

In 2011, Metro Transit embarked on the **Arterial Transitway Corridors Study (ATCS)**, a year-long study of improvements along some of the most heavily traveled transit corridors in the Twin Cities area. The purpose of the ATCS was to develop a bus facility and service plan to enhance **efficiency, speed, reliability, customer experience, and transit market competitiveness on 11 high-demand urban transitway corridors.**

This document explains Arterial BRT/rapid bus and its benefits in the 11 study corridors.



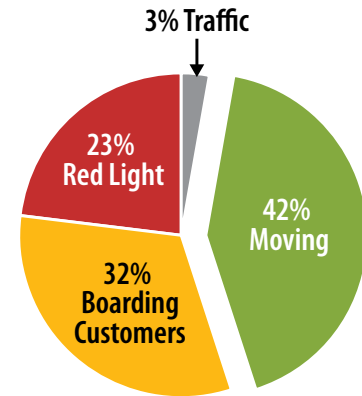
The routes examined in this study account for half of the region's urban local transit service and carry 86,000 people each weekday. Transit's efficiency and attractiveness in these corridors is limited by slow speeds and can be enhanced significantly by improving passenger facilities.

Past studies consistently show the 11 transit corridors to be among the strongest for potential ridership in the region. However, narrow streets in these highly developed areas mean that constructing light rail or dedicated busways would not be feasible without significant community and transportation impacts and high costs.

Frequent stops and delay at red lights significantly slow transit speeds. **On a typical corridor, buses are moving less than half the time.**

Furthermore, the transit infrastructure in these corridors is not on par with the role transit plays in providing corridor transportation.

Rapid bus offers a context-sensitive solution that better meets transportation needs in these environments.



*Percent of time stopped or moving along typical study corridor routes*

# What Is Rapid Bus?

Rapid bus provides faster and more frequent service as well as an improved customer experience. Faster service is accomplished by reducing customer boarding and traffic signal delays and stopping at fewer locations. An improved

customer experience is achieved by adding stations, using information technology, and improving service reliability and vehicle comfort. Rapid bus operates in existing traffic lanes, with signal priority to help improve transit travel time.

## System Features Common to All Corridors

### Station Design



*Bus stops would be upgraded to premium transitway stations with enhanced amenities and information like LRT stations*

### Fare Collection



*Off-board fare payment would speed boarding and increase convenience; police enforcement would enhance security*

### Vehicle Design



*Rapid Bus vehicles would have a unique function and would look distinct from regular local and express service*

### Identity/Brand



*A unified system brand would be developed to make rapid bus transitways recognizable and familiar*

## Features Tailored to Individual Corridors

### Station Size



*Stations and boarding platforms would be sized to projected customer demand and available space*

### Runningway



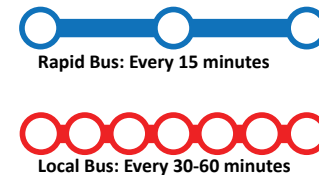
*Current road lanes would not change but spot improvements would allow buses to move more quickly in traffic*

### Signal Priority



*Signal priority would allow buses additional green time when needed to minimize delay and increase speed*

### Service Plans



*Limited stop service plans respond to corridor demand. Buses would run every 15 minutes or better, 7 days per week*

## A Proven, Cost-Effective Solution

Rapid bus concepts have been used to successfully improve transit service and customer experience across the U.S., including:

- Kansas City
- Las Vegas
- Oakland
- Boston
- New York City
- Cleveland
- Seattle
- Los Angeles

After implementing rapid bus, communities have enjoyed **improved travel time** and **ridership** at a fraction of what it would cost to implement light rail transit or a dedicated busway.

- ▶ **15 to 25%** faster travel time
- ▶ **20 to 40+%** increased ridership over pre-BRT service
- ▶ **Under \$5 million** per mile capital costs



*Kansas City Metro Area Express (MAX)*

## Why Study Rapid Bus in the Twin Cities?

The Metropolitan Council's 2030 Transportation Policy Plan (adopted in 2009) established rapid bus as a concept for future study and implementation in the Twin Cities. The ATCS focused on 11 high-demand corridors where existing conditions and projected growth warrant improved transit.

- ▶ Corridors make critical connections to the growing regional **LRT and BRT system**.
- ▶ Each day, **nearly 86,000 people ride transit** in routes serving the 11 study corridors.
- ▶ In nearly all corridors, **more than 10 percent of households do not have vehicles** and rely instead on transit.
- ▶ These corridors link together approximately **450,000 people** and **460,000 jobs**.
- ▶ Between 2000 and 2030, population or employment in nearly all of the corridors is expected to **grow by more than 20 percent**.

Arterial BRT/rapid bus is high-frequency, limited-stop service that offers an improved customer experience on busy arterial streets in urban areas.



*Transit customers in the Twin Cities would see improved service and shorter travel time through the implementation of rapid bus.*

During the ATCS, corridor-specific conceptual station and operating plans were developed to help define how rapid bus could look and operate. The plans were then used to estimate capital and operating costs and forecast future ridership.

### *How fast would rapid bus service be compared to current service?*

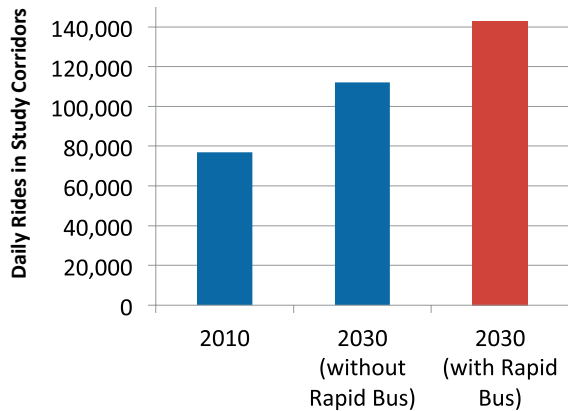
When rapid bus is implemented, customers can expect a trip that is **20 to 30% faster than today**.

### *How much would rapid bus cost to implement?*

Cost to construct the corridors would range from \$18 to \$58 million, or an average of **\$3 to \$4 million per mile**.

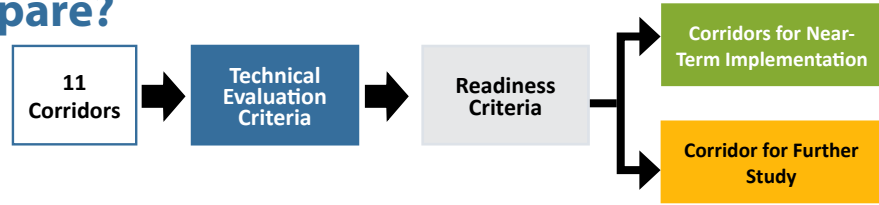
### *How many people would ride rapid bus?*

Without rapid bus, daily ridership is expected to grow by about 45% by 2030, requiring increased transit capacity and frequency. By implementing rapid bus, we can expect to **nearly double ridership** along these corridors, using fewer resources.



# How Did the Corridors Compare?

The corridors studied in the ATCS were evaluated and prioritized for rapid bus implementation using an approach that considered **technical evaluation scores** and **readiness criteria**.



Five corridors are recommended for near-term implementation or further refinement. The remaining six corridors were recommended for future implementation—either because they will be analyzed for transit improvements in greater detail in corridor-specific alternatives analysis (AA) studies or other transitway improvements must advance further to realize projected rapid bus benefits.

	Lake Street	Snelling Avenue	Chicago Avenue	Central Avenue	Hennepin Avenue	Nicollet Avenue	West Broadway	American Boulevard	West 7th Street	East 7th Street	Robert Street
<b>TECHNICAL SCORE</b>	81.4	75.3	74.2	74.2	72.5	72.1	69.3	64.7	61.4	55.8	48.9
<b>NEAR-TERM READINESS CRITERIA</b>											
Will the corridor be studied in the near future in more detail for other modes?	Yes	No	No	Yes	No	Yes	No	No	No	No	Yes
Does the corridor's success depend on connections to an unfunded transitway investment or forecast growth?		No	No		Yes		No	Yes	No	No	
Is additional planning needed at this time to better develop Rapid Bus and other bus service in the corridor?		No	Yes		Yes		Yes		No	Yes	
<b>RECOMMENDATION</b>	Hold until conclusion of AA study	Implement in Near Term	Proceed with further study	Hold until conclusion of AA study	Hold and develop corridor bus plans	Hold until conclusion of AA study	Proceed with further study	Hold and develop transit market	Implement in Near Term	Proceed with further study	Hold until conclusion of AA study

## Next Steps toward Implementation

After completing this study, Metro Transit will continue rapid bus project development efforts, working toward implementation on Snelling Avenue and developing a rapid bus system. Key project development steps include:

- **Develop system-level characteristics.** A number of decisions must be made regarding fare collection and policy, technology features, branding, station design, and vehicle specifications.
- **Refine corridor-specific concepts.** Plans will be refined with public input to identify service frequency, bus requirements, remaining local bus service, routing, and station platform location and design.
- **Secure project funding.** Project implementation depends on securing funding for construction and operation. Potential funding sources include federal funds, state bonds, and regional transit funding sources.
- **Continue to engage stakeholders.** Successfully integrating local, agency, and corridor interests is critical to the success of rapid bus implementation. Metro Transit is committed to working with its project partners to identify appropriate transit investments in the study corridors. As system- and corridor-specific plans progress, Metro Transit will work closely with project partners to refine the concept to fit within the context of each corridor and its surrounding communities.



**For More Information,  
Including Corridor Plans**

[www.metrotransit.org/rapidbus](http://www.metrotransit.org/rapidbus)