REDEFINE THE DRIVE

NORTH DUSABLE LAKE SHORE DRIVE

NORTH DUSABLE LAKE SHORE DRIVE STUDY SPOTLIGHT

SAFETY

General Project Information

June 2022

The North DuSable Lake Shore Drive (NDLSD) Phase I Study is currently evaluating the five remaining NDLSD Build Alternatives ("Level 3 Screening"). As part of this evaluation, nearly 30 different criteria are being considered, including Performance, Social, Economic and Environmental factors. One of the Performance categories is safety, and this Study Spotlight is intended to provide an overview of the existing safety concerns in the corridor along with the recommended safety-related design treatments that are proposed as part of the remaining alternatives. For additional details regarding the overall Phase I Study, please visit the project website at northdusablelakeshoredrive.org.

WHAT ARE THE EXISTING SAFETY CONCERNS ALONG NDLSD?

Crash Frequency and Crash Types

The project team has collected and analyzed vehicular crash data for a 10-year period, from 2007 to 2016 for the 7-mile section of NDLSD from Grand Avenue to Hollywood Avenue. During that time, NDLSD averaged over 900 crashes per year, an average of nearly 3 crashes per day. More recent data is currently being gathered and will be evaluated as the study progresses. Predominate crash types include rear end, sideswipe, and fixed object collisions. The relative highest concentrations of crashes occurred at the Belmont junction (154 crashes/year) and along the Oak Street Curve (111 crashes/year).

2007-2016 Predominant Vehicular Crash Types

Rear End.....42%
Sideswipe.....28%
Fixed Object.....17%

- The Belmont Avenue junction is the most heavily congested junction in the corridor. Congestion at the junction intersections not only causes long backups on Belmont Avenue and the Inner Drive, but it often causes vehicle delays to extend onto the Outer Drive during peak travel periods resulting in lane blockages that create traffic safety challenges.
- The sharp curvature and narrow 9 or 10-foot lane widths on NDLSD near Oak Street contribute to high rates of vehicles striking each other or the barrier walls along both edges of pavement in this area.

An average of 30 annual vehicle crashes involving cyclists and pedestrians were reported in the study area with the highest concentrations at the Montrose Avenue and Wilson Avenue junctions where 35% of all ped/bike crashes in the entire corridor occurred. The existing unsignalized traffic control at these junctions limits the ability to manage conflicting movements between people driving, cycling, and walking in these areas. Although most crashes between people cycling, running, and walking on the Lakefront Trail itself go unreported, it should be noted that trail separation safety improvements were implemented in 2018 and 2019 along the Lakefront Trail and along Wilson Avenue. These trail separation improvements are believed to have significantly improved safety along the trail and will be incorporated into the NDLSD plans along with further trail improvements.

Fatal Crashes

A total of 30 fatal crashes were reported during the 10-year study period. A majority were fixed object type crashes that involved vehicles striking the median, the guardrails or other objects along the roadside. Five fatal crashes occurred just south of the Irving Park Road junction, which resulted from a combination of high vehicle speeds and limited sight distance due to horizontal and vertical curves (a bend and a crest) along the Outer Drive at this location. In addition to the fixed object crashes, there were seven fatal crashes involving cyclists or pedestrians either traveling on the Outer Drive or attempting to cross it at-grade.

Injury Crashes

More than 18% of the crashes during the study period resulted in injuries, with 16% of those being serious in nature. The Oak Street Curve had the highest number of severe injury crashes, which is related to the sharp curvature and narrow lane widths along the Outer Drive.

Vehicle Speeds

One of the biggest concerns expressed by stakeholders is the high vehicle speeds that are prevalent along the Outer Drive. Although the posted speed limit on NDLSD is 40 mph, the average prevailing speed can reach 60 mph or higher during non-peak hours on many portions of the Drive. Speeding is a contributing factor in many of the crashes that occur along NDLSD. Conventional police speed enforcement strategies are challenging along much of the Drive due to the lack of roadside space to monitor and pull over speeders.

WHAT DESIGN TREATMENTS ARE PROPOSED TO IMPROVE SAFETY?

A number of design treatments common to all of the remaining NDLSD alternatives are proposed to address safety concerns along the project corridor:

1 Improved Facilities for People Walking and Biking

In recent years, the Chicago Park District has built two separate paths for the Lakefront Trail throughout the project limits to minimize conflicts between slower moving trail users (such as people walking) and faster moving trail users (such as people bicycling). The proposed NDLSD improvements will further enhance the safety benefits achieved by trail separation by grade-separating the Lakefront Trail for faster moving users at each lakefront access location to eliminate conflict points between trail users and motor vehicles. National studies have shown that upgraded bike and pedestrian facilities can improve safety by up to 85%*. In addition, the total number of east-west lakefront access points for people walking and bicycling will be increased, reducing the potential for attempting to cross the Outer Drive at grade. All access facilities will be ADA compliant and sized to more comfortably accommodate both current and expected demand. Along the Inner Drive, safety for people walking and bicycling will be improved by enhancing crosswalks and creating a new continuous sidewalk and/or multi-purpose path in the increased space between Inner and Outer Drive.

**Source: Safety Benefits of Highway Infrastructure Investments; May 2017; AAA Foundation for Traffic Safety*

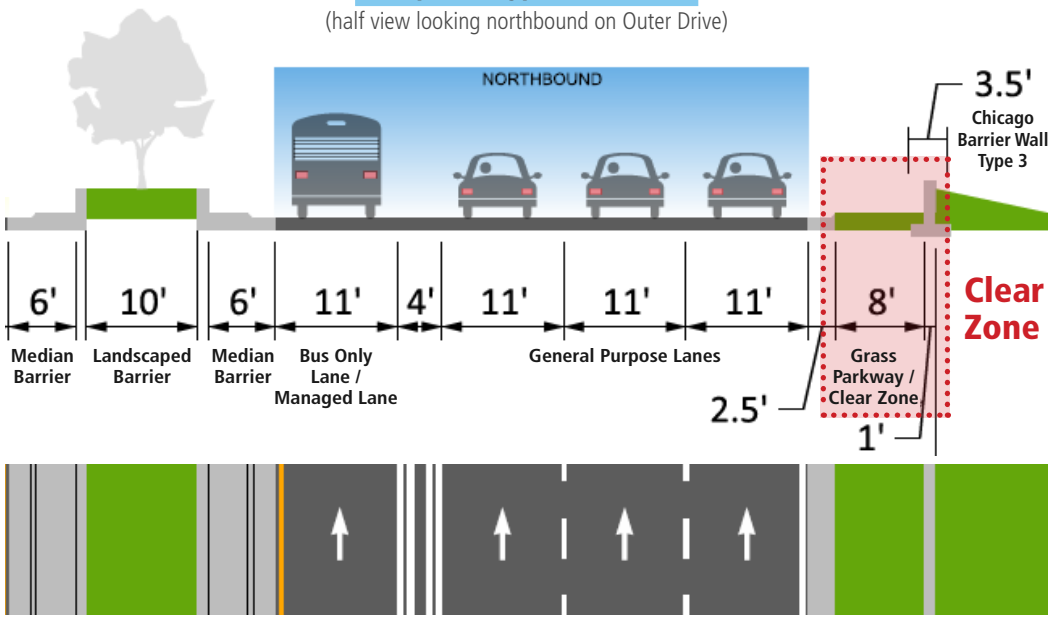
2 Safety Setbacks (Clear Zones)

All NDLSD alternatives will establish a 10-foot safety setback area along the outside edges of the Outer Drive pavement that is free of fixed objects, such as light poles and barrier walls. The safety setbacks combined with mountable curbs would allow disabled vehicles to pull out of the travel lanes in an emergency. National studies have shown that establishing clear zones can improve traffic safety for motorists by up to 20%* on roadways like NDLSD.

**Source: Safety Benefits of Highway Infrastructure Investments; May 2017; AAA Foundation for Traffic Safety*

Proposed Typical Section

(half view looking northbound on Outer Drive)



3 Belmont Junction Improvements

The proposed lengthening of the northbound exit ramp, reconfiguration of the southbound exit and entrance ramps, and addition of ramps to and from the south at Addison Street will significantly improve conditions that lead to existing safety challenges in this area on both the Outer Drive as well as arterial streets leading to and from the Belmont Avenue junction.

4 Oak Street Curve Modifications

Flattening the Oak Street Curve and keeping lane widths at a consistent 11 feet through this area will reduce the potential for crashes.

5 Improved Junctions

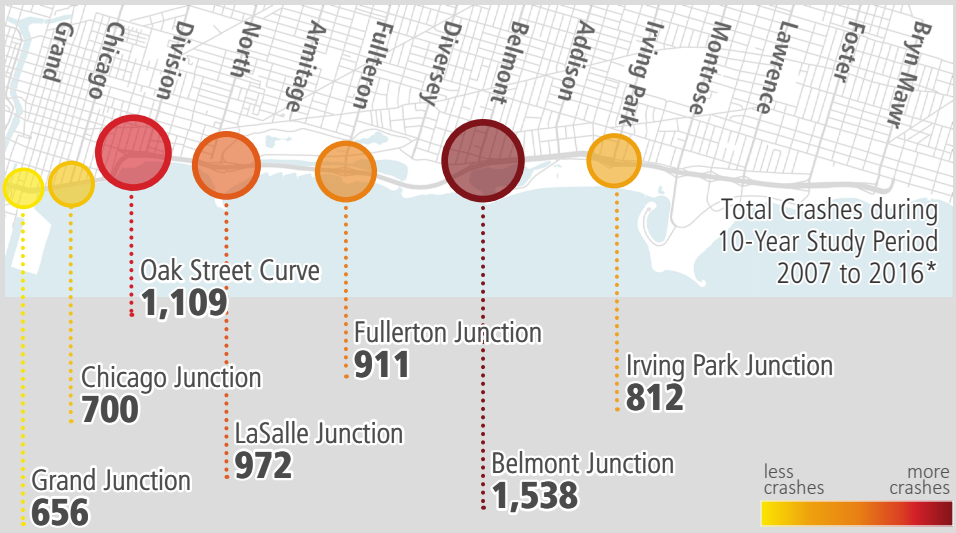
The design of each junction will be modernized to enhance safety. These changes will include improving accommodations for people walking and bicycling, signalizing currently unsignalized intersections, and adding turn lanes at key locations.

6 Improved Transit Facilities

Throughout the project limits, existing bus stops will be improved, especially along the northbound Inner Drive where existing bus stops are of substandard dimensions and physically constrained in-between the Inner and Outer Drives. New bus passenger facilities will also be added at Pearson Street, Addison Street, Irving Park Road, Wilson Avenue, Lawrence Avenue, and Foster Avenue. Passenger convenience, comfort and safety will be improved by providing larger, ADA compliant spaces for passenger waiting, boarding, and alighting.

EXISTING CRASH HOT SPOTS

Although the highest concentrations of crashes are located at the Belmont Avenue junction and Oak Street Curve, there are several other areas that also currently have a relatively high combination of crash frequency and crash severity.



HOW WILL SPEEDING BE ADDRESSED?

Longer emergency pull-off bays will be provided intermittently within the safety setback space along the outer edges of NDLSD that will be suitable for police speed monitoring and enforcement activities. Slower speeds will also be encouraged by narrowing travel lane widths and potentially reducing the total number of travel lanes at the north end of the Drive as well as by enhancing the boulevard feel of the Outer Drive. All alternatives feature 11' lane widths as well as expanded landscaping in the medians and along the roadsides.

Automated speed enforcement cameras on NDLSD are currently prohibited by state law..

More recent data is currently being gathered and will be evaluated as the study progresses.

If you have any comments on the information in this handout, or any other project materials, please email the project team at **info@ndlsd.org**.