



EXECUTIVE SUMMARY

Lake Street

Transforming the street alongside B Line implementation

Making street changes to improve transit speed and reliability, pedestrian safety, and improve mobility: a multi-jurisdiction approach

March 2022



An opportunity for improving Lake Street: B Line Bus Rapid Transit (BRT)

As Metro Transit plans improvements to transit on Lake Street with the METRO B Line Bus Rapid Transit project, Hennepin County and City of Minneapolis staff have partnered to take a deeper look at Lake Street and how to improve the corridor alongside the B Line improvements. The B Line project offers the opportunity to reassess how broader improvements to Lake Street could better meet overall multimodal and safety goals. The shared vision between agencies is to improve safety, increase transit speed and reliability along the corridor, and improve conditions for people walking while recognizing the role of Lake Street as an important cultural, business, and residential corridor in the city. Given the extraordinary challenges experienced recently along the corridor--civil unrest, COVID-19 and the reconstruction of I-35W--Lake Street area residents and businesses have been through a lot. Minimizing further disruptions with any proposed roadway improvements is vital to success.

B Line construction is planned to begin in 2023, with service starting in 2024. Hennepin County and the City of Minneapolis have been collaborating to identify broader improvements to Lake Street that can be constructed at the same time as B Line stations to minimize overall disruption to businesses, residents, transit riders, and others traveling on and around Lake Street.

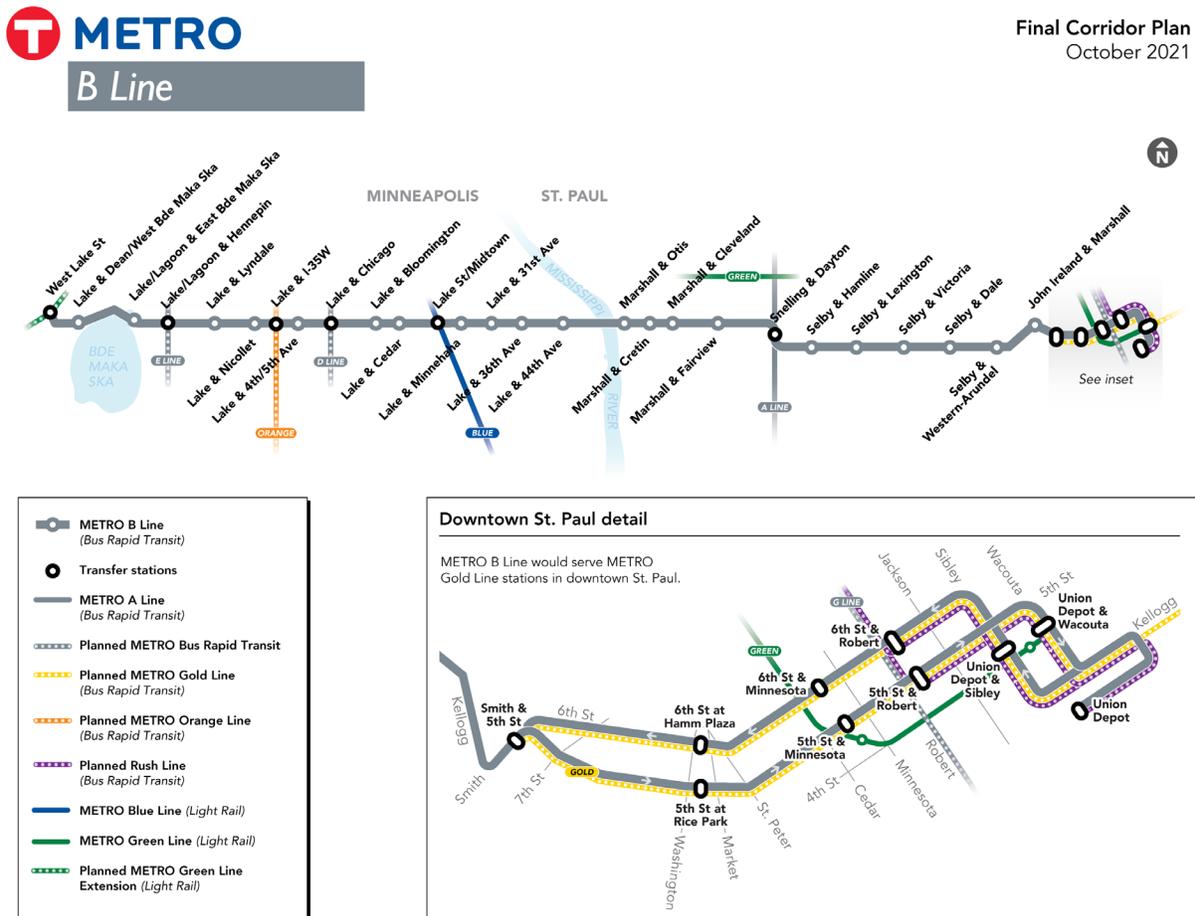


Figure 1: B Line corridor map



Metro Transit is planning a core set of improvements at stations as part of the B Line to speed up buses. But Lake Street has more congestion and experiences greater speed and reliability challenges than other corridors with arterial BRT lines, like Penn Avenue and Snelling Avenue. Therefore, in addition to the standard set of arterial BRT improvements, Metro Transit, in partnership with Hennepin County and the City of Minneapolis, have worked to evaluate various alternatives and have developed a staff recommended concept that incorporates other bus priority treatments, balanced with other priorities along the entire corridor.

Lake Street Challenges and Needs Today

Lake Street is the highest crash corridor in Minneapolis, and all of Hennepin County, and is identified as a High Injury Street in the City's Vision Zero Action Plan (2020-2022). A 2017-2019 crash study of Lake Street found that among other safety related issues, left-turns being made from the shared through-lane has led to many rear-end, sideswipe, right-angle, and/or pedestrian-involved crashes which need to be addressed. The four-lane undivided segment (East of Dupont Avenue) is most challenging from an operations and safety standpoint for several reasons, including a lack of dedicated turn lanes leading to persistent safety conflicts related to turning vehicles and swerving vehicles trying to avoid turning vehicles. Pedestrian crossings are a safety priority throughout the corridor with the many vibrant destinations on both sides of the street. Lack of a dedicated left-turn signal phase leads to many pedestrian-related crashes as turning motorists usually are focused on oncoming traffic looking for a gap with pedestrians crossing as a secondary focus.

In 2006-2008, Lake Street was reconstructed between Dupont Avenue and the Mississippi River Bridge. The reconstruction project provided new sub-surface, streetscaping and lighting, modernized stormwater infrastructure, new sidewalks and signal systems, ADA ramps and push buttons (APS), as well as curb bump outs at many intersections. The project design also narrowed travel lanes to minimum widths to accommodate these improvements. Reconstruction projects are intended to provide a 50+ year service life with maintenance mostly limited to pavement surface every 10 or so years. Given this, the proposed work is limited to between the curbs and in coordination with mill and overlay.

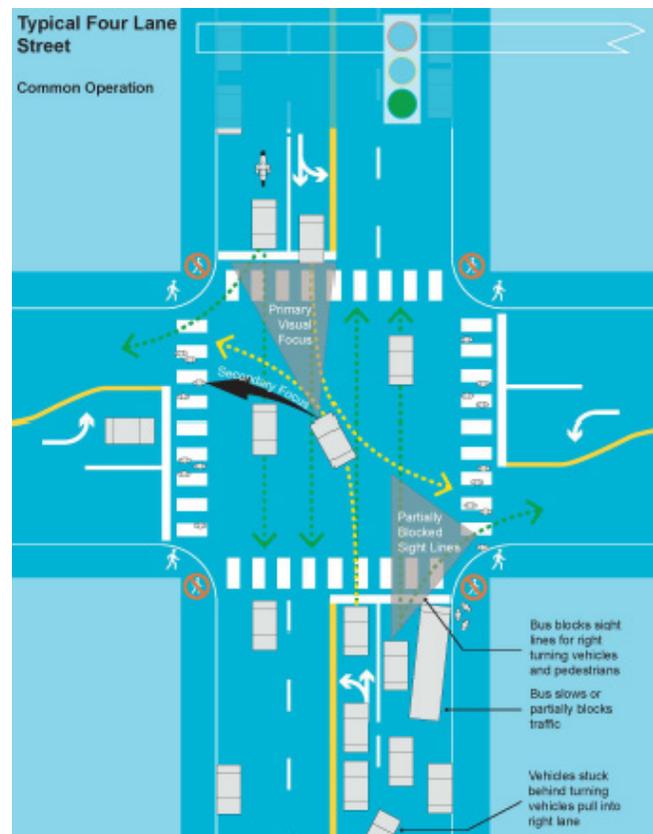


Figure 2: Typical four-lane street safety issues

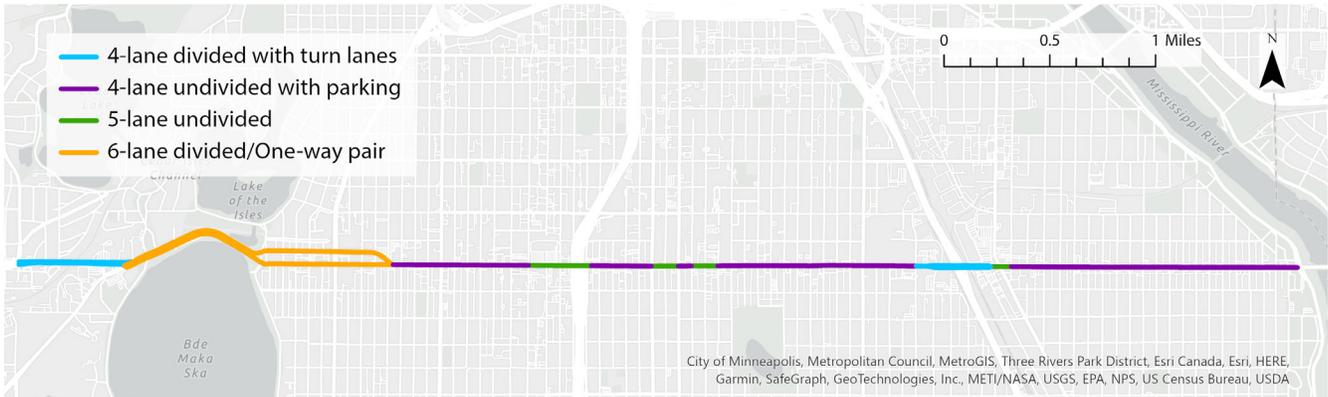


Figure 3: Roadway configuration

Stakeholder Feedback

Community engagement over the past several years has identified needs in the corridor and shaped the development of this concept. Metro Transit engaged communities along Lake Street throughout the 2019-2021 development of the [B Line Corridor Plan](#). More than 800 comments were received on the corridor plan in 2021. Specific comments were focused primarily on bus priority treatments, station/platform placement, and the proposed mix of bus service within the corridor. Minneapolis staff also heard from thousands of people on recent citywide engagement for the Transportation Action Plan, Vision Zero Action Plan, and Minneapolis 2040 Plan. Common themes from that engagement that help inform Lake Street work include:

- a desire for more, improved, and faster transit
- a desire for quickly improving safety on high crash streets
- a desire for pedestrian improvements along and across busy corridors

This invaluable public feedback was woven into staff’s planning and development of Lake Street concepts.

Priorities and Analysis

Throughout 2020 and 2021, Metro Transit, Hennepin County, and City of Minneapolis staff collaborated to analyze transit and traffic operations in the Lake Street corridor. Staff have developed and evaluated various lane configuration concepts aimed at four priorities, grounded in County, City, and Metro Transit policies and plans:

- enhancing pedestrian safety
- improving transit travel times
- reducing crashes for all modes
- enhancing overall user experience for all modes

Because Lake Street is not due to be fully reconstructed again for many years, staff considered modifications that would be somewhat limited in scope to “between the curbs.” This was a conscious effort to minimize further disruption to the corridor and preserve newer amenities such as curb bump outs, parking, streetscaping, and lighting.

Recommended Concept

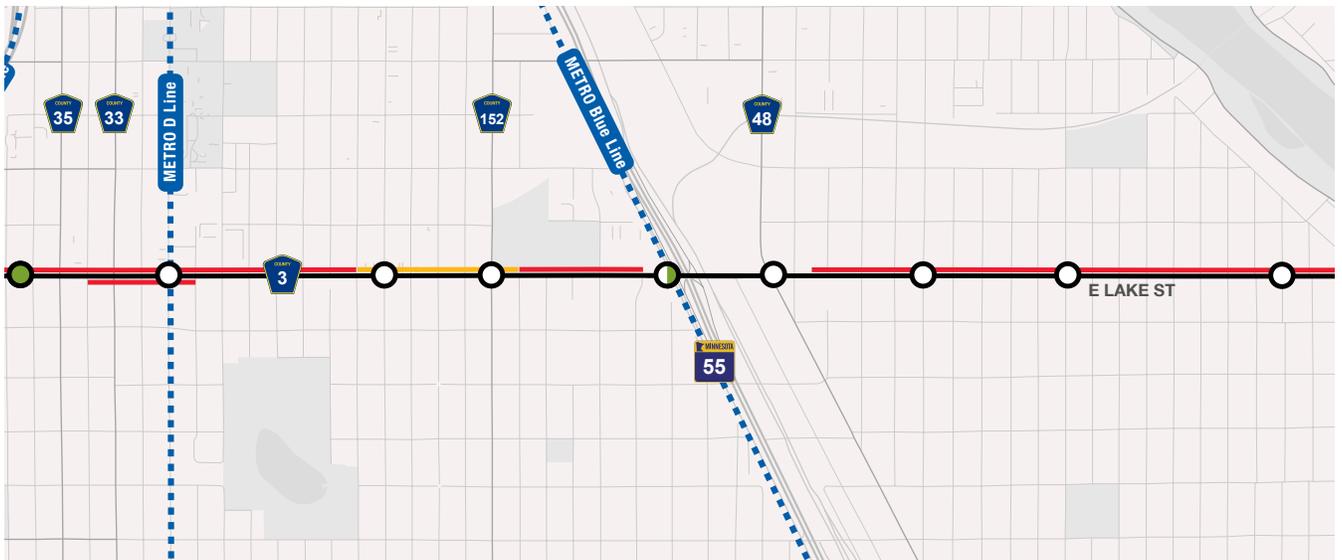
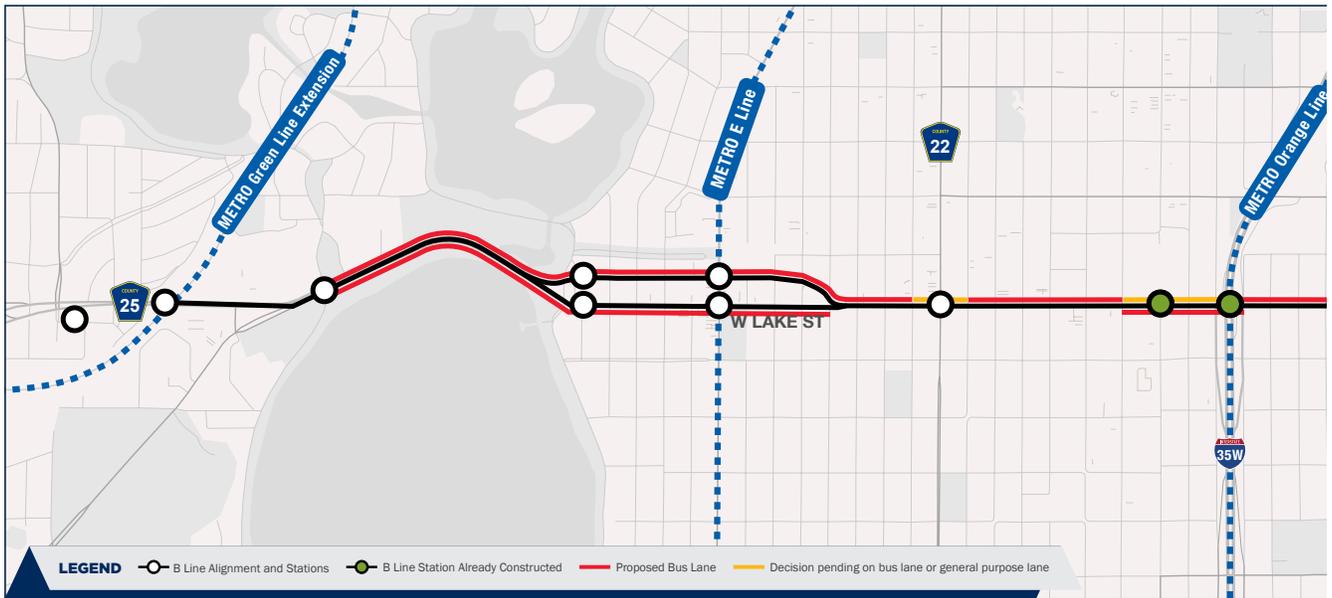


Figure 4: Proposed bus lanes on Lake Street

With these collective priorities in mind, staff identified a recommended concept that best balances interagency goals. The text below briefly summarizes staff conclusions and recommendations:

- Wherever there are four lanes today without a median, the general approach is to replace the 4-lane undivided section with a three-lane section with a bus lane in one direction.
 - A key goal is to provide a bus lane in the direction it's needed more from a speed and reliability perspective, while minimizing transitions in the street design.
- Install a westbound bus lane along most of the corridor.
 - Generally, traffic and transit travel times are heavier westbound than eastbound in this corridor, particularly in the PM peak.
 - The bus lane would operate 24 hours per day and 7 days per week and would be identified through pavement markings and signage.
 - Bus lanes would also be used by vehicles making right turns onto streets or driveways, as well as vehicles accessing on-street parking.
 - Traffic modeling has been completed to validate this overall approach.
- In a few locations along the corridor where traffic volumes are particularly high, a second westbound general purpose travel lane is recommended instead of a bus lane.
 - The second traffic lane may be converted to a bus / right-turn lane at some point in the future.
- The City's Transportation Action Plan includes potential for both bike lanes and bus lanes on Lake Street from Minnehaha Avenue to the Mississippi River. The recommended concept includes a westbound bus lane from 47th Avenue to 27th Avenue.
 - After considering the trade-offs between a westbound bus only lane and bikeway facility on this portion of Lake Street, it was determined that this would need to be an All Ages and Abilities (AAA) facility and currently, there is not sufficient public right-of-way to implement a true low-stress facility. Modeling showed a benefit of having the westbound bus only lane to incorporate transit advantages and help Metro Transit reach the goal of 20% shorter transit trip times following B Line implementation.
- Bumpouts and on-street parking would generally not be affected by these changes, outside of a few parking spaces being removed at major intersections to fit B Line stations and turn lanes.
- Bus lanes are also recommended in both directions in the one-way segments of Lake Street/Lagoon Avenue between Dupont Avenue and Dean Parkway and in some existing five-lane segments of Lake Street.

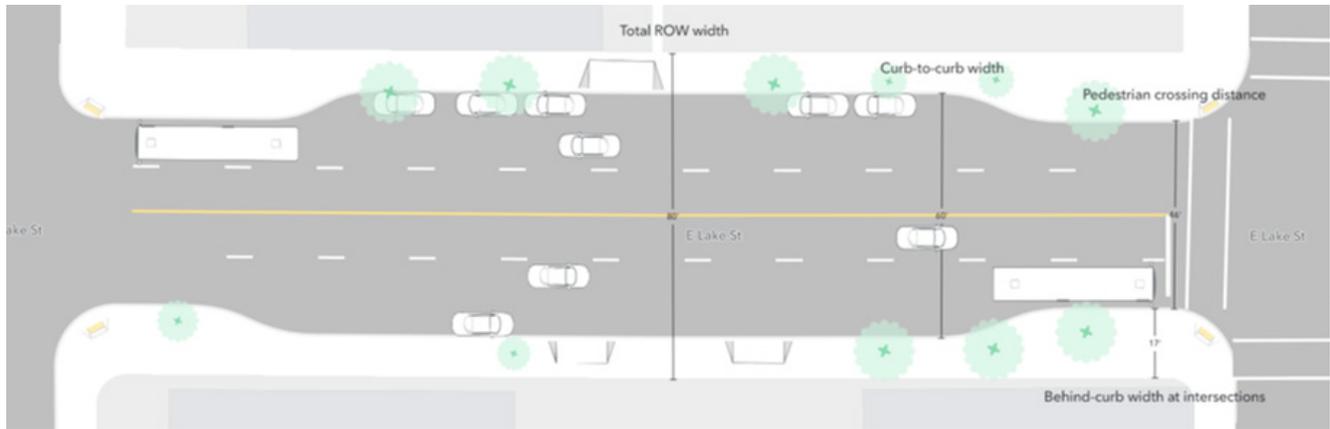


Figure 5: Existing conditions along most of Lake Street from Dupont Avenue–Mississippi River

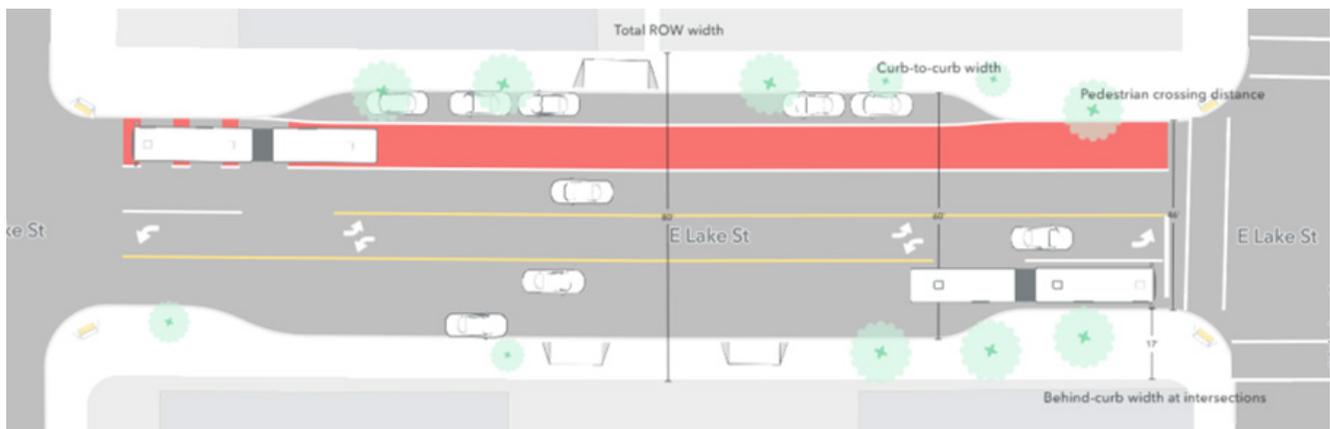


Figure 6: Conceptual four-to-three conversion section with directional bus lane

Next Steps Towards Decisions and Implementation

Following City and County decision-making processes in early 2022, design for these improvements will advance and be coordinated with B Line station design across 2022. Design activities will be finalized later in 2022 in preparation for construction beginning in 2023 and continuing into 2024, in coordination with B Line station construction. More details will be shared about construction phasing plans for B Line stations and broader street construction later in 2022 and into 2023.