



STRATEGIC MOBILITY PLAN MOBILITY OPTIONS & CORRIDORS

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TABLE OF CONTENTS

- Executive Summary 1**
- High-Capacity Transit Options..... 4**
 - Light Rail Transit (LRT)..... 5
 - Bus Rapid Transit (BRT)..... 6
 - Streetcar 7
 - High-Capacity Transit Corridors 8
- Other Major Transit Options..... 9**
 - Select Bus and Streetcar Service..... 10
 - Water Transportation 11
 - Regional Express Service 12
 - Downtown Mobility Improvements..... 13
 - Other Major Transit Corridors and Areas 14
- New Mobility Options..... 15**
 - Bike Share 16
 - Car Share 17
 - Ride-hailing and On-Demand Services 18
 - Circulator and Microtransit Services..... 19
 - Autonomous Vehicles 20

EXECUTIVE SUMMARY

Mobility Options

There are many potential transportation options, or modes, to meet the mobility needs of the region and many of these modes are new, with rapidly evolving technologies.

The Strategic Mobility Plan adopted by the Regional Transit Authority (RTA) recommends many strategies to become the preferred mobility provider in the region, including improving existing mobility options and adding new ones.

This report describes the mobility options mentioned in the Plan and shows the corridors and areas where they are recommended for implementation. This includes:

- **High-Capacity Transit options:** bus rapid transit, light rail transit, and streetcar.
- **Other major transit options:** select bus and streetcar service, water transportation, regional express service, and downtown mobility improvements.
- **New mobility options:** bike share, car share, ride-hailing, on-demand services, circulator service, microtransit, and autonomous vehicles.

Each of these options has advantages and drawbacks. With more detailed planning and additional outreach, RTA can work with other mobility providers to bring the right mix to Greater New Orleans.

Corridors and Areas for Implementation

This report shows the corridors and specific areas recommended for implementing High-Capacity Transit and other major transit options.

Demand for these types of mobility options varies throughout the region based on the concentration of people and jobs, the presence of major destinations, income levels of riders, walkability of an area, time of day, and many other factors.

For details on how demand was calculated and how corridors and areas for High-Capacity Transit and other major transit options were identified, refer to the Strategic Mobility Plan Market Analysis and Civic Engagement Report.

Mobility Options in Strategic Mobility Plan

HIGH-CAPACITY TRANSIT ROUTES

| | | | | | |
|--|--|------------------------------|--|--------------------------------|--|
| | | | | | |
| <p>Available Modes (BRT, Streetcar, and LRT)</p> | <p>Every 10 min. (peak) Every 15 min. (off-peak)</p> | <p>20-24 hrs per day</p> | <p>Stops every 1/4 to 1/2 mile</p> | <p>Pay before boarding</p> | <p>Extensive use of dedicated roadway space and/or coordinated traffic signals</p> |

SELECT SERVICE ROUTES

| | | | | | |
|--|--|------------------------------|---------------------------------|--------------------------------|--|
| | | | | | |
| <p>Available Modes (Bus and Streetcar)</p> | <p>Every 15 min. (peak) 20 min. (off-peak)</p> | <p>18-24 hrs per day</p> | <p>Stops every 1/4 mile</p> | <p>Pay before boarding</p> | <p>Use of dedicated roadway space and/or coordinated traffic signals</p> |

PLUS...



Regional Express Connections

- Commuter bus
- 30 min (peak only)
- Limited stops



Water Transportation

- Modern and traditional ferries
- Every 15-30 min., 7 days/week
- Longer hours of operation
- Existing plus new terminals



Downtown Mobility Improvements

- Service type TBD
- Every 10-15 min., 24 hours/day
- Looping around high demand travel areas



Pilot Programs

- Microtransit
- On-Demand connections
- Autonomous vehicles

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|---------------------------|-------------------|---------------------------|------------------------|---|-------------------------------------|
| LIGHT RAIL | DEDICATED SHARED | 40-80 SEATED 180 TOTAL | 0.75-1.5 MILES | \$\$\$ \$50-\$150 MILLION PER MILE \$4-\$6 MILLION PER VEHICLE | CCC \$0.40-\$1.75 |
| BUS RAPID TRANSIT | DEDICATED SHARED | 60 SEATED 95-105 TOTAL | 0.5 MILE | \$\$\$ \$5-\$30 MILLION PER MILE \$500K-\$800K PER VEHICLE | CCC \$0.40-\$1.75 |
| STREETCAR | DEDICATED SHARED | 30-50 SEATED 120 TOTAL | 0.25-0.5 MILES | \$\$\$ \$25-50 MILLION PER MILE \$3-\$5 MILLION PER VEHICLE | CCC \$1.25-\$5.50 |
| SELECT SERVICE | DEDICATED SHARED | 30-60 SEATED 120 TOTAL | 0.25-0.5 MILES | \$\$\$ \$250K-\$2 MILLION PER MILE \$400K-\$750K PER VEHICLE | CCC \$0.40-\$0.65 |
| WATER TRANSPORTATION | WATER | 150-250 TOTAL | VARIED BY ROUTE | \$\$\$ \$4-\$6 MILLION PER VEHICLE | CCC \$1.00-\$15.00 |
| REGIONAL EXPRESS SERVICE | SHARED | 40-60 | VARIED | \$\$\$ \$500K-\$600K PER VEHICLE | CCC \$0.25-\$2.75 |
| BIKE SHARE | DEDICATED SHARED | 1 TOTAL | 3 BLOCKS | \$\$\$ 50K-100K PER STATION | CCC \$1.50 PER RIDE |
| CAR SHARE | SHARED | 1-7 TOTAL | NO STOPS | \$\$\$ VARIED BY PROGRAM | CCC VARIED BY PROGRAM |
| RIDE-HAILING | SHARED | 1-7 TOTAL | NO STOPS | \$\$\$ VARIED BY PROGRAM | CCC VARIED BY PROGRAM |
| CIRCULATOR & MICROTRANSIT | SHARED | 20 TOTAL | 0.25-0.5 MILES | \$\$\$ VARIED BY VEHICLE | CCC VARIED BY VEHICLE |
| AUTONOMOUS VEHICLES | DEDICATED SHARED | TBD | VARIED | \$\$\$ VARIED BY VEHICLE | CCC VARIED BY VEHICLE |

HIGH-CAPACITY TRANSIT OPTIONS

This section highlights the different High-Capacity Transit options presented in the Strategic Mobility Plan and shows corridors in the New Orleans region recommended for implementing these types of options.

The Plan does not recommend a particular High-Capacity Transit option for any corridor. These analyses will be conducted in future studies.

LIGHT RAIL TRANSIT (LRT)

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|------------|-------------------|---------------------------|------------------------|--|-------------------------------------|
| LIGHT RAIL | DEDICATED SHARED | 40-80 SEATED 180 TOTAL | 0.75-1.5 MILES | \$\$\$ \$50-\$150 MILLION PER MILE \$4-\$6 MILLION PER VEHICLE | CCC \$0.40-\$1.75 |

Light rail transit provides regional or local service that operates with one- to three-car trains in high-volume corridors. Service typically operates in grade-separated, exclusive rights-of-way or dedicated lanes in roadway medians, although underground and elevated service can also be provided.

Vehicles are powered electrically, with power typically drawn from overhead wires. Light rail stations are usually spaced farther apart than those of local bus services, between a half-mile and one mile apart.

Within dense neighborhoods, light rail may take a slightly different form. Urban light rail, while similar to traditional light rail, often operates in curbside lanes that are also used by cars to turn right at intersections and in and out of businesses, similar to a streetcar.

Spotlight: Charlotte Lynx Blue Line Light Rail Attracts Public and Private Investment

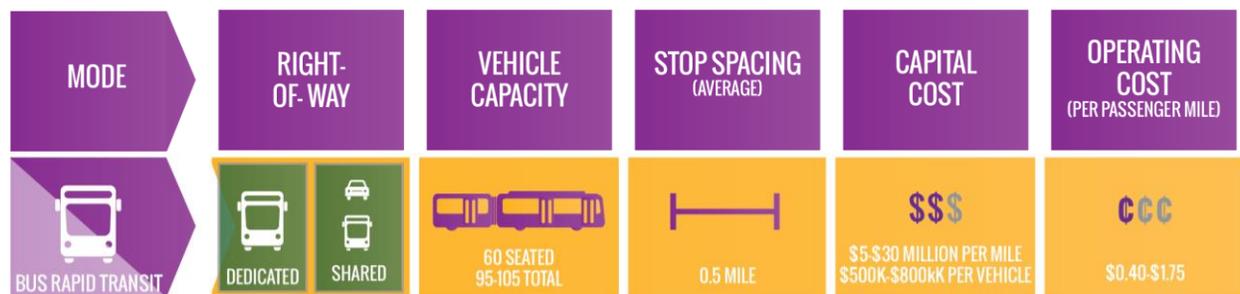


Source: Nelson\Nygaard

Charlotte's LYNX Blue Line is a 9.6-mile light rail system that serves 15 stations (seven of which include park-and-ride facilities) from I-485 at South Boulevard to Uptown Charlotte, with a major extension planned to open in 2018. It carries approximately 15,000 passengers per weekday.

Since its opening in 2007, the Blue Line has spurred over 8 million square feet in residential and commercial development, nearly 100,000 new jobs, and over \$1.4 billion in private investment. While much of this development has been driven by the private sector, the City of Charlotte has also taken measures to ensure an effective mix of uses around stations and along the corridor. These include an Affordable Housing Trust Fund and the revision of zoning laws to align with transit investment.

BUS RAPID TRANSIT (BRT)



Bus Rapid Transit (BRT) is a high-quality, high-capacity bus service that operates much like light rail.

Operational and design elements that set BRT apart from traditional local bus service include dedicated transit lanes, enhanced stations with prepayment, all-door and level boarding, transit signal priority, higher-capacity vehicles, specialized branding, and more frequent service.

Stations are typically between a quarter-mile and half-mile apart, allowing for faster travel times and more reliable service. BRT can decrease travel times and spur economic development in surrounding areas at a fraction of the construction cost of light rail.

BRT often provides a middle ground between rail and regular bus service. Full BRT can deliver rail-like service, and even “light” BRT can provide significant improvements over regular bus service.

Spotlight: Cleveland HealthLine BRT Spurs Corridor Development



Source: Nelson\Nygaard

Cleveland’s HealthLine is a prime example of full-featured BRT service in the United States. The line runs for seven miles from East Cleveland to downtown Cleveland via University Circle and Medical District, with distinctive, full-featured stations and segments with exclusive bus lanes.

Construction of the BRT line, which cost \$50 million, was accompanied by \$150 million in streetscape and other corridor improvements as part of an effort to both improve transit service and revitalize Cleveland’s Euclid Avenue corridor. This effort was successful on both counts. HealthLine service is 34 percent faster than the local service it replaced, and ridership has increased by over 60 percent since it opened in 2008. The project has attracted over \$6.3 billion in transit-oriented development, or \$114 for every \$1 of transit capital cost.

STREETCAR

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|-----------|-------------------|---------------------------|------------------------|---|-------------------------------------|
| STREETCAR | DEDICATED SHARED | 30-50 SEATED 120 TOTAL | 0.25-0.5 MILES | \$\$\$ \$25-50 MILLION PER MILE \$3-\$5 MILLION PER VEHICLE | CCC \$1.25-\$5.50 |

After largely abandoning streetcars, also known as trams or trolleys, in the mid-20th century, cities across the country have recently redeployed both modern and historic streetcar systems to improve urban mobility and drive economic development.

Streetcars have several advantages—they provide more capacity and attract more “choice” riders than buses, while streetcar networks can generally be built much more quickly and cheaply than light rail. They also have fewer construction impacts and fit into an urban setting more easily than other forms of rail transit.

Streetcars are typically single-train railcars (often articulated) that operate on embedded rails in mixed-traffic lanes, making either curbside or center-lane stops. As such, travel speeds tend to be lower than transit that operates in exclusive right-of-way. However, certain design and operational features—such as level boarding stations, prepayment, exclusive right-of-way, and center-lane alignments—can allow streetcars to match or even exceed speeds found in some light rail and BRT systems.

Spotlight: Portland Streetcar Drives Neighborhood Regeneration



Source: Nelson\Nygaard

Opened in 2001, the Portland Streetcar was the first modern streetcar built in the United States. What began as a short loop is today a 7.2 mile three-line network serving 15,000 daily riders across multiple neighborhoods. Only five percent of riders are tourists and ridership has increased by 375 percent since the system opened.

Portland’s Streetcar has not only been a transportation success, it has also been highly effective at driving new development. The formerly industrial Pearl District has become a thriving commercial and residential area since the development of the streetcar. Overall, the streetcar has prompted \$4.5 billion in new developing including 7,400 housing units, 2,900 of which have been affordable, and 2.7 million square feet of commercial real estate.

OTHER MAJOR TRANSIT OPTIONS

This section highlights transit options referenced in the Strategic Mobility Plan that do not meet the definition of High-Capacity Transit but are still major elements of plan.

Corridors and areas in the New Orleans region recommended for implementing these types of options are also shown.

SELECT BUS AND STREETCAR SERVICE

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|--------------------|----------------------|-------------------------------|------------------------|--|-------------------------------------|
| SELECT SERVICE | DEDICATED SHARED | 30-60 SEATED 120 TOTAL | 0.25-0.5 MILES | \$250K-\$2 MILLION PER MILE \$400K-\$750K PER VEHICLE | \$0.40-\$0.65 |

The Strategic Mobility Plan recommends upgrading some existing bus routes and streetcar lines into “select service” routes. These routes will be frequent and feature many of the characteristics of High-Capacity Transit (HCT) but will not quite meet HCT standards in terms of frequency or hours of operation.

Select service routes will rely heavily on targeted measures to speed up service, such as dedicated lane segments, queue jump lanes (short bus lanes to bypass backups at traffic signals), traffic signal priority, and off-board fare payment (Ticket Vending Machines).

Stops will also be more frequent than High-Capacity Transit, but less frequent than local bus service.

Spotlight: NYC Select Bus Service Improves Bus Service at Low Cost



Sources: MTA / Patrick Cashin and NYCT / Marc Hermann

New York City’s Select Bus Service (SBS) consists of buses operating, fully or partially, in bus lanes, traffic signal priority, longer stop spacing, off-board fare payment, and branding to distinguish SBS routes from conventional bus services.

SBS was created in 2008 to improve reliability and service along high-ridership bus corridors, particularly in areas underserved by the subway system. It has grown into 15-route network, with plans for 21 new routes over the next 10 years.

While SBS lacks many qualities of true BRT and has faced speed and reliability challenges as a result, it has delivered bus service improvements at very low costs.

WATER TRANSPORTATION

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|-----------------------------|--------------|----------------------|------------------------|------------------------------------|-------------------------------------|
| <p>WATER TRANSPORTATION</p> | <p>WATER</p> | <p>150-250 TOTAL</p> | <p>VARIED BY ROUTE</p> | <p>\$4-\$6 MILLION PER VEHICLE</p> | <p>\$1.00-\$15.00</p> |

Ferries have been a reliable form of transportation for thousands of years. They are typically operated either between two terminals or along a multi-stop route. Passenger ferry stops are often close to pedestrian-friendly town centers, while automobile ferry stops are typically in places with larger road networks.

Ferry boats can vary substantially in size, speed, and capacity. The largest passenger ferries can carry over 2,000 passengers, while small water taxis typically carry 20 to 100 passengers. Modern ferries planned for New Orleans can carry 150 passengers and similar, though slightly larger ferries planned for New York can carry 250 passengers.

Service frequencies are typically less than those of other forms of rapid transit and are more expensive to operate.

Spotlight: NYC Ferry Exceeds Expectations



Sources: Wikimedia Commons/User Godsfriendchuck and NYC Ferry

The New York City Ferry is a multi-line ferry network operating on the East River between Manhattan and points in Brooklyn and Queens. The system was opened in 2017 as a partnership between the city’s Economic Development Corporation and a private ferry operator.

NYC Ferry has far exceeded ridership expectations. Six months after opening it had carried 2.5 million riders, 700,000 more than forecast. Services operate at 30-minute intervals during peak hours and fares are the same as subway fares. Though the system continues to be subsidized, its startup cost to the Economic Development Corporation (\$30 million) is relatively affordable when compared to other transportation infrastructure investments.

REGIONAL EXPRESS SERVICE

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|--------------------------|--------------|------------------|------------------------|-------------------------------------|-------------------------------------|
| REGIONAL EXPRESS SERVICE | SHARED | 40-60 | VARIED | \$\$\$ \$500K-\$600K PER VEHICLE | CCC \$0.25-\$2.75 |

Regional express bus services are mid- to long-distance services geared towards commuters in outer suburban areas. Buses on regional express routes typically operate only on weekdays at peak hours, often with only three or four trips in this timeframe. They make very few stops—or no stops—between downtowns and suburban destinations.

Regional express buses are also larger than local buses, and are often the same vehicles used for long-distance passenger and tour purposes. A regional express vehicle typically holds 45 to 65 people, and rarely allows standing passengers.

Regional express bus services can be effective in serving commuters in areas without rapid transit and often complement High-Capacity Transit routes as feeder services to suburban and outlying areas.

Spotlight: GO Buses Extend Transit Service to Suburban Areas of Toronto



Sources: Wikimedia/User 8215Andrew and GO Transit

Toronto’s GO Buses are regional express buses operated as part of GO Transit, the commuter rail and bus network serving the Greater Toronto Area. Forty-five GO Bus routes connect Toronto’s outlying suburban areas to commuter rail stations and downtown Toronto. 70 percent of trips on the network are made to or from the downtown core and there are many routes operating all day.

GO Buses also use a smart card fare payment system, enabling better intermodal and inter-agency integration.

DOWNTOWN MOBILITY IMPROVEMENTS

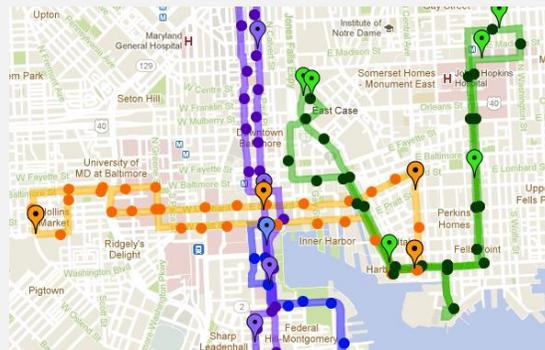
Transit service in most regions is oriented to a Central Business District, or Downtown, with most lines beginning or ending in these areas. As a result, Downtown areas are very accessible by transit and having good access to other places by transit.

However, traveling by transit within Downtowns and adjacent neighborhoods is an issue in many regions. These mobility issues are often related to the following:

- **Traffic congestion:** Transit vehicles traveling along a fixed-route in congested areas are more prone to delay, making transit inconvenient and unattractive when compared to other alternatives like walking or ride-hailing.
- **First-mile, last-mile issues:** While many transit routes serve Downtowns, there are still many areas that are beyond a quarter-mile walk from frequent transit service.
- **Excessive transferring:** In Downtowns where many routes converge in a central hub, traveling beyond this hub may require transferring to another line, even for a short trip. This additional cost and wait time can discourage potential riders from using transit for this trip.
- **Late-night service:** Transit demand in Downtowns and adjacent neighborhoods typically remains high during late-night hours, as these areas are home to entertainment districts, jobs, and housing that cater to 24/7 lifestyles. Existing transit service does not always meet this demand.

The Strategic Mobility Plan does not recommend specific types of mobility improvements for Downtown areas (the Central Business District and French Quarter). Further study is needed to identify these options.

Spotlight: Baltimore Expands Downtown Options for Residents and Visitors

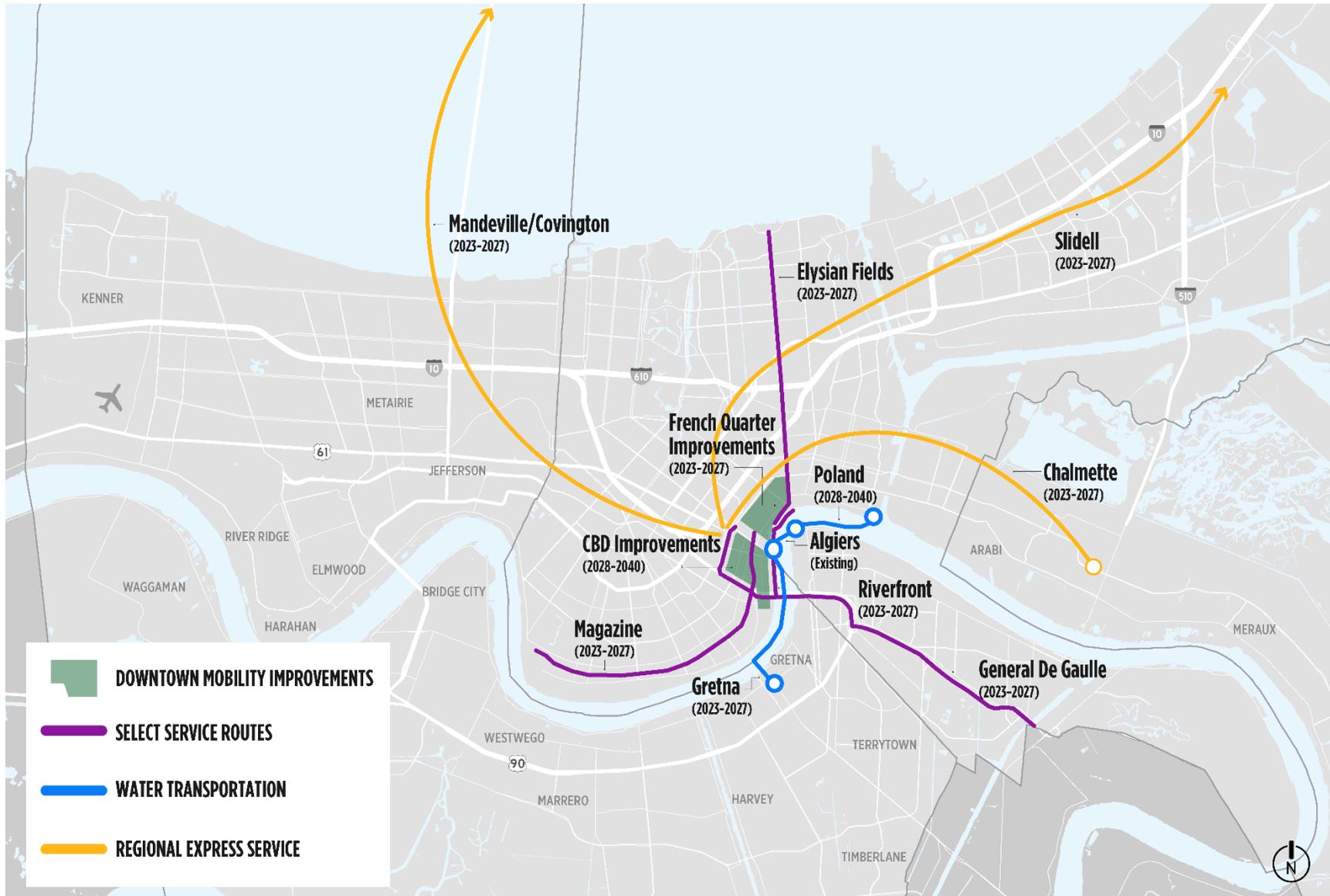


Sources: Harbor East Baltimore and Technical.ly Baltimore

The City of Baltimore, Maryland launched its free Charm City Circulator service in 2010 to reduce traffic congestion and air pollution near Downtown while also offering a new, convenient way to get around. The service consists of four circulator routes that connect major destinations in and around Downtown and increase accessibility to Baltimore’s light rail, subway, commuter trains, and water taxis. The low-emission buses come every 10 to 15 minutes on most routes and run until midnight on Fridays and Saturdays.

The circulator service has grown in popularity with residents, workers, and tourists over the years, exceeding initial ridership projections. At the same time, service cuts and adding fares have been considered in recent years to address limited funding.

OTHER MAJOR TRANSIT CORRIDORS AND AREAS

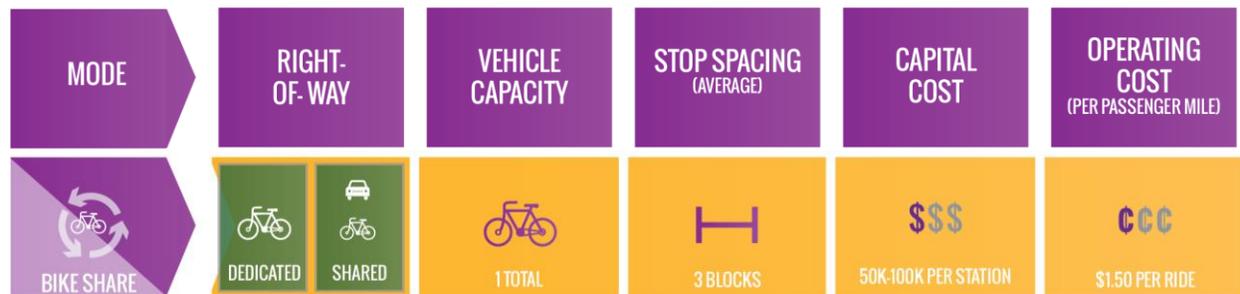


NEW MOBILITY OPTIONS

This section highlights emerging mobility options that are not traditional forms of transit and rely heavily on technology.

The Strategic Mobility Plan does not recommend specific corridors or areas for these types of services. However, the Plan does call for piloting some of these options and generally recommends increasing their availability throughout the region.

BIKE SHARE



Bike share is a system of publicly shared bicycles available for temporary use by members or daily users. Bicycles are located at stations (“docks”), or hubs around the city and region. Typically geared towards short trips to and from urban destinations, bicycles may be taken from one dock and left at another – providing flexibility in travel. Bike share located near transit stops can also improve first- or last-mile connections to or from the station.

Fees typically range from \$1 to \$8 per ride. Users pay either per-use or by monthly or annual subscriptions that allow unlimited short rides (often 30 minutes or less).

Many new bike share systems are dockless. Bikes self-lock, or include a bar that can be locked to any bike rack. Bikes can then be returned anywhere within a service area, though there are often financial incentives to encourage users to return bikes to designated areas.

Spotlight: New Orleans Blue Bikes Apply an Equity Lens to Bike Share



Sources Curbed NOLA/Eric Craig and Cheryl Gerber/Tulane University

The City of New Orleans, in conjunction with Social Bicycles, Inc., launched the Blue Bikes bike share system in December 2017. Operations began with 15 stations and 115 bikes, and expansion in early 2018 is expected to bring the total to 70 stations. Blue Bikes has sought to make the system more functional by permitting users them to return bikes to dedicated racks within the system area, in addition to its own docking stations.

To improve access, Blue Bikes offers a steep discount to low-income residents. Residents with a Louisiana Purchase Card (EBT Card) can use Blue Bikes for just \$20 per year, compared to the standard rate of \$15 per month. Blue Bikes can be booked with or without the smartphone app.

CAR SHARE

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|-----------|--------------|------------------|------------------------|-----------------------------|-------------------------------------|
| CAR SHARE | SHARED | 1-7 TOTAL | NO STOPS | \$\$\$ VARIED BY PROGRAM | CCC VARIED BY PROGRAM |

Car share is a program that provides vehicles in various places around the city and region for short-term rental. Members typically reserve a car by app or through a website, then unlock the car with an app or membership card. Cost is based on time, distance, or a combination. Insurance and gas are often included in the rate.

In many programs, vehicles must both be borrowed and returned to the same location, while others permit users to borrow at one location and leave the vehicle at another (one-way car share). Car share gives residents access to a car when they need it, without the cost of owning a private automobile. In some cases, private developers also sponsor car share in multi-story apartment buildings or offices, reducing the need for residents and employees to own a personal vehicle in dense environments.

Spotlight: Car Share Extends the Reach of D.C. Metro



Sources Getty Images

WMATA (Washington, DC’s regional transit operator, also known as Metro) partnered with Zipcar to locate designated car share vehicles and parking spots in Metro station parking lots and garages for a 10-year contract. The program gives transit riders easy access a short-term rental on their trips to or from the train station. Nearly 1,000 Zipcars operate in Washington, DC. All DC-based Zipcars contain a special parking pass that allows Zipcar members and drivers to park for free in any on-street parking space.

Some streets in DC also have designated parking spots for not only Zipcar, but also Enterprise Car Share and Car2Go. Car share companies pay nearly \$3,000 per vehicle in yearly fees to the DC Department of Transportation for on-street spaces.

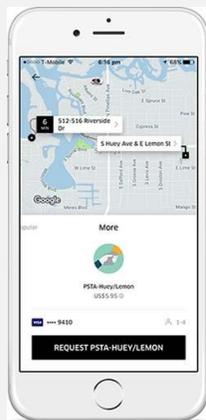
RIDE-HAILING AND ON-DEMAND SERVICES

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|--------------|--------------|------------------|------------------------|-------------------|-------------------------------------|
| RIDE-HAILING | SHARED | 1-7 TOTAL | NO STOPS | VARIED BY PROGRAM | VARIED BY PROGRAM |

Ride-hailing services, such as Uber or Lyft, enable riders to digitally hail a ride from a nearby driver. Unlike taxis, ride-hailing vehicles are generally drivers' personal vehicles. Riders are matched with drivers on a smartphone app. Fares vary by distance and traffic, and are also dynamically priced according to demand – when demand is higher, the price is higher. Payment is made electronically by credit card. In some cities, services such as UberPool and Lyft Line allow riders to share rides along similar routes, reducing fares.

Many cities are experimenting with subsidized ride-hailing trips for neighborhoods with low demand, or at off-peak hours, when there are not enough passengers to support bus service. Service can be point-to-point or to and from transit stops. These partnerships can reduce costs and save time for passengers.

Spotlight: Pinellas Transit Ride-hailing Partnership Expands Access in Florida



Sources Uber

In 2016, the Pinellas Sun Coast Transit Authority (PSTA) in the Tampa-St. Petersburg region began the country's first partnership with ride-hailing companies.

Branded as Direct Connect, the program provides low-cost, subsidized Uber, taxi, or paratransit rides from anywhere in the county to designated bus stops. The program substitutes lower frequency, low productivity fixed route bus lines with on-demand trips to primary bus lines. The aim was to improve service and expand access for riders while reducing agency costs.

The trip from home to the nearest designated bus stop averages \$6, with riders paying about \$1 and PSTA providing a \$5 discount per trip. The program saves PSTA more than \$100,000 a year.

CIRCULATOR AND MICROTRANSIT SERVICES

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|---------------------------|--------------|------------------|------------------------|-----------------------------|-------------------------------------|
| CIRCULATOR & MICROTRANSIT | SHARED | 20 TOTAL | 0.25-0.5 MILES | \$\$\$ VARIED BY VEHICLE | \$\$\$ VARIED BY VEHICLE |

Circulators are small- or medium-sized transit vehicles that carry passengers on fixed or semi-fixed routes over short distances. They typically serve areas that are not well integrated into the main transit network, such as central business districts, shopping malls, or between park-and-rides and transit stops. Circulators may be operated by transit agencies, private entities such as airports, or community organizations such as business improvement districts.

Microtransit services use vehicles that are smaller than a bus but larger than a personal car – often 12- to 15-passenger vans. Some use dynamic routes, while others run along fixed routes. Microtransit can offer lower per-passenger costs than buses, while providing greater capacity than ridesharing. Microtransit has historically been operated by private companies like Chariot and Via, but some public agencies have begun testing their own microtransit services.

Both circulator and microtransit services are used to serve areas that have relatively low demand or areas not effectively served by traditional fixed-route service. Both also typically utilize small vehicles and expect riders to make their way to and from common pick-up or drop-off points. The primary difference is that microtransit typically relies on technology for dynamic routing.

Spotlight: Los Angeles Looks to Experiment with Microtransit



Sources: Ford Motor Co./Chariot

LA Metro plans to team with the private sector to plan, design, implement and evaluate a brand new service, known as MicroTransit. Unlike a standard bus, the service will follow turn-by-turn instructions from a navigation system that uses live traffic conditions and real-time requests for picks-up and drops-offs to generate the most efficient possible shared trips for Metro customers. The service will be used for short trips under approximately 20 minutes in duration in defined service zones, and utilize vehicles that are smaller than traditional transit vehicles.

Metro envisions that the cost will range between existing fares and the cost of an Uber or Lyft trip and that it will most useful in less-dense areas or areas where many transfers are necessary. These details will be worked out in the planning phase.

AUTONOMOUS VEHICLES

| MODE | RIGHT-OF-WAY | VEHICLE CAPACITY | STOP SPACING (AVERAGE) | CAPITAL COST | OPERATING COST (PER PASSENGER MILE) |
|---------------------|-------------------|------------------|------------------------|-------------------|-------------------------------------|
| AUTONOMOUS VEHICLES | DEDICATED SHARED | TBD | VARIED | VARIED BY VEHICLE | VARIED BY VEHICLE |

Autonomous vehicles, or self-driving vehicles, use a variety of technologies, including sensors, computer learning, and GPS to analyze and navigate their surroundings without a human driver. Fully autonomous vehicles could reduce accidents, lower transit costs, and reduce the need for parking.

However, if poorly managed, there is some concern that an influx of autonomous vehicles could increase traffic congestion, increase car ownership, and decrease ridership on traditional transit lines.

Currently, most autonomous vehicles in use, or planned to be in use, operate as small shuttles within exclusive or semi-exclusive lanes for relatively short distances, minimizing contact with other vehicles. Implementing autonomous buses over longer distances will require more investments, law-making, and engineering.

The Federal Transit Administration is currently conducting extensive research on the benefits and obstacles of introducing autonomous buses, with major demonstrations planned through 2022. Though less publicized, autonomous vehicle technology is also expected to impact rail transit, such as streetcars and light rail transit.

Spotlight: Transdev Tests Autonomous Vehicles around the World



Sources Transdev and Best of New Orleans

Transdev, RTA’s operating partner in New Orleans, operates autonomous vehicles in the United States, France, and the Netherlands. Transdev is a partner in North America’s first autonomous shuttle network in the town of Babcock Ranch, Florida. As new residences are added in the town, the network will eventually serve a population of 50,000 people.

In 2017, RTA, in partnership with Transdev, demonstrated a self-driving shuttle along Convention Center Boulevard in New Orleans, inviting the public to ride the 10-person electric vehicle.