lanes typically monthly, with extra sweepings if a resident reports debris or blockages.

- Keeping infrastructure in a state of good repair requires regular and dedicated funding. The Village should assess existing maintenance funding, identify funding gaps and needs, and look to longer term needs as the network is expanded.

SNOW REMOVAL

In order for protected bike lanes to be a reliable, year-round transportation option for Oak Park community members, the facilities must be well-maintained and accessible throughout the year – including the winter. The Village should clarify regulations for snow and ice removal on public sidewalks. For example, cleared snow and ice must not be shoveled into the right-of-way, which includes bike facilities and bike racks. The Village should revisit priority snow routes, ensuring bikeways are prioritized as they are implemented.

Protected and raised bike lanes must be at least as wide as the narrowest snow removal and street sweeping vehicle available. The Village of Oak Park current has 3 smaller-format units to remove snow, remove ice, and sweep: Multihog Sweeper and Snow Removal; Avant Snow Removal; Trackless Snow Removal. The City of Chicago currently uses a fleet of Multihog vehicles that are approximately 4-feet wide. In addition to width, note the specifications for the lowest height of the sweeper, which may impact design related to any raised portion of a bike lane or curb that the sweeper would need to navigate. NACTO provides more information and case studies on small-format maintenance options.

5 | PROPOSED NETWORK UPDATES

PROCESS FOR IDENTIFYING NETWORK UPDATES

The development of the bike network updates was an iterative process. With the existing network and conditions data serving as the foundation, the project team identified network updates which received many rounds of feedback from the community, Village staff, and Transportation Commission input, along with additional analysis to inform refinement and adjustments. Ultimately, the bike network needs to be part of a **broader, overall balanced mobility network**. This Bike Plan Update's bike network is a next generation plan. And, it is likely not the last. The iterative process will carry on into the future to confirm it meets the community needs.

NETWORK DEVELOPMENT PROCESS

OVERALL NETWORK MAPS

SHORT-TERM CONCEPTS

These are key next steps for Oak Park's bicycle network. A more intensive amount of analysis has already been conducted on these corridors, including vehicle parking counts on several corridors. These are concepts that the Village feels most confident in tackling in the next five years, but they still include ambitious ideas. The Village solicited direct input from residents along the new updated routes with proposed parking loss. Proposed diverters will be reviewed by Village staff for potential, unanticipated impacts prior to implementation.

MID-TERM CONCEPTS

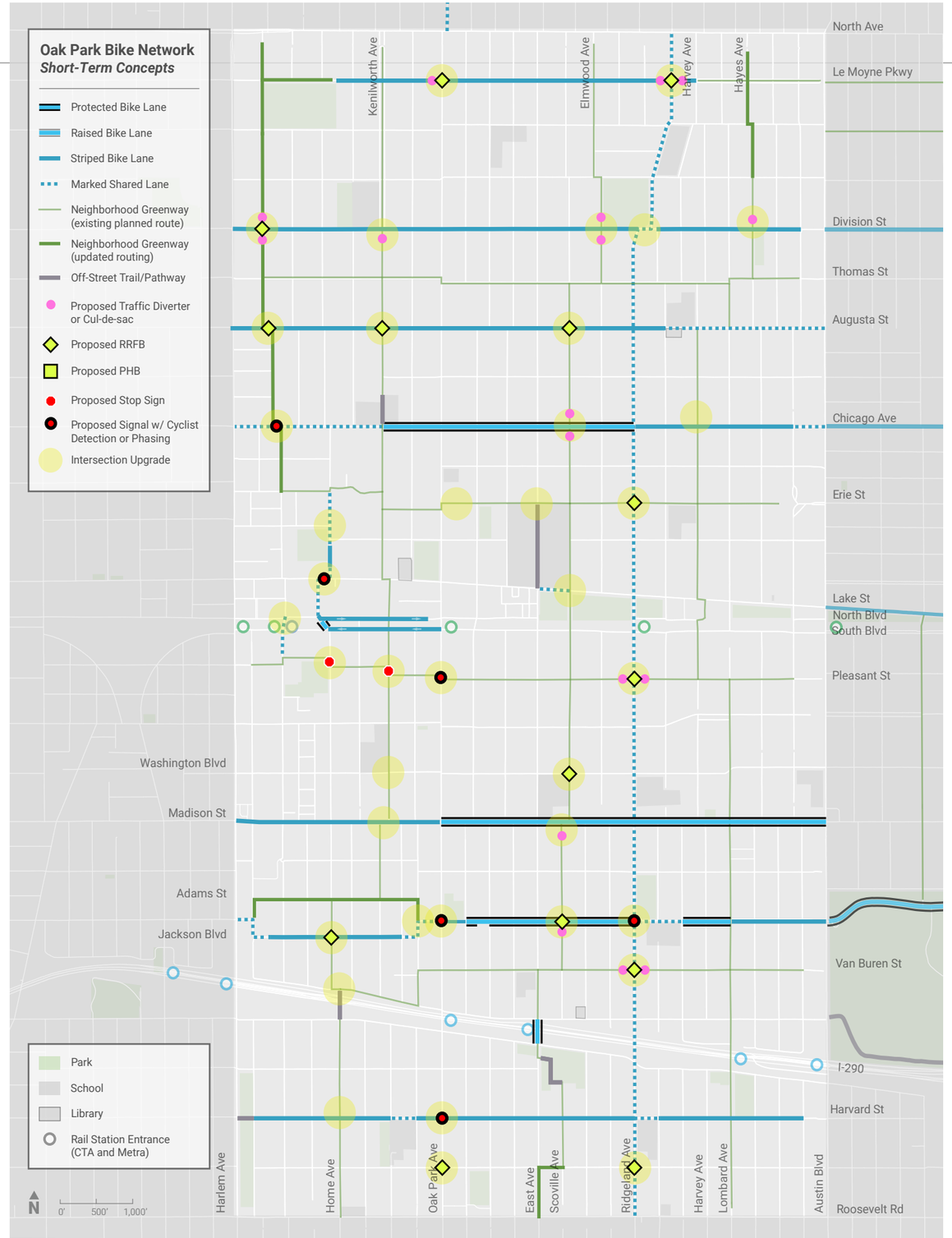
These include ideas that initial analysis has deemed feasible but will take more conversation and analysis. These concepts will build off the success of short-term projects, which aim to drive additional bicycling demand. They upgrade short-term infrastructure to higher levels of comfort, fill gaps, and extend bikeways. These concepts aim to take advantage of concurrent roadway projects as they arise in the next 5-10 years. These concepts also aim to take advantage of learning from the implementation of short-term projects and adjusting as needed.

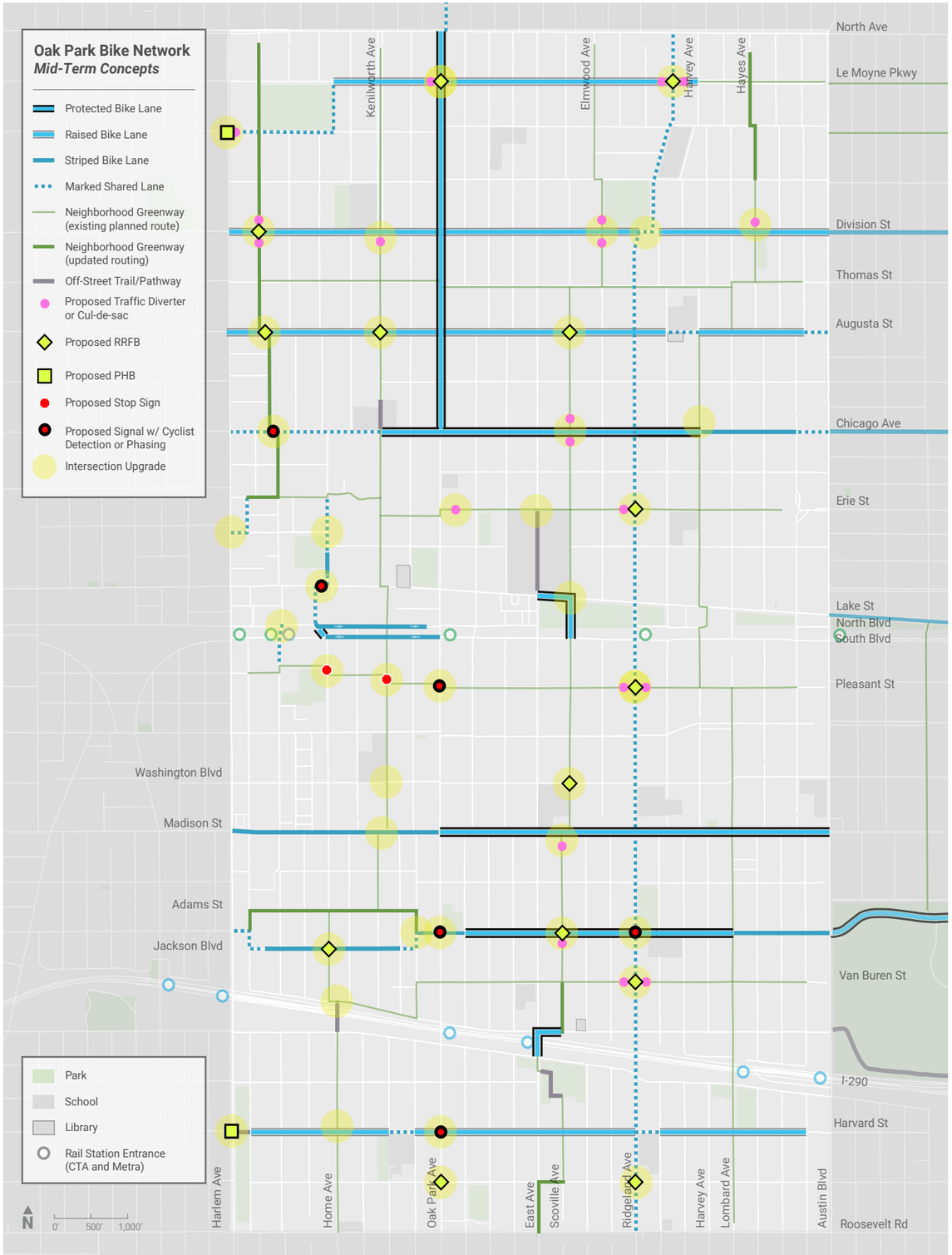
Future engagement and review of the mid-term concepts will be completed in part of individual corridor project designs or as part of a future update to the Bike Plan.

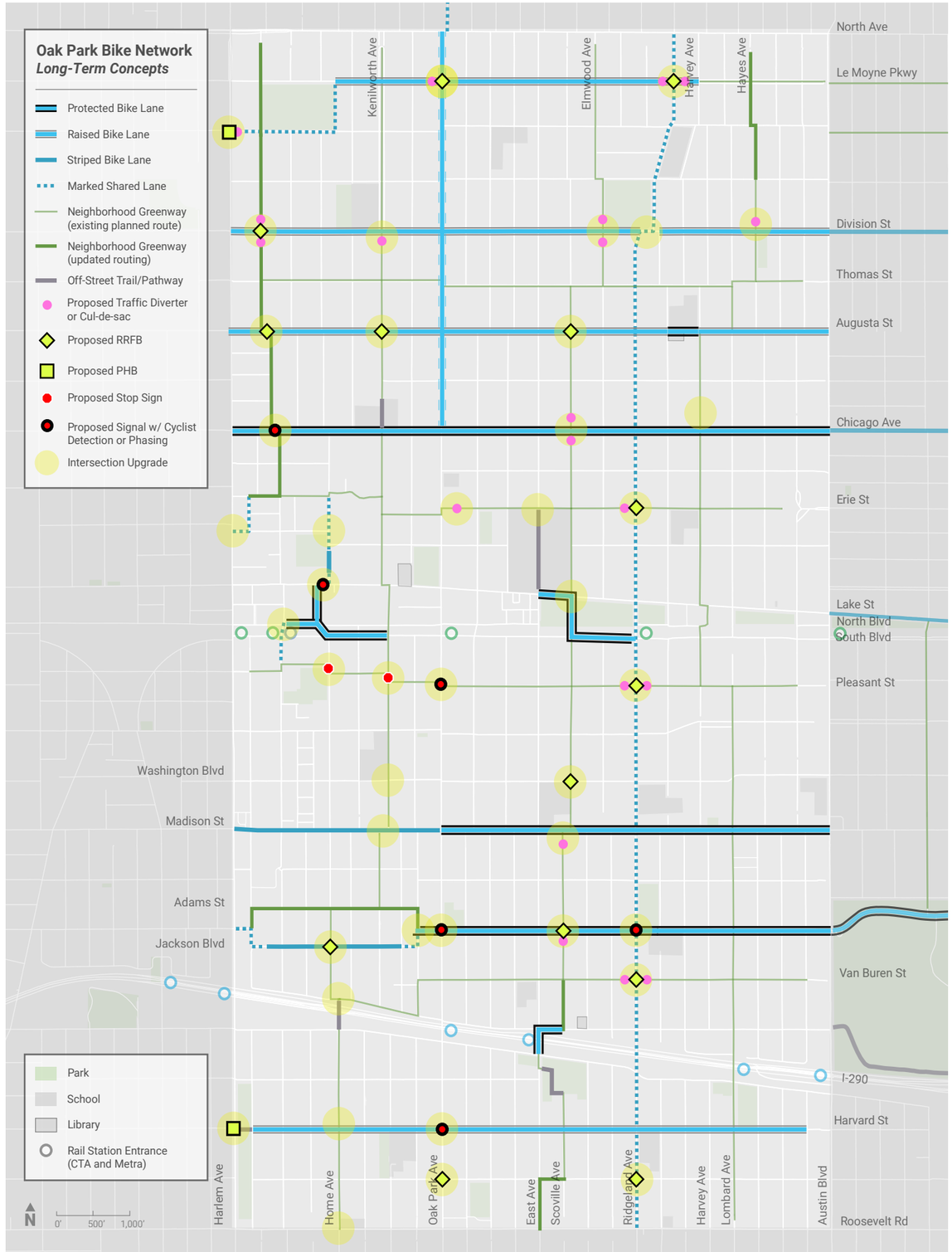
LONG-TERM CONCEPTS

These projects represent ambitious ideas that are key to creating a comprehensive all ages and abilities bike network but require larger conversations about the broader transportation network, further detailed analysis, more substantial reconstruction, and potentially a reallocation of existing high-demand vehicle parking. Some of these projects raise complex questions that we do not have all the answers to yet, but it is important to capture more ambitious ideas—otherwise they will never happen. Planning for these ambitious projects should start in the short-term, but implementation is likely to take several years of analysis and coordination.

More detailed review and public engagement regarding the more ambitious and long-term concepts will be planned as part of future updates to the bike plan. In particular, the Village should re-evaluate feasibility for more robust bikeways along Ridgeland Avenue.




Oak Park Bike Network
Mid-Term Concepts
Protected Bike Lane
Raised Bike Lane
Striped Bike Lane
Marked Shared Lane
Neighborhood Greenway (existing planned route)
Neighborhood Greenway (updated routing)
Off-Street Trail/Pathway
Proposed Traffic Diverter or Cul-de-sac
Proposed RRFB
Proposed PHB
Proposed Stop Sign
Proposed Signal w/ Cyclist Detection or Phasing
Intersection Upgrade
Park
School
Library
Rail Station Entrance (CTA and Metra)
N
0'
500'
1,000'
North Ave
Le Moyne Pkwy
Division St
Thomas St
Augusta St
Chicago Ave
Erie St
Lake St
North Blvd
South Blvd
Pleasant St
Washington Blvd
Madison St
Adams St
Jackson Blvd
Van Buren St
I-290
Harvard St
Roosevelt Rd
Kenilworth Ave
Elmwood Ave
Harvey Ave
Hayes Ave
Harlem Ave
Home Ave
Oak Park Ave
East Ave
Scoville Ave
Ridgeland Ave
Harvey Ave
Lombard Ave
Austin Blvd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Washington Blvd
Madison St
Adams St
Jackson Blvd
Van Buren St
I-290
Harvard St
Roosevelt Rd
Kenilworth Ave
Elmwood Ave
Harvey Ave
Hayes Ave
Harlem Ave
Home Ave
Oak Park Ave
East Ave
Scoville Ave
Ridgeland Ave
Harvey Ave
Lombard Ave
Austin Blvd

PROPOSED NETWORK UPDATES

PROPOSED NETWORK AND INFRASTRUCTURE UPDATES

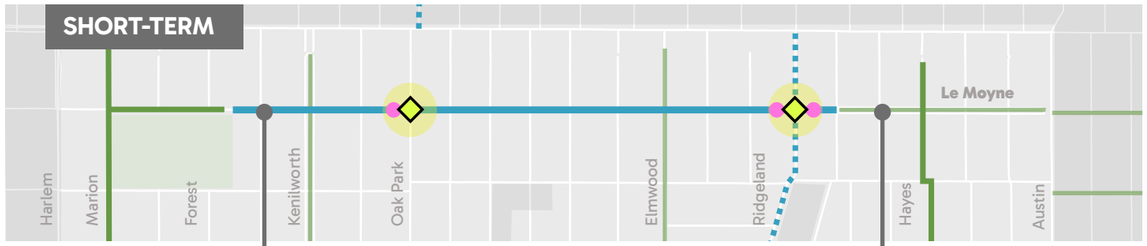
LE MOYNE PARKWAY

Connecting Lindberg Park to Ella Flagg Young Elementary School, Le Moyne Parkway is an important east-west connector on the north end of the Village. Short- and mid-term recommendations establish a Neighborhood Greenway to the east with Striped Bike Lanes to the west.

OVERVIEW

TRAFFIC VOLUME	~1,000 - 1,500 ADT (Harlem to Ridgeland)
EXISTING CURB RIGHT-OF-WAY	~30 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	FOREST - HARVEY

PROTECTED BIKE LANE | RAISED BIKE LANE | STRIPED BIKE LANE | NEIGHBORHOOD GREENWAY | MARKED SHARED LANE | TRAFFIC DIVERTER | PEDESTRIAN BEACON | FLASHING BEACON



Remove parking between Forest Avenue and Harvey Avenue and install **Striped Bike Lanes**

West of Forest Avenue, install **Neighborhood Greenway**

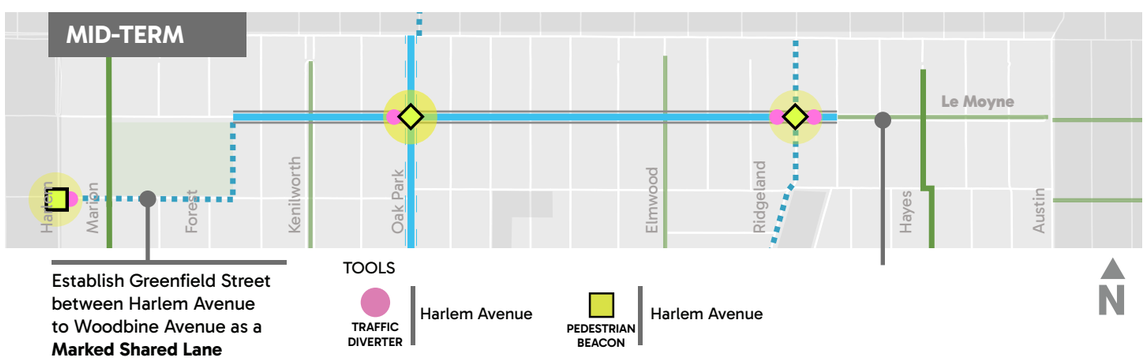
TOOLS

TRAFFIC DIVERTER — Oak Park Avenue, Ridgeland Avenue

FLASHING BEACON — Oak Park Avenue, Ridgeland Avenue

SPEED TABLE — Install periodically, with center gap for bicyclist path of travel

Establish a **Neighborhood Greenway** between Harvey Avenue and Austin Boulevard



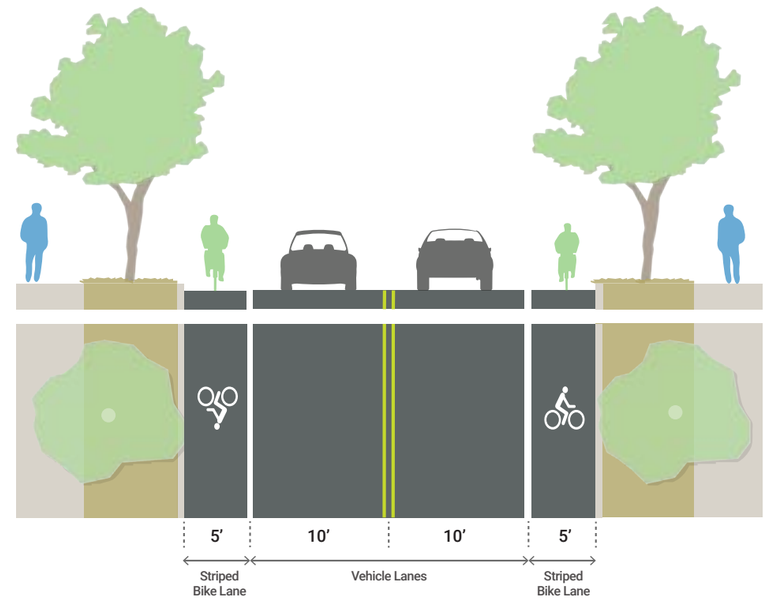
Establish Greenfield Street between Harlem Avenue to Woodbine Avenue as a **Marked Shared Lane**

TOOLS

TRAFFIC DIVERTER — Harlem Avenue

PEDESTRIAN BEACON — Harlem Avenue

LE MOYNE PARKWAY CROSS SECTION | SHORT-TERM



Remove parking between Forest Avenue and Harvey Avenue and install **Striped Bike Lanes**

The above cross section represents Le Moyne Parkway with striped bike lanes between Forest Avenue and Harvey Avenue.

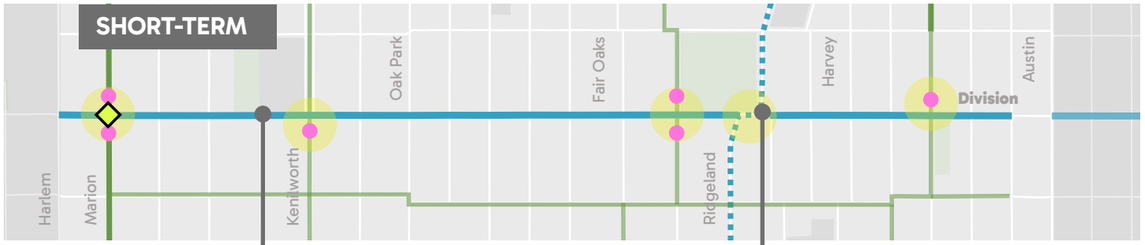
DIVISION STREET

Division Street currently has striped bike lanes across the Village. Short- and mid-term recommendations include adding green conflict markings across intersections and alley curb cuts to bring attention to the striped bike lane at conflict points.

OVERVIEW

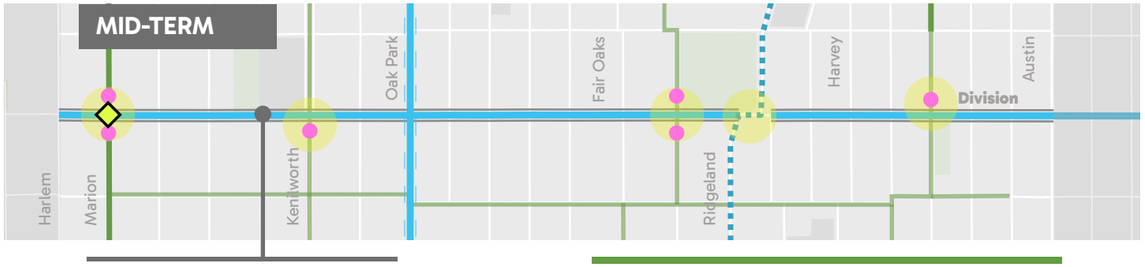
TRAFFIC VOLUME	9,500 - 9,800 ADT
EXISTING CURB RIGHT-OF-WAY	~30 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON



Add green MMA conflict markings through intersections and across alley curb cuts

Implement safety and functionality upgrades at Ridgeland Avenue intersection



Upgrade Striped Bike Lanes between Harlem Avenue and Austin Boulevard to **Raised Bike Lanes**

Green conflict markings through an intersection.

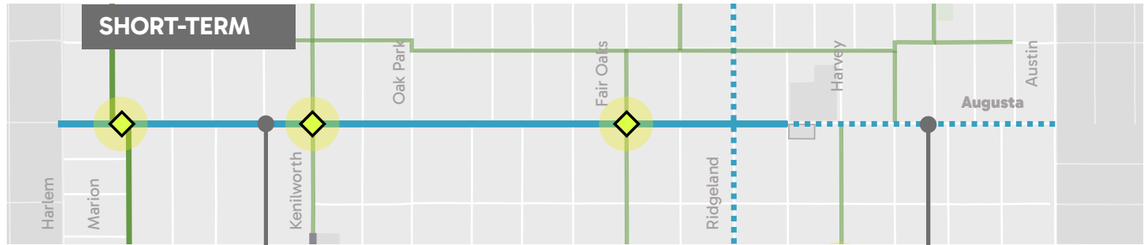
AUGUSTA STREET

Augusta Street does not have delineated bikeway but is designated as a bike route along the Grand Illinois Trail. Future bikeways along Augusta Street require careful planning due to nearby traffic generators such as Oak Park Public Library - Dole Branch and Whittier Elementary School. Home to the Oak Park Fire Station #2, Augusta Street is a medium-use fire route from Austin Boulevard to Oak Park Avenue, and high-use between Oak Park Avenue to Harlem Avenue.

OVERVIEW

TRAFFIC VOLUME	4,300 - 7,200 ADT
EXISTING CURB RIGHT-OF-WAY	~30 FEET
EMERGENCY ROUTING	MEDIUM & HIGH USE
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	HARLEM - CUYLER

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON

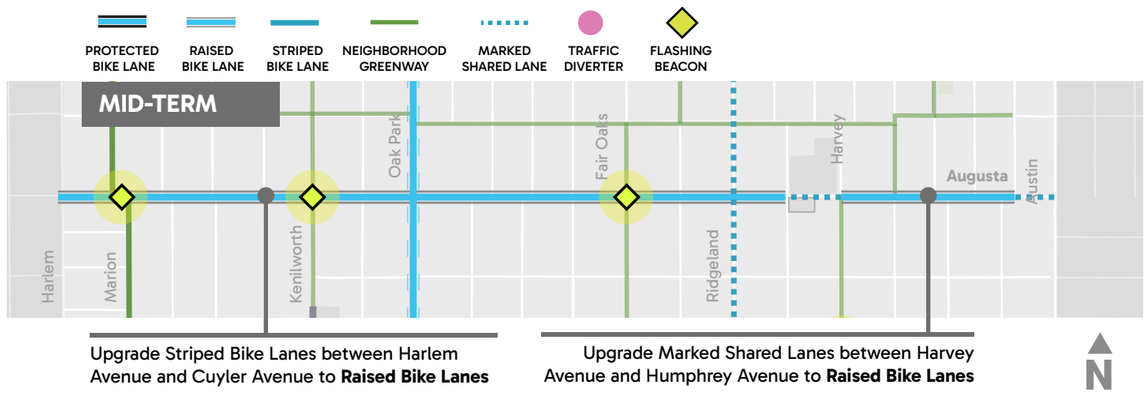


Remove parking between Harlem Avenue and Cuyler Avenue and install **Striped Bike Lanes**

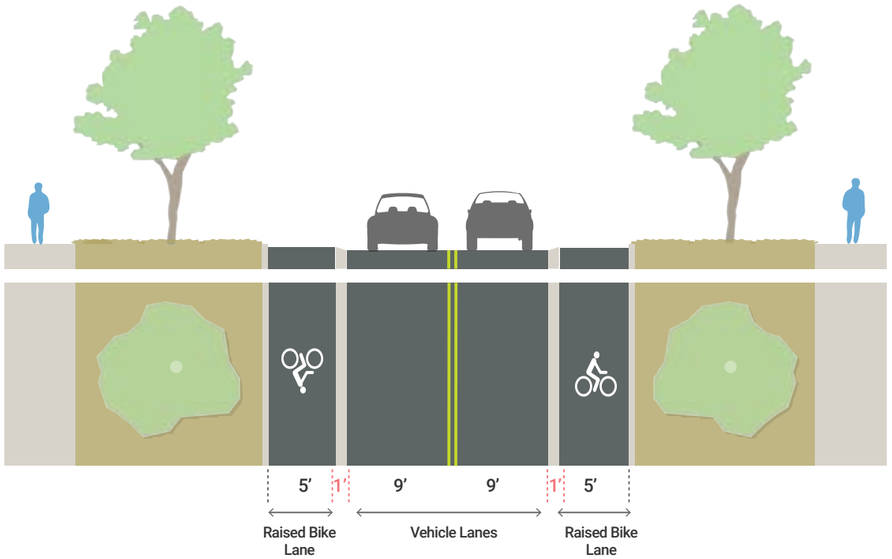
Installed **Marked Shared Lanes** between Cuyler Avenue and Austin Boulevard

PROPOSED NETWORK UPDATES

AUGUSTA STREET (CONTINUED)



AUGUSTA STREET CROSS SECTION | MID-TERM



Upgrade Striped Bike Lanes between Harlem Avenue and Cuyler Avenue to **Raised Bike Lanes**

The above cross section upgrades the striped bike lanes on Augusta Street from short-term recommendations to raised bike lanes. The raised bike lanes involve a one-foot mountable curb, separating bicyclists from drivers.

A sidewalk level protected bike lane in Boston, MA.

PROPOSED NETWORK UPDATES

CHICAGO AVENUE

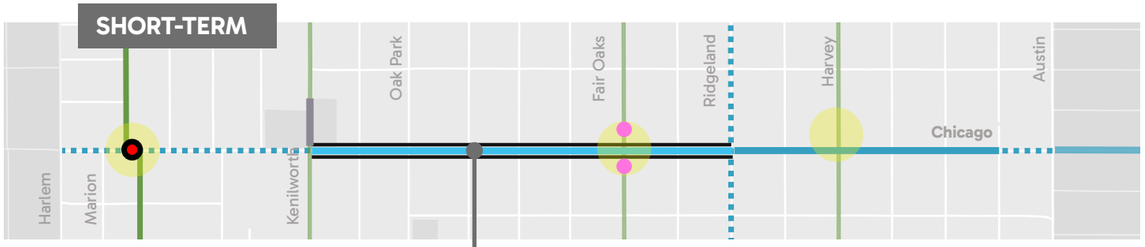
Chicago Avenue currently offers a striped bike lane from Humphrey Avenue west to Euclid Avenue and marked shared lanes on remaining parts of the corridor. Chicago Avenue holds various uses: residences, commercial districts, Oliver Wendell Homes Elementary School and park, and Frank Lloyd Write Home & Studio.

OVERVIEW

TRAFFIC VOLUME	~12,000 - 16,000 ADT
EXISTING CURB RIGHT-OF-WAY	45 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	KENILWORTH - RIDGELAND

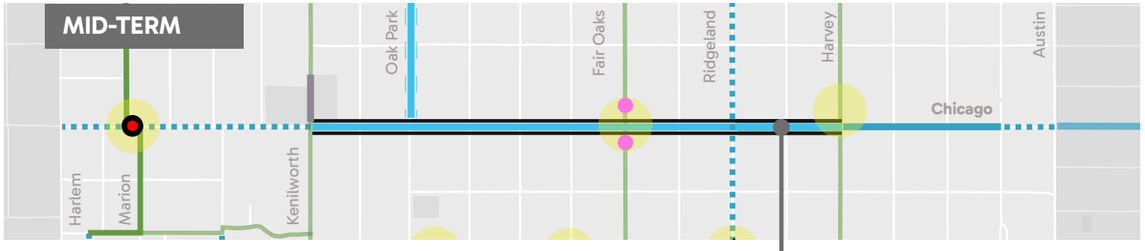
PROTECTED BIKE LANE | RAISED BIKE LANE | STRIPED BIKE LANE | NEIGHBORHOOD GREENWAY | MARKED SHARED LANE | TRAFFIC DIVERTER | FLASHING BEACON | SIGNAL UPGRADES

SHORT-TERM



Remove parking on one side of the street between Kenilworth Avenue and Ridgeland Avenue and install **Protected Bike Lanes**

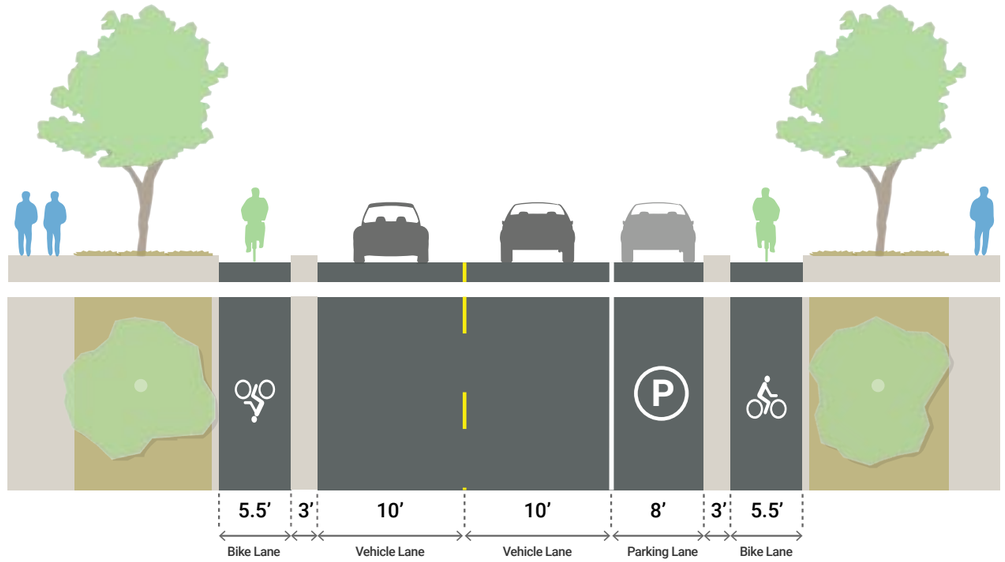
MID-TERM



Remove parking on one side of street between Ridgeland Avenue and Harvey Avenue and install **Protected Bike Lanes**

N

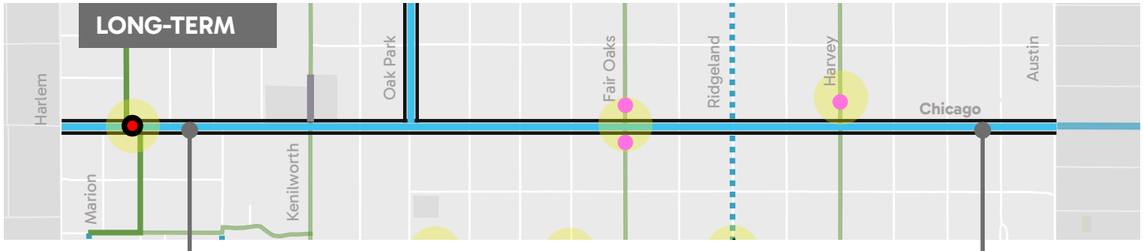
CHICAGO AVENUE CROSS SECTION | SHORT-TERM



Remove parking on one side of the street between Kenilworth Avenue and Ridgeland Avenue and install **Protected Bike Lanes**

The above cross section represents parking removal on one side of the street to accommodate concrete-protected bike lanes.

LONG-TERM



Install **Protected Bike Lanes** between Kenilworth Avenue and Harlem Avenue - prioritize installing until at least Marion Street

Remove parking on one side of street between Harvey Avenue and Austin Boulevard and install **Protected Bike Lanes**

N

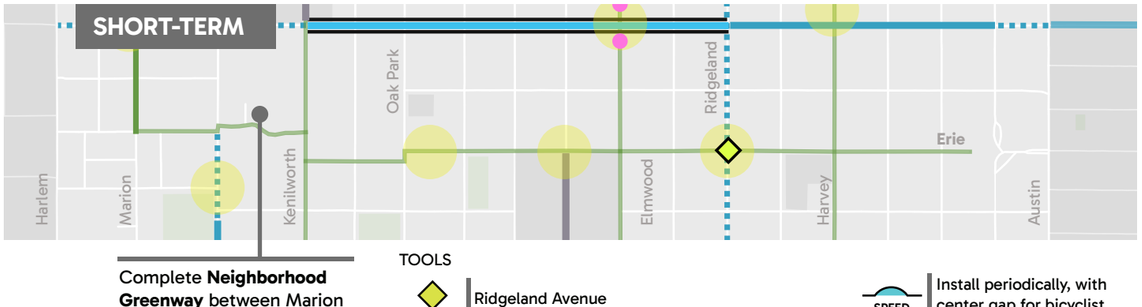
ERIE STREET

Erie Street offers one of the Village's first Neighborhood Greenways. From Scoville Avenue to Kenilworth Avenue, Erie Street has bike boulevard markings, signage, 20 MPH speed limit, and, near Oak Park River Forest High School, traffic calming. The Bike Plan Update looks to complete and bolster the Neighborhood Greenway, particularly at key crossings.

OVERVIEW

TRAFFIC VOLUME	500 - 1,900 ADT
EXISTING CURB RIGHT-OF-WAY	30 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON

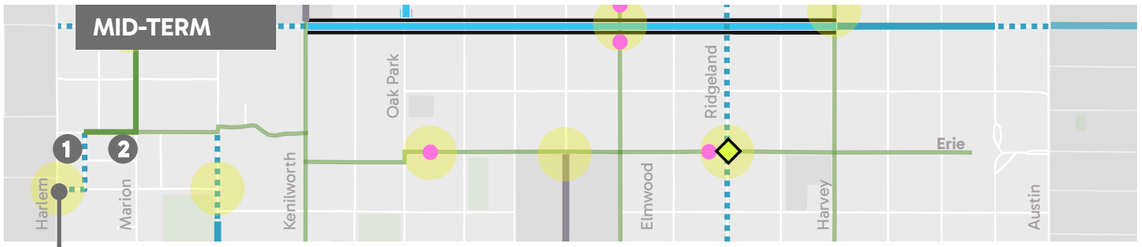


TOOLS

Complete **Neighborhood Greenway** between Marion Street and Humphrey Avenue

FLASHING BEACON — Ridgeland Avenue

SPEED TABLE — Install periodically, with center gap for bicyclist path of travel



Upgrade intersection at Harlem Avenue and Ontario Street to improve bicycle crossing

1 Install **Marked Shared Lanes** on Harlem Court between Erie Street and Ontario Street

2 Extend **Neighborhood Greenway** between Marion Street and Harlem Court

PROJECT COORDINATION

WORK & COLLAB — Work with the **Village of River Forest** to identify best routing options west of Harlem Ave
Work with **Oak Park Tennis Center** and **Forest Preserve of Cook County** to explore short trail connection from Ontario Street to Quick Avenue between tennis courts and Harlem Ave sidewalk
Work with **IDOT** to upgrade striping, signals, and/or curb cuts

TOOLS

TRAFFIC DIVERTER — East of Oak Park Avenue, West of Ridgeland Avenue

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PROPOSED NETWORK UPDATES

DOWNTOWN ACCESS

Downtown Oak Park brings people of all modes of transportation - walking, rolling, bicycling, taking transit, and driving - together. The following recommendations aim to make bicycling comfortable and safe while also working within the spatial constraints and other needs required of downtown services.

OVERVIEW

TRAFFIC VOLUME	VARIES
EXISTING CURB RIGHT-OF-WAY	VARIES
EMERGENCY ROUTING	SOUTH BLVD
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

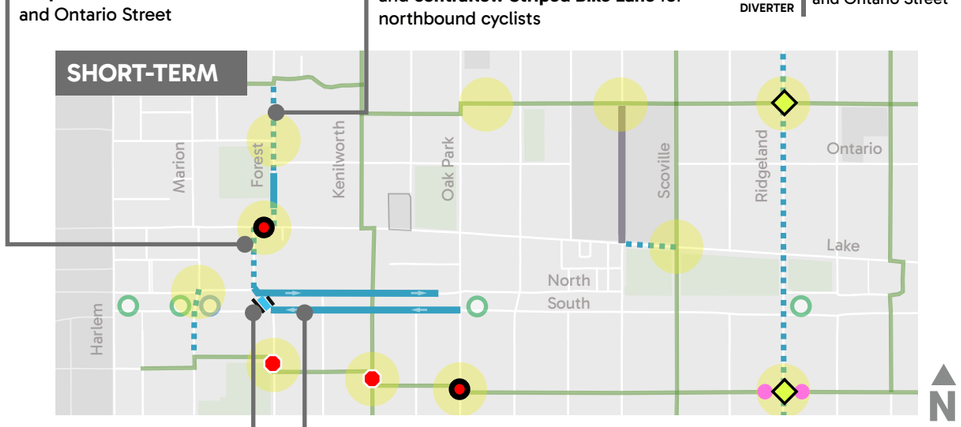
PROTECTED BIKE LANE | RAISED BIKE LANE | STRIPED BIKE LANE | NEIGHBORHOOD GREENWAY | MARKED SHARED LANE | TRAFFIC DIVERTER | FLASHING BEACON | SIGNAL UPGRADES | STOP SIGN

Install **Marked Shared Lanes** on Forest Avenue between North Boulevard and Lake Street and **Striped Lanes** between Lake Street and Ontario Street

Install **Marked Shared Lanes** on Forest Avenue between Erie Street and Ontario Street for southbound cyclists and **contraflow Striped Bike Lane** for northbound cyclists

TOOLS

TRAFFIC DIVERTER — Formalize bicycle access through existing diverter at Forest Avenue and Ontario Street



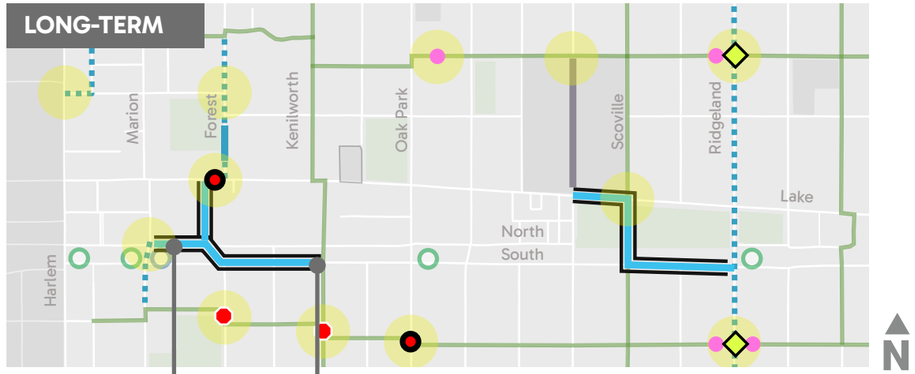
Connect North/South Boulevards facilities with **Protected Bike Lanes** under Home Avenue viaduct

Install westbound **Striped Bike Lane** on South Boulevard between Home Avenue and Oak Park Avenue

ADDITIONAL

LIGHTING — Improve lighting under Home Ave viaduct

SIGNAL UPGRADES — Upgrade signal at Lake Street and Forest Avenue for either automatic or actuated cyclist detection to provide cyclists a leading interval into intersection to position themselves for left turns

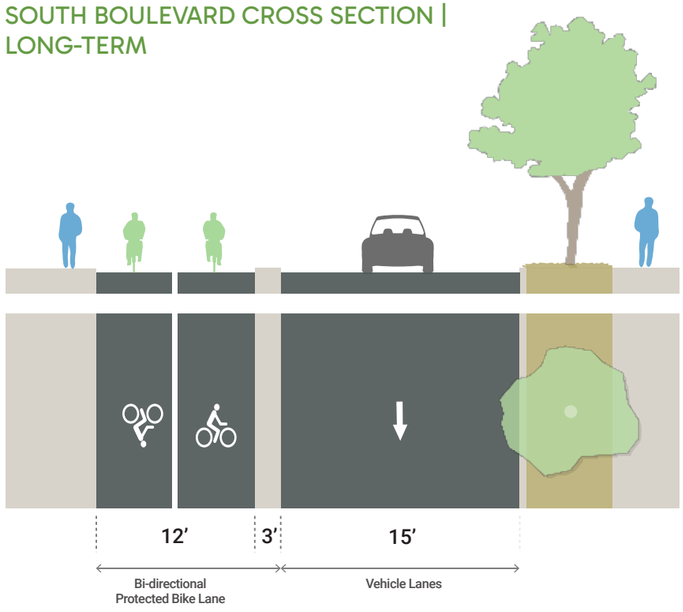


Install bi-directional **Protected Bike Lanes** on North Boulevard between Home Avenue and Marion Street by converting portion of existing parking lot to enhanced downtown and transit active transportation mobility hub + public space

Install bi-directional **Protected Bike Lanes** on South Boulevard between Kenilworth Avenue and Home Avenue by converting vehicle parking on north side.

Alternative: Continue Protected Bike Lanes on South Boulevard between Home Avenue and Marion Street

SOUTH BOULEVARD CROSS SECTION | LONG-TERM



Install bi-directional **Protected Bike Lanes** on South Boulevard

The above cross section demonstrates bi-directional protected bike lanes along South Boulevard. The protected bike lanes would require vehicle parking conversion.

PROPOSED NETWORK UPDATES

OAK PARK RIVER FOREST HIGH SCHOOL ACCESS

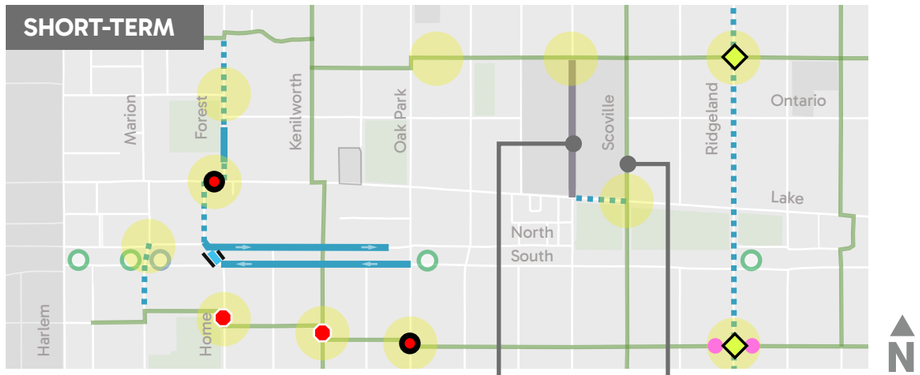
Oak Park River Forest High School (OPRFHS) is a high traffic generator near downtown Oak Park. During drop-off and pick-up hours, OPRFHS not only brings vehicles towards the campus, but also many pedestrians and bicyclists. OPRFHS staff shared that Scoville Avenue is the preferred bicycle route for students riding a bicycle to school with bike parking near the pathway. Recommendation aim to address both student and community-wide needs.

OVERVIEW

TRAFFIC VOLUME	VARIES
EXISTING CURB RIGHT-OF-WAY	VARIES
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON · SIGNAL UPGRADES · STOP SIGN

SHORT-TERM

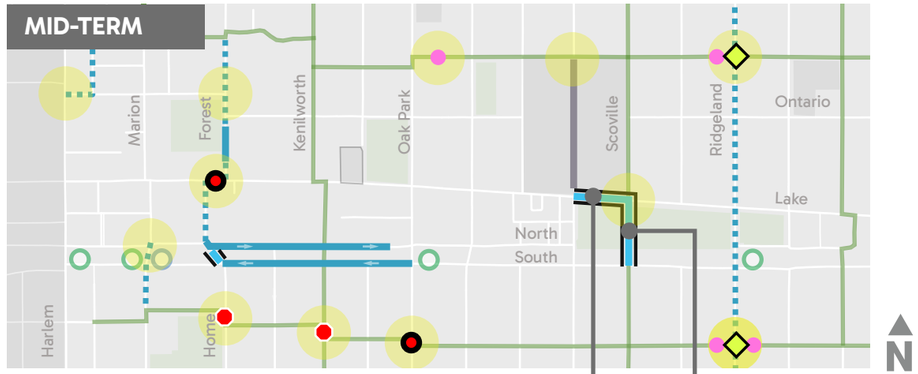


Formalize pathway between high school and athletic fields as **Shared Pathway** for pedestrians and cyclists

Maintain **Neighborhood Greenway** through Scoville Avenue past high school

Bike parking at OPRFHS.

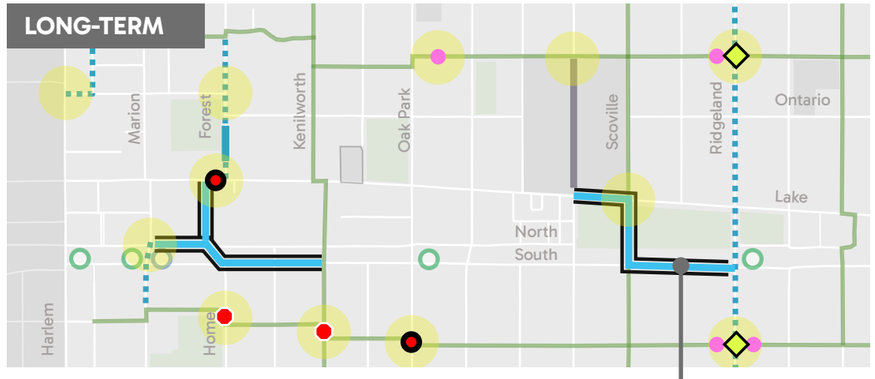
MID-TERM



Install **Protected Bike Lanes** on Lake Street between Scoville Avenue and East Avenue

Install **Protected Bike Lanes** on Scoville Avenue between South Boulevard and Lake Street

LONG-TERM



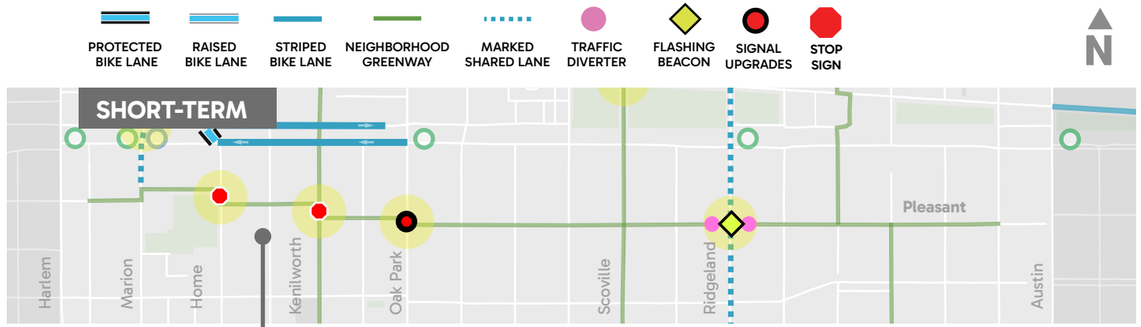
Remove parking and install **Protected Bike Lanes** on South Boulevard between Ridgeland Avenue and Scoville Avenue

PLEASANT STREET

While Pleasant Street is an existing planned route from previous planning efforts, there are opportunities to bolster the comfort along the corridor and improve the safety at intersections. In addition to traffic calming tools, recommendations include upgrading stop-control and traffic-controls at select locations.

OVERVIEW

TRAFFIC VOLUME	~600 - 3,000+ ADT
EXISTING CURB RIGHT-OF-WAY	~25 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-



Complete **Neighborhood Greenway** between Marion Street and Humphrey Avenue

TOOLS

TRAFFIC DIVERTER — East of Oak Park Avenue, West of Ridgeland Avenue

SPEED TABLE — Install periodically, with center gap for bicyclist path of travel

FLASHING BEACON — Ridgeland Avenue

ADDITIONAL

STOP SIGN — Upgrade intersection at Home Avenue to more safely accommodate cyclists traveling through the jog

STOP SIGN — Install stop signs for Kenilworth Avenue traffic to more safely accommodate cyclists traveling through the jog

SIGNAL UPGRADES — Install dedicated actuated cyclist signal phase/equipment at Oak Park Avenue to more safely accommodate cyclists through the jog

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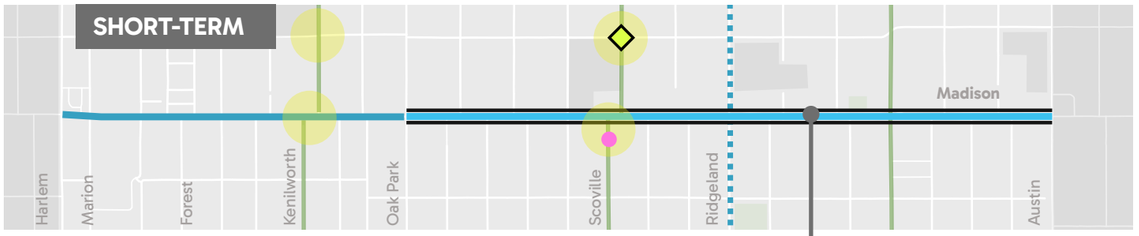
MADISON STREET

Madison Street has buffer bike lanes or parking-protected bike lanes from Austin Boulevard to Oak Park Avenue. Short- and-mid-term recommendation work to bolster the existing bike lanes and intersection crossings.

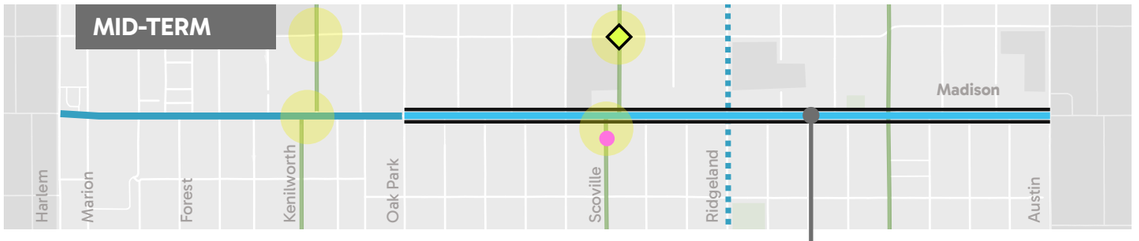
OVERVIEW

TRAFFIC VOLUME	~22,000 ADT
EXISTING CURB RIGHT-OF-WAY	~80 FEET
EMERGENCY ROUTING	MEDIUM TO HIGH USE
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON



Install pre-cast concrete curbs along all buffer markings to enhance cyclist protection



Upgrade bike lane design at Lombard Avenue, Ridgeland Avenue, East Avenue, and Oak Park Avenue to continue Protected Bike Lanes through the intersection

Example of pre-cast concrete curbs

Example of a protected interseciton.

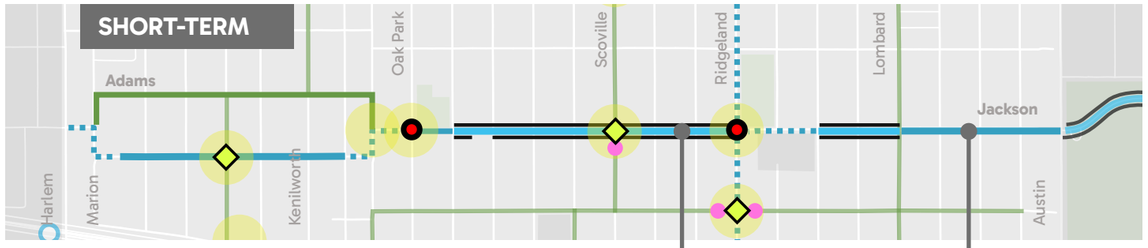
JACKSON BOULEVARD

Jackson Boulevard currently offers striped bike lanes or marked shared lanes, depending on the segment. Jackson Boulevard connects to several parks, Fox Center & Park, Longfellow Center & Park east to Columbus Park in the City of Chicago, and to the protected bike lanes on east of Austin Boulevard. Jackson Boulevard jogs at Grove Avenue and Maple Avenue, with limited right-of-way for road users.

OVERVIEW

TRAFFIC VOLUME	6,000 - 7,000 ADT
EXISTING CURB RIGHT-OF-WAY	VARIES, ~38 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON · SIGNAL UPGRADES



Upgrade existing bike facilities to **Protected Bike Lanes** between Euclid Avenue and Ridgeland Avenue and between Highland Avenue and Lombard Avenue – removing planted median between Harvey Avenue and Lombard Avenue; Remove left turn lanes at East Avenue to allow **Protected Bike Lanes**

Where turn lanes preclude Protected Bike Lanes, install green MMA-marked **Striped Bike Lanes** (as wide as possible but no narrower than 4 feet) or green MMA-marked **Marked Shared Lanes**

Install **Striped Bike Lanes** between Lombard Ave and Austin Blvd

ADDITIONAL

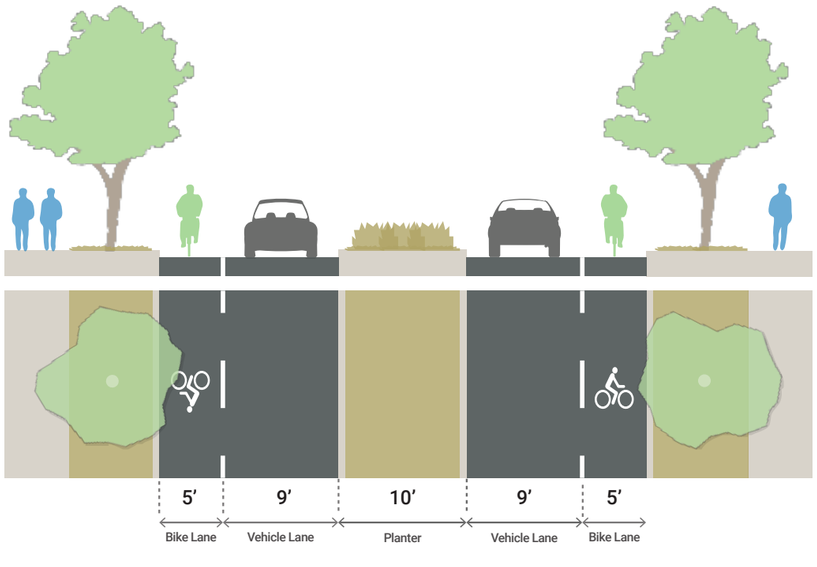
SIGNAL UPGRADES

Upgrade signals at Ridgeland Avenue and Oak Park Avenue for either automatic or actuated cyclist detection to provide cyclists a leading interval through intersections

PROPOSED NETWORK UPDATES

JACKSON BOULEVARD (CONTINUED)

JACKSON BOULEVARD CROSS SECTION | SHORT TERM OPTION 1

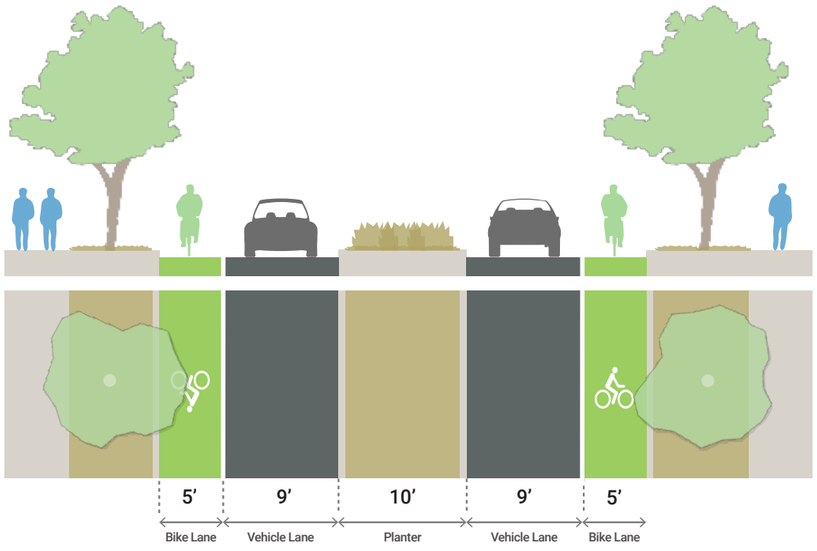


Install **Striped Bike Lanes** between Lombard Avenue and Austin Boulevard

OPTION 1
ADVISORY LANES
Evidence that advisory bike lanes do improve space vehicles give to cyclists.

Larger vehicles allowed to take the full lane.

JACKSON BOULEVARD CROSS SECTION | SHORT TERM OPTION 2

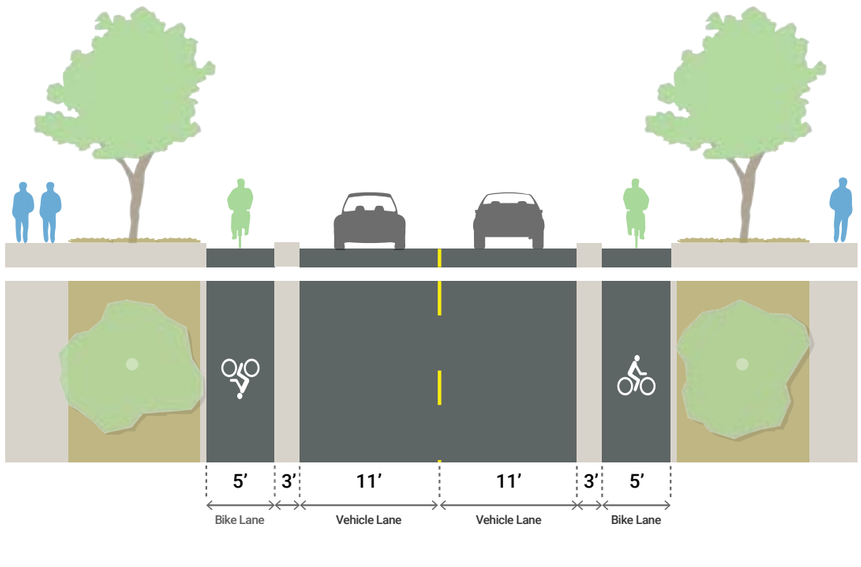


OPTION 2
PAINTED STRIPED LANES
Painted lanes clearly emphasize cyclist space.

Vehicle lanes narrowed, encouraging slower speeds.

Largest vehicles may need to still infringe on bike lanes.

JACKSON BOULEVARD CROSS SECTION | SHORT TERM



Upgrade existing bike facilities to **Protected Bike Lanes**

Can utilize pre-cast concrete curbs to reduce permanent curb work.

Install conflict markings at driveways and alleys that require gaps in curbs.

Installation of pre-cast curbs to form a protected bike lane.

PROPOSED NETWORK UPDATES

JACKSON BOULEVARD (CONTINUED)

JACKSON BOULEVARD AT GROVE AVENUE

Where turn lanes precludes Protected Bike Lanes, install green-backed **Marked Shared Lanes**

Give westbound bicyclists a jump at the light at Oak Park Avenue to get out ahead.

Enhance existing shared lane markings with green MMA behinds sharrow.

Could explore automatic cyclist detection that would trigger warning lights.

Assess if plantings causing visibility issues.

Opportunities for signage emphasizing to watch for bicyclists.

JACKSON BOULEVARD AT MAPLE AVENUE

Where turn lanes preclude Protected Bike Lanes, install green-backed **Marked Shared Lanes**

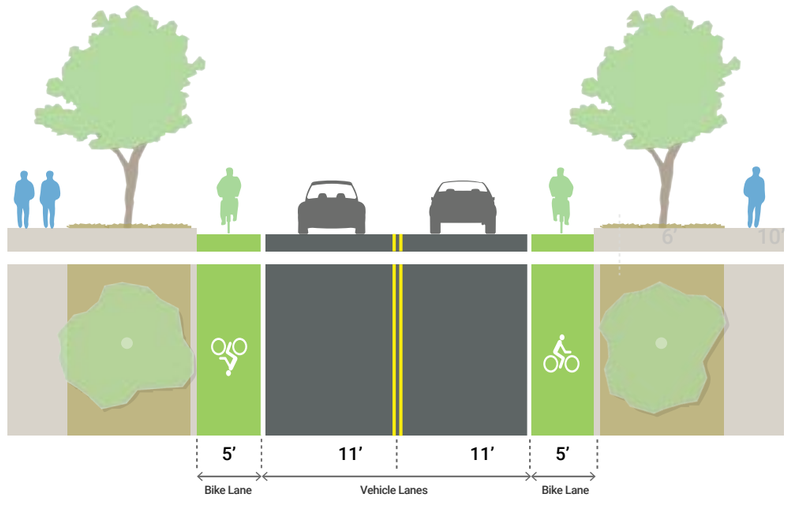
36 foot right-of-way through most of Maple Avenue;

Could include some pre-cast curbs, but likely not within curves themselves. This would require parking removal.

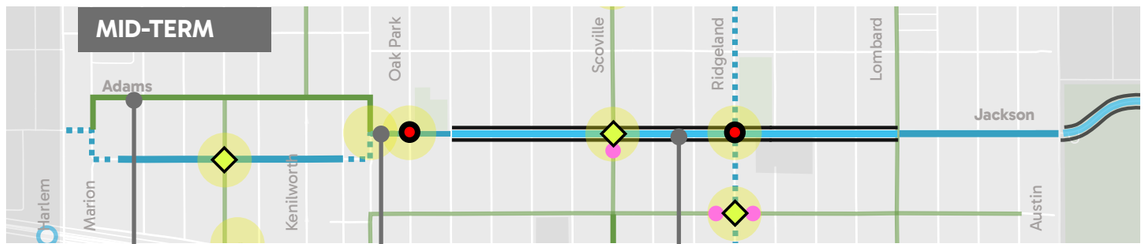
Utilize green MMA to guide cyclists through curve.

At curb extensions, follow markings currently used

JACKSON BOULEVARD CROSS SECTION | CARPENTER TO MAPLE



JACKSON BOULEVARD (CONTINUED)



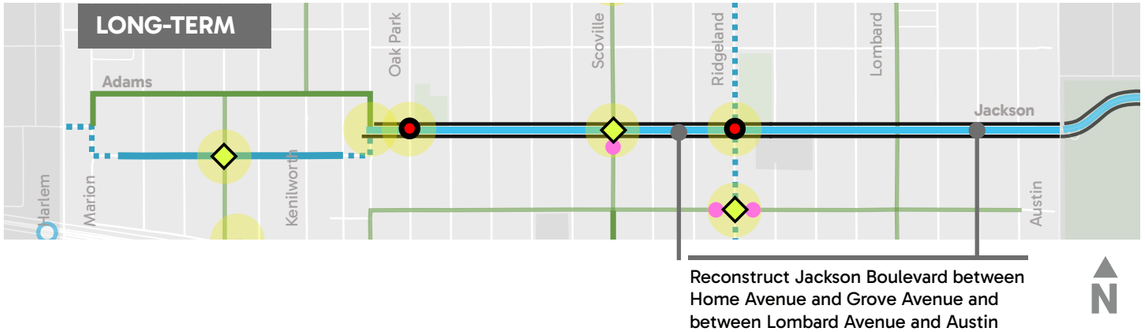
Install **Neighborhood Greenway** on Adams Street from Maple Avenue to Grove Avenue as low-stress alternative to Jackson Boulevard

Reconfigure intersection of Grove Avenue and Jackson Boulevard to accommodate cyclist transition to and from Adams/Jackson

PROJECT COORDINATION

WORK & COLLAB

Work with institutions along Jackson Boulevard to accommodate parking and loading needs while filling gaps in Protected Bike Lanes



Reconstruct Jackson Boulevard between Home Avenue and Grove Avenue and between Lombard Avenue and Austin Boulevard to provide continuous **Protected Bike Lanes**

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PROPOSED NETWORK UPDATES

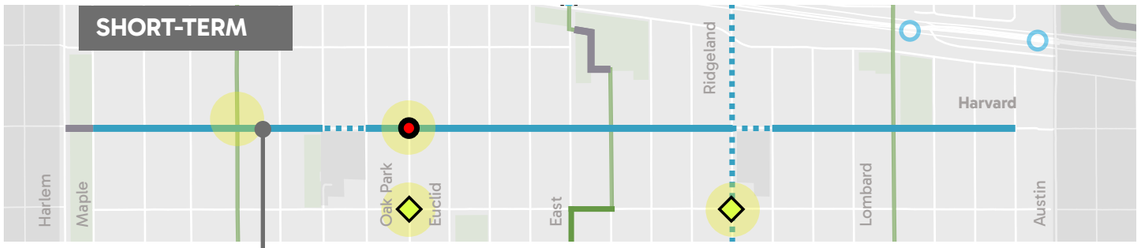
HARVARD STREET

Harvard Street connects to several parks and schools, including Maple Park, Carroll Center & Park, Abraham Lincoln Elementary School, Washington Irving Elementary School, and Barrie Park. Future bikeways adjacent to schools will require close coordination and planning. In addition to facilities on Harvard Street, rectangular rapid flashing beacons, or pedestrian beacons, are recommended on Fillmore Street.

OVERVIEW

TRAFFIC VOLUME	800 - 2,000 ADT
EXISTING CURB RIGHT-OF-WAY	VARIES
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	MAPLE - HUMPHREY

PROTECTED BIKE LANE · RAISED BIKE LANE · STRIPED BIKE LANE · NEIGHBORHOOD GREENWAY · MARKED SHARED LANE · TRAFFIC DIVERTER · FLASHING BEACON

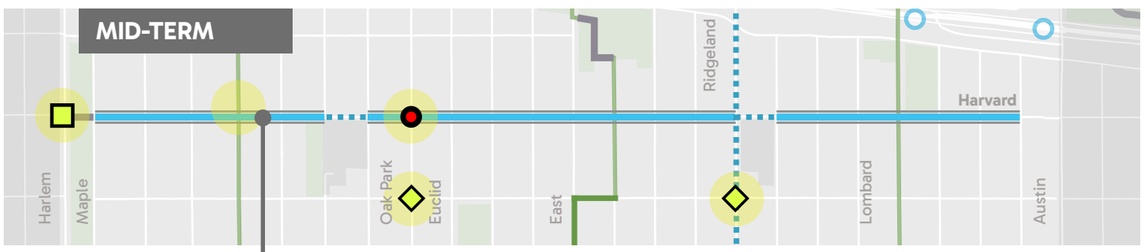


Remove parking and install **Striped Bike Lanes** on Harvard Street between Maple Avenue and Humphrey Avenue – with exception of corridor segments in front of schools, where **Marked Shared Lanes** will be installed

TOOLS

FLASHING BEACON

The Fillmore and Lexington Neighborhood Greenways plan garnered particular support for flashing beacons (RRFBs) on Fillmore Street at Oak Park Avenue as well as Ridgeland Avenue – these are recommended.



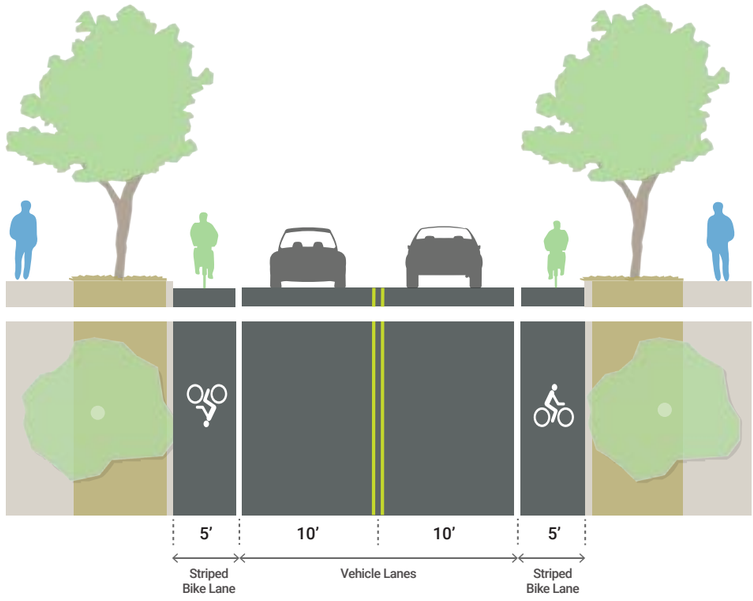
Upgrade Striped Bike Lanes to **Raised Bike Lanes**

TOOLS

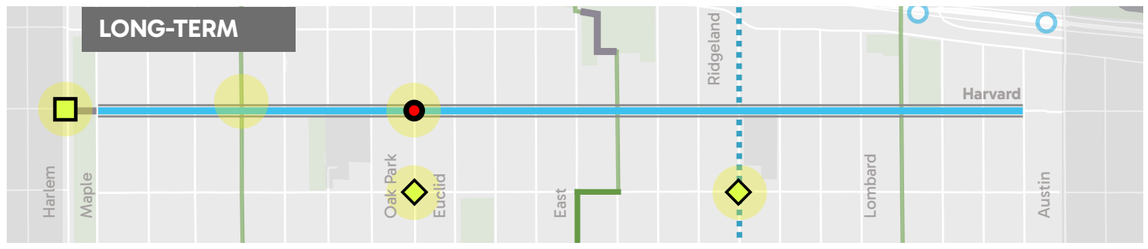
PEDESTRIAN BEACON

Install new bicycle and pedestrian crossing and pedestrian hybrid beacon signal at Harlem Avenue

Note: This plan explored opportunities to relocated the proposed bikeway from Harvard Street to adjacent streets of Fillmore Street and Lexington Street. Based on Transportation Commission recommendations, the proposed bikeway remains on Harvard Street due to signalized crossings at Oak Park Avenue and Ridgeland Avenue.



Remove parking and install **Striped Bike Lanes** on Harvard Street



PROJECT COORDINATION

WORK & COLLAB

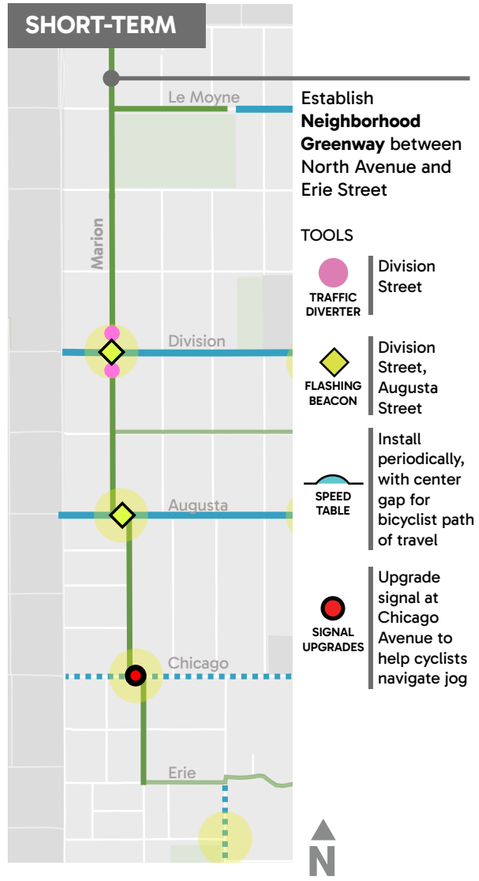
Coordinate revised pick-up/drop-off logistics at schools to enable continuous **Raised Bike Lanes** along the corridor

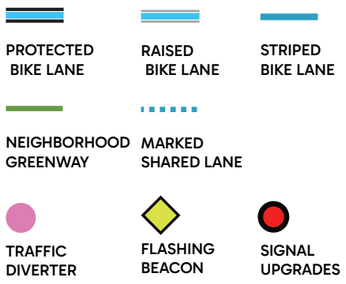
MARION STREET

Marion Street offers a north-south connection on the west side of the Village between North Avenue and Erie Street. The corridor connects Lindberg Park south towards downtown Oak Park. The corridor requires improvements at key intersections to sure the safety and comfort of bicyclists.

OVERVIEW

TRAFFIC VOLUME	800 - 1,300 ADT north of Division 600 - 700 ADT Chicago to Division ~4,300 ADT Erie to Chicago
EXISTING CURB RIGHT-OF-WAY	~28 FEET
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-



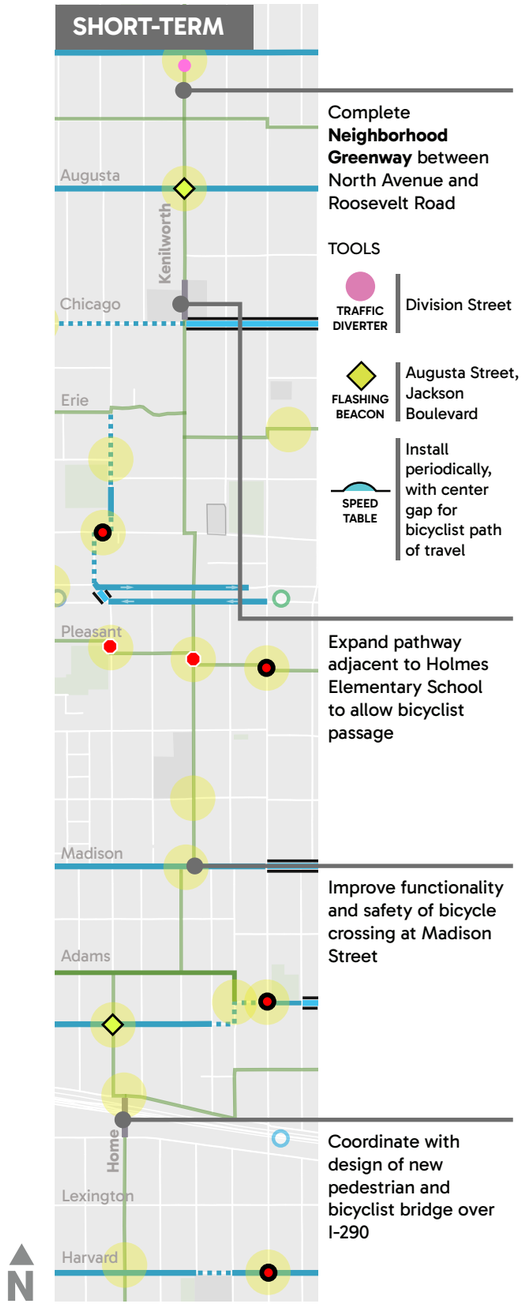


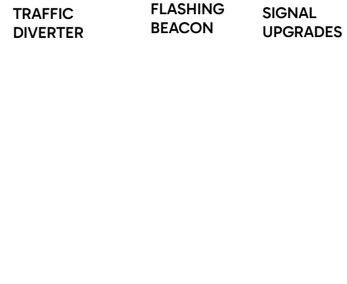
KENILWORTH AVENUE / HOME AVENUE

Together, Kenilworth Avenue and Home Avenue offer a north-south connector through the center of the Village. While the corridor is predominantly north-south, it requires a few jogs to maintain thru-access at key points. Additional wayfinding signage may accompany the route. A component of the corridor includes improving key crossings, such as the Home Avenue Bridge across I-290.

OVERVIEW

TRAFFIC VOLUME	600 - 4,000 ADT
EXISTING CURB RIGHT-OF-WAY	VARIES
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-





KENILWORTH/ HOME (CONTINUED)

HOME AVENUE BRIDGE | NORTH SIDE

Coordinate with design of new pedestrian and bicyclist bridge over I-290

Allow more sidewalk space on Harrison St to navigate safe bicycle turning maneuvers.

LONG-TERM

Several long-term bikeway concepts were explored for the Home Avenue/Kenilworth Avenue corridor, including:

Establishing raised or protected bike lanes by converting existing two-way streets to one-way traffic:

- Home Avenue and Clinton Avenue from Roosevelt to Garfield
- Clinton Avenue and Kenilworth Avenue from Harrison to South Blvd

Ultimately, this concept would require removing existing cul-de-sacs at Kenilworth Avenue and Madison Street and at Clinton Avenue and Madison Street, which could have substantial impact on the flow of traffic on these streets

Establishing a two-way raised or protected bikeway on Home Avenue: This concept would require either one-way traffic conversion, (which could have substantial traffic impacts on surrounding streets) and/or partial or complete parking removal on most blocks. The magnitude of these impacts would require more in-depth analysis.

Establishing a two-way raised or protected bikeway on Grove Avenue: This concept would require either one-way traffic conversion and partial loss of vehicle parking or a complete loss of vehicle parking. This concept would also require navigating the complex intersections with Jackson Boulevard. The magnitude of these impacts would require more in-depth analysis.

OAK PARK AVENUE

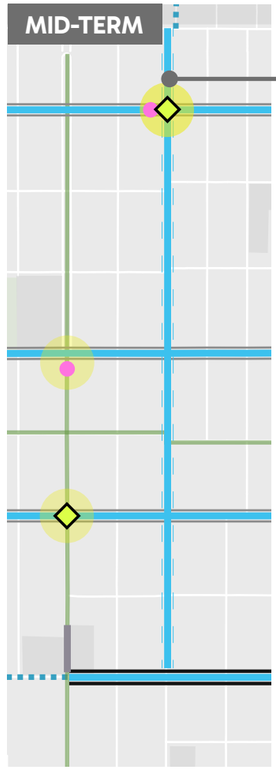
Oak Park Avenue offers a direct north-south connector on the north side of the Village.

OVERVIEW

TRAFFIC VOLUME	~12,000 ADT
EXISTING CURB RIGHT-OF-WAY	VARIES
EMERGENCY ROUTING	MEDIUM-USE
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE
RAISED BIKE LANE
BUFFERED BIKE LANE
STRIPED BIKE LANE
NEIGHBORHOOD GREENWAY
MARKED SHARED LANE
TRAFFIC DIVERTER
FLASHING BEACON
STOP SIGN

MID-TERM



Install **Buffered Bike Lanes** from North Ave to Chicago Ave

PROPOSED NETWORK UPDATES

SCOVILLE AVENUE / FAIR OAKS AVENUE / ELMWOOD AVENUE

Together, Scoville Avenue / Fair Oaks Avenue / Elmwood Avenue offer a north-south connector across the Village. While the corridor is predominantly north-south, it requires a few jogs to maintain thru-access at key points. Additional wayfinding signage may accompany the route. The corridor includes a connection on Lake Street to access OPRFHS shared path and bike parking.

OVERVIEW

TRAFFIC VOLUME	LOW
EXISTING CURB RIGHT-OF-WAY	VARIES 400 - 2,000 ADT
EMERGENCY ROUTING	-
JURISDICTION	VILLAGE
SHORT-TERM PARKING IMPACT	-

PROTECTED BIKE LANE

RAISED BIKE LANE

STRIPED BIKE LANE

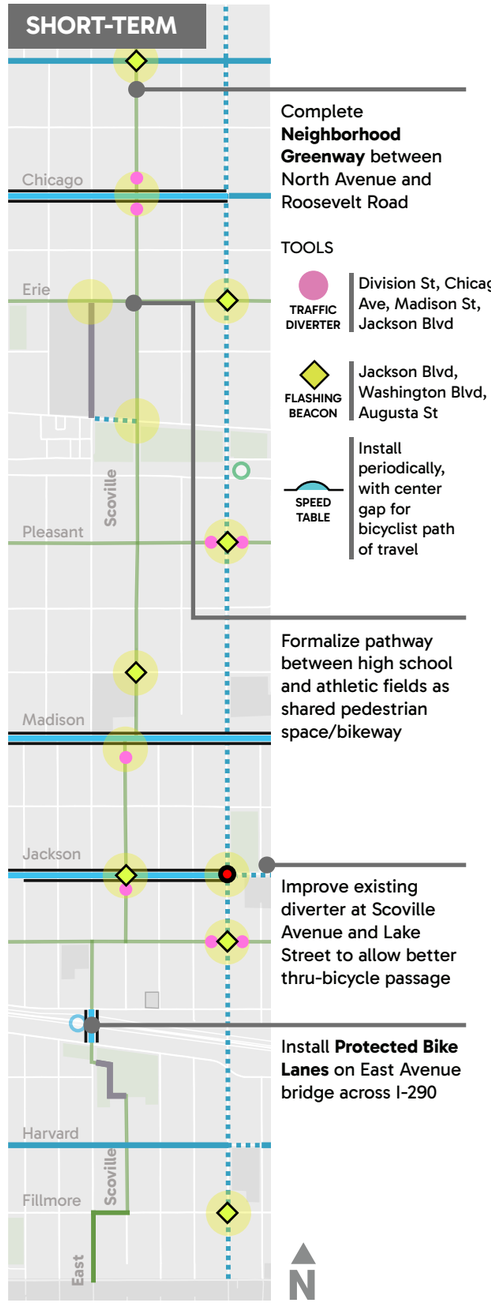
NEIGHBORHOOD GREENWAY

MARKED SHARED LANE

TRAFFIC DIVERTER

FLASHING BEACON

SIGNAL UPGRADES



Complete **Neighborhood Greenway** between North Avenue and Roosevelt Road

TOOLS

TRAFFIC DIVERTER — Division St, Chicago Ave, Madison St, Jackson Blvd

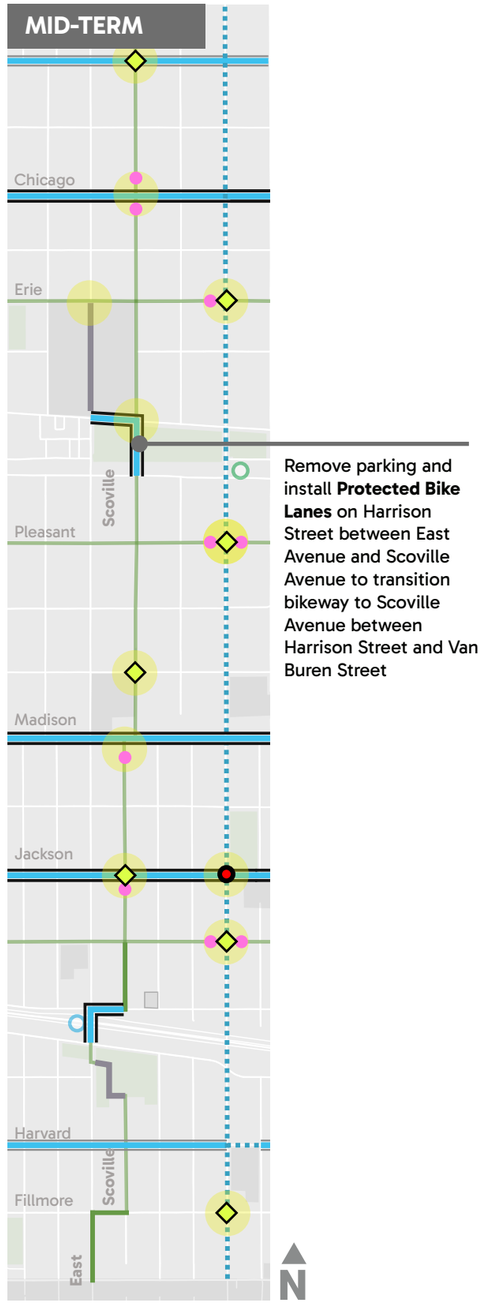
FLASHING BEACON — Jackson Blvd, Washington Blvd, Augusta St

SPEED TABLE — Install periodically, with center gap for bicyclist path of travel

Formalize pathway between high school and athletic fields as shared pedestrian space/bikeway

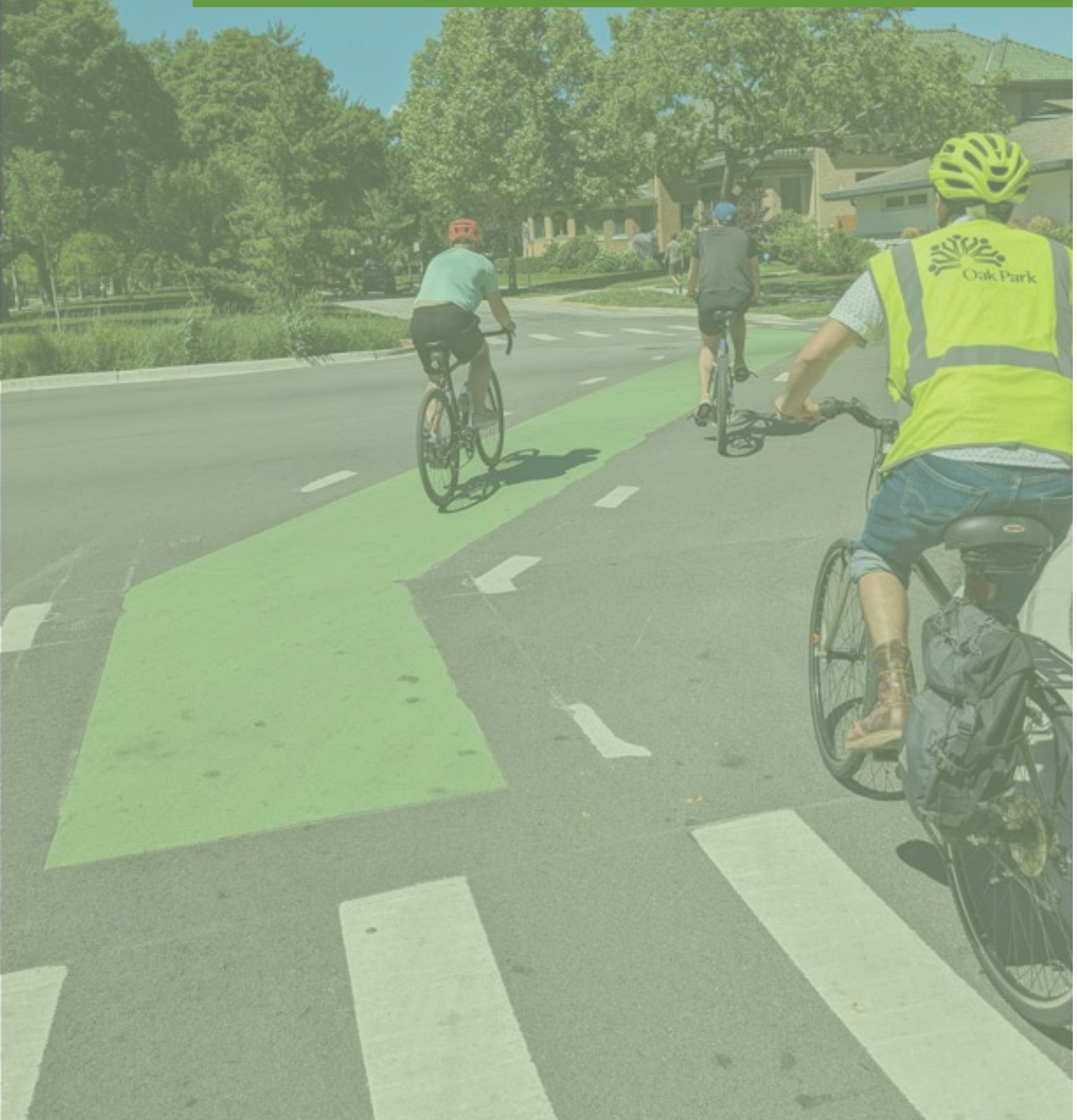
Improve existing diverter at Scoville Avenue and Lake Street to allow better thru-bicycle passage

Install **Protected Bike Lanes** on East Avenue bridge across I-290



Remove parking and install **Protected Bike Lanes** on Harrison Street between East Avenue and Scoville Avenue to transition bikeway to Scoville Avenue between Harrison Street and Van Buren Street

6 | BIKESHARE ANALYSIS



BIKESHARE OVERVIEW & GOALS

Bikeshare systems provide shared bikes for rent that can be picked up and dropped off at different locations throughout a service area. Bikeshare systems are typically designed to serve shorter trips and typically charge fees based on the duration of the trip. Bikeshare systems are commonly used both by people who both do and don't own personal a personal bike. For those who own personal bikes, bikeshare can be a convenient option for one-way trips, can provide access to pedal-assist electric bikes (e-bikes), and can remove personal device security concerns.

In 2023, more than 370 US cities had either a bikeshare or shared scooter program , demonstrating the continued popularity of these programs since they first arrived in North America in the late-2000s. Bikeshare systems provide increased mobility options for residents they serve and can provide the following specific benefits:

- Increase access and connectivity to transit service
- Trip mode shift away from more environmentally harmful modes
- Opportunities for increased physical activity
- Increased access to local businesses and other community destinations.

This analysis provides an overview of the history of bikeshare in the region and in Oak Park, industry trends since 2017, bikeshare operational options available to Oak Park, a review of potential demand, an overview of station network concepts, and a draft cost estimate analysis. This report is intended to be starting point for evaluating the future of bikeshare in Oak Park, and additional analysis is likely required to make decisions on a potential future system.

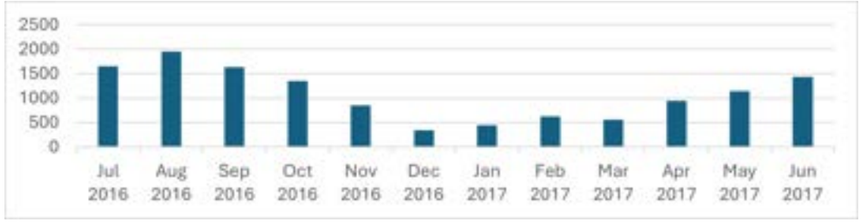
HISTORY OF BIKESHARE IN THE REGION & IN OAK PARK

The Divvy bikeshare system launched in Chicago in June 2013, initially deploying around 300 stations and several thousand pedal bicycles in the Central Business District and nearby residential neighborhoods. The system grew gradually in the following years, including an expansion to Evanston and Oak Park in coordination with the Chicago Department of Transportation (CDOT) in July 2016. Thirteen docking stations with a total of 207 docks were installed in Oak Park, between Augusta St and Garfield St, funded by a grant for the Illinois Department of Transportation (IDOT) and a 20% local share match.

OAK PARK DIVVY RIDERSHIP TRENDS[11]

In the first full year of operation, the Divvy system generated 12,925 trip origins in the Village of Oak Park, an average of 35.4 trips per day. Following similar trends seen in the City of Chicago, Divvy trips peaked in late summer, with 1,952 trips in August 2016, and fell in the winter months.

FIGURE 1. DIVVY TRIP ORIGINS FROM VILLAGE OF OAK PARK STATIONS: JULY 2016-JUNE 2017



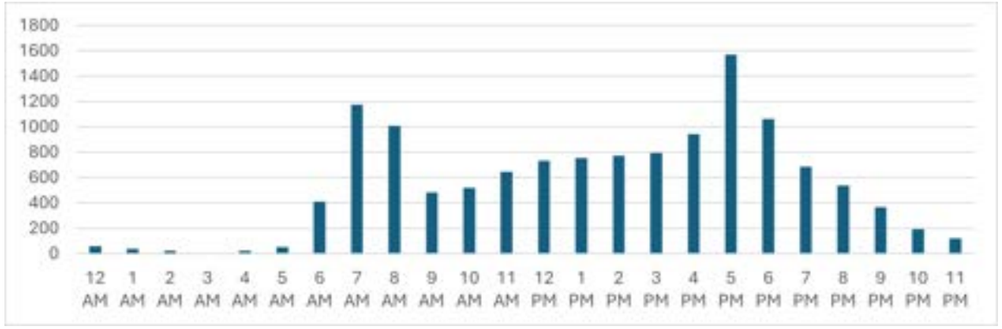
As Figure 2 shows, the most popular Divvy stations were at the Harlem/Lake CTA station (16% of all trips) and at the Frank Lloyd Wright Home and Studio (12% of all trips).

FIGURE 2. OAK PARK DIVVY STATIONS AND TRIPS: JULY 2016-JUNE 2017

Station Name	Trips
Marion St & South Blvd	2,035
Forest Ave & Chicago Ave	1,617
Oak Park Ave & South Blvd	1,275
Forest Ave & Lake St	1,195
Wisconsin Ave & Madison St	1,137
East Ave & Madison St	904
Ridgeland Ave & Lake St	882
Cuyler Ave & Augusta St	846
Lombard Ave & Garfield St	825
Oak Park Ave & Harrison St	776
East Ave & Garfield St	749
Lombard Ave & Madison St	457
Humphrey Ave & Ontario St	276

The average length of a Divvy trip in Oak Park was just under 15 minutes, and trips saw clear peaks between 7:00-9:00am and 5:00-7:00pm, suggesting that the service was used to facilitate work commuting trips.

FIGURE 3: DIVVY TRIP ORIGINS FROM VILLAGE OF OAK PARK STATIONS BY TIME OF DAY: JULY 2016-JUNE 2017



OAK PARK DIVVY COST STRUCTURE

The Village of Oak Park paid a monthly fee of $125/dock to operate the system and was entitled to revenues that included the membership fees of all Oak Park residents, 24-hour pass revenue (if purchased in the Village), and all overage fees related to 24-hour passes purchased in the Village. Oak Park also received a portion of the system's advertising revenue. The operator retained all other revenue. According to an analysis of the first nine months of operation provided by Village staff, these revenues amounted to just under $9,900/month. Meanwhile, costs equaled just over $26,600/month. In these first nine months, the system cost the Village of Oak Park approximately $16,700 per month, on net.

OAK PARK DIVVY PROGRAM END

In January 2018, the Village of Oak Park Board of Trustees voted 4-3 to end the Divvy program in the Village. Trustees who voted to end the program cited high costs and low ridership, but other Trustees expressed a desire to give the system more time to develop and grow. Several residents have expressed the opinion since the program end that the small number of stations, in limited parts of the Village, was a contributing factor to low ridership.

DIVVY SINCE 2017

In 2019, Lyft acquired Divvy operator Motivate and took over both management and sponsorship of the system. In the years since Divvy service ended in Oak Park, the system has continued a substantial expansion in the City of Chicago. As of November 2024, there are more than 1,000 stations in Chicago, across nearly every neighborhood. The Divvy system now borders Oak Park on both the east and north sides of the Village. Pedal-assist electric bikes (e-bikes) were added to the Divvy fleet in 2020, and electric scooters (e-scooters) were added in 2022. Both e-bikes and e-scooters have the capability to end trips outside of stations by locking to bike racks and street signs, although pedal bikes must still be returned to docking stations. Currently, Divvy e-scooters only operate in a limited portion of the service area.

The Divvy system saw a substantial ridership jump in 2021 that has been retained, potentially attributable to a range of factors include the introduction of e-bikes, changing mobility patterns due to the pandemic, and reduced transit service frequency during the pandemic. This jump in ridership also coincided with an increase in the share of non-member trips compared to member trips. In 2019, non-members accounted for 23% of bike trips, compared to 36% in 2023. In 2023, the Divvy system recorded a record number of total trips, at just over 6.6 million (compared to 3.8 million trips in 2017). In 2023, Divvy trips by device type were as follows:

- Pedal Bikes: 41.4%
- E-Bikes: 44.6%
- E-Scooters: 14%

Since 2017, the total cost and cost structure for Divvy has increased, and the cost of a 15-minute e-bike or e-scooter trip is about twice the cost of a 15-minute pedal bike trip, which is likely a key factor in the sustained popularity of pedal bikes. Although some bikeshare systems have gone fully to e-devices, the Divvy system plans to continue offering pedal bikes, purchasing several thousand new units in recent years.

CURRENT STATE OF THE SHARED MICROMOBILITY INDUSTRY

When Oak Park last hosted bikeshare, the industry was relatively straightforward—dedicated bikeshare operators entered into contracts with government agencies or nonprofits to deploy systems comprised of docking stations and pedal bikes that could only be rented from and returned to those docking stations.

In 2024, the industry has become much more diverse, with a broader "shared micromobility" ecosystem emerging. Key evolutions since 2017 include:

- The introduction and popularity of e-bikes and e-scooters
- The introduction of "dockless" systems accessed by mobile apps
- The introduction of devices that can end trips outside docking stations
- The rise of private companies operating dockless shared bike and scooter services in municipalities under the authority of permits or licenses
- The consolidation of shared micromobility equipment providers and operators
- The failures of several nonprofit bikeshare systems
- The expansion of shared micromobility to service areas beyond urban cores and dense urban neighborhoods
- The increasing number of bikeshare systems folded into transit systems
- The rise in more regional system cooperation and administration

COST & FUNDING

Additionally, North American bikeshare systems were traditionally expected to pay for themselves through rider and sponsorship revenue. In recent years, as the industry has matured and expanded into more diverse service areas, this philosophy has begun to change. Shared micromobility systems are increasingly seen as "public transit." Several systems, such as Bluebikes in the Boston region and Capital Bikeshare in the DC region, now have operating costs directly subsidized by public agencies to maintain lower rider fees.

RIDERSHIP GROWTH

Since 2017, shared micromobility systems have seen massive ridership growth. According to the National Association of City Transportation Officials (NACTO), trips in the US increased from 35 million in 2017 to 133 million in 2023.

DOCKED VS. DOCKLESS TRENDS

The industry has seen two major swings in dockless vs docked operational trends since 2017. Between 2017-2021, the industry saw a major shift to dockless operations, with the expectation that removing station infrastructure would reduce operational costs and that increasing parking flexibility would attract more riders. These dockless services also largely emerged from companies who were heavily subsidized by venture capital funding and were willing to pay fees to municipalities for the right to operate. Since 2022, there has been a shift back towards an emphasis on docked-based systems. Operators learned that rebalancing and replacing batteries on dockless devices scattered throughout a service area while maintain overall high system standards is costly. In Chicago, Divvy is currently investing in 400 additional docking stations, and Lyft requires that all devices be returned to stations in many of their major systems (Divvy being an outlier).

BIKESHARE OPERATIONS OPTIONS

The Village of Oak Park has three primary bikeshare operations options:

1. Re-join the Divvy system
2. Create a new bikeshare system
3. Develop a permit/license program that allows shared micromobility companies to operate

Further, the Village of Oak Park must decide whether to pursue any of these options either independently or as part of a larger regional coalition of municipalities.

DECISION POINT: SOLE OPERATION VS. REGIONAL COORDINATION

Oak Park could decide to go it alone and develop a unique service that operates only within the boundaries of the Village. Alternatively, Oak Park could coordinate a service with neighboring municipalities and/or several municipalities in the region. Given its small footprint, Oak Park is likely to see higher ridership if coordinating a system with neighboring municipal and/or regional partners. Broader cooperation is likely to result in increased trip opportunities (across municipal boundaries) and improved leverage in negotiating operational terms and equipment costs. This coordination could include either co-operation with other municipalities or joining a partnership organized under a regional coordinating body such as Cook County, the RTA, or CMAP. As of the end of 2024, Cook County is actively conducting a study on the feasibility of expanding bikeshare in the county beyond its existing footprint in Chicago and Evanston.

OPTION 1: RE-JOIN THE DIVVY SYSTEM

There are several potential benefits and drawbacks to re-joining the Divvy system. Key benefits include:

- Divvy has existing operations that could (relatively) simply be expanded into Oak Park.
- There are potential economies of scale with operational and equipment costs.
- Divvy already operates north and east of Village boundaries.
- Residents are already familiar with the Divvy system.
- Divvy service appears in the Ventra app.

Key drawbacks include:

- Control of major system decisions, including pricing, operator, service levels, and equipment, would likely be largely bound by CDOT's priorities and their primary contract with the operator.
- Divvy's operational and cost model may not be the best fit for Oak Park's needs.

Conversation with Lyft:

To help understand what re-joining Divvy might look like, the project team engaged in a conversation with system operator, Lyft. Although Lyft was unable to engage in many specifics, they pointed to the Boston region's Bluebikes system as a likely model for how Oak Park would join Divvy. In the Bluebikes system, which is comprised of Boston and nine regional municipalities, Lyft retains most revenue, while the municipalities own the equipment. The Boston area's regional planning agency, The Metropolitan Area Planning Council (MAPC), plays a key role coordinating the contract and system operations. Boston and three original neighboring municipalities comprise of the "legacy" system whereby they pay no fee to operate service. However, other municipalities that have joined the system in more recent years pay a fixed fee for service and do not receive revenues.

Conversation with Boston Region:

The project team interviewed staff at both the City of Somerville, MA (a legacy municipality in the system), as well as MAPC. Key information learned includes:

- Non-legacy municipalities pay a monthly fee of $55-per-dock to operate the system.
- That monthly fee is reduced if a municipality hits certain ridership targets.
- Communities generating high ridership tend to have strong local champions.
- Non-legacy municipalities need strong marketing and outreach to grow ridership.
- MAPC sees its role as critical to helping bring municipalities together and helping them negotiate with the operator collectively.

OPTION 2: CREATE A NEW BIKESHARE SYSTEM

The Village of Oak Park could contract with a bikeshare system operator to establish a brand new service, either independently or with a collation of regional partners. Creating a new system would likely require substantial upfront effort and coordination, but the benefit would be the opportunity to establish a system tailored to the needs of Oak Park. This would also open an opportunity for a dockless system if so desired (Lyft is unlikely to expand Divvy into Oak Park without stations, per Lyft's comments on committing to dock-based systems moving forward). The key downside of this option is that Oak Park residents would be unable to use this service to access Chicago and would need to use multiple systems when riding in Oak Park versus when riding in Chicago.

OPTION 3: ESTABLISH A SHARED MICROMOBILITY PERMIT OR LICENSE PROGRAM

The Village of Oak Park could establish a permit or business license program that would allow shared micromobility operators to deploy vehicles for rent within the Village. The terms of this permit/license may include collecting a fee for the right of these companies to operate, although a low-fee or zero-fee permit/license would attract more interest and could allow Oak Park to set more specific operational standards. These companies would likely offer exclusively dockless operations. The key upside of this option is potentially much lower financial risk to the Village (these operators tend to supply equipment at no cost to municipalities). However, the key downside is less Village control over operations and outcomes and less long-term stability. Permit/license programs can also ultimately require intensive regulation to enforce established rules.

PROJECTING BIKESHARE DEMAND

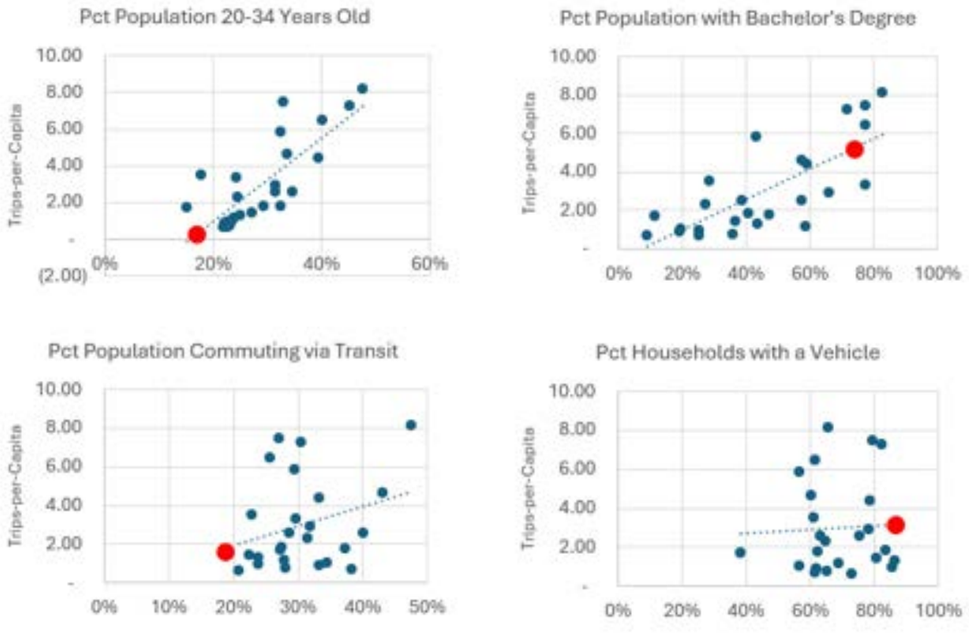
A key decision point for ending bikeshare service in the Village in 2018 was demand for the service. And so, understanding potential demand for a future service is important to make any decisions moving forward.

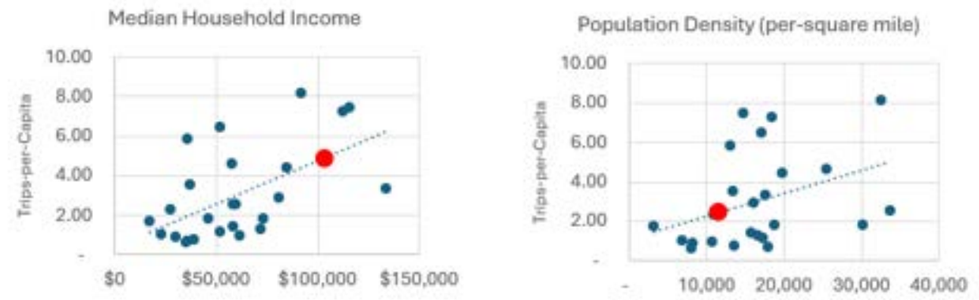
PREDICTORS OF DEMAND

The project team began by reviewing a 2019 academic paper identifying the factors that can be used to model bikeshare demand:

- **Age:** Specifically, share of 20–34-year-olds
- **Education:** High school diplomas and Bachelor's degrees
- **Public Transportation:** Commuting to work using transit
- **Car Ownership:** Number of vehicles not considered
- **Income:** Median household income
- **Density:** Population density

Utilizing the Chicago Metropolitan Agency for Planning (CMAP)'s Community Data Snapshots, the project team collected Divvy trips-per-capita data as well as data on the predictors of demand for each of Chicago's Community Areas that have had Divvy service since at least 2017. The graphs below show relationships for each of these factors based on local data.





The red dots along the trendlines represent where Oak Park falls on each X axis. For predicting bikeshare demand, the Village sits on the low end of percent of 20-34-year-olds (16.7%), transit commuting (18.8%), and population density (11,454). However, the Village sits on the high end of college education (76.8%), and median household income ($103,264). Vehicle ownership (87.5%) appears to be a relatively weak predictor. This analysis indicates Oak Park has characteristics that would both indicate relatively low bikeshare demand and relatively high bikeshare demand.

SIMILAR COMMUNITY AREAS

Utilizing CMAP Community Snapshots data, the project team next developed an analysis to assign a "similarity score" to Oak Park for each Community Area in Chicago, based on the predictors of bikeshare demand and the observed magnitude of each factor's relative influence. Figure 4 lists the Chicago Community Areas ranked as the most similar to Oak Park in regards to factors predicting bikeshare demand:

FIGURE 4. SIMILARITY SCORE RANKING

Rank	Community Area	Similarity Score	Divvy Bikeshare Summary
1	Edison Park	7.24	Limited service, no stations in place yet
2	Beverly	7.23	Full station network still being built out
3	Mount Greenwood	7.01	Full station network still being build out
4	Norwood Park	6.92	Limited service, no stations in place yet
5	Jefferson Park	6.86	Full station network still being build out
6	North Center	6.86	Top 16% of trips-per-capita among Community Areas
7	Dunning	6.65	Full station network still being build out
8	Portage Park	6.62	Full station network still being build out
9	Calumet Heights	6.59	Bottom 21% of trips-per-capita among Community Areas
10	Forest Glen	6.59	Limited service and stations in place yet

As Figure 4 shows, of the 10 Community Areas with the highest "similarity scores," eight are either relatively new to the Divvy system and have few or no stations in place or their full station network is still being built out. These Community Areas therefore lack sufficient data to make predictions. Two other Community Areas that do have long-established Divvy service show opposite predictions.

In summary, Oak Park does not have sufficient peer Chicago neighborhoods (with regards to bikeshare predictive factors) with a meaningful history of Divvy service to make useful bikeshare demand projections based on the existing performance of the Community Areas.

RIDERSHIP GROWTH TRENDS

In 2017, the last full year of Divvy service in Oak Park, a total of 27 Community Areas in Chicago were either completely or nearly completely included in the Divvy service area. Comparing ridership in 2017 to 2023 in those Community Areas can provide a clue as to what Oak Park ridership may have looked like in 2023 if it had maintained service. Collectively, those 27 Community Areas saw a median growth rate of 226% between 2017-2023.
Given Oak Park's 2017 ridership of 11,114 trips, this data indicates that if Oak Park had trended along the median growth rate of the rest of the service area, it may have seen 25,080 trips in 2023.

What explains this growth? A maturing system, increased resident familiarity, altered mobility habits during the pandemic, improved bike infrastructure, and the introduction of e-bikes are all potentially responsible for growth in Divvy ridership between 2017-2023. Oak Park would have experienced many of these factors as well within that six-year period.

INCREASING FUTURE RIDERSHIP

Data and research indicate several factors could increase ridership in a future bikeshare system over Oak Park's initial participation in Divvy:

- Introducing e-bikes, which provide increased utility to more riders for more trip purposes.
- Building a denser station network, including within residential areas.
- Building out enhanced bicycle infrastructure.
- Enhanced marketing and outreach.

Other unknown future factors may also have an impact on ridership demand, including:

- Whether adjacent municipalities are also in the service area.
- Trip pricing structures.
- Quality of devices.
- Quality of user-interface (mobile app and/or station kiosk).
- Enhanced integration with transit system.

BIKESHARE STATION NETWORK PLANNING

Station-based bikeshare can improve user reliability and help keep bikes well-organized while parked. One of the key downsides of dockless systems is cluttered parking that is unsightly, potentially dangerous for pedestrians, and very difficult to control and regulate, even with strict parking standards and corrals.

In a station-based system, the key questions in establishing a station network are determining the number of stations and where they will be installed. Oak Park's 2015 Bikeshare Feasibility Study approached the station network question using a traditional method for bikeshare system planning: Gathering detailed demand indicator data (such as population density, commercial employment density, proximity to transit, and population age) to determine "which destinations have the highest potential for bikeshare use." This analysis led to the placement of 13 stations in 2016.

An alternative station network planning process approaches the problem not from the premise of only identifying the most high-demand station locations, necessarily, but from the perspective that bikeshare should serve an entire defined area. While identifying the highest-demand locations for stations is still eventually important, this alternative process aims to develop a complete network for an entire defined service area.

Key to this premise are two considerations:

1. Riders need access to both trip origin points and destination points.
2. The closer a potential rider is to a station at the start of their trip and the closer their destination is to a station, the more likely they are to use bikeshare.

STATION DENSITY

This second consideration can be quantified using station density. The denser a station network is (assuming the network is relatively evenly distributed), the closer more stations will be to a potential rider and to their destinations.

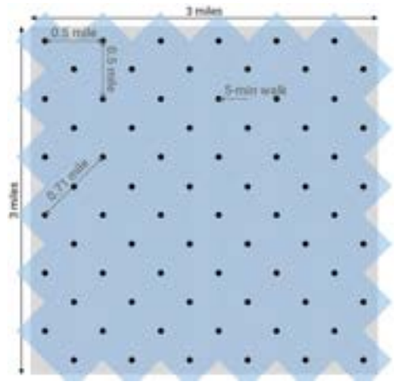
A 2022 study of San Francisco's bikeshare program concluded: "Ease of availability as indicated by station density is the single most important factor that increases utilization." Research on Paris' bikeshare program from the University of Chicago concluded that "a 10% reduction in travel distance to bikeshare stations can increase system use by 6.7%."[12]

So how dense should a bikeshare network be to generate high ridership? The answer ultimately is: The denser the better. For system planning purposes, however, it's important to identify concrete numbers. A 2015 National Association of City Transportation Officials (NACTO) Equity Practitioner Paper on bikeshare station siting reported that people appear to be willing to walk up to 5 minutes to reach a bike[13]. The NACTO paper also reported a strong correlation between high station density and high ridership. Typical human walking speed equates to covering approximately 0.25 miles in 5 minutes. Therefore, if stations are

placed 0.5 miles apart, a person standing directly between those two stations would be no more than 5 minutes from a station (assuming a perfect network). What's key to this premise is that proximity to a station is important no matter the surrounding population density. High- and low-density population areas each need the same minimum station network density to accommodate potential riders' willingness to walk to a station.

Figure 5 shows hypothetical stations on a perfect grid placed 0.5 miles away from every other nearest station in an offset fashion. In this arrangement, 100% of the service area is within 5 minutes of a station. This half-mile offset grid equates to a density of 8 stations per square mile.

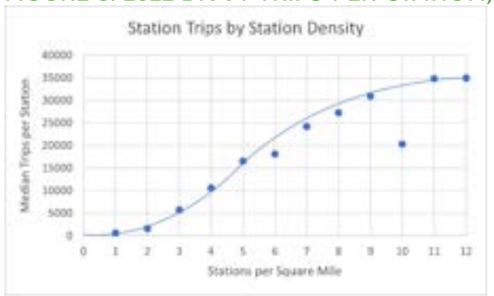
FIGURE 5. STATION SPACING CONCEPT | 8 PER SQUARE MILE



To increase ridership and system utility, NACTO's 2015 paper recommends an even higher optimal density—stations approximately every 0.2 miles, or 28 per-square-mile. While this density reflects a highly usable system, it's also unrealistic and cost-prohibitive for most cities. Chicago's Loop features a station density of 16 per-square-mile, and northside neighborhoods including Lincoln Park, Lake View, Uptown, and Edgewater feature station densities around 8 per-square-mile. Stations in these neighborhoods all see very high ridership compared to the system overall (station densities are closer to 4.0 per-square mile in most other neighborhoods).

Chicago's Divvy network offers a further clue to station density targets. An analysis was run to compare 2022[14]. Divvy station trip data and station network density. What Figure 6 shows is that trips-per-station continue to increase as density increases, but the curve is steepest as density increases between 4-5 stations-per-square-mile and begins to taper more substantially past 8-9 stations per-square-mile.

FIGURE 6. 2022 DIVVY TRIPS-PER-STATION, BY STATION DENSITY



Collectively, these data points indicate the highest per-unit rates of return at approximately 5 stations per-square-mile with continued strong returns up to 8-10 stations per-square-mile.

STATION DENSITY TRADE-OFFS

Determining the proper station network density ultimately comes down to a series of trade-offs: A denser network is likely to generate more trips, but this network is also more costly to maintain (especially if an operator charges on a per-dock basis). Installing more stations also increases the financial risk if ridership ultimately does not meet expectations. However, what data from Chicago shows is that meager station density is unlikely to generate high ridership. Although high station densities do not guarantee success, they are necessary for success to be possible. Based on the data above, it is recommended that an initial station network of 5.0 per-square-mile be established, with additional stations likely to generate additional ridership.

DETERMINING A SERVICE AREA

A bikeshare service area needs to be large enough to provide potential riders with many potential origin and destination points. Given Oak Park's relatively compact total size (4.7 square miles), it is recommended that a future bikeshare station network serve the entire Village. A service area smaller than Village boundaries risks providing insufficient origin and destination points to be a useful system.

STATION SIZE

Station size is a trade-off in maximizing resources and system reliability. Installing a network of smaller stations could allow for more total stations to be installed—increasing access to and from stations. However, too-small stations can create system reliability issues because the rental or return of only a small number of bikes can more quickly impact bike or dock availability. Therefore, a station size of approximately 11-15 docks is recommended, with stations potentially smaller than 11 docks likely okay in some residential neighborhoods and larger stations in highest-demand locations, such as transit stations and downtown.

OAK PARK FUTURE BIKESHARE STATION NETWORK CONCEPT

Oak Park's 2016 Divvy station network placed infrastructure at many expected high-demand locations, such as transit stations, parks, libraries and commercial areas. Figure 2 also provides insight into what stations proved more or less popular. A future station network would likely include many of the original 2016 locations but several additional stations as well to achieve a complete network throughout the Village. Per the analysis above, a Village-wide station network at a density of 5.0 per-square-mile would equate to 24 total stations.

Figure 7 details a concept station network that spreads the 24 stations out relatively evenly to maximize access while also locating stations at key destinations.

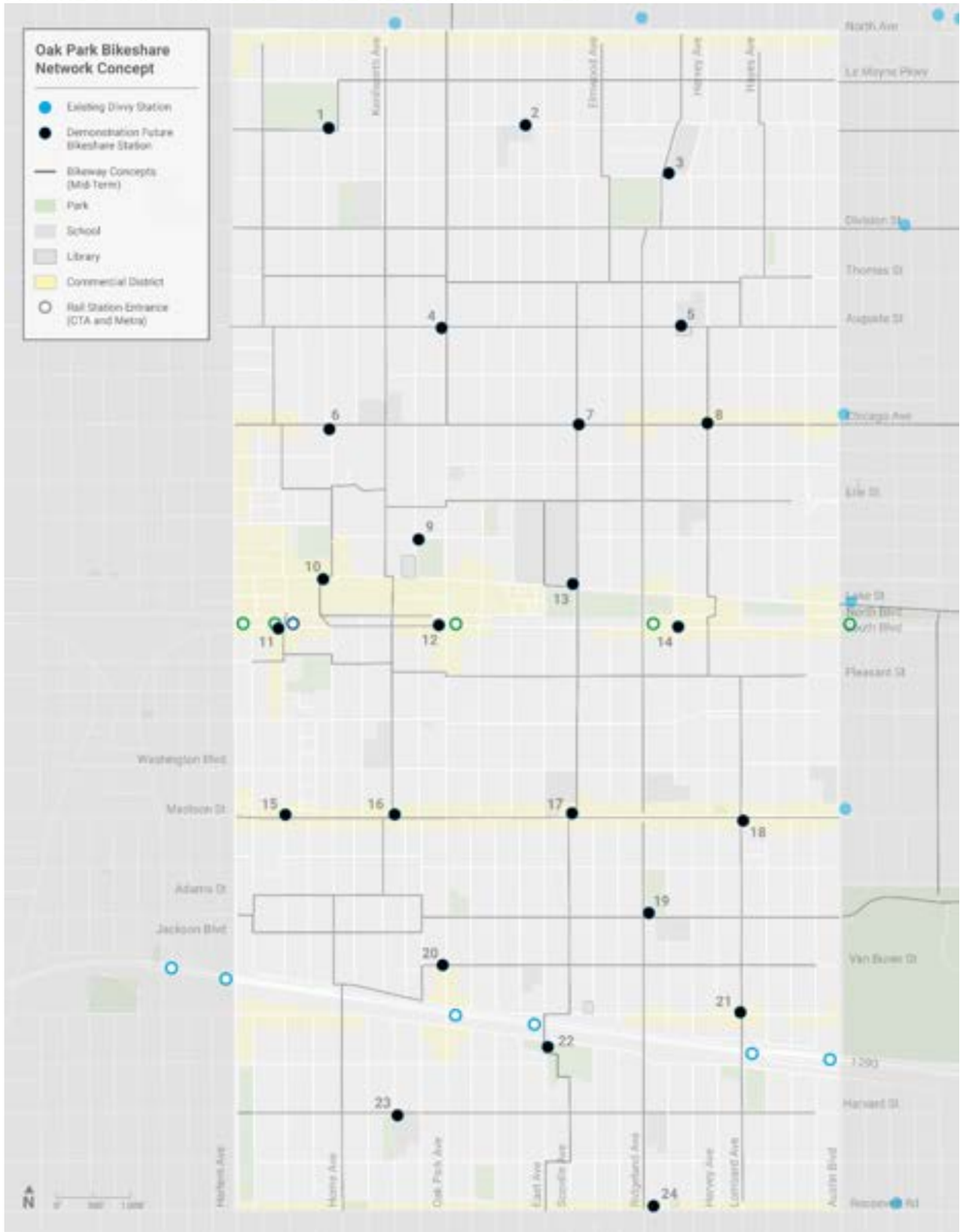
IDENTIFYING STATION LOCATIONS

In general, stations should be installed in highly visible and well-lit areas and as close as possible to any key destinations. At transit stations, bikeshare stations should be installed near entrances/exists for streamlined transfers.

Among the most complex tasks in a station siting process is identifying installation locations in highly-residential neighborhoods. The concept in Figure 7 shows how parks and future bikeway infrastructure could be used to minimize the installation of stations directly in front of homes.

Additionally, newer station designs available from several operators in recent years have provided increased siting flexibility, particularly modular docking configurations that allow stations to be more easily split around obstructions. Finally, cities including Washington, DC, Chicago, and New York allow on-street bikeshare stations to be placed in vehicle "clear zones" at intersections. Stations act to physically prevent vehicles from standing in these clear zones (typically within 20-30' of a crosswalk), which helps maintain clear pedestrian sight lines. These placements also reduce the potential number of on-street parking spaces that need to be removed to install an on-street bikeshare station.

FIGURE 7.OAK PARK BIKE SHARE NETWORK CONCEPT



DRAFT SYSTEM COST ESTIMATES

A draft cost estimate for a dock-based bikeshare system was developed for both system equipment and operations. Exact costs are highly dependent on a variety of factors, including contractor service level agreements, potential regional system efficiencies, and equipment desired.

EQUIPMENT COSTS

Equipment costs are largely one-time fixed costs. Although station repairs and the replacement of lost bikes will be necessary throughout the life of a system, these costs are often baked into the system operating costs. Compared to operating costs, there are more opportunities available for government grants to cover the cost of equipment.

The Divvy system provides a sponsorship program whereby a developer or institution can purchase a bikeshare station (which includes 10 additional bikes). The cost of a new sponsorship station, with 15 docks, plus 10 bikes, is currently $56,000. For purposes of a draft estimate, this figure will be used to price out the equipment cost of one 15-dock station, including sufficient bikes to operate the system.

- Scenario A: 24 stations (5-per-sq-mile) with an average of 15 docks: **$1,344,000**
- Scenario B: 38 stations (8-per-sq-mile) with an average of 15 docks: **$2,128,000**

These estimates are for equipment only. Additional system start-up costs may include system planning, permitting, and installation.

CHARGING STATIONS

Several bikeshare systems, including Divvy, feature charging stations that charge e-bikes while they're docked. These stations reduce the need for the operator to travel around the system swapping batteries, which reduces the environmental footprint of operations and can bring down operational costs. Charging stations themselves are more costly, and the cost of connecting them to the electrical grid can be costly as well. But these extra costs may pay for themselves.

One potential benefit of installing charging stations is the opportunity to negotiate lower fees paid to the system operator due to reduced operational costs. Higher upfront costs for equipment, which have more opportunities for grant funding, can potentially lower regular system operating costs, which are more likely to come out of local budgets.

OPERATING COSTS

North American dock-based bikeshare systems were traditionally expected to pay for themselves through rider and sponsorship revenue. In recent years, as the industry has matured and expanded into more diverse service areas, this philosophy has begun to change. Shared micromobility systems are increasingly seen as "public transit." Several systems, such as Bluebikes in the Boston region and Capital Bikeshare in the DC region, are now directly subsidized to control the cost of rider fees. Today, it should be expected that a high-quality bikeshare system outside the core and densest neighborhoods in a region is unlikely to pay for itself and will require operating subsidies—similar to public transit systems.

When Oak Park last hosted Divvy stations, the fee owed to the operator was $125/dock with relatively modest revenue opportunities. According to a conversation with Lyft, if Oak Park re-joined Divvy, they expect the cost model would be similar to the Bluebikes program in the Boston region, which charges $55/dock with no revenue sharing for non-legacy municipalities. These monthly fees can be reduced if municipalities hit certain ridership targets. Figure 8 illustrates draft cost estimates for three system and station size scenarios, using the $55/dock metric. For reference, when Divvy service was last available in Oak Park, the net average monthly system cost over the first nine months was approximately $16,700.

FIGURE 8. ESTIMATED OPERATING COSTS

System Operating Costs	Scenario A	Scenario B	Scenario C
Station Density (per sq mi)	5.0	5.0	8.0
Total System Stations	24	24	38
Average Docks/Station	15	11	15
Total System Docks	360	264	570
Monthly Per-Dock Fee	$55	$55	$55
Total Monthly Cost	$19,800	$14,520	$31,350
Total Annual Cost	$237,600	$174,240	$376,200

CONCLUSION & RECOMMENDATIONS

While Oak Park's previous bikeshare experience was short-lived, it did demonstrate at least some demand for the service in the Village. Future demand is highly dependent on operations and pricing decisions, but the Divvy system's growth since 2017 and the introduction of new, popular e-devices point to the potential for a future Oak Park bikeshare system that generates more trips than the first iteration. One potential key lesson from Oak Park's previous bikeshare experience and from relevant research is that system success relies on strong initial network investment. A modest system is unlikely to deliver strong results.

RECOMMENDATIONS

1. Ideally, Oak Park would join a regional system that includes the City of Chicago, but it remains to be seen whether there's a pathway to re-joining Divvy that would allow Oak Park to meet its operational and financial needs.
2. Whether re-joining Divvy or not, Oak Park should partner with other regional municipalities and/or a regional coordinating agency to implement bikeshare service.
3. A future system should utilize an operator contract model—Business permit/license models typically provide lower-quality service and can be intensive to regulate.
4. A future system should include e-bikes that have proven popular in bikeshare systems, allow riders to take longer trips than on pedal bikes, bring new riders into the system, and can generate more premium fees.
5. A future system should be station-based to improve user reliability, keep down operational costs, and maintain orderly device parking.
6. future system should cover the entire Village, including residential neighborhoods, and aim to maximize the number the residents within a 5-minute walk of a station. This will require a higher station density than Oak Park's previous station network.
7. Most stations should feature 11-15 docks, with lower dock counts in mostly-residential areas and higher dock counts in high-demand areas, such as transit stations.
8. Oak Park should pursue grant funding for infrastructure costs. If possible, Oak Park should pursue enough funding to install charging stations, which could allow the Village to potentially negotiate lower system operating costs.
9. Oak Park should assume that a bikeshare system will require operational subsidies but should negotiate contract terms that reduce Village costs with higher ridership. A system with enough ridership can pay for itself, and contractual terms should reflect that.
10. Oak Park should continue to build out a high-comfort bikeway network as a strategy for generating higher bikeshare ridership.