EXPRESS BUS SERVICE

Description

Express bus service is a type of fixed route that typically picks up passengers from park-and-ride lots in suburban areas and takes them to a central urban location. This transit service usually operates for longer-distance trips on a Monday through Friday, peak commuter time schedule. These commuter routes have limited stops, typically travel non-stop on highways (utilizing any available HOV lanes), and terminate at the central business district in the city. Fares for the service may be comparable to park-and-ride fares, slightly higher than typical local fixed route service.

Target Market

Longer-Distance Commuters

Commuters from suburban areas, including state employees, students, and employees working in the central city are viable users of this service. Typically, commuters who would otherwise utilize freeways to travel to and from work during the week serve as potential users, because this service can use HOV lanes and create a less-stressful commute.

How Will This Help?

- Increased transit usage can <u>reduce the</u> <u>number of single occupancy vehicles</u> on major freeways and highways. This decreases the traffic demand on the major urban freeways and streets.
- Express service can serve as an <u>alternative to personal automobiles</u>.
 Suburban commuters can depend on this transit service to commute to the urban central business district.
- Passengers can <u>improve their time</u> <u>management</u> by working on the bus, which is typically equipped with Wi-Fi services. Commuters can have more time to handle personal and business



Cost:	$\bullet \bullet \bullet \bullet \circ \circ$
Time:	Moderate
Impact:	Corridor
Who:	Transit Provider
Hurdles:	Competitiveness,
	Funding &
	Sustainability

matters, rather than wasting time on a congested freeway.

Implementation Examples

Houston—Houston Metro offers express bus service from 29 park-and-ride facilities throughout the metroplex. In Houston, the express services have direct access to the HOV network throughout the city, making express bus service a competitive alternative to the personal automobile. One example of a successful service in Houston is the Fort Bend Express. The express provides weekday commuter service to the Texas Medical Center, with connections to fixed route services on the medical center campus.

Austin—Capital Metropolitan Transportation Authority (CMTA) developed express bus service on Highway 183 utilizing a church parking lot as an interim park-and-ride location until demand grew enough to warrant the construction of a



new facility. The new facility, Lakeline Station, opened in 2006, and ridership has increased steadily, offering express service from Northwest Austin to downtown, as well as local bus connections, and MetroRail service. Usage increased from fewer than 200 vehicles at the station opening in 2006 to greater than 400 vehicles utilizing the park-and-ride in 2011 and is expected to continue growing.

Application Techniques and Principles

Agencies should keep land uses, customer origins, and destinations in mind when planning express routes. Morning express lines typically originate in suburban areas from major stations and park-and-rides outside of the major congestion points on corridors. Central business districts and major employment and commercial centers are ideal destinations for express routing.

Express routes operate differently than standard fixed route buses, meaning some different service requirements:

- Require activity center (transit station or stop) floor space of at least 20-50 million square feet to support service.
- Express bus reached by walking requires:
 - Minimum of 15 dwelling units per acre over two square miles of collection area for five trips during the two-hour peak period.
 - Trips originate 10 to 15 miles from largest downtown
- Express bus reached by automobile requires:
 - Minimum of three dwelling units per acre over 20 square miles of collection area for 5 to 10 bus trips during the two-hour peak periods.
 - Trips originate 10 to 20 miles from downtown.



Issues

Express commuter services require careful planning, especially in areas of high transit demand during peak periods. Vehicle size should be taken into consideration during planning; larger vehicles should be assigned to the routes with the highest demand. Route frequencies can be adjusted as ridership on express routes increases. Buses arriving as frequently as five minutes, for example, may be necessary at some locations.

Adequate planning is the most important thing to consider when implementing an express bus route. Planners should survey the potential users to determine schedules and routing, and should typically offer service in conjunction with one or more park-and-rides. In areas with limited ridership, sustainability can be an issue, so it is critical to market and promote the service accordingly. It is also important for these types of routes to have access to HOV/HOT or managed lanes. Express route travel times should be competitive to driving a personal vehicle so they can be a viable solution to mitigate congestion.

Who Is Responsible?

The local transit provider is responsible for planning and implementing express route services. This agency may be a transit authority, transit district, the city or local government, or the metropolitan planning organization, depending on the location. Routes, stops, and





park-and-rides should be planned and coordinated in conjunction with local stakeholders that may be affected.

Project Timeframe

The timeframe may vary as it depends on the level of service required. Route planning and implementation usually lasts six to nine months but can take at least a year. The following steps are typically required in the process.

Proposal Development

- Service analysis—determine whether express bus service is needed or would be a good fit for the area.
- Initial concepts—provide basic schematics on proposed routing and scheduling.
- Review of customer and operator input—review customer and operator comments to determine if there has been demand in a specific area for express level service.
- Concept refinement and cost estimates based on the comments, refine the design and schedules; develop costs for service based on hours of service needed to run route.
- Title VI and ADA review—recommended for most new services. Note that express routes do not require complementary paratransit.
- Initial proposals—vetting of proposed route(s) and schedule(s) with internal stakeholders (marketing, scheduling, and operations).
- Community outreach (riders, general public, advisory committees, etc.)—take proposals to advisory groups and targeted populations the route(s) would serve to gather feedback.
- Public meetings—hold meetings in central locations accessible by public transit to gather additional feedback.

 Proposal revisions—revise proposals based on all information gathered.

Board Process

- Board committee review—present initial proposals and community feedback received to board work session or board planning committee.
- Public hearing—hold separate public hearing for last-round of comments.
- Final recommendations—present final proposal and recommendations for service to transit board of directors.
- Board decision—transit board of directors approves or disapproves service.

Implementation Preparation

- Schedule development—if service is approved, schedules are tested and finalized.
- Operator work assignments—route is presented for operator bidding at the next work assignment period.
- Marketing and communication materials—development and distribution of marketing and communications materials advertising the service offered.
- Capital upgrades (vehicles, facilities, stops, etc.)—development and building of accessible stops, benches, shelters, and stations associated with the route.
 Purchase of new vehicles, if needed.
- Information technology updates updates and upgrades to agency website, automatic vehicle location (if applicable), and operator schedule sheets.

For more information, please refer to: <u>http://mobility.tamu.edu/mip/strategies.php</u>.



Cost

Implementation and planning costs can vary depending on the planned level of service. Fixed routes in an urban area can typically cost approximately \$100/hour. The cost is affected by the route features, including hours of service and route mileage. Fare box recovery is typically nominal and not necessarily taken into consideration for route funding purposes.

Data Needs

Planners should collect demographic and regional data prior to route planning. Data collection involves origin and destination surveys, mapping of major employment centers, and service attractors.

Express Bus Service Best Practice

- Type of Location: Express bus service is best implemented in suburban areas that have heavy commuter traffic to a central business district or a group of major employers in a central location.
- Agency Practices: Facilities that support parking; ability to access the station or park and ride with a neighborhood shuttle, kiss and rides, bicycle and pedestrian modes.
- Frequency of Reanalysis: Initial analysis every three to four months to determine potential adjustments to routing and schedules; may be re-examined every six months to a year after once route is mature.
- Complementary Strategies: Park-and-ride implementation, bus on shoulder, and express (managed) lanes.

For More Information and References

1. Transit Cooperative Research Program. Transit Capacity and Quality of Service Manual, 2nd Edition. Washington, D.C., 2003.

2. Transit Cooperative Research Program. TCRP Report 95, Chapter 10: Bus Routing and Coverage. Washington, D.C., 2004.

