

THE CASE FOR CHICAGO'S LAKEFRONT TRAIL...

Chicago's Lakefront Trail is the busiest trail in the United States, with peak daily usage reaching 30,000 people at key points. The 18-mile trail is maintained by the Chicago Park District. It's a popular destination for residents and tourists alike, attracting people from across the region for recreation, transportation and athletic training.

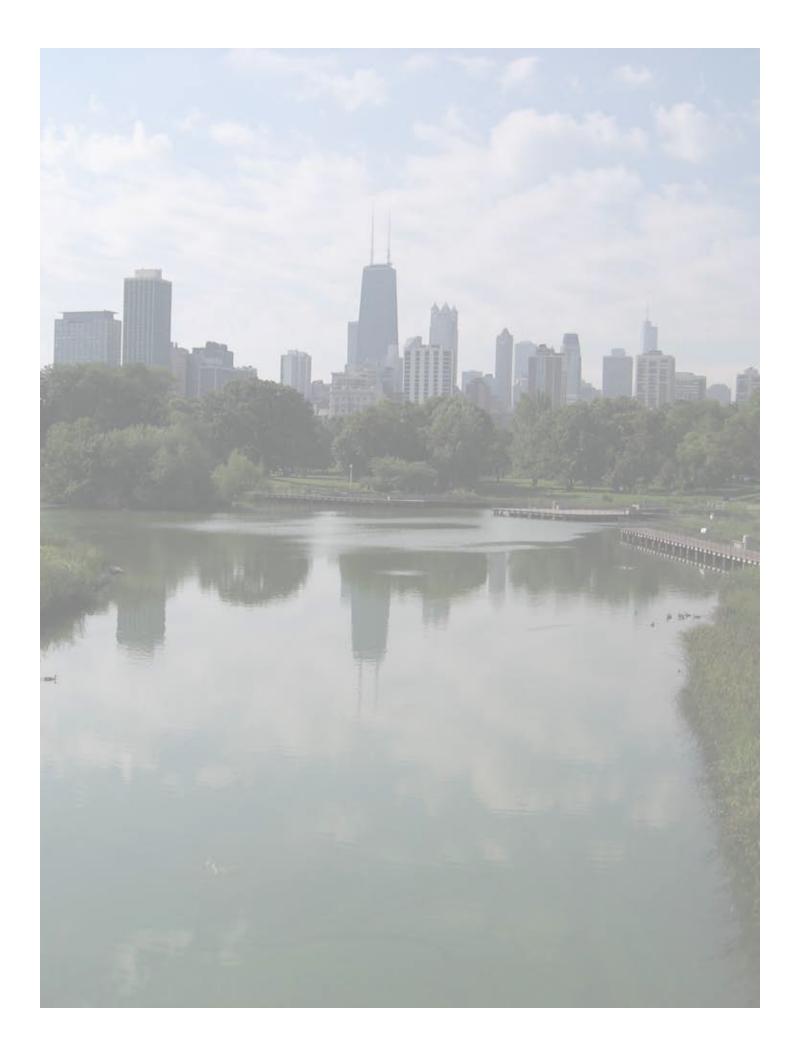
In order to understand how the trail can better meet the needs of Chicagoans, Friends of the Lakefront Trail facilitated a community outreach process in 2012 to learn what trail users think about their trail experience. This report summarizes the findings and sets forth principles for improving the Lakefront Trail experience.

DEVELOPED BY THE FRIENDS OF THE LAKEFRONT TRAIL









FRIENDS OF THE LAKEFRONT TRAIL PUBLIC ENGAGEMENT REPORT

TABLE OF CONTENTS

| About Friends of the Lakefront Trail | 6 |
|--------------------------------------|----|
| Lakefront Trail Principals | 7 |
| Survey Methodology | 9 |
| Profile of Respondents | 10 |
| Survey Results | 11 |
| Survey Maps | 12 |
| Tables??? | 28 |

ABOUT FRIENDS OF THE LAKEFRONT TRAIL

Friends of the Lakefront Trail is an initiative of the Active Transportation Alliance in partnership with Friends of the Parks and the Chicago Area Runners Association, representing the interests of Lakefront Trail users and advocating to improve conditions for recreation and transportation on the trail.

ACTIVE TRANSPORTATION ALLIANCE

The Active Transportation Alliance (Active Trans) is a non-profit, member-based advocacy organization that works to make bicycling, walking and public transit so safe, convenient and fun that we will achieve a significant shift from environmentally harmful, sedentary travel to clean, active travel. The organization builds a movement around active transportation, encourages physical activity, increases safety and builds a world-class transportation network. Active Trans is North America's largest transportation advocacy organization, supported by more than 7,000 members, 1,000 volunteers and 35 full-time staff.

For more information, visit www.activetrans.org

FRIENDS OF THE PARKS

Friends of the Parks is a non-profit park advocacy organization dedicated to preserving, protecting and improving Chicago's parks and forest preserves for all citizens. Since 1975, Friends of the Parks has increased private and public commitment to Chicago's parks through establishing park advisory councils, developing new parks, renovating play lots, and presenting public workshops and lectures to create an informed citizenry.

For more information, visit www.fotp.org

CHICAGO AREA RUNNERS ASSOCIATION

The Chicago Area Runners Association (CARA) is a non-profit organization devoted to expanding, motivating, supporting and celebrating the running community of Chicagoland. CARA connects runners to resources that enable them to run—farther, faster, better, for life. CARA was founded in 1978, has more than 8,600 members and is the largest running organization in the Midwest and the third largest in the nation.

For more information, visit www. cararuns.org

LAKEFRONT TRAIL PRINCIPLES

Active Trans, Friends of the Parks and CARA support the following series of principles designed to improve the Lakefront Trail experience. These principles are based on input from more than 1,500 people and are intended to guide future development and maintenance of the Lakefront Trail to create a safe, fun and accessible trail environment.

Chicagoans of all ages and abilities should be able to access the Lakefront Trail and lakefront parks from nearby neighborhoods safely and easily.

- 1. All new access points should be designed to safely accommodate people of all abilities without requiring them to dismount their bikes. Existing underpasses and overpasses should be reconstructed to meet this standard if they don't already.
- 2. All traffic signals and streets leading to the Lakefront Trail should accommodate people walking on both sides of the street and crossing at all legs of the intersection. All traffic signals leading to the Lakefront Trail should include countdown timers with leading pedestrian intervals and bike-specific traffic signals where warranted.
- 3. All streets leading to the Lakefront Trail should be "Complete Streets" designed to accommodate people of all ages and abilities walking and biking along and across the street.
- 4. The Lakefront Trail should connect to other trails and bikeways within Chicago and the surrounding communities.
- 5. No trail access points should be eliminated. Access should be provided every quarter mile, as called for under the Lake Michigan and Chicago Lakefront Protection Ordinance.
- 6. Trail and park access points should be designed in a way that does not create conflict between through traffic on the trail and people trying to reach the beaches and other recreational facilities along the lakefront.



The Lakefront Trail should provide a continuous route for transportation and recreation that is safe and convenient for people of all abilities, whether walking, running, biking or skating.

- 1. Wherever possible, create separate paths for different speeds and purposes, such as a "Green Lane" for commuter cyclists, crushed limestone for running and walking, promenades for strolling, and pedestrian paths for short-distance connections between park access points, beaches, parking lots and park amenities.
- 2. Reduce conflicts between beachgoers and trail users by constructing boardwalks and other walkways that eliminate the need for beachgoers to walk along the trail.

- 3. The entire length of the Lakefront Trail should meet Chicago Park District trail design standards, and trail reconstruction is encouraged to exceed standard trail widths.
- 4. Place all drinking fountains, concessions, bike racks, benches, trash cans, and other gathering spaces far enough from the edge of the trail surface so that people gathering at these points do not impede trail traffic.
- 5. Minimize conflict points between trail users and automobiles by redesigning and reducing the number of vehicle crossings.

The Lakefront Trail should be properly maintained at all times.

- During any construction projects along the Lakefront Trail or at trail access points, a clear and dedicated bicycle and pedestrian detour should be marked and maintained throughout the construction.
- Like all other major transportation thoroughfares, the Lakefront Trail should be made available for transportation on all days of the year and all times of day.
- 3. Ruts, holes and depressions in the trail surface should be filled immediately.
- 4. Running surfaces should be maintained at a level that accounts for frequent use and supports the safety and comfort of runners.
- 5. Water fountains should be available for year-round use.
- 6. Restrooms should be available year-round and open during regular Chicago Park District hours. Additionally, restrooms in the summer season should be open to accommodate early morning training programs, which are scheduled to avoid later morning congestion and hotter temperatures.

People should exercise courtesy and caution when using the trail by obeying trail etiquette.







OUTREACH AND SURVEY METHODOLOGY

The principles stated above were informed by a survey of more than 1,500 people who use Chicago's Lakefront Trail. The survey was conducted during spring and summer 2012.

Friends of the Lakefront Trail began the process of gathering public input by holding two public workshops in April 2012, one at Margate Park and the other at Jackson Park. At the workshops, participants identified issues along the trail: locations where they experienced a crash, places where there were automobile/trail user conflicts, and policies that make the trail a more appealing place for recreation and transportation. Approximately 65 people overall attended the two workshops.



To gather an even broader understanding of the issues and opportunities perceived by people who use the Lakefront Trail, Friends of the Lakefront Trail reached out through a community survey. A set of questions similar to those from the workshops were developed, a few questions driven by our leaning from the workshop were added, and the survey was launched online. The survey was made available online for four weeks, and a total of 1,569 people responded.

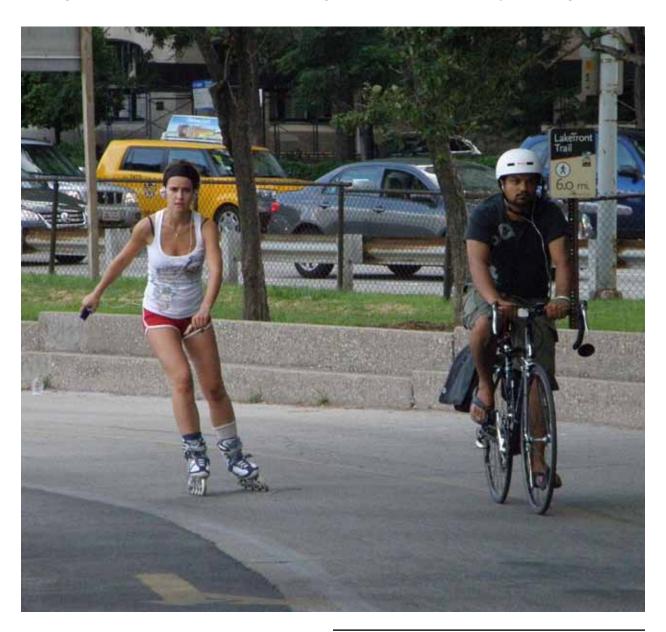
Although there were a high number of respondents, a few things should be noted about the results of this survey:

- 1. Because trail traffic is heavier along the north side of the trail, responses are more heavily weighted towards issues and opportunities that would affect north side trail users.
- 2. The survey is a reflection of the opinions of people who completed it. Although the survey was open for any individual to participate, the survey was advertised through several organized groups that support bicycling, running and the parks through their e-mail lists, social media, blogs and other electronic media.

PROFILE OF RESPONDENTS

Respondents were asked to identify how they used the Lakefront Trail. Nearly all respondents use the trail for bicycling, running or walking, and most stated that they use the trail for more than one purpose or mode. Many respondents use the trail for more than one purpose: 79 percent of respondents use the trail for some type of bicycling, 70 percent run, 66 percent walk, 6 percent rollerblade, and 1 percent skateboard on the trail. Although people on all modes use the trail for many different reasons, 83 percent of respondents typically use the trail for exercise/athletic training, 81 percent use the trail for recreation, and 50 percent use the trail for transportation.

Respondents reside all over the Chicago region, with some as far away as Wisconsin and Indiana. About three quarters of respondents live on the north side of the city, while about one eighth live on the south side and one eighth do not live in the City of Chicago.



SURVEY RESULTS

PRIORITY ISSUES

We asked trail users to tell us what Lakefront Trail issues are most important to them. The top 10 were:

- 1. Provide more separate spaces for walking, biking and running (e.g., soft surfaces for running, boardwalks for walking at the beach, etc.)
- 2. Reduce congestion and conflicts on the trail to make it safer
- 3. Educate trail users on safety and trail etiquette
- 4. Improve basic trail maintenance and condition of asphalt and soft surfaces
- 5. Improve availability and access to bathrooms, including year round access, along the Lakefront Trail
- 6. Improve availability and access to drinking fountains, including year round access, along the Lakefront Trail
- 7. Improve lighting and personal safety
- 8. Complete gaps in the Lakefront Trail, including connecting to neighboring cities
- 9. Improve bicycle and pedestrian safety along streets connecting to the trail
- 10. Reduce street/trail crossings

ETIQUETTE

Survey respondents listed congestion as one of the most important issues facing the trail. Congestion is especially an issue given the wide variety of skill levels and ways people use the trail. For that reason, following basic trail etiquette is important for keeping the trail safe and fun for everyone.

To inform future etiquette education efforts, we asked people what they perceive to be the most frequent etiquette violations. The top 10 reported by survey respondents were:

- 1. People clogging traffic by traveling two or more abreast
- 2. People blocking or standing in the trail
- 3. People not moving to the right to make way for faster traffic
- 4. People stopping suddenly in the middle of the trail
- 5. People distracted by electronic devices/cell phones or headphone usage
- 6. People not yielding to slower traffic or slowing down in congested areas
- 7. People not using proper passing signals or notifying others of their presence
- 8. People not yielding to others when crossing or entering the trail
- 9. Dogs/pets off leash or obstructing pathway
- 10. People moving against traffic

Ninety two percent of respondents believed that additional signage about trail etiquette would be very effective or somewhat effective for increasing awareness about proper trail etiquette.

MAPS OF USER-REPORTED TRAIL EXPERIENCE

Survey respondents were asked to review trail segments and access points on a variety of factors. The results of this survey data is provided in map data on the following pages.

LEGEND Ardmore Ave. OSTER AVE. Brvn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. APPROVAL RATING MONTROSE AVE Lawrence Ave. Wilson Dr IRVING PARK RE Montrose Ave. Buena Ave. ADDISON ST. Irving Park Rd. Addison St. BELMONT AVE Roscoe St. **Belmont Ave.** Barry Ave. FULLERTON AVE Diversey Pkwy. Fullerton Pkwy. ATH AVE North Ave. Bridge DIVISION ST North Ave. CHICAGO AVI Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Lakefront Trail Randolph St. Monroe St. Jackson Blvd. Chicago Streets ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. Waldron Dr. CERMAK RD. 18th St. McCormick Place 31ST ST 31st St. 35TH ST 35th St. PERSHING RD Oakwood Blvd. 43RD ST 43rd St. 51ST ST 47th St. Miles 51st St. 55th St. 57th St. 63RD 5 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 7157 57 67th St. 71st St.

TRAIL SEGMENTS – SATISFACTION RATE

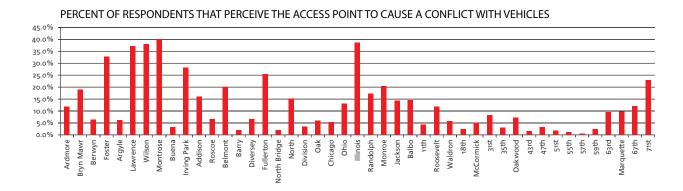
This map shows how survey respondents rated their satisfaction with the design and condition of segments of the Lakefront Trail. Respondents were given the option of rating trail segments as "good" or "needs improvement," based on their own experience.

The trail segments with the highest user satisfaction ratings were north of Irving Park Road as well as between Roosevelt Road and 63rd Street. Generally, those areas were also the least congested parts of the trail, with relatively few reported conflicts and relatively low crash rates. These segments are typically adjacent to larger park areas and other paths that allow for gathering away from the trail and provide alternative recreational opportunities for people seeking a more leisurely pace. Several of the most highly rated segments had also been recently resurfaced prior to this survey, which might have impacted user satisfaction.

Trail segments between Fullerton Parkway and Randolph Street had the lowest satisfaction rating. These segments were also rated the most congested. Lacking parallel routes, slower, leisurely foot traffic in these areas often mixes with people using the trail for transportation or physical activity. Portions of these segments are also directly adjacent to beaches and revetments, which create maintenance issues. High waves, sand drifts and ice along these segments impact trail conditions, sometimes leading to trail closures or causing damage to the trail surface. The Chicago Park District is unable to

operate snow plow equipment between Ohio and Illinois due to the narrow and sloped concrete embankment. Finally, vendors and park amenities in popular areas of the park and beaches tend to generate lines that spill onto and obstruct the trail.

Trail sections that were the most congested received the lowest satisfaction ratings, while the least congested areas had the highest satisfaction ratings. However, congestion is only one element of satisfaction. Good design can help mitigate the impact of congestion, accommodating more trail users while maintaining a quality experience. Location and design of the trail can also impact maintenance and exposure to the elements. Where the trail follows the design standards set by the Chicago Park District, the trail is most effective. In order to improve the trail experience, the Chicago Park District should focus infrastructure retrofits on those sections between Fullerton Parkway and Randolph Street, including establishing separate facilities for different purposes.



LEGEND Ardmore Ave. OSTER AVE 000000 Brvn Mawr Ave. Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. **CONGESTION SITES** MONTROSE Lawrence Ave. Wilson Dr. High IRVING PARK RE Montrose Ave. Congestion Buena Ave. Above-Average Applison st Irving Park Rd. Congestion Addison St. BELMONT AVE Average Roscoe St. Congestion Belmont Ave Barry Ave. Below-Average FULLERTON AVE Congestion Diversey Pkwy. Low Fullerton Pkwy. Congestion JORTH AVE. Lakefront Trail North Ave. Bridge DIVISION ST. North Ave. Chicago Streets CHICAGO AVE Division St. Oak St. Chicago Ave. Ohio St. MADISONS Illinois St. Randolph St. Monroe St. Jackson Blvd. ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. Waldron Dr. CERMAK RD. 18th St. McCormick Place 31ST ST 35TH ST 31st St. 35th St. PERSHING Oakwood Blvd. 43RD S 43rd St. 47th St. Miles 51st St. 55th St. 57th St. 63RD 5 59th St. MARQUETTE RD 63rd St. Marquette Dr. 67th St.

TRAIL SEGMENTS – CONGESTION

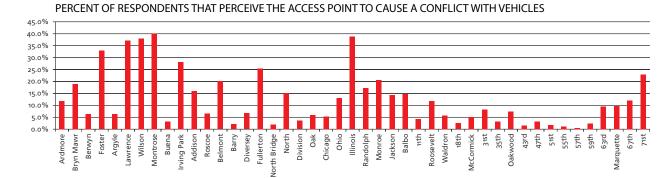
This map shows which segments of the trail survey respondents thought were congested or more crowded compared to other areas of the trail.

The data indicates that a large portion of the northern half of the Lakefront Trail as well as the trail segment downtown experience severe to moderate congestion. Specifically, the trail segment between Diversey Parkway and Randolph Street was reported to have the highest levels of congestion. Several congested segments of the trail share similar characteristics. They are often directly adjacent to a beach, park or parking lot, which means many people are crossing the trail or walking a short distance along the trail to reach their destination. There is also a relatively high concentration of housing and places of employment very close to the congested sections, translating to a higher number of potential users on the trail at any given time. Additionally, high-use segments of the trail tend to have access points closer together, which means more people are crossing the path and potentially getting in the way of others already on the trail.

Conversely, large portions of the southern half of the Lakefront Trail as well as the far northern end were reported to be the least congested areas. The less congested parts of the trail also tend to have common characteristics. Specifically, access points are designed in a manner that efficiently moves users on and off the trail or are infrequent, making accessing the trail less convenient for people who live and work near

there. Additionally, large rail yards are located between residential neighborhoods and the Lakefront Trail, making the trail even more challenging to access.

While some congestion is good and can be a sign of the trail's success, too much congestion can also degrade the trail experience and indicate inadequate design and planning. Trail congestion can be hazardous and lead to crashes. Increased access and better connections to neighborhoods may be needed in low-congestion areas, while trail design improvements could help to mitigate the impact of congestion in more crowded areas. Efforts to address congestion should focus on the most congested segment of the trail between Diversey Parkway and Randolph Street. Congestion mitigation efforts could include widening the trail or creating separate paths for different speeds and uses. Encouraging all trail users to adhere to basic trail etiquette would also improve the trail experience in congested areas.



LEGEND Ardmore Ave. OSTER AVE. Brvn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. **USER CONFLICT** MONTROSE AVE Lawrence Ave. Wilson Dr. High IRVING PARK RE Montrose Ave. **User Conflict** Buena Ave. Above-Average Addison st Irving Park Rd. **User Conflict** Addison St. BELMONT AVE. Average Roscoe St. **User Conflict Belmont Ave.** Barry Ave. Below-Average FULLERTON AVE **User Conflict** Diversey Pkwy. Low Fullerton Pkwy. **User Conflict** NORTH AVE. Lakefront Trail North Ave. Bridge DIVISION ST. North Ave. Chicago Streets CHICAGO AVI Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Randolph St. Monroe St. Jackson Blvd. ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. Waldron Dr. CERMAK RD. 18th St. McCormick Place 31ST ST 31st St. 35TH ST 35th St. PERSHING RD Oakwood Blvd. 43RD ST 43rd St. 51ST ST 47th St. Miles 55TH ST. 51st St. 55th St. 57th St. 63RD 51 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 7157 57 67th St.

TRAIL SEGMENTS – USER CONFLICT

This map shows which segments of the trail survey respondents identified as places where conflicts with other trail users are most likely to occur, meaning behavior and/or trail conditions are leading to near misses between trail users.

Conflicts with other trail users can lead to an unpleasant or unsafe experience and are generally caused by people biking too fast, people walking in the middle of the trail or on the wrong side, or trail design that creates difficulty crossing the trail or passing other users.

The two parts of the trail with the highest levels of user conflict are the segments from Fullerton Parkway to Oak Street and from Illinois Street to Randolph Street. Relative to adjacent segments, the sections of the trail around the South Shore Cultural Center between 67th and 71st Streets, as well as the area around Promontory Point, were also reported as areas of relatively high conflict.

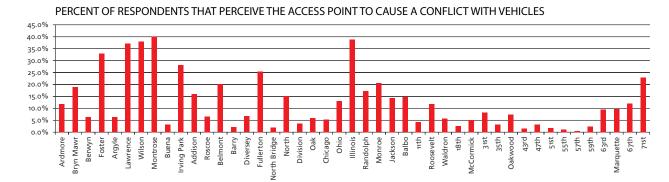
Segments with high rates of conflict share some common tend to characteristics. These areas are often highly congested, leaving limited space for faster-moving trail users to pass slower-moving users. These areas also generally fail to meet the current Chicago Park District trail design standards, which include guidance on surface, slope, width, and clearance around the trail. Highconflict areas may also be used as a walkway to access the beach or adjacent parks from parking lots or neighborhoods, which leads to

71st St.

pinch points and more people crossing the trail. Tourists who are less familiar with their surroundings and trail etiquette may also cause conflicts.

Trail segments with the fewest reported conflicts are those segments north of Foster Avenue and segments between 35th and 51st Streets. Trail segments with low rates of conflict also tend to share some common characteristics. Lower levels of congestion allow for more room when passing and mean fewer opportunities for conflict. These segments also tend to meet standard trail design, which means there is separate space—usually crushed limestone—for walking and running, as well as a paved surface for biking and skating. Additionally, in some locations there is a parallel walkway leading to the beaches or waterfront, so people looking for a slower, more leisurely pace can walk along the lake, while people traveling at a faster pace can use the main trail.

User conflicts are closely related to congestion, while trail crossings also play a major role. Potential solutions for alleviating user conflicts include widening the trail, providing separate paths for different speeds and uses, and improving locations where people frequently cross the trail to make trail traffic more predictable.



LEGEND Ardmore Ave. OSTER AVE. Bryn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. APPROVAL RATING MONTROSE AVE Lawrence Ave. Wilson Dr. IRVING PARK RE Montrose Ave. Buena Ave. ADDISON ST Irving Park Rd. Addison St. BELMONT AVE. Roscoe St. **Belmont Ave.** Barry Ave. FULLERTON AVE Diversey Pkwy. Fullerton Pkwy. RTH AVE. North Ave. Bridge DIVISION ST North Ave. CHICAGO AVI Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Lakefront Trail Randolph St. Monroe St. Jackson Blvd. **Chicago Streets** ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. CERMAK RD. Waldron Dr. 18th St. McCormick Place 31ST ST 31st St. 35TH ST 35th St. PERSHING RD Oakwood Blvd. 43RD ST 43rd St. 51ST ST 47th St. Miles 51st St. 55th St. 57th St. 63RD ST 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 7157 57 67th St.

ACCESS POINTS – SATISFACTION RATE

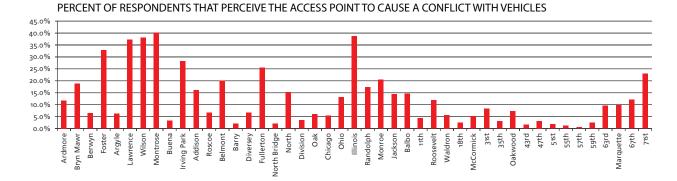
This map shows how survey respondents rated their satisfaction with the design and condition of Lakefront Trail access points—those areas designated for entering or exiting the trail. Respondents were given the option of rating each access point as "good" or "needs improvement," based on their own experience.

At first glance, those access points with the lowest satisfaction ratings seem to roughly correlate with the most congested area of the trail: the section between Fullerton Parkway and Randolph Street. This is not surprising since the large volume of people would seem to make accessing the trail more difficult. The lowest rated access point was Illinois Street, an area that forces trail users onto the sidewalk along lower Lake Shore Drive, and a source of frequent complaints.

The highest rated access points were more geographically distributed, but six were located south of 47th Street and just two north of the Loop. Part of this can likely be explained by the lower volume of congestion on the trail, but sensible access design also plays a large part. Starting in 1996, most of South Lake Shore Drive was with reconstructed underpasses redeveloped or added to facilitate safe trail access. In particular, 57th Street has shown itself to be a model of intuitive design, and the ratings seem to reflect this fact. This is reinforced by the high rating of Buena Avenue, which is in a relatively high-congestion area but still receives high marks for making it

safe and easy to access the Lakefront Trail. The Buena underpass design provides a seamless connection from the neighborhood to the park without awkward ramps or stairs and with minimal interaction with vehicle traffic, while the park design at Buena also discourages crossing the trail.

In looking at what defines a high satisfaction rating, success clearly seems to be defined by smart design in infrastructure as well as lower levels of congestion. The Buena Avenue underpass, however, seems to show that high congestion can be partially mitigated by access points that move trail users on and off in an efficient and safe manner. As future plans for work along Lake Shore Drive and the Lakefront Trail are made, these factors should be kept in mind, utilizing those access points with high user satisfaction as models.



LEGEND Ardmore Ave. OSTER AVE. 000000 Brvn Mawr Ave. Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. **CONGESTION SITES** MONTROSE AVE Lawrence Ave. High Wilson Dr. IRVING PARK RE Congestion Montrose Ave. Buena Ave. Above-Average ADDISONIST Irving Park Rd. Congestion Addison St. BELMONT AVE. Average Roscoe St. Congestion **Belmont Ave.** Barry Ave. Below-Average FULLERTON AVE. Congestion Diversey Pkwy. Low Fullerton Pkwy. Congestion VORTH AVE. Lakefront Trail North Ave. Bridge DIVISION ST. North Ave. **Chicago Streets** CHICAGO AVI Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Randolph St. Monroe St. Jackson Blvd. ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. Waldron Dr. CERMAK RD. 18th St. McCormick Place 31ST ST 31st St. 35TH ST 35th St. PERSHING RD Oakwood Blvd. 43RD ST 43rd St. 51ST ST 47th St. Miles 51st St. 55th St. 57th St. 63RD ST 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 67th St.

ACCESS POINTS – CONGESTION

This map shows where survey respondents thought there were too many people entering and exiting the Lakefront Trail at designated access points.

greatest The concentration of continuously congested areas is focused at the access points between Randolph Street and **Belmont** Avenue. Part of this problem likely correlates with the high level of congestion on the trail segments that correspond to these access points. This is an expected result, as people on the trail will translate to larger crowds entering and exiting at these access points. Additionally, heavy congestion on the trail can cause difficulty merging with through traffic on the trail or exiting the trail because of fewer gaps in trail traffic.

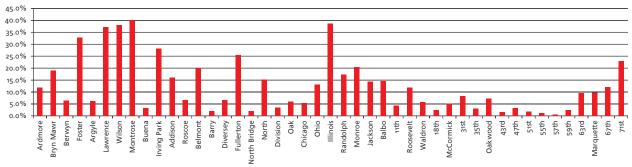
While trail congestion is likely a factor in access point congestion, it is not exclusively the cause. The two access points with the highest congestion rates were Fullerton Parkway and the North Avenue pedestrian bridge. Both of these access points have similar designs in that they force people directly onto the trail with no "staging areas," while North Avenue is also a juncture where multiple trail branches come together.

Buena Avenue and Roscoe Street are both access points located in areas that are among the most heavily used portions of the trail, but these access points had considerably lower congestion ratings. At these locations, smart design provides easier merge points that increase visibility and allow for more time to enter the trail.

71st St.

While the data would seem to indicate that perceived congestion at access points is strongly correlated with congestion on the trail itself, this is likely a single factor. The survey results show that good design can mitigate the impact of congestion even along the most heavily used areas of the trail.

PERCENT OF RESPONDENTS THAT PERCEIVE THE ACCESS POINT TO CAUSE A CONFLICT WITH VEHICLES



LEGEND Ardmore Ave. OSTER AVE. Bryn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. **USER CONFLICT** MONTROSE AVE Lawrence Ave. High Wilson Dr. IRVING PARK RE Montrose Ave. User Conflict Buena Ave. Above-Average ADDISON ST Irving Park Rd. **User Conflict** Addison St. BELMONT AVE. Average Roscoe St. **User Conflict Belmont Ave.** Barry Ave. Below-Average FULLERTON AVE. User Conflict Diversey Pkwy. Low Fullerton Pkwy. User Conflict NORTH AVE. Lakefront Trail North Ave. Bridge DIVISION ST. North Ave. Chicago Streets CHICAGO AVE Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Randolph St. Monroe St. Jackson Blvd. ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. CERMAK RD. Waldron Dr. 18th St. McCormick Place 31ST ST 35TH ST 31st St. 35th St. PERSHING RD Oakwood Blvd. 43RD ST 43rd St. 5157 57 47th St. Miles 51st St. 55th St. 57th St. 63RD 51 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 7157 57 67th St.

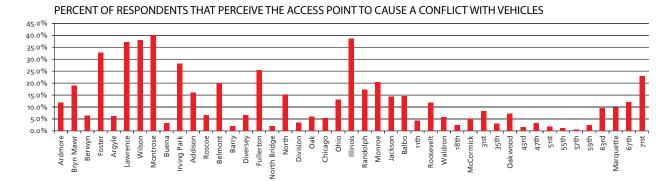
ACCESS POINTS – USER CONFLICT

This map shows where survey respondents indicated that getting on or off the trail might lead to conflicts with other people, highlighting locations with a higher potential for crashes.

Anyone who has used the Lakefront Trail in the summer months knows that the crowds on the trail can be challenging. This is especially true at access points where entering or exiting the trail can lead to near misses with other people walking, running and biking. Conflicts at access points can arise from people crossing the trail, entering or exiting the trail on the wrong side, biking too fast or turning sharply while biking, or walking in the middle of a path in a tunnel.

The results of this survey question about user conflict overwhelmingly align with the responses to questions about which access points are most congested. Seven of the most common access points for user conflict are also the most heavily congested, including **Fullerton** Parkway, Illinois Street, and the North Avenue pedestrian bridge. There are also high levels of reported user conflict at 55th Street/Promontory Point, although this access point has extremely low congestion ratings. This disparity might be attributed to the high number of trail spurs in the immediate vicinity of this access point, creating more cross traffic and making merging more difficult. On the other hand, both Buena Avenue and 31st Street have moderate congestion rates but extremely low user conflict. This can likely be attributed to good design, as Buena Avenue is the highest rated access point and 31st Street is newly redesigned.

The solution to mitigate user conflicts at access points would seem to be the same needed to reduce congestion. Access points need to be designed in a manner that allows for safe and efficient access by providing broad sight lines and ample opportunity to merge. Additional solutions might also include signs directing merging traffic to keep right, widening the trail at congested access points, or creating separate paths for different speeds and uses near access points.



LEGEND Ardmore Ave. OSTER AVE. Bryn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. VEHICLE CONFLICT MONTROSE AVE Lawrence Ave. Wilson Dr. Hiah IRVING PARK RE Montrose Ave. Vehicle Conflict Buena Ave. Above-Average ADDISONST Irving Park Rd. Vehicle Conflict Addison St. BELMONT AVE. Average Roscoe St. Vehicle Conflict **Belmont Ave.** Barry Ave. Below-Average FULLERTON AVE Vehicle Conflict Diversey Pkwy. Low Fullerton Pkwy. Vehicle Conflict NORTH AVE. Lakefront Trail North Ave. Bridge DIVISION ST. North Ave. Chicago Streets CHICAGO AVE Division St. Oak St. Chicago Ave. Ohio St. MADISON S Illinois St. Randolph St. Monroe St. Jackson Blvd. ROOSEVELT RD Balbo Ave. 11th St. Roosevelt St. Waldron Dr. CERMAK RD. 18th St. McCormick Place 31ST ST 35TH ST 31st St. PERSHING RD 35th St. Oakwood Blvd. 43RD ST 43rd St. 51ST ST 47th St. Miles 55TH ST. 51st St. 59TH ST 55th St. 57th St. 63RD 51 59th St. MARQUETTE RD. 63rd St. Marquette Dr. 7157 57 67th St.

ACCESS POINTS – VEHICLE CONFLICT

This map shows where survey respondents indicated that getting on or off the trail might lead to conflicts with automobiles, highlighting locations with a higher potential for crashes involving vehicles.

While trail users can experience conflicts with other people both along the trail and while entering or exiting the trail, vehicle conflicts occur exclusively at access points that intersect with roadway crossings. These situations can cause potentially dangerous crashes between trail users and vehicles because of poor sight lines, high vehicle speeds, or driver and trail user behavior.

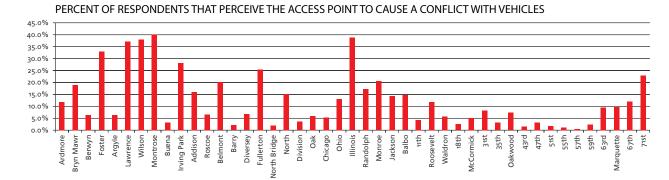
One key finding was clear: Vehicle conflicts were overwhelmingly more common on the north side. Trail users are much less likely to have interactions with vehicles south of Illinois Street because access points tend to separate vehicles from the trail more successfully. On the other hand, trail access points between Fullerton Parkway and Ardmore Avenue are designed in a manner that forces trail users to cross roadways.

Some of the access points with the highest vehicle conflict include Foster Avenue, Lawrence Avenue, Wilson Avenue and Montrose Drive. Each of these access points also has a relatively similar design: People must cross two sets of crosswalks that traverse the on- and off-ramps for Lake Shore Drive before accessing the trail. Vehicles also cross the trail itself with only a stop sign. In short, each of these locations provides no

71st St.

less than five opportunities for vehicles to come into conflict with trail users. Rounding out the list are the access points at Illinois Street and Fullerton Parkway, both of which have design challenges. At Illinois, users must cross traffic attempting to enter and exit Lake Shore Drive; likewise at Fullerton, trail users are required to access the trail by crossing the offramp for Lake Shore Drive.

The problem of vehicle conflicts seems to be related more to design than congestion. Regardless of the rates of congestion at either the access point or trail segment, those access points with at-grade vehicle crossings experienced the highest rate of conflict. This problem is especially acute given the nature of Lake Shore Drive—a high-speed roadway with few stops. Forcing interaction between motorized and non-motorized users without the proper design and traffic control can create dangerous situations.



LEGEND Ardmore Ave. FOSTER AVE. Bryn Mawr Ave. 000000 Berwyn Ave. LAKEFRONT TRAIL Foster Ave. Argyle St. **CRASH LOCATIONS** MONTROSE AVE Lawrence Ave. High Crash Wilson Dr. IRVING PARK RE Montrose Ave Access Point Buena Ave. Above-Average ADDISON ST Irving Park Rd. Crash Access Addison St. Point BELMONT AVE Roscoe St. Average Crash Belmont Ave. Access Point Barry Ave. FULLERTON AVE Below-Average Diversey Pkwy. Crash Access Point Fullerton Pkwy. Low Crash NORTH AVE. Access Point North Ave. Bridge DIVISION ST. High Crash North Ave. Segment Division St. CHICAGO AVI Oak St. Above-Average Crash Segment Chicago Ave. Ohio St. Average Crash MADISON : Illinois St. Segment Randolph St. Below-Average Monroe St. Jackson Blvd. Crash Segment ROOSEVELT RD Balbo Ave. Low Crash Segment Roosevelt St. CERMAK RD. Waldron Dr. Lakefront Trail 18th St. **Chicago Streets** McCormick Place 31ST ST 35TH ST. 31st St. PERSHING RD 35th St. Oakwood Blvd. 43RD 57 43rd St. 51ST \$7 47th St. Miles 55TH ST 51st St. 59TH ST 55th St. 57th St. 63RD ST 59th St. MARQUETTE RD 63rd St. 7157 57 Marquette Dr. 67th St.

TRAIL CRASHES

This map shows where survey respondents indicated they had experienced a crash with another person or with a vehicle.

Survey respondents were asked if they had experienced a crash. No details were requested about which mode they were using when the crash occurred, what caused the crash, or if the crash resulted in serious injury or property damage. This map displays both crashes that occurred on the trail as well as crashes at access points. Some reported crashes may have occurred immediately before a user entered the trail. This map reflects the total number of crashes reported by survey respondents and does not reflect how likely a person is to become involved in a crash.

The on-trail area with the highest number of crashes stretched from Fullerton Parkway to Oak Street. Additionally, the trail segment between Ohio Street and Randolph Street had high a number of reported crashes. The access points at Fullerton Parkway, the North Avenue underpass, Oak Street, Ohio Street and Illinois Street were the top reported access points for crashes. These access points directly correlate with those trail segments that reported the highest number of crashes. The trail segments farthest from downtown had the lowest number of reported crashes along the trail, and all but two of the access points south of Monroe Street had a low number of reported crashes.

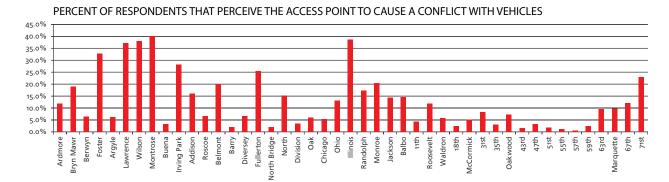
The trail segments with the highest reported crash numbers are also the segments that are reported to

71st St.

be most congested. Most of these areas lack a parallel path or alternate route that can relieve congestion by drawing some users to an alternative place to walk, run, skate or bike. Likewise, the access points with the highest number of reported crashes are either at street level—where there is limited guidance for cyclists as they enter the trail—or at underpasses where people accessing the lakefront for purposes other than using the trail are forced onto the trail regardless.

In order to mitigate crashes, the Lakefront Trail should be designed in ways that have been proven to work, based on those locations where crash rates are the lowest. These access points are generally designed in a manner similar to a highway on-ramp, where there is a clear and intuitive pathway for trail users to walk or ride along, where they may gather before accessing the trail, check for other trail users before merging onto the trail, or stop to wait for a gap in trail traffic so they can safely cross or merge onto the trail.

While the enormous popularity of the Lakefront Trail threatens to outstrip its original capacity, smart redesign in targeted locations will help ensure that people can continue to use the trail safely, even during periods of peak usage. Ensuring that the trail meets the basic standards developed by the Chicago Park District and creating parallel use paths will help to reduce dangerous situations on the trail.



PUBLIC ENGAGEMENT REPORT

