

Lake Avenue Bicycle Lanes

City of Lakewood

- **Bike Lanes**
- **Length:** 2.5 Miles
- **Cost** (\$290K total)
 - Planning (\$30K)
 - Design (\$20K)
 - Striping (\$240K)
- **Funding Sources**
 - Planning (NOACA TLCI)
 - Design (City of Lakewood)
 - Striping (Cuyahoga County)
- **Date:** 2018 - 2020
- **Project Leaders/Managers:**
 - Alex Harnocz (Planning)
 - David Baas (Planning)
 - Mark Papke (Engineering)
 - Brian Shields (Public Works)
- **Consultants/Contractors:**
 - Nelson Nygaard (Planning)
 - TMS Engineers, Inc. (Planning)
 - CT Consultants (Design)
 - The Shelly Company (Striping)
 - Trafftech, Inc. (Striping)

County: Cuyahoga
(Cuyahoga District #2)

NOACA STATE OF OHIO CITY OF LAKEWOOD

Project Story.

Planning. The addition of bicycle infrastructure to Lake Avenue began in 2017 with an application to the Northeast Ohio Areawide Coordinating Authority (NOACA) Transportation for Livable Communities Initiative (TLCI) for funding and support towards completing a planning study of the corridor. Conducted in 2018 – 2019, this TLCI planning study combined the efforts of the City, NOACA, Nelson Nygaard, and TMS Engineers, Inc. to work through an analysis of the corridor that focused on: safety, traffic flow, parking demand, multi-modal transportation, and aesthetic appeal. The study looked at traffic, speed, and parking conditions to develop a set of “best use” options for the 40-foot cross-section of the corridor that heavily leveraged stakeholder and community input and feedback via surveys and three separate community meetings held between May 2018 and May 2019. The planning study was completed in September of 2019 with a recommended cross-section that included bicycle infrastructure (separate lanes) along the corridor.

Design. With a recommendation developed, the City (Planning/Engineering) worked with CT Consultants to develop and finalize design documents and place the project out for bid as part of the City’s annual road resurfacing/re-striping efforts. During the design phase – the City Planning Staff worked with CT to integrate and pilot new route signage and bicycle intersection boxes at key locations along the corridor. The bike boxes were brought into the plan as a “best practice,” from bicycle infrastructure guidelines and as seen in practice in other example municipalities, to improve the safety and visibility of bicyclists at intersections on Lake Avenue – a concern provided the higher speed limit (35mph) along the corridor. The bike box locations were aligned to connect with three projected north-south routes designated during the City’s 2018 – 2019 bicycle network expansion planning. On the west end of the corridor, the design process added signage and sharrows along a short section of Lake Road to connect the planned lanes along Lake Avenue with existing bicycle infrastructure along both West Clifton Blvd (north-south route) and the Clifton Blvd extension (east-west route between Lakewood and Rocky River).

Implementation. With an approved design completed, the City’s Engineering and Public Works Departments worked to integrate the implementation of the Lake Ave corridor improvements as part of the City’s annual summer resurfacing and restriping work. The Shelly Company was selected as the lead contractor for the broader city-wide resurfacing work with Trafftech, Inc. specifically responsible for the restriping of the Lake corridor according to the design developed by CT and City Staff. The restriping work for Lake Avenue was conducted during June and July of 2020. City Planning and Public Works staff oversaw the restriping and worked with Trafftech, Inc. to provide advance notice of project implementation to residents and to answer community concerns and questions during and after the restriping work.

Project Leaders/Managers:

- Alex Harnocz (City Planner) – was the lead for the TLCI application and planning study from 2018 – 2019.
- David Baas (City Planner) – took over the project planning from Alex in 2019 for design and implementation 2019 – 2020.
- Mark Papke (City Engineer) – oversaw the contracting/bidding/review of design documents and implementation.
- Brian Shields (Public Works) – was the Public Works Project Manager for implementation within the larger annual street resurfacing/restriping effort.
- Josh Conrad (Public Works) – GIS Technician, assisted Brian Shields throughout implementation with quality control and inspection of restriping effort.

Contact Information: Provide contact information in case we need to contact you about this project.

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The Good Stuff:

- Improved Safety & Traffic Conditions...
- Pilot new Signage & Bicycle Intersection Boxes...
- Northern “backbone” for internal & external connections & continued network expansion...

County: Cuyahoga
(Cuyahoga District #2)

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Improved Safety & Traffic Flow.

Prior to this project, Lake Avenue was a relatively broad, open street with only a centerline marking and parking allowed on both sides. The 35mph speed limit, lack of lane designation, and under-use of parking often caused confusion among motorists – some perceiving Lake Avenue to be a quicker, two-lane arterial route that allowed commuters an opportunity to avoid traffic signals along Clifton Blvd. This perception often led to dangerous behavior and conditions (cars passing in shoulder areas typically used parking/bike riding, etc.) for motorists, bicyclists, and pedestrians alike – on what arguably should be a calmer, quieter, more neighborhood-oriented connector route. The re-allocation and clear designation of roadway space to bicycle lanes and parking (along north side) made clear the single car travel lane in each direction – calming traffic and delineating space for other roadway users.

Pilot new Signage & Bike Boxes.

In addition to the installation of standard bicycle lanes, the Lake Avenue restriping project also provided the opportunity to pilot new bicycle route signage and bicycle intersection boxes. The pilot route signage offers a departure from MUTCD bicycle lane standard design to provide a unique and more visible blue color combined with a supporting image that communicates a more family-oriented intent for route usage. Communicating this intent is important as we work for our bicycle infrastructure to increasingly serve bicycle riders of all ages and abilities – a necessary reality for our residents and families who live, work, play, and attend the schools within our high-density 5.5 square mile city. To advance this intent, the project also worked to integrate bike boxes at three pilot intersections. The three intersections were chosen based on network expansion and the planned addition of north-south connecting routes at these locations. The bike boxes provide a safer and more visible method to deconflict motor vehicle and bicycle traffic at intersections that include a left-turn option. Outlined in existing bicycle infrastructure guides (NACTO, etc.), the bike boxes were also seen in practice in other municipalities prior to pilot integration in the Lake Avenue project. During project implementation, the City advertised and provided an informational flyer on the proper use of the boxes. Once the boxes were installed, Bike Lakewood – a local chapter of the advocacy organization Bike Cleveland – worked to produce a supporting instructional video at one of the new Lake Avenue boxes and post/share it on social media.

Northern “backbone” for internal & external connections & continued network expansion.

The addition of bicycle lanes along Lake Avenue is very important towards providing another key east-west cross-community bicycle route to support external and internal bicycle connections for our northern neighborhoods and our largest park, Lakewood Park. As part of the City’s broader (and expanding) bicycle network, the Lake Avenue project also provides key external connections to Cleveland’s Edgewater neighborhood and Edgewater Park to the east, Rocky River to the west (via Lake Road/Clifton Blvd routes), and the Rocky River Reservation to the south (via West Clifton, Detroit, and Riverside). With shared use (Sharrows) along Detroit Avenue and separate bicycle lanes installed along Madison Avenue (east-west), Franklin Blvd (east-west), and now Lake Avenue – the City plans to focus upcoming bicycle infrastructure efforts on expanding our internal bicycle connections with the addition of several north-south and two additional east-west “bicycle boulevard” style routes (dashed purple routes on the bike network map graphic) to more completely link our neighborhoods, parks, and schools. The three bike boxes that were integrated into the Lake Avenue restriping project provide the departure point for three of these new routes...planned to be installed soon.

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Benefits to the Public:

- Improved Safety & Traffic Conditions...
- Use for education, inspire increased ridership year-round...
- Connection between Lakewood Park & low-mod neighborhoods - provides foundation for continued network expansion, bike share programs...

Increase ridership year-round

Educational flyers

County: Cuyahoga
(Cuyahoga District #2)

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Improved Safety/Traffic Flow.

As noted earlier, the clear delineation of roadway space and travel lanes for cars was important towards improving driver behavior and conditions for all users of Lake Avenue. Since the completion of the restriping and installation of the bicycle lanes, collected traffic data has indicated that both the 85th percentile and 50th percentile (median) speeds of automobile traffic along the corridor has been significantly reduced:

- 85th percentile speed reduced from 38 mph (2019) to 36 mph (2021)
- 50th percentile (median) speed reduced from 34 mph (2019) to 31 mph (2021)

This reduction is a good general indicator of slower traffic along the corridor – and potentially an improvement of conditions for other users. The City continues to study options regarding the existing 35mph limit for Lake Avenue and if it can be reduced to 25 or 30mph in support of further improvement of conditions for the safety of all corridor users and better reflect the residential & park-centric character of the area.

Education and inspire increased ridership year-round.

The project provided an opportunity for the City to integrate/highlight and provide education on different aspects of bicycle infrastructure. Informational flyers were developed, advertised, shared via social media, and added to our “Biking Lakewood” webpage on both bike boxes and sharrows. As noted earlier, the bike boxes also were the subject of an informational video from Bike Lakewood. These efforts intend to educate and “normalize” different aspects of bicycle infrastructure with the general public across Lakewood that hold the potential to be included in future network expansion projects. Observations and comments received by the City over the past ~7 months have indicated that the Lake Avenue lanes have been steadily used by a mix of riders – both for recreation as well as commuting to/from work. Despite the current public health restrictions from COVID-19 (that prevented a typical public event to celebrate/promote the opening of the lanes, etc.), the local Bike Lakewood advocacy organization has used the new infrastructure to promote increased ridership during both an individual “Ride-athon” late summer event and later during the winter months with social media focused on year-round riding techniques.

Social Equity.

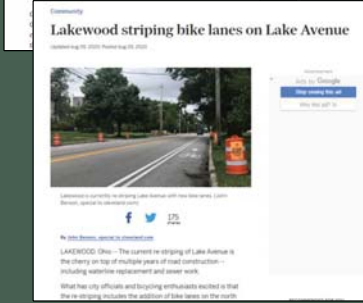
The installation of the lanes dedicates roadway space towards a new bicycle/recreational connection between Lakewood Park and most of the city’s low-moderate income census tracts on the east side of the city. The lanes are an important connection to the high-density multi-family areas between Cove and West 117th along both Lake and Edgewater Drive. The planned subsequent installation of a bicycle boulevard route moving south from the Lake Avenue lanes along Cove and Ridgewood Avenues (connecting to Detroit, Franklin, and Madison east-west infrastructure) is intended to continue the expansion and promotion of dedicated roadway space for bicycle/recreational connections across the remainder of the eastern Lakewood low-moderate income neighborhoods. Additionally, the infrastructure installed (through projects like Lake Avenue) and planned provides the foundation for other programs – such as the Cuyahoga County Bike Share – to be brought in to serve these neighborhoods with recreational assets and enhanced connections (last/first mile) to transit routes (along Clifton Blvd, Detroit, Madison Avenues) and the West 117th Rapid Station.

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Buzz on the Street

- The project was covered by local media while social media was used by the City, Bike Lakewood, and Residents to provide updates and register/answer comments, complaints, and questions during all stages of the project.



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