

Draft Corridor Plan

10/24/2022

Metro Transit is planning improvements to the Route 10 corridor with the METRO F Line, an arterial bus rapid transit (BRT) service. The F Line will substantially replace Route 10 in Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine, connecting Northtown Transit Center with downtown Minneapolis and running primarily on University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall. Arterial BRT is a package of transit enhancements that adds up to a faster trip and an improved experience. The F Line project is currently in the planning phase. The F Line is scheduled for construction beginning in 2025.

We are currently seeking feedback on proposed F Line station locations. We are seeking comments on this draft corridor plan through December 5, 2022.

There are several ways to comment on the plan:

- Review the plan and comment online at <u>metrotransit.org/f-line-project</u>
- Email comments to <u>FLine@metrotransit.org</u>
- Call Customer Relations at 612-373-3333

Metro Transit will report back to the community with revisions in a recommended plan in winter 2022/2023 and bring a final plan to the Metropolitan Council for approval in spring 2023.

To stay in touch, sign up for the F Line project updates at the project website: metrotransit.org/f-line-project.

Executive Summary

Purpose of the Plan

The purpose of the METRO F Line Corridor Plan is to identify the locations of stations and platforms and provide policy direction to Metro Transit to begin detailed design for the F Line bus rapid transit (BRT) project.

The corridor planning process provides opportunities for effective agency coordination and meaningful public engagement on the F Line stations and platforms.

Corridor Overview

The METRO F Line is a planned BRT line that will upgrade and substantially replace Route 10, one of Metro Transit's highest ridership routes. From north to south, the F Line is proposed to operate along a 13-mile corridor from the Northtown Transit Center in Blaine to downtown Minneapolis primarily via University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall (Figure i). The F Line corridor connects to many important community destinations and other major transit routes, including multiple existing and planned METRO light rail and BRT lines.

This plan has been developed with baseline data from years prior to 2020. Changes in transit service, ridership, or overall traffic patterns resulting from the COVID-19 pandemic are not used as a baseline for recommendations in this draft plan, though they are considered in the context of the plan.

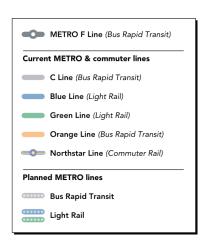


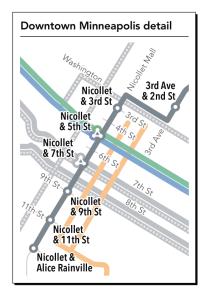
A METRO C Line bus serving Penn & Dowling Station; the F Line project will build similar stations and use similar buses

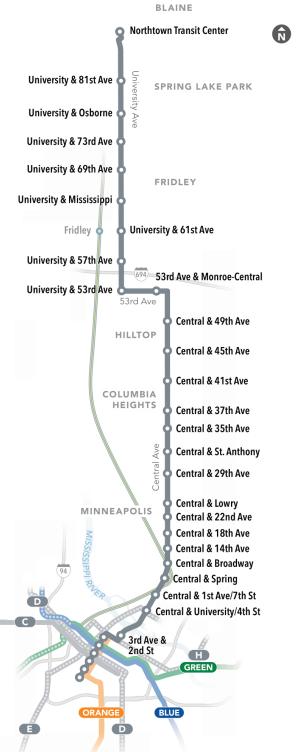
Figure i. F Line corridor overview



August 2022







METRO F Line Draft Corridor Plan

The Need for Improved Transit in the Corridor

Route 10 is the fifth highest-ridership bus route in the region, both before the pandemic and today. In September 2019, customers took about 6,500 rides on Route 10 each weekday. In addition to providing access to places and opportunities, Route 10 service is a critical means of moving people in the corridor and an important piece of the broader transportation network.

But Central Avenue is also one of the slowest transit corridors in the region. During peak periods, buses regularly slow to average speeds of 12 miles per hour or less. Frequent stops, lines of customers waiting to board, traffic congestion, and red lights mean that buses are moving less than half the time. Reducing the time it takes for customers to get on and off the bus and the time spent stuck in traffic will significantly improve travel speeds and reliability.

BRT helps address needs by bringing better amenities, faster service, and more comfort to the highest-traveled corridors where many customers rely on transit daily. Advancing equity and reducing regional disparities is a priority for Metro Transit and is used as a guiding principle when identifying future arterial BRT corridors. The F Line can help reduce disparities for people with low incomes and communities of color by improving speed and reliability to connect to jobs and opportunities. About 40 percent of Route 10 riders live in low-income households, and over half of Route 10 riders are people of color.

The purpose of the F Line is to provide faster, more reliable, and more attractive bus service along a north-south corridor between Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine. The need for the project can be summarized by two key challenges: slow and unreliable transit service and passenger facilities inadequate for the high volume of people using them.

Stations

The F Line will stop at 32 locations (stations) across the 13-mile corridor, with stops placed about 0.4 miles apart (two to three stops per mile) on average to balance speed and access. Stopping less often is anticipated to help F Line service operate about 20 percent faster than the existing Route 10, when combined with other improvements. F Line stations will be designed to provide faster and more efficient service, along with amenities that foster an improved customer experience.

After this plan is approved by the Metropolitan Council – the final version is anticipated in summer 2020, following two rounds of public engagement – this document will guide the detailed design of stations by confirming **station intersections** and **platform locations** at those intersections. Other characteristics will be finalized through detailed engineering.

Service

The F Line is planned to operate every 10 minutes, seven days a week during the day and most of the evening, substantially replacing Route 10 as the primary service in the corridor. The exact F Line schedule, including hours of service and transitions from 10-minute service during the core of the day into later evening service, will be developed closer to the opening of the F Line.

Local service could operate in a portion of the F Line corridor between Columbia Heights Transit Center (41st Avenue) and 53rd Avenue. The modified Route 10 could continue to operate on a path similar to the

existing Route 10N between Northtown Transit Center and Columbia Heights Transit Center, maintaining service through Spring Lake Park and Fridley along Central Avenue north of 53rd Avenue, and no longer serving downtown Minneapolis. The modified Route 10 could operate approximately every 30-60 minutes. Final service plans, including the frequency and termini for local bus service along the F Line corridor, will be developed later in project development as the F Line nears implementation and as recovery from the COVID-19 pandemic continues.

Bus Priority Treatments

Bus priority treatments are being evaluated along the F Line corridor to help meet project goals for faster transit service. These treatments include modifications to traffic signal timing and implementation of transit signal priority (TSP) and bus queue jumps so that people on buses spend less time stopped at signals or in traffic. Metro Transit intends to work with its partners to implement TSP as part of the F Line project. Signals along the corridor will be evaluated and considered during the design phase of the project for implementation.

The Draft Corridor Plan also outlines Metro Transit priorities for implementation of bus-only lanes along the F Line corridor. Some of these improvements are being considered in coordination with other street projects, and others may potentially be implemented through Metro Transit's Speed & Reliability program, independent of planned F Line construction in 2025-2026.

Planning Process

The contents of this Draft Corridor Plan were developed by Metro Transit staff throughout 2022 with inputs and feedback received from the Technical Advisory Committee consisting of staff from agency partners and through ongoing community outreach and engagement activities.

The Draft Corridor Plan is the first of three planned versions of the Corridor Plan. It will be updated in response to feedback collected during a public comment period and additional community outreach and engagement activities. The resulting Recommended Corridor Plan will be published and shared in a second round of public outreach and engagement, including a second public comment period, then revised again as needed before the Final Corridor Plan will be presented for Metropolitan Council approval, anticipated in spring 2023.

Contents

Introduction	1
Purpose of the Plan	1
Corridor Overview	1
The Need for Improved Transit in the Corridor	3
What is Arterial BRT?	4
F Line Project Schedule and Implementation	9
Planning Process	12
Previous Plans, Studies, and Projects	12
F Line Planning Stages	15
Technical Advisory Committee	16
Public Engagement	16
Project Elements	18
Alignment and Termini	18
Stations and Platforms	18
Service	25
Bus Priority Treatments	29
Stations by Location	33
Northtown Transit Center	40
University & 81st Avenue	42
University & Osborne	45
University & 73rd Avenue	48
University & 69th Avenue	51
University & Mississippi	54
University & 61st Avenue	57
University & 57th Avenue	60
University & 53rd Avenue	63
53rd Avenue & Monroe-Central	66
Central & 49th Avenue	69
Central & 45th Avenue	72
Central & 41st Avenue	75
Central & 37th Avenue	78
Central & 35th Avenue	81
Central & St. Anthony	84
Central & 29th Avenue	87
Central & Lowry	90
Central & 22nd Avenue	93
Central & 18th Avenue	96

Central & 14th Avenue	99
Central & Broadway	102
Central & Spring	105
Central & 1st Avenue/7th Street	108
Central & University/4th Street	111
3rd Avenue & 2nd Street	
Nicollet Mall Downtown Stations	117

Introduction

Purpose of the Plan

The purpose of the METRO F Line Corridor Plan is to identify the locations of stations and platforms and provide policy direction to Metro Transit to begin detailed design for the F Line bus rapid transit (BRT) project.

The corridor planning process provides opportunities for effective agency coordination and meaningful public engagement on the F Line stations and platforms.

Corridor Overview

The METRO F Line is a planned BRT line that will upgrade and substantially replace Route 10, one of Metro Transit's highest ridership routes. From north to south, the F Line is proposed to operate along a 13-mile corridor from the Northtown Transit Center in Blaine to downtown Minneapolis primarily via University Avenue, 53rd Avenue, Central Avenue, and Nicollet Mall (Figure 1). The F Line corridor connects to many important community destinations and other major transit routes, including multiple existing and planned METRO light rail and BRT lines.

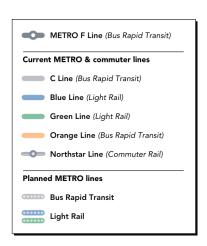


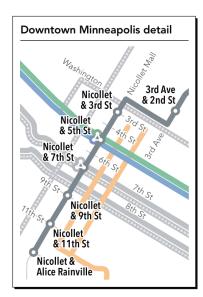
Passengers lined up waiting to board a Route 10 bus along Nicollet Mall at 5th Street in downtown Minneapolis (Sept. 2022)

Figure 1. F Line corridor overview



August 2022







BLAINE

METRO F Line Draft Corridor Plan

The Need for Improved Transit in the Corridor

Route 10 is the fifth highest-ridership bus route in the region, both before the pandemic and today. In September 2019, customers took about 6,500 rides on Route 10 each weekday. In addition to providing access to places and opportunities, Route 10 service is a critical means of moving people in the corridor and an important piece of the broader transportation network. For example, on Central Avenue at the intersection with University Avenue, buses carry approximately 23 percent of people traveling by vehicle on Central Avenue but make up just 2 percent of vehicle traffic (Figure 2).

But Central Avenue is also one of the slowest transit corridors in the region. During peak periods, buses regularly slow to average speeds of 12 miles per hour or less. Frequent stops, lines of customers waiting to board, traffic congestion, and red lights mean that buses are moving less than half the time. Reducing the time it takes for customers to get on and off the bus and the time spent stuck in traffic will significantly improve travel speeds and reliability.

Bus mode share Ath Figures represent all-day volumes for an average weekday Central Avenue at University Street 2% of 23% of Avenue corridor corridor 2nd Street vehicles users METRO F Line Alignment 0.1 ■ Mile Sources: Metro Transit, 2019; MnDOT, 2017

Figure 2. Transit users and buses as a percentage of total corridor users (in vehicles) and vehicles

This plan has been developed with baseline data from years prior to 2020. Changes in transit service, ridership, or overall traffic patterns resulting from the COVID-19 pandemic are not used as a baseline for recommendations in this draft plan, though they are considered in the context of the plan.

Route 10 has continued to provide important service throughout the pandemic, remaining one of the highest ridership bus routes in the region in 2020-2022. Across the Metro Transit system, and in a trend mirrored across the country, frequent, all-day service supporting a variety of trip purposes has retained relatively high levels of ridership during the pandemic. The characteristics that make the Route 10 corridor a good candidate for BRT investment have also made the corridor a continued strong performer across the COVID-19 pandemic.

Advancing equity and reducing regional disparities is a priority for Metro Transit and is used as a guiding principle when identifying future arterial BRT corridors. The F Line can help reduce disparities for people with low incomes and communities of color by improving speed and reliability to connect to jobs and opportunities. About 40 percent of Route 10 riders live in low-income households, and over half of Route 10 riders are people of color.

The purpose of the F Line is to provide faster, more reliable, and more attractive bus service along a north-south corridor between Minneapolis, Columbia Heights, Hilltop, Fridley, Spring Lake Park, and Blaine. The need for the project can be summarized by two key challenges: slow and unreliable transit service and passenger facilities inadequate for the high volume of people using them.

What is Arterial BRT?

Arterial BRT is a package of transit enhancements that produces a faster trip and an improved experience for customers in the Twin Cities' busiest transit corridors. It runs on existing roadways, usually in mixed traffic.

The F Line will be the sixth operational line within the Twin Cities region's arterial BRT system.

- The A Line on Snelling Avenue and Ford Parkway began service in June of 2016
- The C Line on Penn Avenue began service in June of 2019
- The D Line on Chicago and Fremont avenues is scheduled to open in December 2022
- The B Line on Lake Street and Marshall and Selby avenues is planned for construction to start in 2023
- The E Line on University Avenue/4th Street and Hennepin and France avenues is planned for construction to start in 2024

Station design and amenities are consistent for each arterial BRT line while adapting to integrate within the unique street designs and surrounding land uses across different corridors.

High-Quality Stations Every Half Mile

Arterial BRT provides faster, more reliable service, and amenities at stations and on the bus that offer an improved customer experience. See Figure 3 for the general design and features of arterial BRT stations in the Twin Cities. While stations share basic characteristics and branding as shown in Figure 3, each station is designed to fit into the surrounding context and meet ridership demand.

Figure 3. Arterial BRT station features

What will stations look like?





- Pylon markers help riders identify stations from a distance.
- B Real-time NexTrip signs provide bus information, and on-demand annunciators speak this information for people with low vision.
- C Shelters provide weather protection and feature push-button, on-demand heaters and shelter lighting. Shelter sizes will vary based on customer demand (small shown here).

- Ticket machines and fare card readers collect all payment before customers board the bus.
- Emergency telephones provide a direct connection to Metro Transit police. Stations also feature security cameras.
- Stations feature trash and recycling containers.
- Platform edges are marked with a castiron textured warning strip to keep passengers safely away from the curb while the bus approaches. Many stations also feature raised curbs for easier boarding.

- Platform areas are distinguished by a dark gray concrete pattern.
- Benches at stations provide a place to sit.
- Most stations have bike parking.

At some stations, **railings** separate the platform from the sidewalk.

Some stations have pedestrian-scale **light fixtures** to provide a safe, well-lit environment.

METRO F Line Draft Corridor Plan 5



Curb bumpouts provide space for station amenities and pedestrians.

Curb extensions / bump outs

Where arterial BRT runs in general traffic, stations are typically built with curb extensions (also called bump outs or bus bulbs) where feasible. Today, many existing local bus stops are located out of a thru-lane of traffic in right-turn lanes or in a curbside parking lane, causing delay for buses merging back into traffic. Curb bump outs at station platforms eliminate the need to merge back into traffic, which causes delay. They also provide space for station amenities and pedestrians on existing sidewalks.



Off-board fare payment

Like on other METRO lines, customers will pay fares prior to boarding the bus and may board through any bus door. Ticket vending machines and fare card validators will be located at each station. Off-board fare payment speeds up the boarding process and helps keep the bus moving. Fare payment will be enforced through random on-board inspections by Metro Transit police.



Shelters

Arterial BRT shelters provide weather protection while customers wait for the bus. Standard arterial BRT shelters feature on-demand heaters, seating, and integrated lighting. Shelters have concrete foundations which increase the level of protection from the elements and make the shelters feel more permanent.



Information

Each BRT station has a pylon marker displaying real-time NexTrip bus departures. Stations also have a printed panel with timetable, maps, and connection information. Detailed transit information is provided in a variety of formats (including audio for low-vision riders) to offer clear direction and increase customer confidence in trip status.



Near-level boarding

To make it easy to board BRT buses, curb heights at stations are raised to nine inches, compared to the standard of six inches. Near level boarding makes it easier for customers to enter and exit the bus. Customers using mobility devices will still be able to board using an accessible ramp.

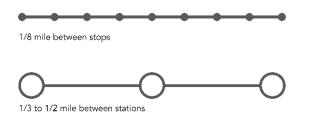


Safety amenities, furnishings, and other improvements

Several station components will enhance customer safety and comfort, including security cameras and emergency telephones and adequate space for fast boarding and alighting. Benches, bins for trash and recycling, and bicycle parking will be available for customer use.

Fast, Frequent, All-Day Service

Arterial BRT provides frequent, all-day service that will be more reliable and about 20 percent faster than the existing local service in the corridor.



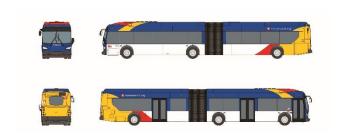
Limited stops

Arterial BRT stations are spaced about every half mile, focusing on places where the greatest numbers of customers board buses today. With fewer stations, buses can travel much faster while still providing convenient access for customers to walk, bike, or roll to stations.



High-frequency service

Arterial BRT provides high-frequency service in the corridor throughout the day and most of the evening. Frequent service is also provided on nights and weekends.



BRT vehicles

Arterial BRT vehicles are 60-foot articulated buses designed for a comfortable ride. Three wide doors and low floors make it easy and fast to enter and exit arterial BRT buses. Customers using mobility devices are still able to board using an accessibility ramp.



Bus priority treatments

Bus priority treatments are used to help keep buses moving in traffic to provide faster and more reliable service. Transit signal priority (TSP) reduces the time buses spend stopped at red lights by linking buses to traffic signals. Bus-only lanes reduce the time that buses spend stopped in traffic. (Photo source: City of Minneapolis)

F Line Project Schedule and Implementation

Anticipated Project Schedule

• 2022-2023	• 2023-2024	• 2025-2026	• 2026
PLANNING	ENGINEERING	CONSTRUCTION	OPEN FOR SERVICE

Subject to change

Planning phase (2022-2023)

The Metropolitan Council adopted the <u>Central Avenue corridor</u> (developed as part of <u>Network Next</u>) as the F Line in March 2021. The planning phase will conclude with the adoption and approval of the final F Line Corridor Plan by the Metropolitan Council, expected in spring 2023. The approved F Line Corridor Plan will finalize station locations and key station components to inform the engineering phase.

Engineering phase (2023-2024)

Following Metropolitan Council approval of the final F Line Corridor Plan, station engineering will begin in 2023 and continue into fall 2024. Specific details such as the precise placement of shelters and other amenities within station platforms will be determined in this phase of the project.

Construction phase (2025-2026)

The F Line is targeted to begin construction in 2025. Twenty-five new stations are anticipated to be built as part of the F Line project. The F Line will use existing facilities at Northtown Transit Center and along Nicollet Mall.

Coordinated Implementation

Several F Line stations will be developed in coordination with planned projects throughout the corridor, as summarized below. Details for these projects, including timelines, are subject to change. Additional coordinated projects may be included as planning and engineering for the F Line continue.

Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study

The Minnesota Department of Transportation (MnDOT) is leading the Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study. The F Line alignment is within the PEL study area on Central Avenue (Highway 65) between University and 53rd avenues and on University Avenue (Highway 47) between 53rd and 85th avenues. All proposed F Line stations are within the study area except the Northtown Transit Center, the three proposed platforms on 53rd Avenue, the 3rd Avenue & 2nd Street station, and stations along Nicollet Mall.

The purpose of the PEL Study is to evaluate existing and future conditions along Highway 47 (University Avenue) and Highway 65 (Central Avenue) to identify needs and potential transportation improvements for inclusion in future projects, that improve safety and mobility for all users, including vehicular traffic, pedestrians, bicycle and transit users, and freight operators. The study will identify a set of desired roadway design alternatives for these corridors, which may include changes to the width of the roadway,

number of travel lanes, and implementation of other safety improvements. Identified alternatives will be implemented through separate projects following the completion of the study.

Metro Transit is coordinating closely with MnDOT to assess the feasibility of implementing additional transit advantages in the corridor, such as bus-only lanes. Development of F Line stations within the projects' shared segments will be coordinated with the PEL Study as it continues to advance. Additional project details are available at: talk.dot.state.mn.us/hwy-47-hwy-65-study.

Highway 47 and Highway 65 intersection safety improvements

Independent from the PEL Study, MnDOT is planning improvements at intersections along Highway 47 (University Avenue) and Highway 65 (Central Avenue) to address safety. These improvements are planned to be constructed in 2025. The following proposed F Line stations are within the project areas: all stations along University Avenue except University & 61st Avenue, Central & 49th Avenue, Central & 45th Avenue, Central & 41st Avenue, and Central & 37th Avenue.

Mississippi Street (County Road 6) Roadway Modification Study

Anoka County will be reconstructing Mississippi Street on either side of University Avenue in 2025, affecting the F Line's Central & Mississippi station area. The project includes construction of 8' sidewalk on the north side of the street and 8' shared-use trail on the south side, as wells as the closure of University Service Road where it meets Mississippi Street near the southeast corner of the intersection. Additional project details are available at: anokacountymn.gov/3752/Mississippi-St-CSAH-6-Mod-Study.

53rd Avenue multimodal improvements and roadway rehabilitation

The cities of Columbia Heights and Fridley are constructing multimodal improvements along 53rd Avenue between Main Street and Central Avenue in 2023-2024. Concurrently, the cities will be rehabilitating 53rd Avenue between Central Avenue and Monroe Street. The University & 53rd Avenue and 53rd Avenue & Monroe-Central Stations are within the project areas. Additional project details are available at: fridleymn.gov/1635/53rd-Avenue-Trail-and-Walk-Improvements- and columbiaheightsmn.gov/departments/public_works/construction_projects.php.

37th Avenue reconstruction

The cities of Minneapolis and Columbia Heights plan to reconstruct 37th Avenue from Central Avenue to Stinson Boulevard in 2023. The new design calls for additional boulevard and green space, and the introduction of a shared-use trail on the north side of 37th Avenue to connect to the existing shared-used trail west of Central Avenue (extending west to University Avenue). The Central & 37th Avenue station is within the project area. Additional project details are available at:

minneapolismn.gov/government/projects/37th-ave-ne-reconstruction.

Livable Lowry: Lowry Avenue Reconstruction

Hennepin County is currently leading a project to update the roadway design and reconstruct Lowry Avenue between Marshall and Johnson streets in Northeast Minneapolis, including at the intersection with Central Avenue. Construction is expected to occur 2024-2025. Current plans call for a two-way shared-use path along the north side of Lowry Avenue and a new three-lane configuration at the intersection

with Central Avenue. The Central & Lowry Avenue station is within the project area. Additional project details are available at: hennepin.us/lowry-avenue.

Hennepin and First roadway improvements

Hennepin County is developing a design plan for multimodal improvements on Hennepin and 1st avenues (County Road 52) between Main and 8th streets in Northeast Minneapolis. This project is considering design options for improving bicycle and pedestrian facilities and access to transit. The proposed Central & 1st Avenue/7th Street F Line station is adjacent the project. Metro Transit is coordinating with the County as design plans are refined and will continue to as the project approaches construction and completion in 2024. Additional project details are available at: hennepin.us/hennepin-and-first.

3rd Avenue bikeway

MnDOT, in partnership with the City of Minneapolis, is exploring opportunities to upgrade existing bikeway facilities on 3rd Avenue between 1st and 2nd streets, given recent serious injury crashes. Continued development of this proposed station plan will be coordinated with MnDOT and the City as both projects advance into design and engineering. The 3rd Avenue & 2nd Street F Line station is within the project area.





Left: Small businesses along Central Avenue near 41st Avenue; right: person walking down the sidewalk lined with small businesses on Central Avenue near Lowry Avenue.

Planning Process

Previous Plans, Studies, and Projects

Arterial Transitway Corridors Study (2012)

In 2012, Metro Transit completed the <u>Arterial Transitway Corridors Study (ATCS)</u>, which developed the arterial BRT concept and identified 11 corridors with high-ridership bus routes for implementation of arterial BRT. The ATCS presented the basic components of how arterial BRT would operate in the Twin Cities and offered initial concept-level station locations, ridership estimates, and costs for the eleven lines, including a Central Avenue corridor similar to the planned F Line corridor (Figure 4). The Central Avenue corridor performed well on the technical evaluation criteria but was not recommended for near-term implementation because it was expected to be analyzed for transit improvements in greater detail as part of a separate planning process.

BLAINE COON RAPIDS 121 10 SPRING AKE PARK HILLTOP 4th Aw 301 COLUMBIA Ш FRIDLEY ANTHONY 32 118 32 Other Potential Rapid Bus Corrid Existing/Planned LRT Planned Highway BRT O Northstar Commuter Rail Connecting Bus Route

Figure 4. ATCS Central Avenue corridor map (2012)

Nicollet-Central Modern Streetcar (2007)

In 2007, the City of Minneapolis completed a long-range streetcar feasibility study that recommended seven modern streetcar corridors, including the Nicollet Corridor between the I-35W & 46th Street (BRT) Station (BRT) and the Nicollet Mall (light rail) Station and the Central Corridor between the Nicollet Mall (light rail) Station and 49th Street in Columbia Heights. In 2013, the City of Minneapolis completed the Nicollet-Central Transit Alternatives Study to evaluate various alignments and modes for the corridor including No Build, Enhanced Bus, and Modern Streetcar options for the 9.2-mile Nicollet-Central corridor and a 3.4-mile modern streetcar line between Lake Street and at least 5th Street NE.

Based on project goals, public engagement, and technical analysis, the Minneapolis City Council approved a Locally Preferred Alternative (LPA) and recommended modern streetcar to the Metropolitan Council for inclusion in the Regional Transportation Policy Plan. This alternative included modern streetcar service along a 3.4-mile segment of the corridor running between Lake Street and at least 5th Street NE on Nicollet Avenue, Nicollet Mall, Hennepin and 1st avenues, and Central Avenue, using the Hennepin Avenue bridge to cross the Mississippi River (Figure 5). In its <u>Transportation Action Plan</u> (December 2020), the City of Minneapolis identified an action to plan, design, and construct high capacity, neighborhood-based transit along the Nicollet-Central corridors, partnering with Metro Transit to pursue new transit projects of high impact. Advancing the F Line in the Central Avenue corridor supports the City's action in the Transportation Action Plan to plan, design and, construct high-capacity neighborhood transit along the Nicollet-Central corridors.

Blue Line Extension LRT

Olson Memorial Hwy

Committee Rational Residence of the Residence

Figure 5. Nicollet-Central Modern Streetcar project map (2013)

Nicollet Mall Reconstruction (2015-2017)

Between 2015 and 2017, the City of Minneapolis reconstructed Nicollet Mall in downtown Minneapolis from Washington Avenue N to Grant Street E. In addition to underground utility work, the project brought new lighting, more than 200 trees, public art, and other improvements, creating a more pedestrian-friendly environment. In conjunction, Metro Transit added a dozen new shelters with heat, light and real-time NexTrip information displays at existing bus stops along Nicollet Mall at 3rd, 5th, 7th, 9th, and 11th streets and Alice Rainville Place. These stops will be upgraded to F Line stations with METRO branding and fare collection equipment.

Network Next (2019-2021)

<u>Network Next</u> is Metro Transit's 20-year plan for expanding and improving the bus network. In 2020 and 2021, Metro Transit conducted technical analysis and engaged the public to identify the region's next arterial BRT priorities.

In February 2021, Metro Transit finalized recommendations for the METRO F, G, and H lines of the BRT network. The <u>Central Avenue</u> corridor was recommended as the F Line, with BRT service largely replacing Route 10 from downtown Minneapolis to Northtown Mall via Central and University avenues (Figure 6). The <u>Rice/Robert</u> and <u>Como/Maryland</u> corridors were recommended to be the G Line and H Line, respectively. The Metropolitan Council adopted these recommendations in March 2021. In March 2022, the F Line was adopted by the Metropolitan Council into the <u>2040 Transportation Policy Plan</u>.

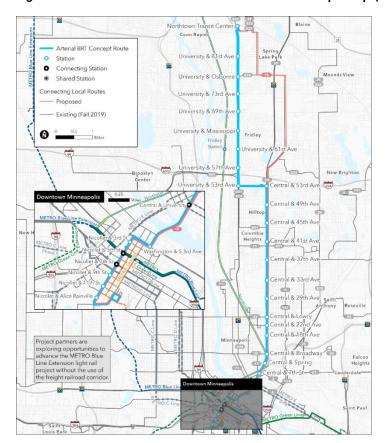


Figure 6. Network Next Central Avenue corridor concept map (2021)

F Line Planning Stages

F Line Alignment Identified (March 2021)

The <u>Central Avenue corridor concept</u> developed as part of <u>Network Next</u> was recommended as the F Line in February 2021. The Metropolitan Council adopted the recommendation and established the Central Avenue corridor concept as the F Line in March 2021.

Early Project Coordination (2021-2022)

F Line planning has included coordination with other planned infrastructure projects throughout the corridor led by the Metropolitan Council, Metro Transit, and partner agencies including the cities of Columbia Heights, Fridley, and Minneapolis, Hennepin and Anoka counties, and MnDOT.

Corridor Plan: Station Location Identification (2022-2023 anticipated)

The F Line planning phase began in earnest in 2022 with the initiation of corridor plan development. This began the work to review and refine the station locations and concept service plan for the Central Avenue corridor from Network Next, and to identify specific planning issues. The contents of this Draft Corridor Plan were developed by Metro Transit staff throughout 2022 with inputs and feedback received from the Technical Advisory Committee consisting of staff from agency partners and through ongoing community outreach and engagement activities.

The Draft Corridor Plan is the first of three planned versions of the Corridor Plan. It will be updated in response to feedback collected during a public comment period and additional community outreach and engagement activities. The resulting Recommended Corridor Plan will be published and shared in a second round of public outreach and engagement, including a second public comment period, then revised again as needed before the Final Corridor Plan will be presented for Metropolitan Council approval, anticipated in spring 2023.





Left: Bench and shelter at the existing southbound Route 10 stop on University Avenue at 57th Avenue. Right: View of the existing southbound Route 10 stop and shelter on Central Avenue at Lowry Avenue.

Technical Advisory Committee

This Draft Corridor Plan was developed with input from various functional groups within Metro Transit and in consultation with an interagency Technical Advisory Committee (TAC), consisting of staff representatives from agency partners who advise the F Line project on planning issues throughout the corridor. The TAC provided input and input on the development of the F Line alignment and concept station locations in the study, refining the <u>Central Avenue corridor concept</u> developed as part of <u>Network Next</u>. The proposed station and platform locations included this Draft Corridor Plan were made in coordination with the TAC.

Participating TAC agencies include:

- Minnesota Department of Transportation (MnDOT)
- Hennepin County
- Anoka County
- City of Minneapolis
- City of Columbia Heights

- City of Hilltop
- City of Fridley
- City of Spring Lake Park
- City of Blaine
- Minneapolis Park and Recreation Board

Public Engagement

The purpose of F Line project outreach and engagement is to build broad community awareness and incorporate a range of community needs, concerns, and priorities into the planning and implementation process. It will use an equitable and transparent approach that reduces potential barriers to participation. Public engagement for the F Line project is led by a dedicated Metro Transit community outreach coordinator and supported by the broader F Line project team.

Metro Transit's community outreach coordinators focus on building relationships with communities to engage riders, residents, businesses, and other stakeholders on transit improvement projects like the F Line. The F Line outreach coordinator connects people to the F Line project to share information, engage in two-way conversations, respond to questions and comments, and help incorporate input to be reflected in project outcomes.

As Metro Transit engages community partners along the F Line corridor, we will consider barriers such as stakeholders' ability to participate, language, literacy, disability, and accessibility of information, and adjust our messaging to ensure our engagement efforts are inclusive and reflect communities who live, work, and travel along the corridor.

F Line planning has been informed by findings and engagement results from Network Next, the project and process used to identify Central Avenue (Route 10) corridor as the F Line. The first dedicated public engagement phase for the F Line project corresponds with the Draft Corridor Plan.

Corridor Plan Review & Engagement (2022-2023)

The Draft Corridor Plan is the first of three planned versions of the Corridor Plan. It will be circulated for public review and comment between October 24 and December 5, 2022.

Following the public comment period on the Draft Corridor Plan, Metro Transit will review and summarize feedback received. Revisions to the plan based on feedback will be incorporated in the Recommended

Corridor Plan, which will be shared for an additional round of public outreach and engagement. A Final Corridor Plan will be shared with for the Metropolitan Council for approval, anticipated in spring 2023.

Findings from Network Next (2020-2021)

As part of the <u>Network Next planning process</u>, Metro Transit asked the public to share their priorities for the next arterial BRT lines to be implemented in the region. Participants consistently identified Central Avenue (Route 10) as a top priority. In September 2020, Central Avenue was identified as a top-rated corridor among 11 potential corridors to consider for additional planning.

In December and January 2020/21, Central Avenue was identified as the highest priority for near-term implementation by survey respondents. Respondents highlighted the Route 10 corridor as a high ridership corridor in need of reliability improvements and greater frequency.

Key destinations identified included Edison High School, downtown Minneapolis, affordable housing along the corridor, and the variety of social and cultural opportunities available along Central Avenue. Improved transit access to the northern suburbs was identified as a key need as well as connections to the broader transit network via the Green Line, Blue Line, and Northstar Line were emphasized as essential for transit along this corridor.

More information on the Network Next public engagement process is available at: metrotransit.org/network-next-public-engagement.



Passengers aboard a crowded Roue 10 bus (Sept. 2022)

Project Elements

Arterial BRT projects have many elements that come together for a successful line. This section describes the different components of the project and the considerations that go into planning each.

The project elements described in this section of the corridor plan include:

- Alignment and termini The path traveled by buses and the beginning and end of the route
- Stations and platforms Where buses stop to pick up or drop off passengers. One **station** has a **platform** for each direction the bus travels
- Service The route schedule, frequency, and type of bus service available in the corridor
- Bus priority treatments Changes to traffic operations that can help speed up buses, move people faster, and deliver more reliable service

Alignment and Termini

Alignment and termini for the F Line were developed as part of Network Next and established when the Metropolitan Council adopted the Central Avenue corridor concept as the F Line in March 2021. From north to south, the F Line will operate from its northern terminal at Northtown Transit Center to its southern terminal at Nicollet & Alice Rainville in downtown Minneapolis via University Avenue, 53rd Avenue, Central Avenue, 3rd Avenue, Washington Avenue, and Nicollet Mall (Figure 1).

Stations and Platforms

Platforms are where transit passengers may enter (board) or exit (alight) a transit vehicle. In most cases, there are two platforms for each station, with one in each direction the bus travels. Stations are collections of one or two platforms and are often communicated in terms of intersections or major points of interest (e.g., transit center). Stations are shorthand for the general area at which platforms are located and points of access to the transit line.

The purpose of the F Line Corridor Plan is to identify the locations of BRT stations and platforms and provide policy direction to Metro Transit to begin detailed design for the F Line.

Station Location Considerations

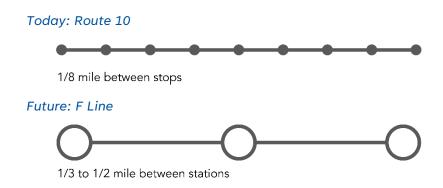
The following are among the many factors that affect where stations are planned to be located. Other site-specific and platform-related considerations often play an important role in selecting station locations.

¹ Stations at line termini and on one-way streets may have just one platform.

Station spacing

A key objective of arterial BRT is to offer faster trips for more people along the corridor. Faster trips depend in part upon the strategic placement of stations spaced farther apart than existing Route 10 bus stops while still serving existing customers well. Existing Route 10 stops are typically placed approximately every 1/8 to 1/4 mile.² On average, F Line stops would be placed about 0.4 miles apart (two to three stops per mile) to balance speed and access (Figure 7). Stopping less often is anticipated to help F Line service operate about 20 percent faster than the existing Route 10, when combined with other improvements.

Figure 7. Approximate Arterial BRT and local service stop spacing after F Line implementation



Existing ridership & transit connections

When selecting arterial BRT station locations, planners use ridership data to identify the most popular existing bus stops along the corridor. BRT stations are prioritized at intersections where many riders are getting on and off the bus today. With the stations included in this plan, 85 percent of existing Route 10 riders in the corridor would be able to catch the F Line within a block of their current bus stop. Additionally, stations are selected based on connections to other transit lines along the corridor.

Community feedback

Feedback from existing Metro Transit customers and community members along the corridor is important to planning an effective arterial BRT line. The public engagement phase of the planning process helps to inform where stations are located along the corridor.

Land uses & access to destinations

When recommending station locations, Metro Transit considers surrounding land uses and activity generators. Ideally, arterial BRT stations are near to popular amenities and provide easy access to destinations like grocery stores, medical clinics, workplaces, and more. Arterial BRT stations should be near where people are or want to be.

² Most existing Route 10 stops along University Avenue are placed approximately every in half mile.

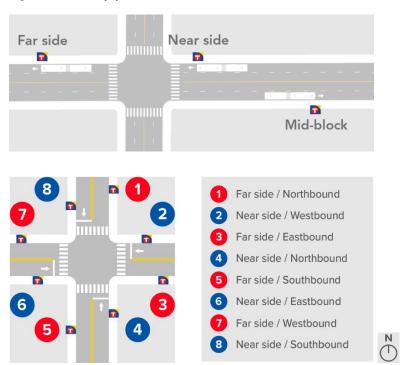
Street design & available right-of-way

Street design elements like bicycle and pedestrian facilities, driveways, and medians all influence the placement of stations in the corridor. Additionally, the amount of right-of-way available is also an important consideration when station locations are selected.

Platform Location Considerations

Almost every BRT station is made up of two platforms—one for each direction the bus travels. In most cases, platforms/bus stops can either be placed on the nearside or farside of an intersection. A station platform is located "nearside" when it is located just before a roadway intersection. A station platform is located "farside" when it is located just after a roadway intersection. A "midblock" platform location is not located next to an intersection (Figure 8). Midblock locations are generally less desirable than nearside and farside ones, because platforms at intersections provide places for riders to cross the street to destinations.

Figure 8. Bus stop positions: Nearside, farside, and midblock



Farside platforms are beneficial because they reduce conflicts between right-turning vehicles and stopped transit vehicles common at nearside stop locations. Farside stations also maximize transit signal priority effectiveness by allowing a bus to activate its priority call to the signal, progress through the intersection, and stop at the farside platform. This reduces delay in scenarios more common to nearside locations when a bus is required to stop twice before moving through an intersection: once to unload and load passengers at the platform itself and again for a red traffic signal after leaving the platform.

The preferred F Line platform location is on the farside of signalized intersections. However, not all platforms are sited farside. Site-specific conditions that may result in a platform being located nearside include:

- Existing roadway access points or driveways
- Right-of-way constraints
- Surrounding land uses

Additionally, nearside platforms may be preferred in limited cases based on signal timing or certain bus priority treatments, or at four-way stop-controlled intersections.

Other Considerations

Shelter size

Preliminary shelter sizes are shown for each planned station to illustrate at a conceptual level how the shelter will fit into each location. All arterial BRT stations are equipped with shelters, as described in the previous section, *What is Arterial BRT?* A key variable at each station is shelter size: small, medium, or large shelter structures. Typical shelter dimensions are:

- Small shelter: 12 feet long by 5 feet wide by 9 feet high
- Medium shelter: 24 feet long by 5 feet wide by 9-12 feet high
- Large shelter: 36 feet long by 5 feet wide by 9-12 feet high

The primary consideration in determining shelter sizes at each platform is projected ridership throughout the day and at peak times (specifically, the number of waiting customers at a single platform) for all routes serving the station. Most arterial BRT platforms are equipped with small shelters, but some platforms with especially high anticipated ridership are equipped with medium or large shelters to ensure adequate shelter for customers.

Specific site conditions may also influence the size of the shelter planned for each location. Shelter size will ultimately be determined through detailed site engineering in the engineering phase.



Example of a small arterial BRT shelter



Example of a medium arterial BRT shelter



Example of a large arterial BRT shelter

Curb extensions

For each station in this plan, a conceptual design is included to illustrate how the station platforms will fit into the street. These are preliminary ideas for how the stations will fit into the surrounding environment that will be refined and finalized through detailed engineering. In many cases, curb extensions are shown.

A curb extension is a strategy to improve safety for all road users, by extending the curb at a corner and narrowing the roadway width at intersections. At intersections where bus stops are in curbside parking lanes or right-turn lanes, curb extensions are used to expand the bus platform so that it is in line with the travel lane. Shown in Figure 9, curb extensions help reduce the delays from buses merging back into traffic. They also provide space for station amenities, bicycle facilities, and help to minimize conflicts between waiting bus passengers and pedestrians using the sidewalk.

Curb extensions can also potentially reduce overall bus stop zone length, which may allow on-street parking spaces to be added in space previously used for bus movements.

At locations where curb extensions are not considered due to lane configurations or absence of on-street parking, the platforms will be adjacent to the existing curbside travel lane without moving the curb.

At both types of platforms, buses will generally stop in the travel lane ("in-lane") to eliminate the need to merge back into traffic when leaving stations. However, in-lane stops may be unsuitable in high-speed context.

Figure 9. Typical current bus stop versus curb extension



Today, buses stop outside of the through lane with little space for customer amenities. Merging back into traffic causes delay.



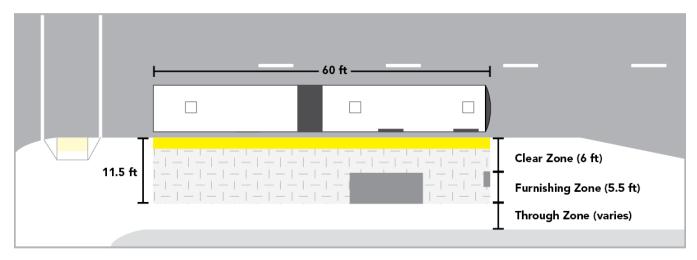
Curb bumpouts provide space for station amenities and pedestrians.

Platform length, width, and height

Typical dimensions for F Line platforms are shown in Figure 10. Generally, F Line platforms will be designed for a standard length of 60 feet. A 60-foot platform length can fully accommodate all doors of a 60-foot articulated bus planned for the F Line. Under rare circumstances, constrained conditions may prevent the construction of a standard platform. However, these situations are avoided wherever possible. In some places, stations may be designed at a longer length to accommodate more than one stopped bus. Platform lengths will be finalized during the engineering phase of the project.

F Line platforms will generally be designed for a standard width of 11.5 feet. This width can accommodate a 6-foot-wide clear zone behind the curb and 5.5-foot-wide furnishing zone to accommodate BRT station elements including the shelter, pylon marker, and other amenities. The clear zone is generally provided independent from a through zone behind the platform. However, under certain constrained conditions, like narrow distances between the curb and a building face might prevent a full 11.5-foot-wide platform from being constructed in addition to a separate through zone. In these cases, the through zone and clear zone may be combined. Platform widths will be finalized during the engineering phase of the project.

Figure 10. Typical Arterial BRT platform dimensions



Platforms will generally be designed with a standard of nine-inch curb height to facilitate "near-level boarding." Near-level boarding substantially reduces the vertical distance between the curb and the floor of the bus, easing vehicle access for passengers with low mobility and enabling faster boarding and alighting of all passengers. Near-level boarding does not eliminate the need for ramps to be deployed to assist passengers using mobility devices. Curb heights of nine inches or lower are compatible with all bus models in Metro Transit's fleet. Curb heights for specific F Line platforms will be finalized during design.

Near-level boarding is not "level boarding," where platforms are located at the same height as the floor of the bus, at approximately 14 inches. Light rail platforms within the Twin Cities are an example of level-boarding platforms. Level-boarding platforms are not being considered for the F Line due to engineering and operational considerations and the space constraints of the corridor. For example, the gradual ramping up to a 14-inch curb from a 6-inch sidewalk in many locations would require a prohibitively large area. Level boarding also requires that buses slow down considerably upon approaching stations, which can significantly negate the travel time savings that arterial BRT provides.

Service

Today, the corridor is served primarily by Route 10, which operates two main patterns (or branches) based out of downtown Minneapolis and destined for Northtown Transit Center: Route 10U, via Central, 53rd, and University avenues; and Route 10N, via Central Avenue (Figure 11). Limited-stop Route 59 has also historically served the corridor between downtown Minneapolis and 53rd Avenue via Central Avenue, though the route has been suspended since March 2020.

Several other routes currently share smaller portions of the F Line corridor, particularly along Nicollet Mall in downtown Minneapolis (Routes 11, 17, 18, 25, and 61) and along University Avenue in Fridley (Route 824). Many other local and express routes currently cross or connect to the F Line corridor.

Figure 11. Existing Route 10 map



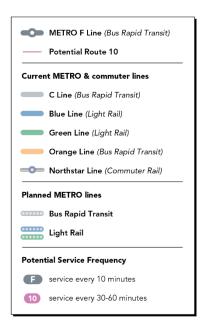
Local bus service that could operate once the F Line service begins is shown in Figure 12. As described in the following sections, potential local service in the corridor from a modified Route 10 would be implemented with the F Line.

Figure 12. F Line and potential local service

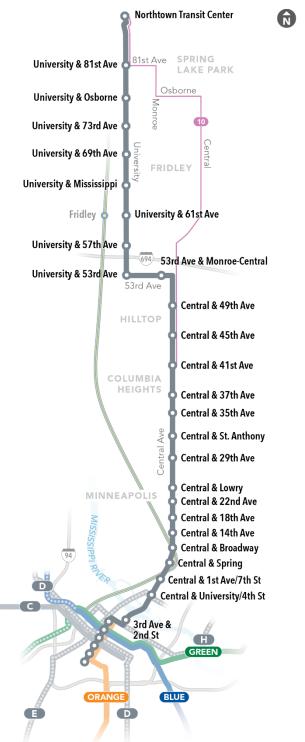


Potential Local Service – Preliminary

October 2022







BLAINE

METRO F Line Draft Corridor Plan

Considerations

A key goal of the F Line is to provide faster and more reliable transit service than existing Route 10 service. Balancing speed and access to transit through wider stop spacing and alignment changes can result in localized changes in access as stops may be moved or consolidated. Other services that operate within the corridor also require evaluation as part of an overall assessment of how arterial BRT implementation will change transit service.

As recommendations for alignment and station locations have taken shape, Metro Transit has also evaluated the overall mix of bus service within the corridor. Key factors considered in this analysis included ridership and trip patterns (current and pre-COVID-19 pandemic), pedestrian access, demographics (riders with more mobility challenges or fewer transportation options), and operational cost and efficiency.

Proposed F Line Service

The F Line alignment mirrors that of existing Route 10U (see Figure 11), where existing ridership is greater and land uses are more transit-supportive compared to Route 10N.

The F Line is planned to operate every 10 minutes, seven days a week during the day and most of the evening, substantially replacing Route 10 as the primary service in the corridor. On average, F Line stops would be placed about 0.4 miles apart (two or three stops per mile) to balance speed and access. Eighty-five percent of existing Route 10 riders would be able to catch the F Line within 1/8 mile of their current bus stop.³ The exact F Line schedule, including hours of service and transitions from 10-minute service during the core of the day into later evening service, will be developed closer to the opening of the F Line.

Potential Local Service in the Corridor

Local service could operate in a portion of the F Line corridor between Columbia Heights Transit Center (41st Avenue) and 53rd Avenue (Figure 12).

The modified Route 10 could continue to operate on a path similar to the existing Route 10N between Northtown Transit Center and Columbia Heights Transit Center, maintaining service through Spring Lake Park and Fridley along Central Avenue north of 53rd Avenue, and no longer serving downtown Minneapolis. The modified Route 10 could operate approximately every 30-60 minutes.

Final service plans, including the frequency and termini for local bus service along the F Line corridor, will be developed later in project development as the F Line nears implementation and as recovery from the COVID-19 pandemic continues. Key considerations will include public feedback, operating budget/bus driver workforce constraints, Route 10 ridership patterns, redevelopment/land use patterns, and anticipated transit travel times based on bus priority treatments. Additionally, Metro Transit will continue

³ For reference, 1/8 mile is comparable to a typical north-south city block in Minneapolis and Columbia Heights.

to explore potential changes to other routes in the project area and/or opportunities for shared mobility and microtransit to complement planned fixed route transit service.

Potential Limited-Stop Service in the Corridor

Route 59 typically serves the F Line corridor, providing peak-only limited stop service on Central Avenue between 53rd Avenue and downtown Minneapolis. With stops placed about 0.4 miles apart, on average, existing Route 59 is 10% to 15% faster than Route 10. Route 59 has been suspended since March 2020 due to the COVID-19 pandemic and subsequent substantial decline in ridership and disruption of transit needs and resources; the route remains suspended due to the bus driver workforce shortage. Route 59 is expected to be eliminated and replaced by the F Line.

Route 824 provides peak-only limited stop service between downtown Minneapolis and Northtown Transit Center, primarily on University Avenue. Route 824 overlaps the F Line corridor along University Avenue between 57th and Osborne avenues in Fridley. No changes are currently proposed to Route 824 as part of F Line implementation.



Columbia Heights Transit Center at Central Avenue and 41st Avenue

Bus Priority Treatments

How can the F Line move people faster?

Providing faster, more reliable transit service is a key goal for the F Line project. Under existing conditions, Route 10 buses regularly average less than 12 miles per hour during rush hours. Frequent stops, lines of customers waiting to board, and red lights mean that buses are moving less than half the time. Inconsistent travel times and schedule variability means that customers have a hard time planning on the bus and are stuck waiting for late buses. Through several planned improvements across the corridor, the F Line is intended to operate about 20 percent faster or better than the existing Route 10.

Standard arterial BRT features

The F Line will include a core set of features that will help buses run faster and arrive on time.

Limited stops

Arterial BRT stations are spaced approximately every half mile, focusing on places where the greatest numbers of customers board buses today. Buses can travel significantly faster with more distance between stations, while also allowing for most customers to conveniently walk or roll to stations.

Platform placement

Platforms located on the farside of signalized intersections where feasible allow the bus to move through the intersection before stopping to pick up and drop off passengers, reducing the likelihood of stopping at a red light.

Curb extensions

Today, many existing local bus stops are located out of a thru-lane of traffic in right-turn lanes or in a curbside parking lane, causing delay for buses merging back into traffic. Curb extensions at station platforms eliminate the need to merge back into traffic.

Off-board fare payment and all-door boarding

Off-board fare payment speeds up the boarding process and significantly decreases dwell time at stations while customers get on the bus. Because fares are paid at the platform, customers can board any of three doors rather than standing in line to pay their fare at the front door.

Transit signal priority

Transit signal priority (TSP) helps buses more consistently move through intersections by reducing the frequency and time spent stopping at red lights, a substantial source of delay. Buses alert the traffic signal as they approach to extend green time, allowing the bus to get through the intersection. Updating timing of traffic signals to provide more time with a green light for all vehicles is also a tool that can speed transit operations.

TSP is a standard arterial BRT improvement and is assumed to be included at most signalized intersections along the F Line corridor. Metro Transit intends to work with its partners to implement TSP

as part of the F Line project. Signals along the corridor will be evaluated and considered during the engineering phase of the project for implementation.

Queue jump signals

Queue jump signals allow the bus to bypass stopped vehicles at signalized intersections by providing the bus a dedicated green light ahead of the green for general traffic. The bus can get ahead of traffic by moving from a dedicated lane or shared right-turn and transit lane.

Queue jump signals should be considered for implementation at intersections with existing space on the right side of the roadway available for the bus to approach the intersection, either from a dedicated transit lane or a shared right-turn lane and move back into general purpose traffic from the intersection.

Metro Transit intends to work with its partners to explore queue jumps as part of the F Line project. As F Line design details are developed, intersections along the corridor will be evaluated for queue jump implementation.

Bus-only lanes

Bus-only lanes provide dedicated space for buses to operate out of general-purpose traffic, either all day or part of the day. Bus-only lanes can provide a significant improvement to the speed and reliability of service, as getting stuck in traffic is one of the primary sources for delay for buses. Bus-only lanes implemented elsewhere along the Metro Transit network have been proven to improve bus speeds and significantly reduce variability. These improvements can make sure that transit customers can count on the bus to arrive when they expect it to and to get them to their destination on time.

The following section outlines Metro Transit priorities for implementation of bus-only lanes along the F Line corridor. Some of these improvements are being considered in coordination with other street projects, and others may potentially be implemented through Metro Transit's Speed & Reliability program, independent of planned F Line construction in 2025-2026.

Segments analyzed for bus-only lanes

As part of broader speed and reliability initiatives, in late 2021 Metro Transit analyzed transit corridors throughout the region to better understand where delays to buses and passengers are occurring and identify candidates for implementation of bus-only lanes to reduce delays and improve service. The results inform Metro Transit priorities for implementation of bus-only lanes along the F Line and throughout the bus network.

Street segments along Central Avenue from 1st Avenue/7th Street in northeast Minneapolis to 41st Avenue NE (Columbia Heights Transit Center) were analyzed because they represent the core portion of the F Line where speed and reliability challenges and passenger delays are greatest.⁴

⁴ Areas south of 1st Avenue/7th Street in northeast Minneapolis were excluded from analysis because of the ongoing detour to Route 10 south of that point due to construction on the Central Avenue/3rd Avenue bridge.

The analysis incorporated historical transit vehicle and passenger data from fall 2018 to minimize the impact of detours and snow on the candidate corridors in the pre-pandemic era. Street segments within transit corridors were evaluated using several performance metrics used to prioritize segments and corridors where bus-only lanes would be most impactful.



METRO C Line bus in a bus-only lane in downtown Minneapolis

Analysis results

Central Avenue from 1st Avenue/7th Street to 41st Avenue was analyzed based on vehicle and passenger delays occurring on street segments within the corridor. The analysis factors and results are summarized in Table 1.

Table 1. Existing delay analysis results: Central Avenue from 1st Avenue/7th Street to 41st Avenue (fall 2018)

Factor	Description	Result
Passenger Delay (Hrs.)	The total amount of time (in hours) that passengers spent stopped or moving slower than free-flow speed, on average, per day in fall 2018.	436
Passenger Delay (Hrs.) per Mile	Passenger delay (in hours) shown on a per mile basis to compare across segments of different length.	83
Passenger Throughput (Rides)	The average number of passengers per day riding through or getting on or off within the segment.	4,800

On a typical day, passengers and vehicles currently experience significant delay on Central Avenue from 1st Ave/7th Street to 41st Avenue. About 436 hours of cumulative passenger delay per day occur on this segment, with about 4,800 riders per day moving through (based on data from fall 2018).

Passenger delay is most concentrated between 1st Avenue/7th Street and Lowry Avenue. Results show that in the southbound direction passenger delay is greatest in the morning and early afternoon, while delay in the northbound direction is greatest during the afternoon peak, approximately 3-6 p.m. Delay is more variable during these same direction and time of day patterns, as indicated by greater deviation from typical conditions. Greater variability results in less reliable service.

Observed passenger delay along this portion of Central Avenue is distributed relatively evenly in both directions and throughout the day, with smaller spikes or peaks of delay observed (i.e., the delay is more evenly distributed). Though there are opportunities for targeted application of bus-only lanes, the patterns of delay on this portion of the F Line corridor also point to need and benefit for a more complete application.

Based on the results of this analysis, the segment of Central Avenue between downtown Minneapolis and Columbia Heights Transit Center is a good candidate for the implementation of bus-only lanes to improve the speed and reliability of transit service in this corridor.

MnDOT is considering opportunities for bus-only lanes as part of the PEL Study (see *Highway 47 and Highway 65 Planning and Environmental Linkages (PEL) Study*). The outcome of the PEL Study will provide more information on how bus-only lanes may operate in the corridor.

Stations by Location

The following section contains individual station plans for each of the F Line stations. The plans communicate two core station components:

- the station intersection
- the intersection quadrant where platforms will be located

Other preliminary design details are provided for additional context but are conceptual and will be finalized during the engineering phase.

The individual station plans are organized north to south beginning at the Northtown Transit Center in Blaine and continuing to Nicollet & Alice Rainville Station in downtown Minneapolis. These stations do not include station plan illustrations, but descriptions are provided for information.

Northtown Transit Center* (Blaine)	Central & 29th Avenue
University & 81st Avenue (Fridley/Spring Lake Park)	Central & Lowry
University & Osborne	Central & 22nd Avenue
University & 73rd Avenue (Fridley)	Central & 18th Avenue
University & 69th Avenue	Central & 14th Avenue
University & Mississippi	Central & Broadway
University & 61st Avenue	Central & Spring
University & 57th Avenue	Central & 1st Avenue/7th Street
University & 53rd Avenue (Fridley/Columbia Heights)	Central & University/4th Street
53rd Avenue & Monroe-Central	3rd Avenue & 2nd Street
Central & 49th Avenue (Columbia Heights/Hilltop)	Nicollet & 3rd Street*
Central & 45th Avenue	Nicollet & 5th Street*
Central & 41st Avenue (Columbia Heights)	Nicollet & 7th Street*
Central & 37th Avenue (Columbia Heights/Minneapolis)	Nicollet & 9th Street*
Central & 35th Avenue (Minneapolis)	Nicollet & 11th St*
Central & St. Anthony	Nicollet & Alice Rainville*

^{*}Denotes a station location that has been previously selected, based on earlier coordination with other projects.

The plan identifies 32 stations over the 13-mile corridor. Figure 13 through Figure 18 summarize the proposed station locations at the corridor-wide level, illustrating:

- Existing Route 10 ridership (Figure 13 and Figure 14)
- Planned station spacing (Figure 15 and Figure 16)
- Connecting bus service at each station (Figure 17 and Figure 18)

Figure 13. Existing Route 10 ridership (north)

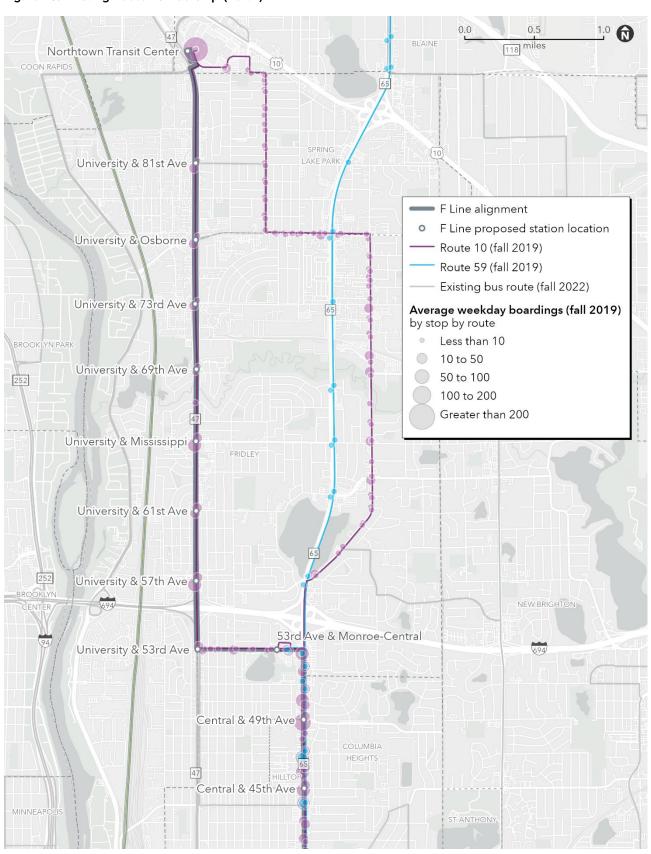


Figure 14. Existing Route 10 ridership (south)

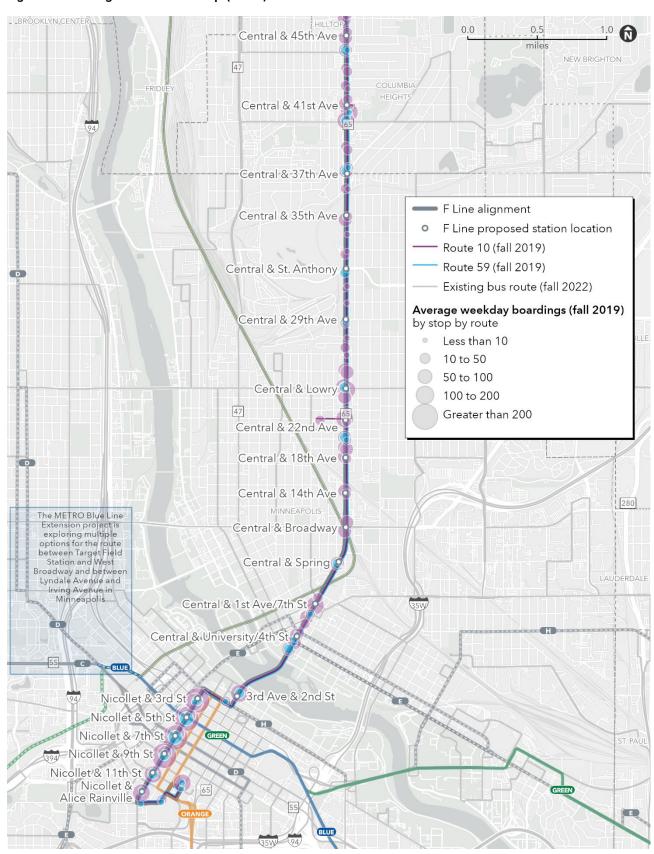


Figure 15. Planned station spacing (north)

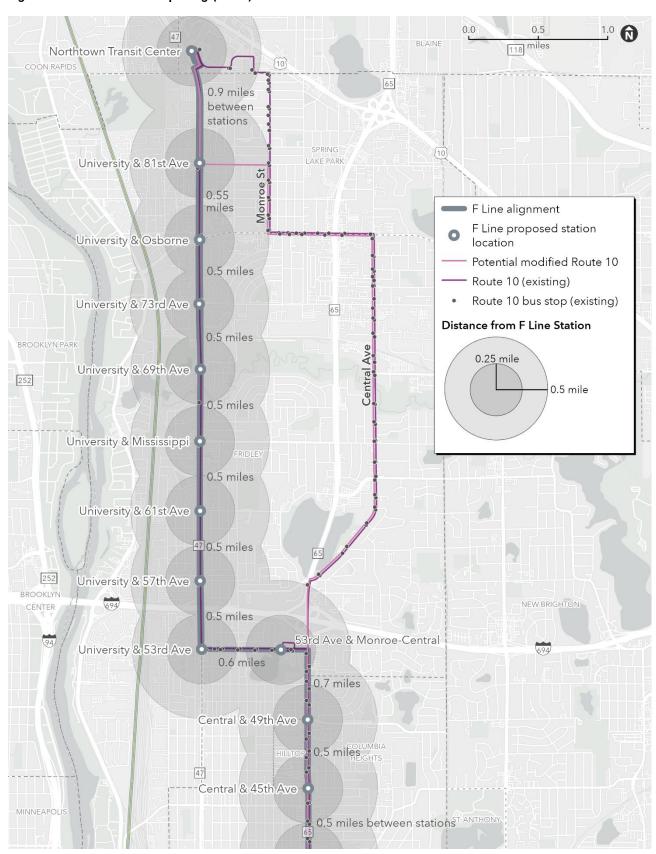


Figure 16. Planned station spacing (south)

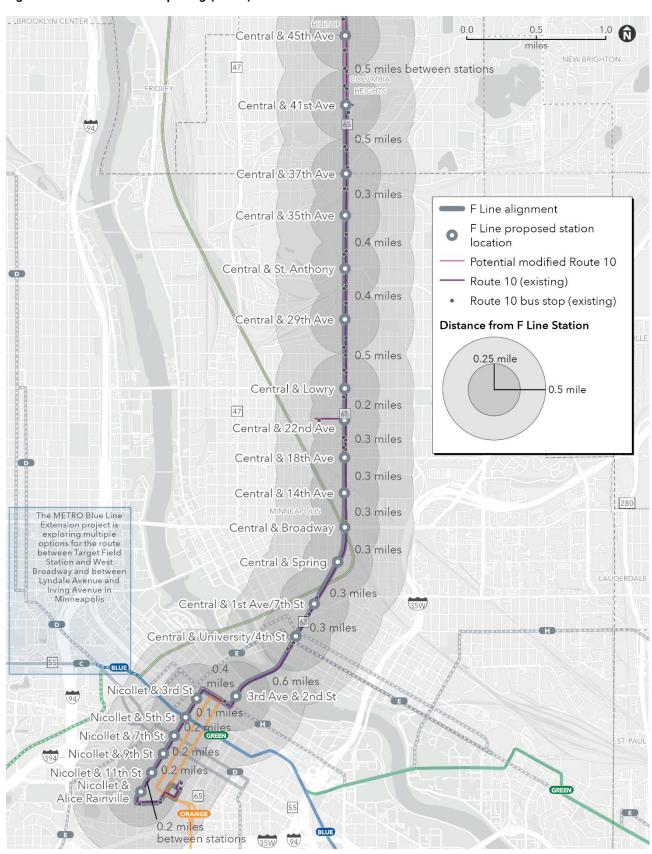


Figure 17. Connecting local bus service (north)

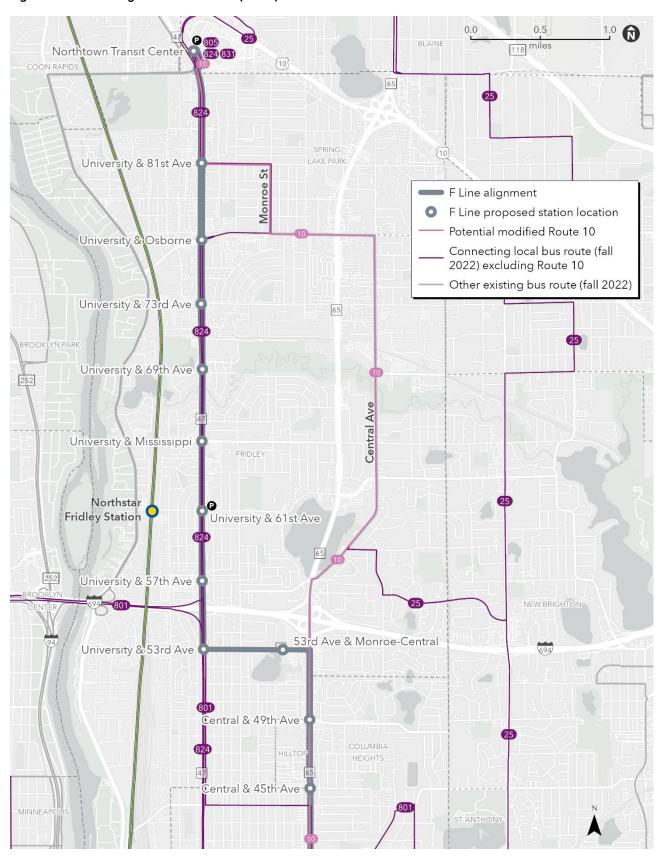
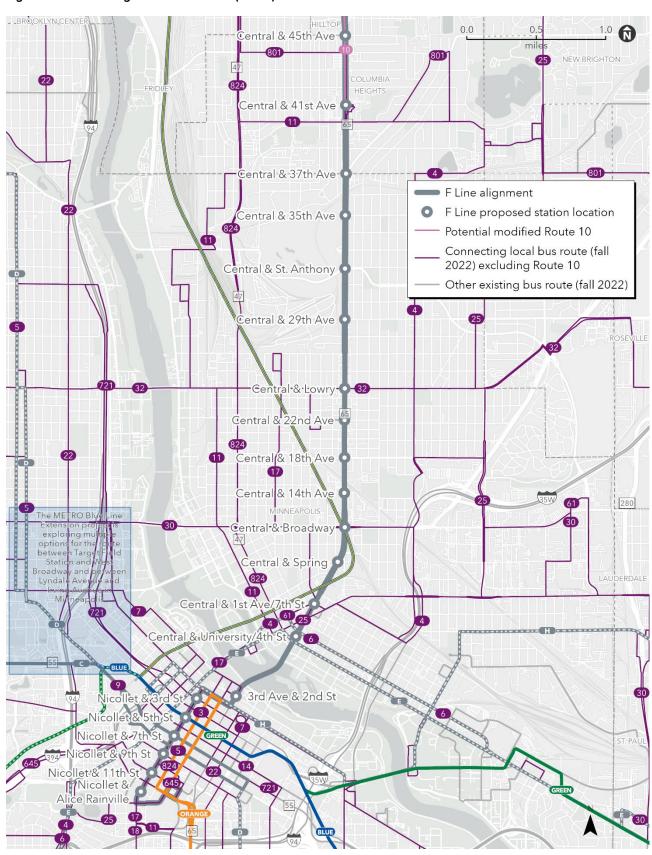


Figure 18. Connecting local bus service (south)

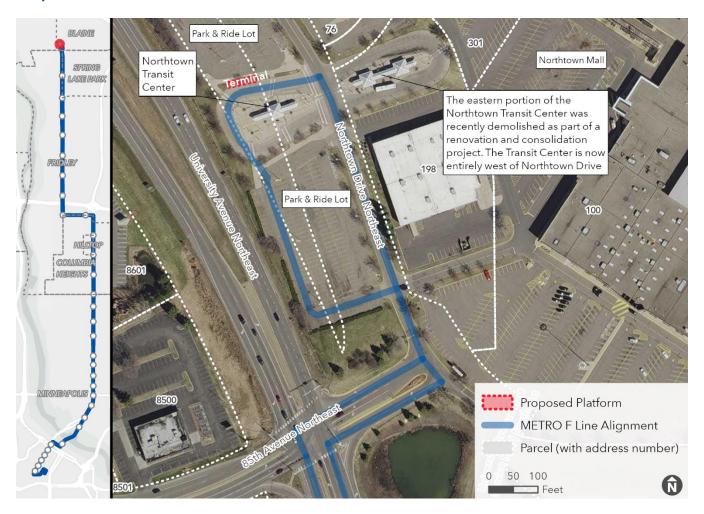


Northtown Transit Center

This station is the northern terminal for the F Line and currently offers connections to Routes 10, 25, 805, 824, 831, and 852. Northtown Transit Center Station is one of several stations requiring minimal enhancement prior to the opening of the F Line.

Improvements to the existing Northtown Transit Center were completed in 2022, including realignment of bus stops and vehicle circulation, new pedestrian infrastructure, new shelters with light and heat, a bus driver restroom facility, and NexTrip signs with real-time information. The F Line station at Northtown Transit Center will complement existing infrastructure with METRO branding and fare collection equipment.

The City of Blaine completed a <u>master plan</u> for the Northtown Mall site and surrounding area in July 2022. The plan identifies redevelopment opportunities and establishes a vision for a future vibrant mixed-use neighborhood. Among other transit-supportive changes within the broader Northtown district, the vision calls for a comprehensive network of sidewalks and trails and integration of the Transit Center and the F Line as part of a multi-modal hub with transit-oriented development.



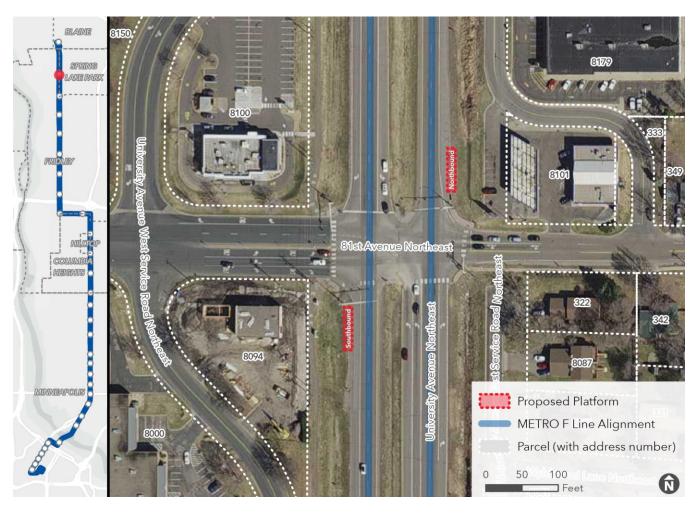


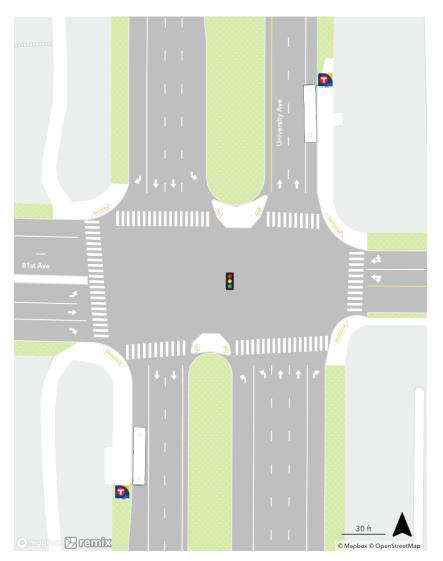
Passengers getting on and off a Route 10 bus at Northtown Transit Center (Sept. 2022)

University & 81st Avenue

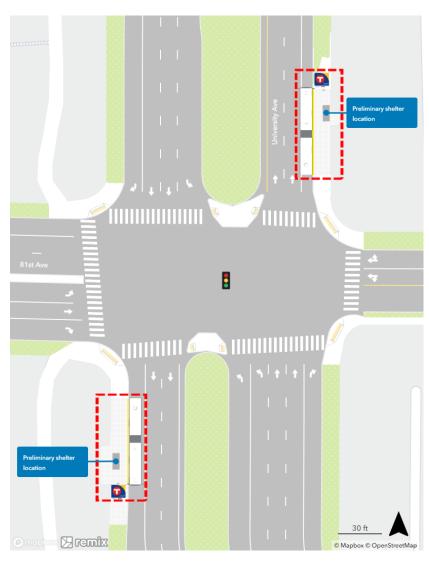
This station currently offers connections to Route 824 and could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*). Proposed platforms are located at the same corners as current-day Route 10 stops. University Avenue is under the control of MnDOT, while the east and west legs of 81st Avenue are controlled by the cities of Spring Lake Park and Fridley, respectively.

Commercial activity defines the areas southwest, northwest, and northeast of the intersection, with a mix of commercial and industrial uses further west of University Avenue. Areas to the southeast and further east are largely made up of single-family homes.





Proposed Station Plan



Project coordination

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's Highway 47 and Highway 65 PEL Study.
 Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Pedestrian access

- There are marked crosswalks and accessible pedestrian signals at the intersection.
- MnDOT recently added a crosswalk and reconstructed curb ramps at the northwest and northeast corners of the intersection, enabling crossing of University Avenue from both the north and south side of 81st Avenue.
- A shared-use trail immediately west of University Avenue provides access to housing, jobs, and commercial activity to the north and south.

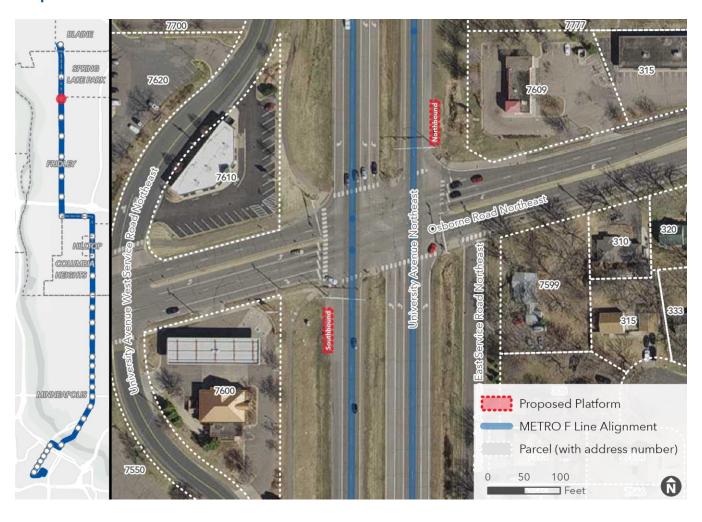
Other locations considered

• University Avenue and 83rd Avenue: An alternative station location was considered but not advanced at 83rd Avenue. Crossing safety is a concern at the intersection of 83rd and University avenues; it is not a signalized intersection and has a history of pedestrian and bicycle crashes at this location. A platform at this location could encourage unsafe pedestrian and bicyclist crossings. There are currently no bus stops at the intersection for this reason.

University & Osborne

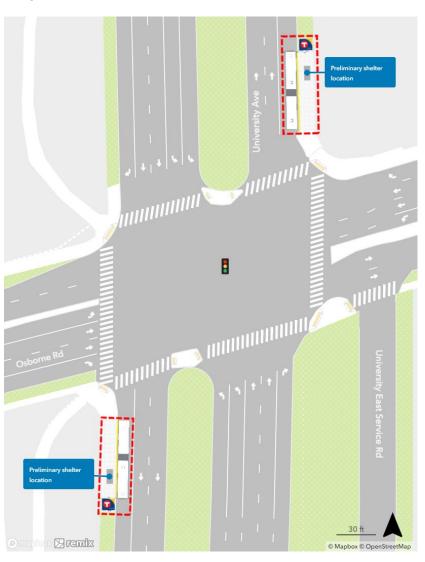
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and Anoka County, respectively, are the roadway authorities for University Avenue and Osborne Avenue (County Road 8).

Commercial and industrial land uses define the area west of the station. The Fridley Medical Center, Unity Professional Building, and adjacent Mercy Hospital – Unity Campus located 1/4 mile east of the station location are important destinations and job centers in the community.



□ remix

Proposed Station Plan



Pedestrian access

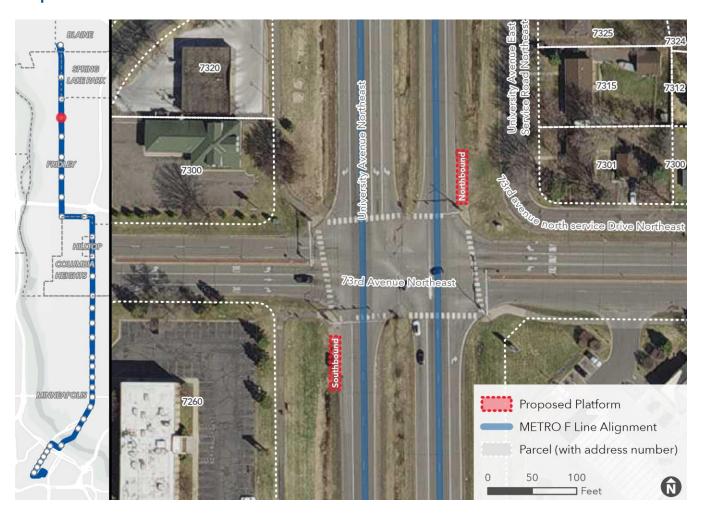
• Unlike the next intersection to the north (79th Avenue), the Osborne Road intersection is signalized, has marked crosswalks, accessible curb ramps, and accessible pedestrian signals at all corners. There is a shared-use trail immediately west of University Avenue.

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

University & 73rd Avenue

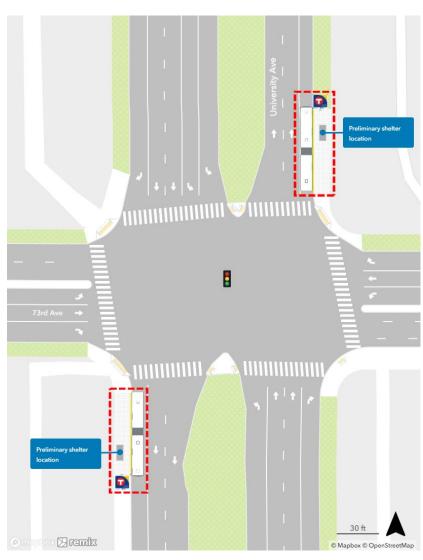
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while 73rd Avenue is controlled by the City of Fridley.

Commercial and industrial activity define the areas northwest, southwest, and southeast of the intersection, with low- and high-density residential development to the northeast.



ox 🗵 remix © Mapbox © OpenStreetMap

Proposed Station Plan



Pedestrian access

• There is a shared-use trail immediately west of University Avenue.

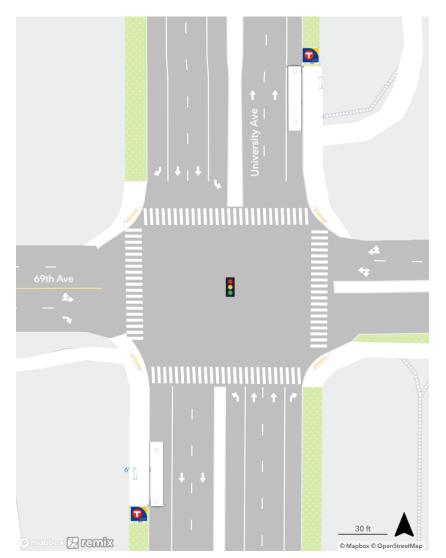
- MnDOT has planned improvements at the intersection in 2025, including median extensions, changes to corner radii, and curb extensions.
- MnDOT is planning construct a short segment of shared-use path in 2025 to connect the northbound platform along University Avenue to the University East Service Road. This will provide more direct access to destinations on the north side of 73rd Avenue east of University Avenue (including Avail Academy High School), and neighborhoods to the north along the service road.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- The City of Fridley is planning to reconstruct 73rd Avenue in 2026.

University & 69th Avenue

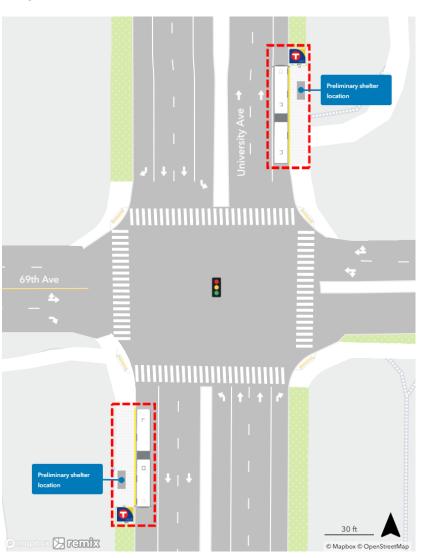
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and the City of Fridley, respectively, are the roadway authorities for University Avenue and 69th Avenue.

The City of Fridley Civic Campus is located on the east side of University Avenue, north of the station. A neighborhood of recently built townhomes, condominiums, and single-family homes is located east of the proposed northbound platform. Fridley Community Park is located on the northwest corner of the intersection. Bordering the park to the north is industrial land use and Metro Heights Academy.





Proposed Station Plan



Pedestrian access

- A shared-use trail on the east side of University Avenue connects the station to 73rd Avenue and Mississippi Street to the north and south, respectively.
- The City of Fridley plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023.

Bicycle facilities

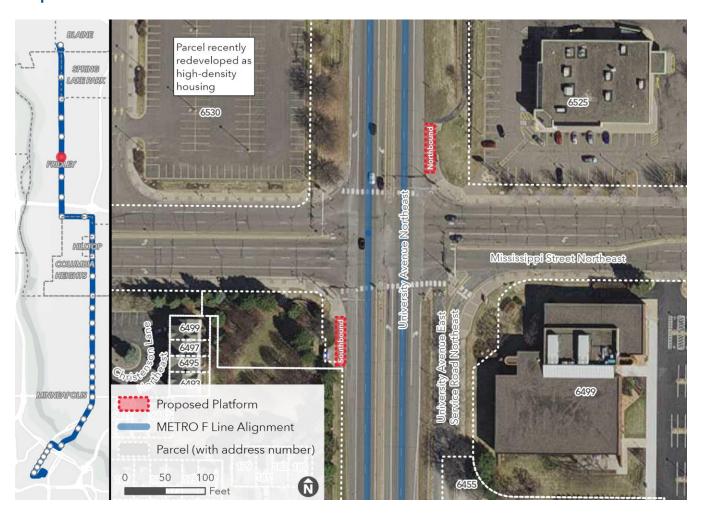
• The Rice Creek West Regional Trail crosses University Avenue on the south side of the intersection and connects Locke Park and the City of Fridley complex on the east side with Community Park and the Mississippi River to the west.

- MnDOT has planned improvements at the intersection in 2025, including curb ramps and
 accessible pedestrian signals. Additionally, MnDOT will make improvements to the Rice Creek
 West Regional Trail near the intersection begin in 2023 or 2024, depending on funding sources.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

University & Mississippi

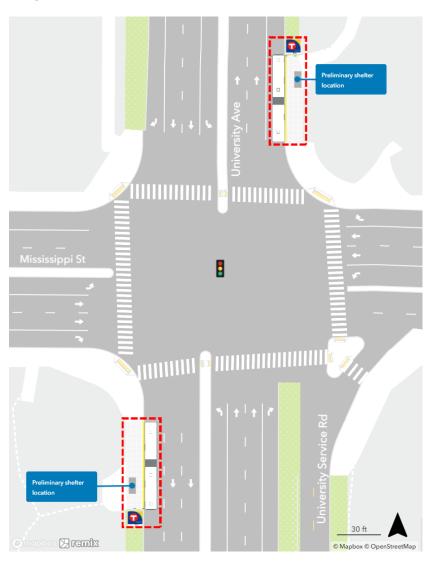
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while Anoka County controls Mississippi Street (County Road 6).

The area around the proposed station is characterized by newer high-density residential and single-story commercial and strip mall developments.



mapbox **remix**

Proposed Station Plan



Pedestrian access

• There are currently no sidewalks or other pedestrian facilities along University Avenue south of Mississippi Street; instead, people walk or roll using the University Service Road parallel to University Avenue. The City of Fridley plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue – extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023. Additionally, the City plans to construct a shared-use trail in the area currently occupied by the University Service Road (east of University Ave), beginning near the southeast quadrant of the intersection of University Avenue and Mississippi Street, and continuing south to Fourmies Avenue.

- MnDOT has planned improvements at the intersection scheduled to occur over the course of 2023-2025 (depending on funding), including medians extensions, tightening corner radii, and upgrading accessible pedestrian signals.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- Anoka County will be reconstructing Mississippi Street on either side of University Avenue in 2025.

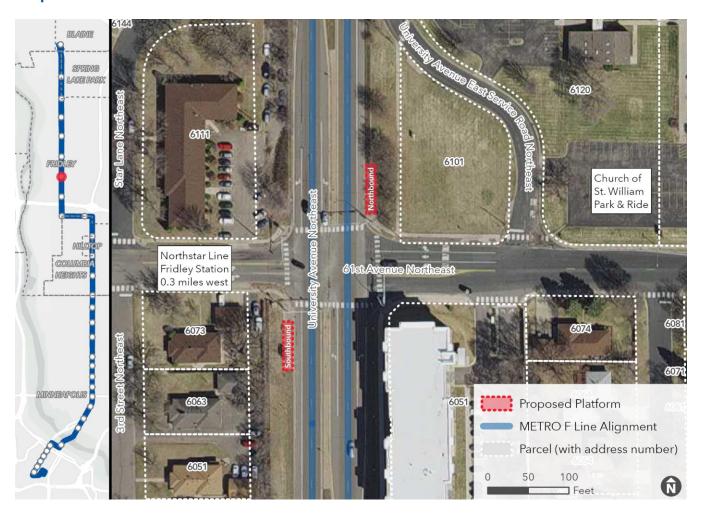


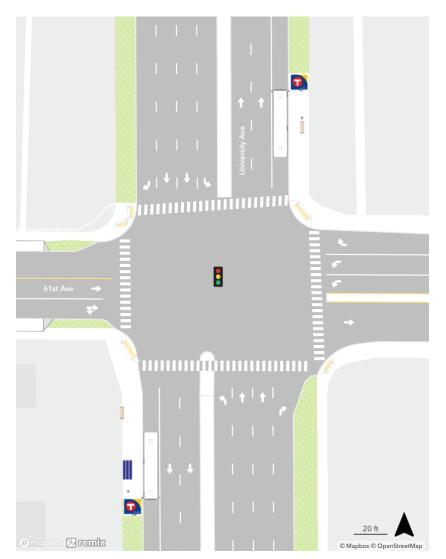
A Route 10 bus at the proposed southbound platform location, with new high-density housing development in the background

University & 61st Avenue

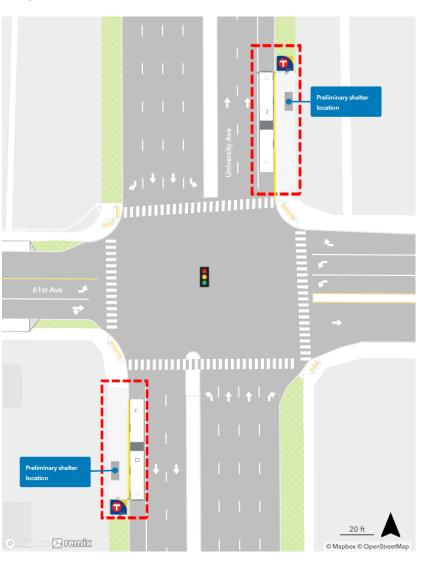
This station currently offers connections to Route 824 and the Church of St. William Park & Ride. Fridley Station on the Northstar Line is five blocks (0.3 mile) directly west of the proposed station. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT and the City of Fridley, respectively, are the roadway authorities for University Avenue and 61st Avenue.

The area immediately surrounding the station is largely residential, including single-family homes, duplexes, smaller apartment buildings (some affordable and/or senior housing), and newly built high-density housing. Fridley High and Middle schools and the Fridley Community Center are 1/3 to 1/2 mile east of the intersection.





Proposed Station Plan



Pedestrian access

- The City of Fridley is exploring opportunities for a new mobility hub⁵ near the proposed northbound platform on the City-owned parcel at the northeast corner of the intersection.
- The City plans to construct a shared-use trail between 69th and 61st avenues on the west side of University Avenue extending south the existing trail that begins at 85th Avenue. The trail extension project is slated to begin in 2023. The City intends to extend this trail further south to 57th Avenue at a future date.

Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.



A new high-density housing development at the southeast corner of the intersection of Central and 61st avenues

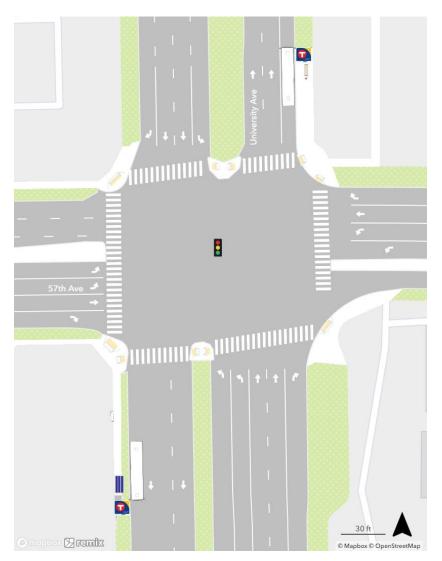
⁵ Mobility hubs are places where people can connect with multiple modes of transportation in a safe, comfortable, and accessible environment, facilitating convenient and reliable travel. Mobility hubs colocate diverse transportation options and community amenities to help people quickly access a shared vehicle, connect between travel services, and orient themselves when they arrive. They are meant to be accessible and inclusive spaces for people to experience the simplicity of multimodal trip planning.

University & 57th Avenue

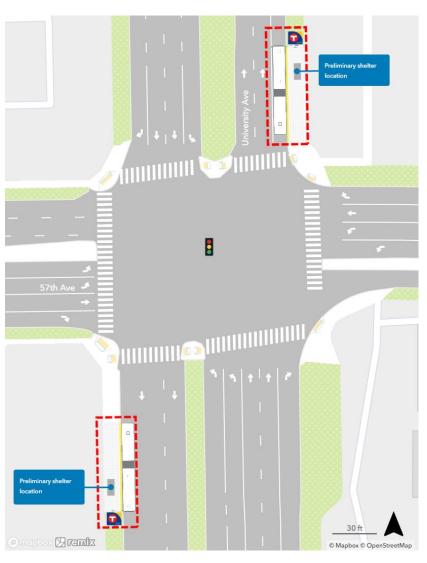
This station currently offers connections to Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while the City of Fridley controls 57th Avenue.

Commercial activity lines 57th Avenue west of University Avenue; commercial uses are present at the northeast and southeast corners of the intersection. Residential neighborhoods with townhomes and attached and detached buildings define the areas east of the station.





Proposed Station Plan



Traffic operations

The proposed southbound platform is about 50 feet north of one of the entrance ramps to
westbound I-694 at the existing local bus stop. A stopped southbound bus in this location poses
no obstruction to southbound traffic and Route 10 successfully operates at this location today.
Metro Transit will work with MnDOT and local agencies to complete traffic modeling to
understand the effect of proposed stations on traffic operations.

Pedestrian access

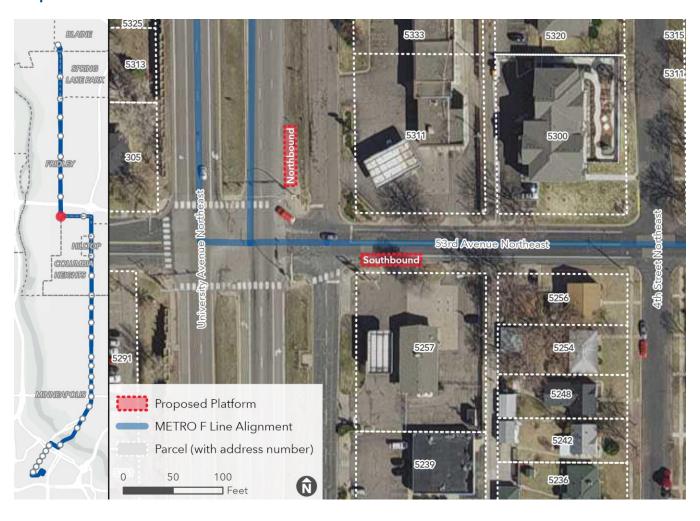
• The City of Fridley plans to construct a shared-use trail on the west side of University Avenue between 61st and 57th avenues, though a construction date has not yet been determined.

- MnDOT has planned improvements at the intersection in 2025, including changes to corner radii to decrease turning speeds and shorten crossing distances.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

University & 53rd Avenue

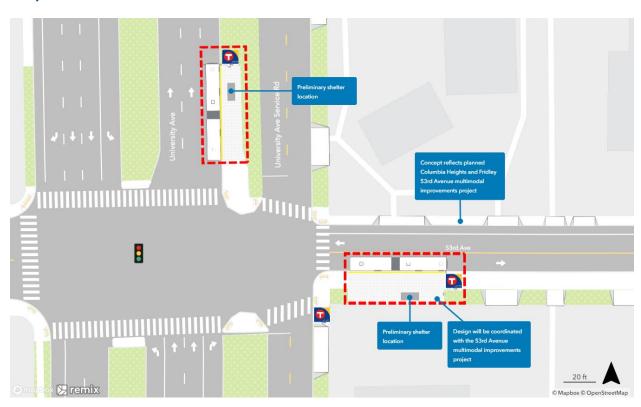
This station currently offers connections to Route 801 and Route 824. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for University Avenue, while the cities of Fridley and Columbia Heights control segments of 53rd Avenue in this area.

Strip commercial development lines the service road immediately east of University Avenue, surrounded by neighborhoods with a mix of single-family and multifamily buildings. Further west – about 1/4 mile from the station – are several businesses within an industrial park.





Proposed Station Plan



Conceptual platform layout

• The proposed southbound/eastbound platform on 53rd Avenue would be located next to an auto repair shop and gas station. Siting the proposed southbound/eastbound platform on 53rd Avenue would require the closure of the western driveway along 53rd Avenue to accommodate the platform. There are currently four driveways providing access to the property on which the business is located – two along the service road and two along 53rd Avenue.

Pedestrian access

• The cities of Columbia Heights and Fridley are constructing multimodal improvements along 53rd Avenue in 2023-2024. The project will introduce a sidewalk along the north side of 53rd Avenue and a shared-use trail on the south side.

- MnDOT has planned improvements at the intersection in 2025, including a median extension to minimize the pedestrian crossing distance of 53rd Avenue and changes to corner radii to decrease vehicle speeds.
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.



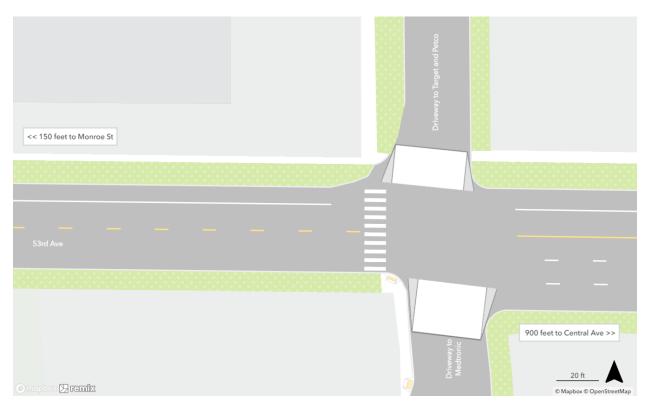
The location of the proposed southbound platform

53rd Avenue & Monroe-Central

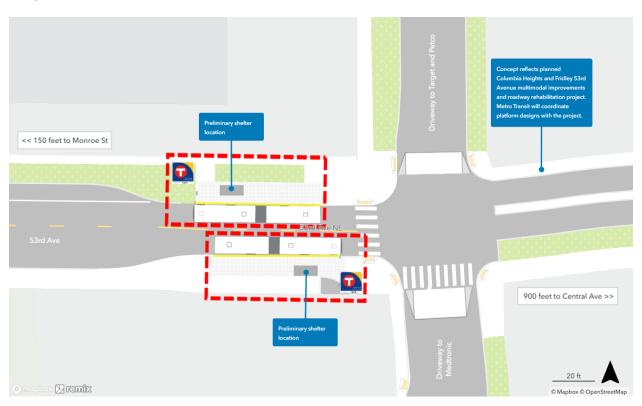
The station is located on 53rd Avenue adjacent to Target/Petco and Medtronic, between Monroe Street and Central Avenue. 53rd Avenue is the border between the two cities, with Columbia Heights controlling the south side of 53rd Avenue and Fridley controlling north side.

Land uses surrounding the station area are almost entirely commercial, with a mix of big-box stores and strip mall development. Nearby neighborhoods are largely single-family residential buildings, though there are several higher density residential buildings within the station area. Significant destinations in the station area west of Central Avenue include Target and surrounding commercial redevelopment, as well as Medtronic's Sullivan Lake Campus.





Proposed Station Plan



Project coordination

• The cities of Columbia Heights and Fridley are constructing multimodal improvements and roadway rehabilitation along 53rd Avenue in 2023/2024. The project will introduce a sidewalk along the north side of 53rd Avenue west of Monroe Street (sidewalk existing to the east) and a shared-use trail on the south side (no trail or sidewalk today). Additionally, the cities will be rehabilitating 53rd Avenue between Central and University avenues, including adding a modified roundabout between the existing eastern and western Target driveways, new medians, sidewalks, and curb ramps. Combined, these projects will result in sidewalk or trail along the entire stretch of 53rd Avenue between University and Central avenues, enabling routes for pedestrians and bicyclists to access the proposed platforms. The cities and Metro Transit have coordinated to ensure Route 10 and proposed F Line service are considered in the design of the multimodal improvements and rehabilitation projects.

Other locations considered

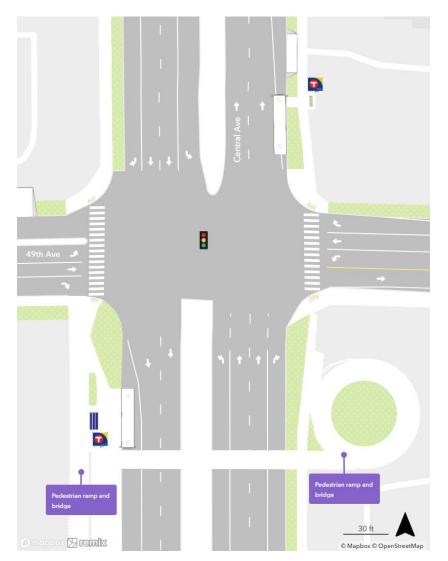
- 53rd Avenue and 7th Street: An additional station location was considered at 53rd Avenue and 7th Street but not advanced. Ridership near 7th Street is relatively low; the pair of existing bus stops at 7th Street, and one block east at Sullivan Drive, combined for just 21 daily boardings on a typical weekday in Fall 2019. By contrast, there are about 70 average weekday boardings at 53rd and University and about 100 boardings at 53rd and Central. Additionally, available right-of-way (i.e., physical space in the public realm) to site a platform is limited along 53rd Avenue near 7th Street, particularly on the north side of the street.
- Central Avenue and 53rd Avenue: Additional station locations were considered along Central Avenue in this segment but not advanced due to operational challenges and the need to ensure enough space to move into left turn lanes, residential and commercial driveways, and limited pedestrian crossing facilities

Central & 49th Avenue

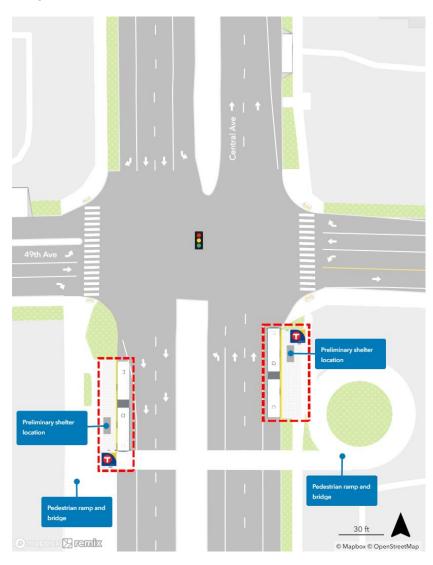
This station could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*). The proposed southbound platform is located at the same corner as the current-day Route 10 stop (farside of 49th Avenue), but the proposed northbound platform is located south of 49th Avenue (nearside), unlike today's farside bus stop location. MnDOT is the roadway authority for Central Avenue, while the cities of Hilltop and Columbia Heights, respectively, control 49th Avenue to the west and east of Central Avenue.

Land uses surrounding the station area are largely commercial, surrounded by educational uses, and residential neighborhoods with single-family and high-density developments.





Proposed Station Plan



Pedestrian access

- Proposed platforms are located just south of 49th Avenue, near the existing pedestrian bridge.
- As Metro Transit, MnDOT, and partner cities and counties continue project coordination, including as part of MnDOT's PEL Study, the agencies will explore opportunities to increase pedestrian access and safety at and near this intersection.

Bicycle facilities

• There are no existing dedicated bikeways on this stretch of Central Avenue. However, the Metropolitan Council's Regional Bicycle Transportation Network and MnDOT's Metro District Bicycle Plan include this segment of Central Avenue as within a Tier 2 priority corridor for implementation. MnDOT, as part of its PEL Study, is considering how best to add a bikeway for people of all ages and abilities to this stretch of Central Avenue.

Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.



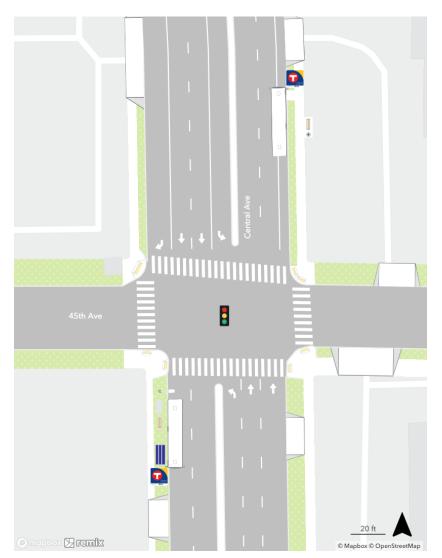
View south down Central Avenue at pedestrian bridge and proposed platform locations

Central & 45th Avenue

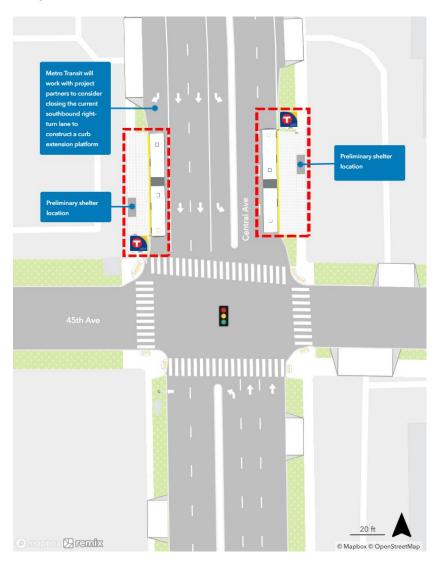
This station could also be served by a modified Route 10 (see *Potential Local Service in the Corridor*), and currently offers connections to Route 801 one block south at 44th Avenue. The proposed northbound platform is located at the same corner as the current-day Route 10 stop, but the proposed southbound platform is located nearside of 45th Avenue, unlike today's farside location. MnDOT is the roadway authority for Central Avenue, while the cities of Hilltop and Columbia Heights, respectively, control 45th Avenue to the west and east of Central Avenue.

Prominent destinations in the station area include the Hilltop Mobile Home Community and the Central Plaza businesses, including several small grocery stores. Along the west side of the 4300 block of Central Avenue is a 13-acre site where there are plans for a mixed-use redevelopment.





Proposed Station Plan



Project coordination

- The City of Hilltop maintains an underground water main parallel to Central Avenue near the northwest corner of the intersection with 45th Avenue, where the water main connects to a pumping station. Metro Transit will coordinate closely with the City during design and construction of the southbound platform in this location.
- The station is within the study area of MnDOT's PEL Study. Design of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Bicycle facilities

There are no existing dedicated bikeways on this stretch of Central Avenue. However, the
 <u>Metropolitan Council's Regional Bicycle Transportation Network</u> and <u>MnDOT's Metro District</u>
 <u>Bicycle Plan</u> include this segment of Central Avenue as within a Tier 2 priority corridor for
 implementation. MnDOT, as part of its PEL Study, is considering how best to add a low stress
 bikeway to this stretch of Central Avenue.

Conceptual platform layout

Metro Transit will work with project partners to consider closing the current southbound right-turn
lane to construct a curb extension platform, which will support faster bus service, shorten
pedestrian crossing distances, and provide additional space for platform amenities. Metro Transit
will work with MnDOT and local agencies to complete traffic modeling to understand the effect of
proposed stations on traffic operations.

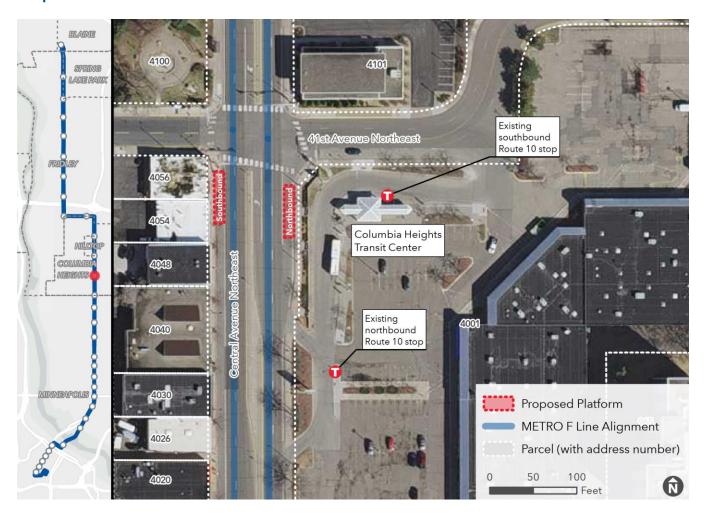
Other locations considered

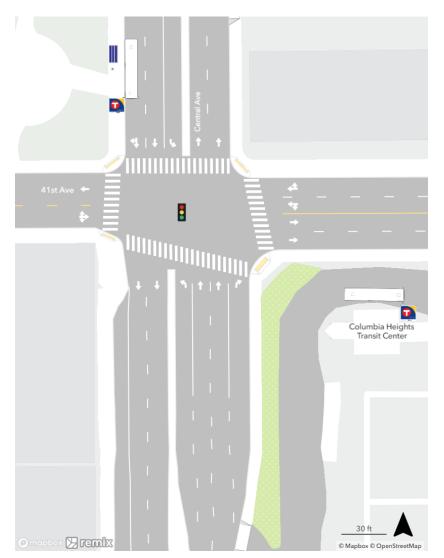
• Central Avenue and 44th Avenue: Metro Transit considered but did not advance 44th Avenue as an alternative location for this station. A station at 45th Avenue better aligns with station spacing goals, existing Route 10 ridership patterns, existing and planned land uses, and access to the station for people of color and people experiencing poverty.

Central & 41st Avenue

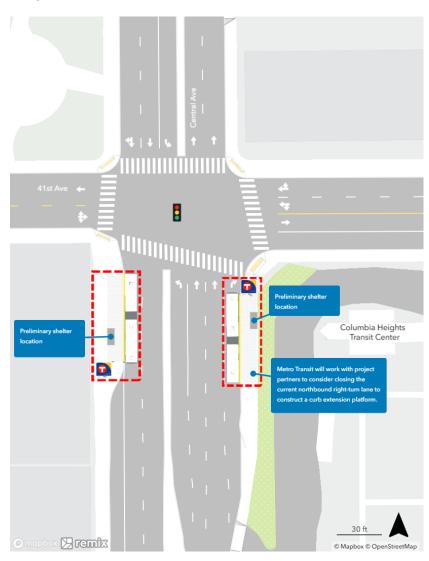
This station would be adjacent to Columbia Heights Transit Center, with current connections to Routes 11 and 801, and potential future service from modified Route 10 (see *Potential Local Service in the Corridor*). MnDOT is the roadway authority for Central Avenue, while the City of Columbia Heights controls 41st Avenue.

The station is within the heart of the Columbia Heights historic downtown corridor and main street, defined by pedestrian-scale development and many diverse small businesses within a walkable area.





Proposed Station Plan



Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

There are no existing dedicated bikeways on this stretch of Central Avenue. However, the
 Metropolitan Council's Regional Bicycle Transportation Network and MnDOT's Metro District
 Bicycle Plan include this segment of Central Avenue as within a Tier 2 priority corridor for
 implementation. MnDOT, as part of its PEL Study, is considering how best to add a low stress
 bikeway to this stretch of Central Avenue.

Conceptual platform layout

- Metro Transit will seek to construct a curb extension at the southbound platform location to create an in-lane stop, which will support faster bus service and provide additional space for platform amenities. Doing so may require the removal of select on-street parking spaces on the west side of Central Avenue.
- Metro Transit will work with project partners to consider closing the current northbound right-turn
 lane to construct a curb extension platform and create a northbound in-lane stop. Doing so will
 support faster bus service, shorten pedestrian crossing distances, and provide additional space for
 platform amenities. Metro Transit will work with MnDOT and local agencies to complete traffic
 modeling to understand the effect of proposed stations on traffic operations.

Other station locations considered

- Central Avenue and 40th Avenue: Metro Transit considered 40th Avenue as an alternative location for this station. The 40th Avenue alternative would better serve the new Columbia Heights City Hall mixed-use development at the southeast corner of the intersection with Central Avenue. However, the alternative location at 40th Avenue would pull the station away from Columbia Heights Transit Center and its amenities and bus network connections. After evaluating additional implications of the 40th Avenue alternative station location, such as existing Route 10 ridership patterns, existing and planned land uses, access to the station for people of color and people experiencing poverty, and other site-specific considerations, Metro Transit is proposing the 41st Avenue location.
- Existing platforms within Columbia Heights Transit Center: On-street platforms on Central
 Avenue are preferred because the turning movements associated with entering and existing the
 Transit Center would decrease the directness, speed, and reliability of the F Line. Platforms on
 Central Avenue adjacent to the Transit Center will provide direct pedestrian access to transfer
 connections.

Central & 37th Avenue

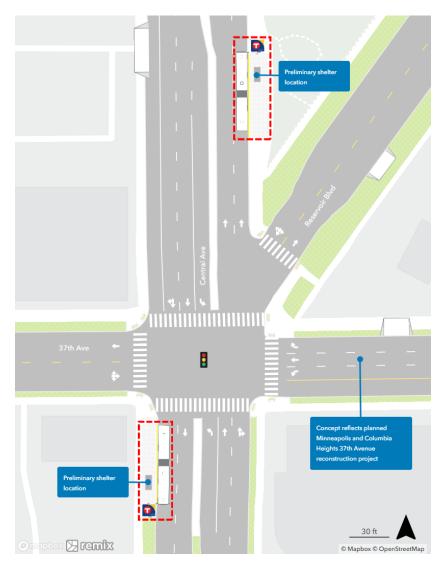
This station is located at the border between Columbia Heights and Minneapolis. The proposed northbound platform is located at the same corner as the current-day Route 10 stop, but the proposed southbound platform is located farside of 37th Avenue (southwest corner), unlike today's nearside bus stop location. MnDOT is the roadway authority for Central Avenue; Columbia Heights controls Reservoir Boulevard; and the cities of Columbia Heights and Minneapolis, respectively, control the north and south sides of 37th Avenue.

The station area is defined by commercial activity along Central Avenue, surrounded by largely single-family residential development. Nearby destinations include a pharmacy and multiple medical clinics.





Proposed Station Plan



Project coordination

- The cities of Minneapolis and Columbia Heights have plans to reconstruct 37th Avenue from Central Avenue to Stinson Boulevard in 2023. The new design calls for additional boulevard and green space, and the introduction of a shared-use trail on the north side of 37th Avenue to connect to the existing shared-used trail west of Central Avenue (extending west to University Avenue).
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Bicycle facilities

There are no existing dedicated bikeways on this stretch of Central Avenue. However, the
 <u>Metropolitan Council's Regional Bicycle Transportation Network</u> and <u>MnDOT's Metro District</u>
 <u>Bicycle Plan</u> include this segment of Central Avenue as within a Tier 2 priority corridor for
 implementation. Additionally, Central Avenue from 37th to 27th avenues is identified as a long term low stress bikeway in the <u>City of Minneapolis' network of bikeways for all ages and abilities</u>.
 MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this
 stretch of Central Avenue.

Pedestrian access

- There is a connected sidewalk network surrounding the proposed station.
- As Metro Transit, MnDOT, and partner cities continue project coordination, including as part of MnDOT's PEL Study, the agencies will explore opportunities to increase pedestrian access and safety at and near this intersection.

Conceptual platform layout

• Metro Transit will work with project partners to fill in the pull-out bay currently used by Route 10 buses at the proposed northbound platform farside of Reservoir Boulevard (northeast corner). The resulting in-lane stop at the northbound F Line platform would support faster bus service and provide additional space for platform amenities. Metro Transit will work with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Central & 35th Avenue

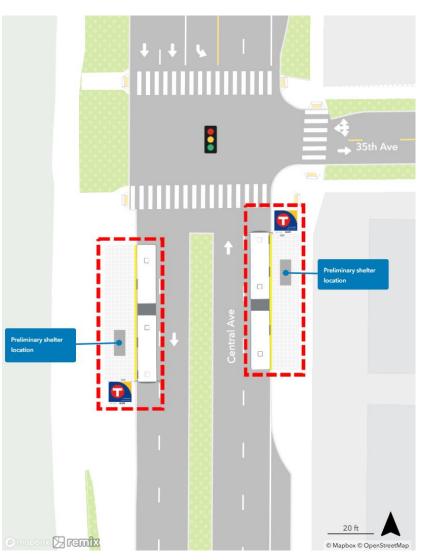
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 35th Avenue.

Multifamily homes line the east side of Central Avenue south of 35th Avenue. Further east and northeast of the station area are small-scale residential neighborhoods. West of Central Avenue is Columbia Park and Golf Course.



• mapbox | remix

Proposed Station Area



Conceptual platform layout

 Metro Transit will seek to fill in the pull-out bay currently used by Route 10 buses at the proposed southbound platform farside of 35th Avenue (southwest corner). The resulting in-lane stop would support faster bus service and reduce impacts to the adjacent trail and parkland. Metro Transit will work with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Bicycle facilities

• There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the <u>City of Minneapolis' network of bikeways for all ages and abilities</u>, and as a priority alignment within the <u>Metropolitan Council's Regional Bicycle Transportation Network and MnDOT's Metro District Bicycle Plan</u>. MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue. Metro Transit and MnDOT will continue to coordinate on station design, including the incorporation of any future bikeways.

Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

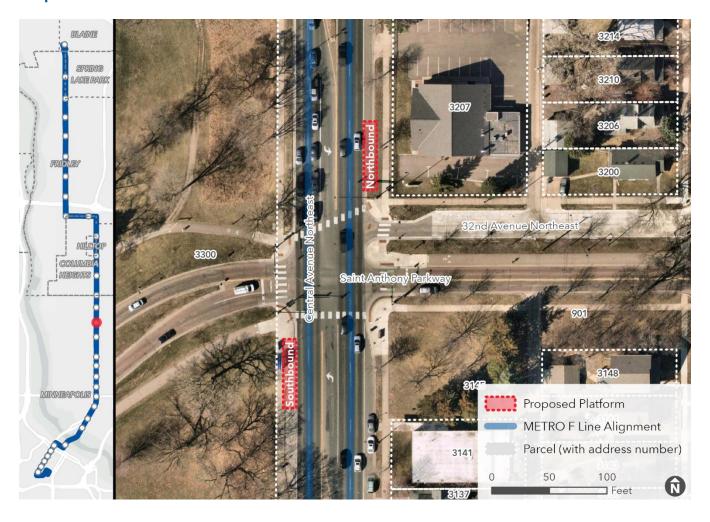
Project coordination

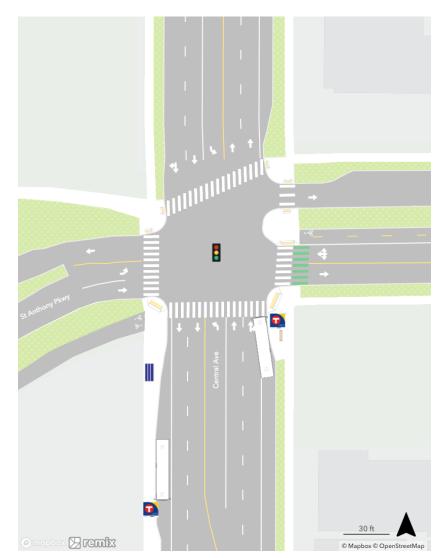
• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & St. Anthony

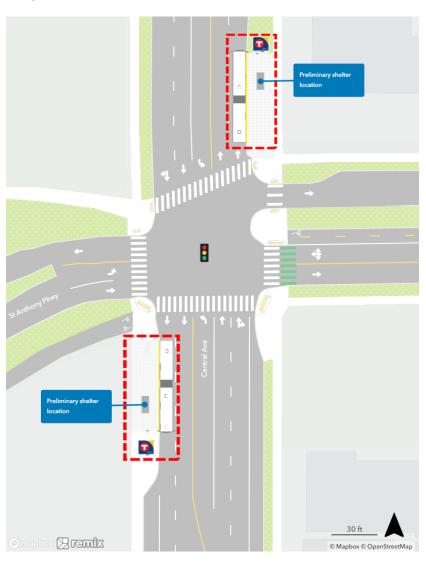
The proposed southbound platform is located at the same corner as the current-day Route 10 stop (farside of St. Anthony Parkway), but the proposed northbound platform is located farside of St. Anthony Parkway (northeast corner), unlike today's nearside bus stop location. MnDOT is the roadway authority for Central Avenue, while the Minneapolis Park and Recreation Board controls St. Anthony Parkway.

West of Central Avenue is Columbia Park and Golf Course. Single-family homes, small shops, duplexes, and small apartment buildings line the east side of Central Avenue within the station area. Further east are residential neighborhoods of largely single-family homes. An Oromo Christian church and a mosque and cultural center are located at the northeast and southeast corners of the intersection, respectively.





Proposed Station Plan



Conceptual platform layout

• Metro Transit will seek to fill in the pull-out bay currently used by Route 10 buses at the proposed southbound platform farside of St. Anthony Parkway (southwest corner). Similarly, Metro Transit will look to fill in the parking bay on the east side of Central Avenue north of St. Anthony Parkway. These changes will result in in-lane stops at both proposed platforms, which support faster bus service. Additionally, these changes would provide additional space for platform amenities. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue.

Bicycle facilities

- The St. Anthony Parkway Regional Trail (multiuse trail) passes through Columbia Park on the
 north side of St. Anthony Parkway, through the station intersection, and continues east of Central
 Avenue to Stinson Boulevard. St. Anthony Parkway Regional Trail is part of the <u>Grand Rounds</u>
 National Scenic Byway.
- There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the <u>City of Minneapolis' network of bikeways for all ages and abilities</u>, and as a priority alignment within the <u>Metropolitan Council's Regional Bicycle Transportation Network</u> and <u>MnDOT's Metro District Bicycle Plan</u>. MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue.
- Metro Transit, MnDOT, the City of Minneapolis, and the Minneapolis Park and Recreation Board will continue to coordinate on station design, including the incorporation of any existing/future bikeways.

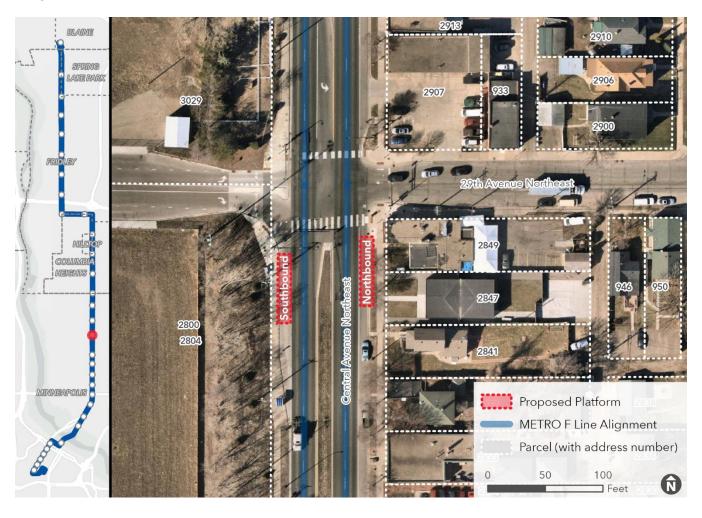
Project coordination

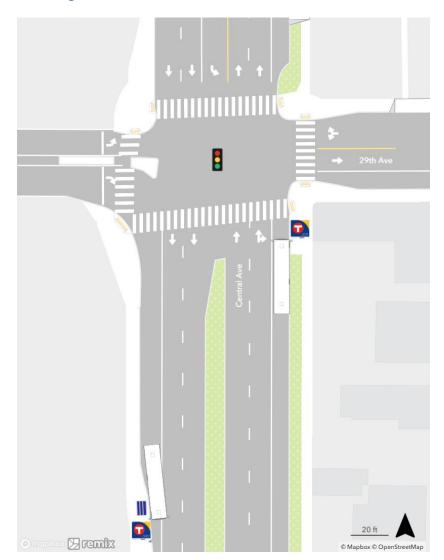
• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & 29th Avenue

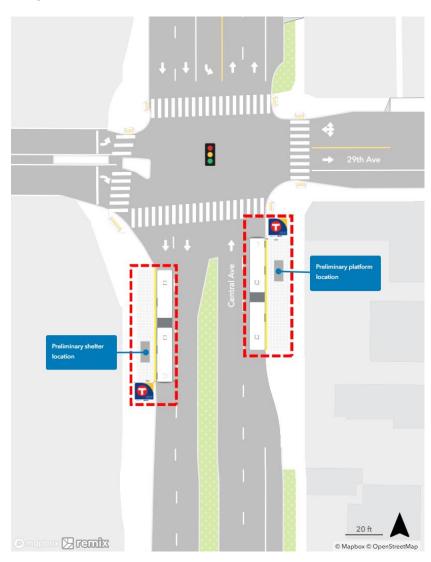
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 29th Avenue.

The 230-acre Shoreham Yards rail and trucking facility owned by Canadian Pacific dominates the station area west of Central Avenue. The east side of Central Avenue is lined with a mix of commercial uses. Residential neighborhoods of multifamily buildings, duplexes, and single-family homes define the area further east of Central.





Proposed Station Plan



Conceptual platform layout

 Metro Transit will seek to construct curb extensions into the no-parking roadway shoulder space already dedicated to the existing Route 10 bus stops. Doing so will result in in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety.

Traffic operations

 The western leg of the signalized intersection operates as one-way, exit-only for heavy truck traffic leaving the Shoreham Yards facility. Metro Transit will work with MnDOT and local agencies to complete traffic modeling to understand the effect of proposed stations on traffic operations.

Bicycle facilities

• There are no existing dedicated bikeways on this stretch of Central Avenue. However, Central Avenue from 37th to 27th avenues is identified as a long-term low stress bikeway in the <u>City of Minneapolis' network of bikeways for all ages and abilities</u>, and as a priority alignment within the <u>Metropolitan Council's Regional Bicycle Transportation Network and MnDOT's Metro District Bicycle Plan</u>. MnDOT, as part of its PEL Study, is considering how best to add a low stress bikeway to this stretch of Central Avenue. Metro Transit and MnDOT will continue to coordinate on station design, including the incorporation of any future bikeways.

Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

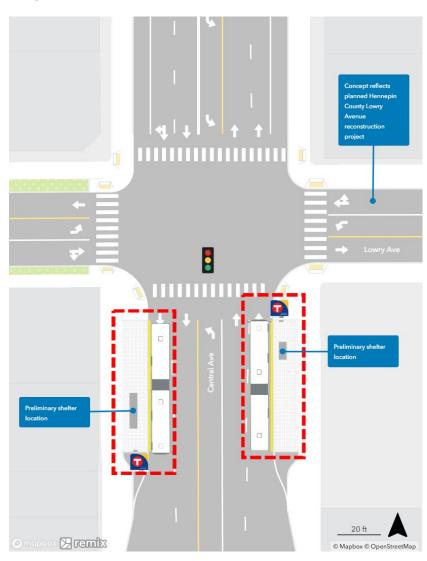
Central & Lowry

This station currently offers connections to Route 32. The Lowry Avenue corridor is identified as an expansion priority for the arterial BRT network in the Metropolitan Council's <u>amended 2040</u> <u>Transportation Policy Plan</u>.

The proposed northbound platform is located at the same corner as the current-day Route 10 stop (nearside of Lowry Avenue), but the proposed southbound platform is located farside of Lowry Avenue, unlike today's nearside location. MnDOT is the roadway authority for Central Avenue, while Hennepin County controls Lowry Avenue.



Proposed Station Plan



Project coordination

- Hennepin County is currently leading a project to update the roadway design and reconstruct
 Lowry Avenue between Marshall and Johnson streets in Northeast Minneapolis, including at the
 intersection with Central Avenue. Current plans call for a two-way shared-use path along the
 north side of Lowry Avenue and a new lane configuration at the intersection with Central Avenue.
 Metro Transit will continue to coordinate with Hennepin County as design progresses for both
 projects (Lowry construction 2024-2025).
- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- The parcel in the southeast corner of the intersection (where the northbound platform is proposed to be located) is owned by the City of Minneapolis and is planned for future redevelopment through Lowry Avenue Community Works.

Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street bicycle lanes along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis' network of bikeways for all ages and abilities, the Metropolitan Council's Regional Bicycle Transportation Network, and MnDOT's Metro District Bicycle Plan.
- Design of the proposed platforms will be coordinated with MnDOT and Hennepin County to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

 Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on either side of Central Avenue.



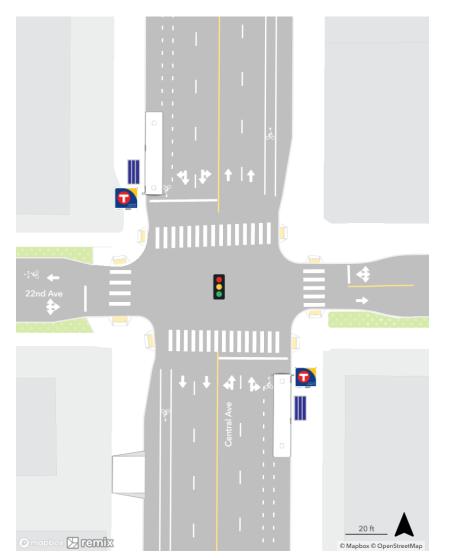
Publicly-owned redevelopment parcel at the southeast corner of the intersection – location of the proposed northbound platform

Central & 22nd Avenue

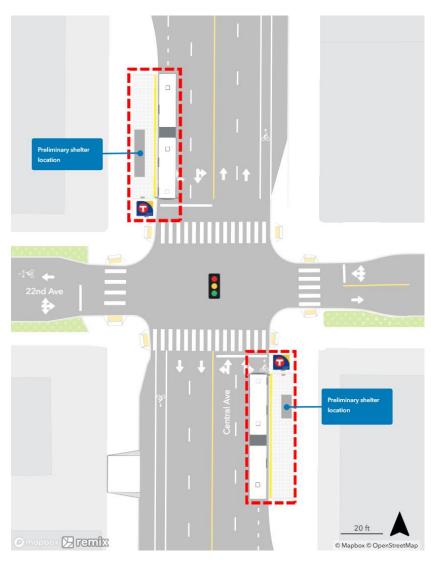
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 22nd Avenue.

This stretch of Central Avenue is lined with a mix of commercial and residential uses, including restaurants, grocers, shops, community spaces, other neighborhood services, and mixed-use multifamily buildings. Residential neighborhoods of multifamily buildings, duplexes, and single-family homes define the area further east and west of Central. Northeast Library is located on the northwest corner of the intersection and Edison High School is located three blocks west.





Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street bicycle lanes along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis' network of bikeways for all ages and abilities, the Metropolitan Council's Regional Bicycle Transportation Network, and MnDOT's Metro District Bicycle Plan.
- 22nd Avenue is an existing bicycle boulevard, part of the City of Minneapolis' low stress network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

• Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety.

Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.



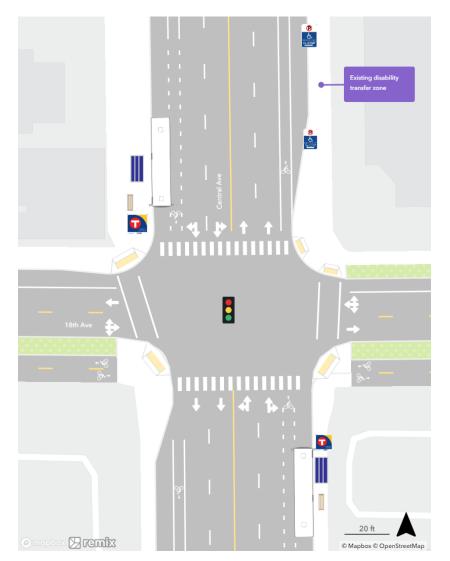
Passenger waiting for a Route 10 bus at the location of the proposed Central & 22nd Street southbound platform

Central & 18th Avenue

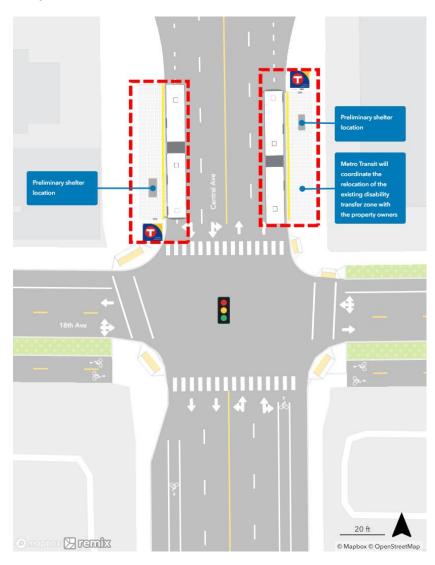
The proposed southbound platform is located at the same corner as the current-day Route 10 stop (nearside of 18th Avenue), but the proposed northbound platform is located farside of 18th Avenue (northeast corner), unlike today's nearside bus stop location. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 18th Avenue.

This stretch of Central Avenue is lined with a mix of commercial and residential uses. Parker Skyview, a Minneapolis Public Housing Authority high-rise building designated for seniors, is located along the east side of the 1800 block of Central Avenue. Additionally, within the building is the Senior Food Shelf, a food distribution site for seniors.





Proposed Station Plan



Station spacing

• Distances to the next northbound (0.2 miles) and southbound (0.3 miles) platforms are less than the half-mile spacing target. Shorter station spacing here is recommended due to existing Route 10 ridership and the proposal for no underlying local bus service along the F Line alignment south of Columbia Heights Transit Center.

Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street bicycle lanes along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis' network of bikeways for all ages and abilities, the Metropolitan Council's Regional Bicycle Transportation Network, and MnDOT's Metro District Bicycle Plan.
- There is an existing two-way sidewalk-level protected bikeway along the south side of 18th Avenue, part of the City of Minneapolis' low stress network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue.
- The proposed northbound platform is located farside of 18th Avenue (northeast corner) adjacent the Parker Skyview public housing high-rise and the Senior Food Shelf. Locating the platform here provides Parker Skyview residents and visitors with excellent transit access, while eliminating the need to cross 18th Avenue. However, placing the northbound platform at this location would require relocating the existing disability transfer zone currently on Central Avenue. Metro Transit will work closely with the Minneapolis Public Housing Authority and City of Minneapolis to relocate the disability transfer zone.

Project coordination

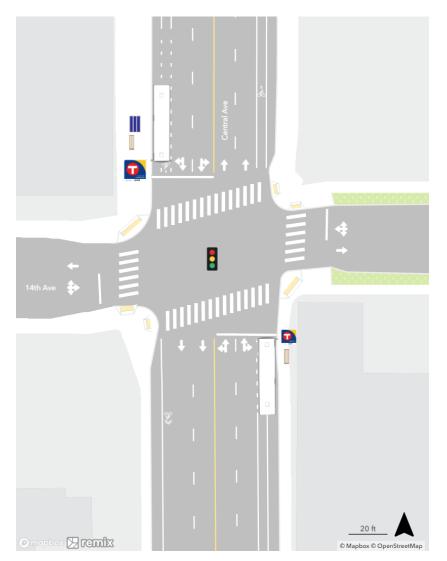
• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & 14th Avenue

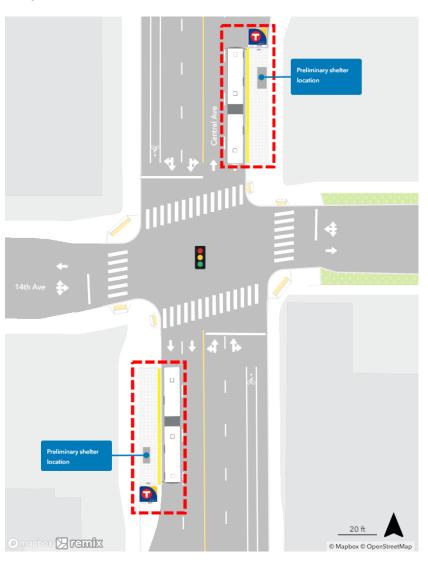
Both proposed platforms are located farside of 14th Avenue, deviating from the current-day Route 10 stops, which are both nearside of 14th Avenue. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls 18th Avenue.

This stretch of Central Avenue is surrounded by industrial and commercial uses, with some residential development (from single-family homes to six-story multifamily buildings). The railroad bridge north of 14th Avenue acts as a boundary between the 14th Avenue and 18th Avenue station areas. The City of Minneapolis owns the vacant parcel at the northeast corner of the intersection adjacent the proposed northbound platform farside of 14th Avenue.





Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street bicycle lanes along Central Avenue from 27th to 13th avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis' network of bikeways for all ages and abilities, the Metropolitan Council's Regional Bicycle Transportation Network, and MnDOT's Metro District Bicycle Plan.
- The City of Minneapolis' <u>Transportation Action Plan</u>, calls for a connector or long-term low stress bikeway along 14th Avenue as part of the City's planned network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

- Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the west side of Central Avenue.
- Design of the proposed platforms will be coordinated with MnDOT to accommodate existing/future bikeways along Central Avenue.

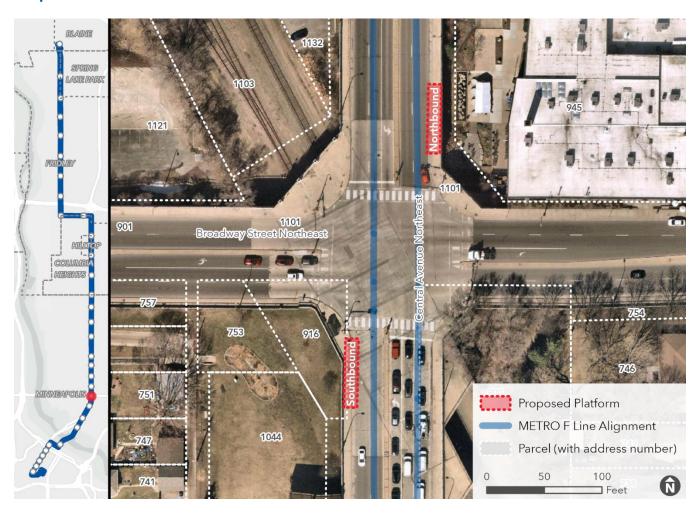
Project coordination

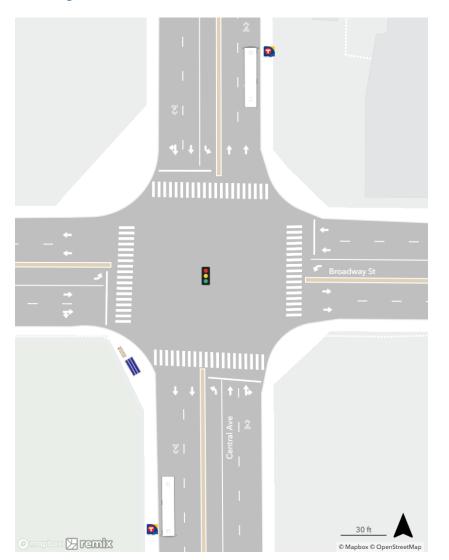
• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & Broadway

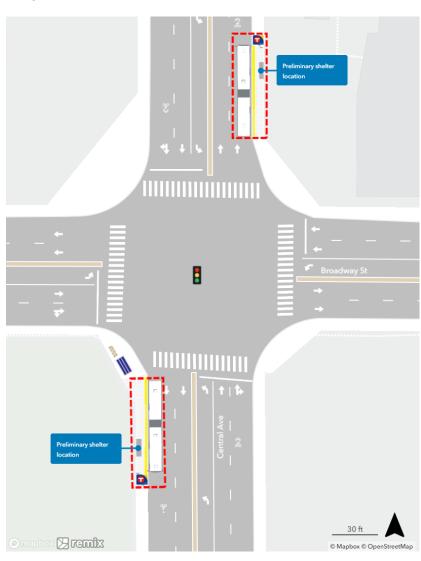
This station currently offers connections to Route 30, an east-west crosstown route operating between north Minneapolis and the Westgate Station of the METRO Green Line. Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while Hennepin County controls Broadway Street.

Broadway Street is an important east-west arterial roadway along the corridor. This stretch of Central Avenue is surrounded by industrial and commercial uses, and residential development (from single-family homes to larger multifamily buildings).





Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as "sharrows"), indicating shared space between vehicles and bicycles, along Central Avenue between 13th Avenue and Spring Street. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis network of bikeways for all ages and abilities, the Metro District Bicycle Plan.
- The City of Minneapolis' <u>Transportation Action Plan</u>, calls for a connector or long-term low stress bikeway along Broadway Street as part of the City's planned network of bikeways for all ages and abilities.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

The intersection of Central Avenue and Broadway Street is atop a bridge deck spanning active
railroad tracks. Siting platforms on the bridge poses geometric and constructability constraints.
Metro Transit will continue to work closely with MnDOT to understand these limitations. Platform
layout and amenities at this location may differ from those typically found elsewhere in the
corridor.

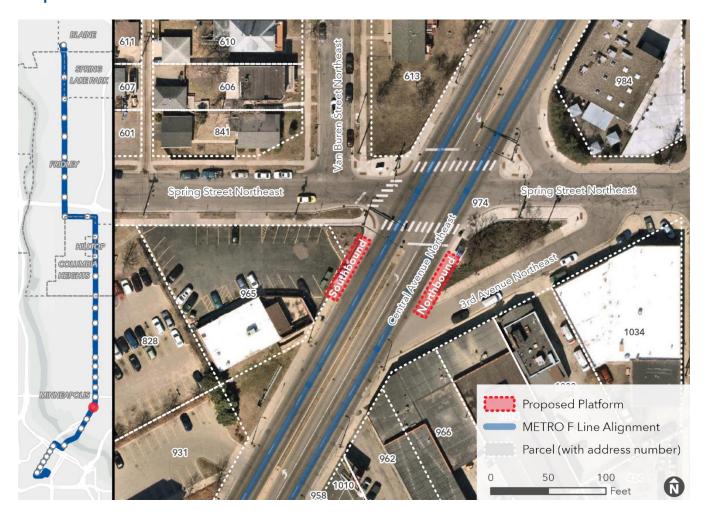
Project coordination

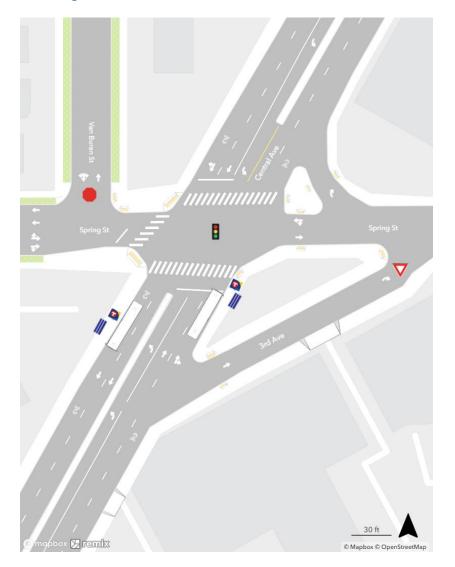
• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

Central & Spring

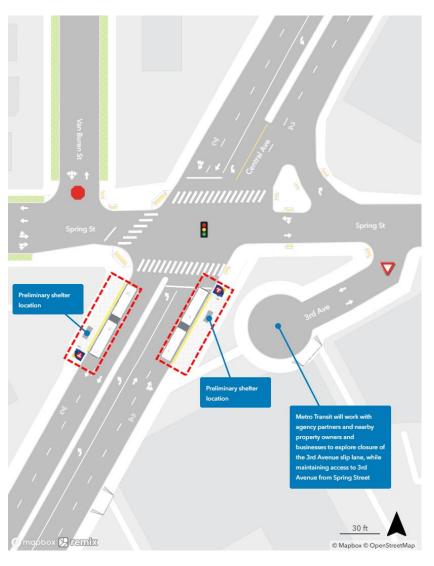
Proposed platforms are located at the same corners as current-day Route 10 stops. MnDOT is the roadway authority for Central Avenue, while the City of Minneapolis controls Spring Street.

This stretch of Central Avenue is surrounded by industrial and commercial uses to the east, with residential development (from single-family homes to larger multifamily buildings) defining areas to the west.





Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as "sharrows"), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis network of bikeways for all ages and abilities, the Metro District Bicycle Plan.
- Design of the proposed platforms will be coordinated with MnDOT to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

• The tail end of a 60-foot articulated bus (planned to be used on the F Line) may not be able to clear the intersection of Central and 3rd avenues due to the existing slip lane south of the intersection. Metro Transit will work with agency partners and nearby property owners and businesses to explore the closure or narrowing of the 3rd Avenue slip lane to allow for adequate platform length, while maintaining access to 3rd Avenue from Spring Street.

Other locations considered

• A northbound platform farside (northeast corner) of Spring Street was considered. The right turn slip lane in the northeast corner of the intersection, along with physical space constraints pose challenges for siting a platform at this location.

Project coordination

• The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.

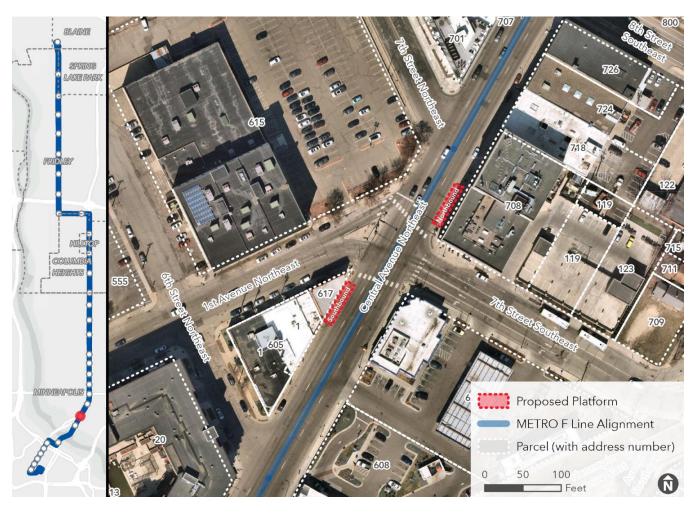


View looking south down Central Avenue, including the location of the proposed southbound platform

Central & 1st Avenue/7th Street

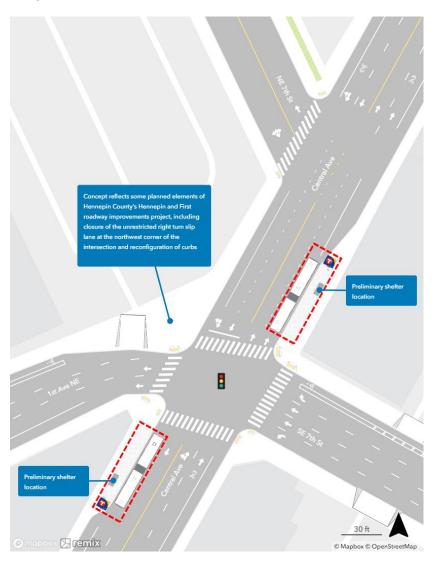
This station currently offers connections to Routes 2, 4, 17, 25, and 61. This station would also provide a connection to the Johnson/Lyndale corridor, which is identified as an expansion priority for the arterial BRT network in the Metropolitan Council's <u>amended 2040 Transportation Policy Plan</u>. MnDOT is the roadway authority for Central Avenue, while Hennepin County controls 1st Avenue/7th Street.

This stretch of Central Avenue is a mix of higher intensity commercial, office, and residential uses. The station area is near the eastern/northern edge of the loosely defined area of increased development and activity immediately east of downtown Minneapolis and the Mississippi River.



● mapbox 🄀 remix / © Mapbox © OpenStreetMap

Proposed Station Plan



Project coordination

- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- Hennepin County is developing roadway improvements on Hennepin and 1st avenues (County Road 52) between Main and 8th streets in Northeast Minneapolis. Metro Transit is in coordination with the County as design plans are refined and as the project approaches construction and completion in 2024.

Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as "sharrows"), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis network of bikeways for all ages and abilities, the Metro District Bicycle Plan.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

• Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on either side of Central Avenue.

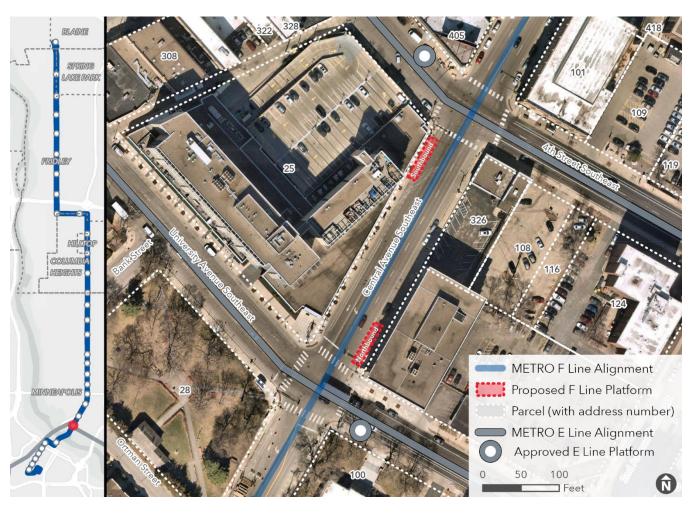
Other locations considered

- Multiple locations were considered for both platforms, including nearside of 1st Avenue/7th Street
 (northwest and southeast corners) and, in the southbound direction, nearside of 7th Street
 NE/Monroe. The eventual proposed locations farside of 1st Avenue/7th Street (northeast and
 southwest corners) were selected primarily based on the speed and reliability benefits of farside
 platform locations.
- An alternative southbound platform location on Central Avenue nearside of 7th Street NE/Monroe
 was not advanced due to the lack of signalized pedestrian crossing and distance from key activity
 centers and transfer connections.
- An additional southbound alternative on Central Avenue nearside of 1st Avenue/7th Street was
 considered but not advanced. This location would preclude City of Minneapolis bikeway priorities
 on this segment, including a protected bicycle intersection and a bicycle facility between 1st
 Avenue and 7th Street NE/Monroe.

Central & University/4th Street

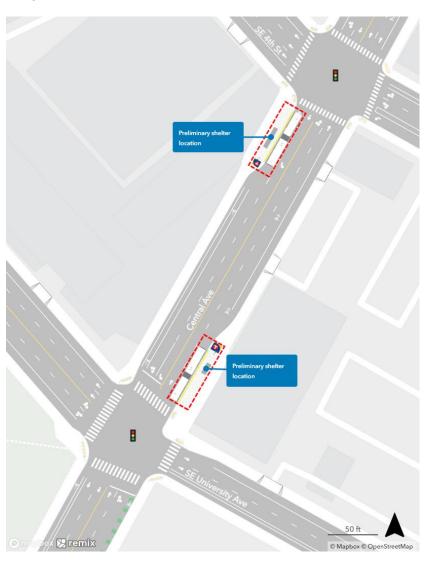
This station currently offers connections to Routes 2, 4, 6, 17, 25, 61, and multiple commuter and express routes. This station will also offer a connection to the future METRO E Line. MnDOT is the roadway authority for Central and University avenues, as well as 4th Street east of Central Avenue, the City of Minneapolis controls 4th Street west of Central Avenue.

This stretch of Central Avenue is a mix of higher intensity commercial, office, and residential uses. The station area is near the western/southern edge of the loosely defined area of increased development and activity immediately east of downtown Minneapolis and the Mississippi River.



remix

Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing shared lane pavement markings (sometimes referred to as "sharrows"), indicating shared space between vehicles and bicycles, along Central Avenue between 13th and University avenues. There are existing on-street protected bicycle lanes on Central Avenue south of University Avenue. MnDOT, as part of its ongoing PEL Study, is considering how best to incorporate low stress bikeways along this stretch of Central Avenue to align with policy and prioritization established in the City of Minneapolis' network of bikeways for all ages and abilities, the Metropolitan Council's Regional Bicycle Transportation Network, and MnDOT's Metro District Bicycle Plan.
- Design of the proposed platforms will be coordinated with MnDOT, Hennepin County, and the City of Minneapolis to accommodate existing/future bikeways along Central Avenue.

Conceptual platform layout

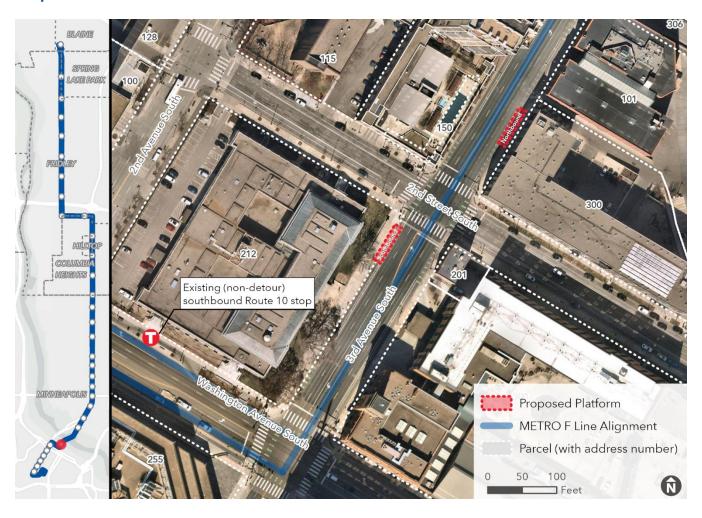
 Metro Transit will seek to construct curb extensions at both platform locations to create in-lane stops, which support faster bus service and provide additional space for platform amenities, while also shortening intersection crossing distances and improving pedestrian safety. Doing so may require the removal of select on-street parking spaces on the east side of Central Avenue north of the intersection.

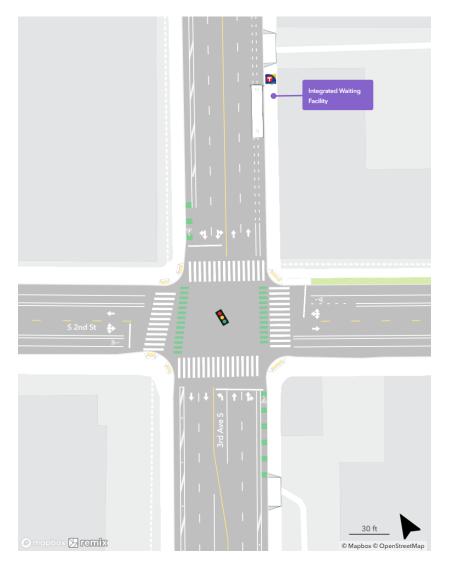
Project coordination

- The station is within the study area of MnDOT's PEL Study. Development of this and other F Line stations will be coordinated with the PEL Study as it continues to advance.
- MnDOT has planned improvements along University Avenue from the intersection with Central Avenue to just south of 27th Avenue NE, including resurfacing, bikeways, and pedestrian improvements.

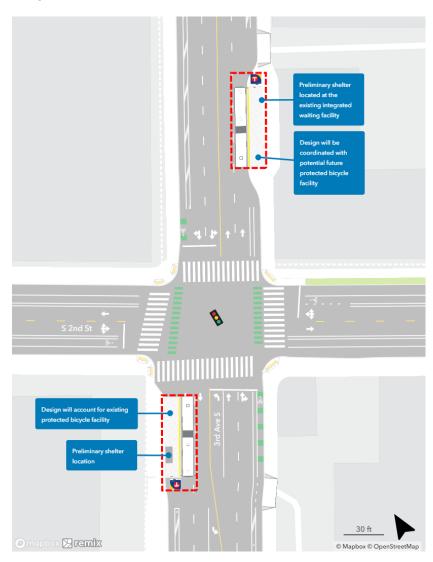
3rd Avenue & 2nd Street

This station currently offers connections to Routes 3, 7, and 18 (which operate on Washington Avenue one block south of 2nd Street), multiple commuter and express routes, and the nearby METRO Orange Line. This station will also offer a connection to the future METRO H Line (planned to begin construction in 2027, pending full funding) on Washington Avenue.





Proposed Station Plan



Pedestrian access

• There is a connected sidewalk network surrounding the proposed station.

Bicycle facilities

- There are existing on-street delineator-protected bicycle lanes on 3rd Avenue, which start on the south end of downtown and continue over the Mississippi River bridge, including through the station area.
- There are existing sidewalk level protected bicycle lanes on Washington Avenue several blocks east and west of 3rd Avenue.
- Design of the proposed platforms will be coordinated with MnDOT and Hennepin County to accommodate existing bikeways along Central Avenue.

Project coordination

MnDOT, in coordination with the City of Minneapolis, is exploring opportunities to upgrade
existing bikeway and pedestrian facilities on 3rd Avenue between 1st and 2nd streets. Continued
development of this proposed station plan will be coordinated as both projects advance. Design
of the proposed platforms will be coordinated to accommodate existing/future bikeways in this
segment.

Conceptual platform layout

The proposed northbound platform could make use of an existing integrated waiting facility
typically used by Route 10 at the Mill City Quarter apartment building at the northeast corner of
the intersection of 3rd Avenue and 2nd Street. Today, the integrated waiting facility provides
shelter, light, heat, and transit information to Route 10 riders.

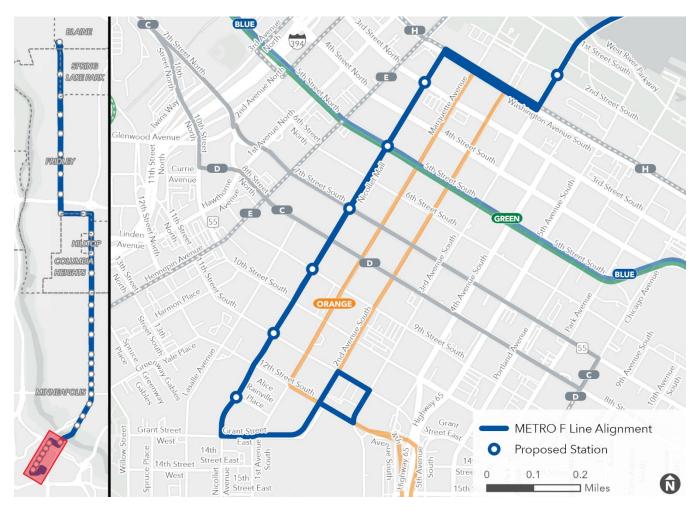
Other locations considered

• Several locations were considered for both platforms, including on Washington Avenue at several locations west of 3rd Avenue, on 3rd Avenue at several locations north of Washington Avenue, and ultimately the proposed locations on 3rd Avenue near 2nd Street. Platform locations were chosen to maintain operational flexibility, achieve appropriate station spacing, be near activity generators, and anticipate future operations and connection between the F Line and future H Line on Washington Avenue. The proposed platform locations represent the best available options to balance these needs considering additional site-specific constraints.

Nicollet Mall Downtown Stations

The F Line will serve six stations along Nicollet Mall at the existing local bus stops at 3rd, 5th, 7th, 9th, and 11th streets, and Alice Rainville Place. These stops are currently served by Route 10 and other local bus routes and offer connections to all downtown local and commuter and express routes, including nearby METRO Blue, Green, Orange, and C lines, and future METRO D line (December 2022).

Enhanced shelters with light, heat, and real-time NexTrip information signs were added to bus stops along Nicollet Mall in coordination with the Nicollet Mall Reconstruction project (2015-2017) led by the City of Minneapolis. These locations are currently served by Route 10 and other local bus routes and will be upgraded to BRT stations with METRO branding and fare collection equipment with the implementation of the F Line.





Southbound Route 10 at Nicollet & 5th Street (Sept. 2022)