This Fact Sheet focuses on **High Capacity Transit**

**What is High-Capacity Transit?**

**What is Light Rail? What is Bus Rapid Transit?**

**What information is available from PAG’s High-Capacity Forum?**

**How might High-Capacity Transit fit into the Region’s long Range Transportation Plan, the 2030 RTP?**

**Where to go to get more information on High Capacity Transit?**

---

**WHAT IS HIGH CAPACITY TRANSIT?**

Loosely defined, high capacity transit is characterized by carrying a larger volume of passengers using larger vehicles and/or more frequent service than a standard fixed route bus system. High-capacity transit can operate on exclusive rights-of-way such as a rail track or dedicated busway, or on existing streets with mixed traffic. The main goal of high capacity transit is to provide faster, more convenient and more reliable service for a larger number of passengers.

**WHAT IS LIGHT RAIL TRANSIT (LRT)?**

LRT is a system of modern rail cars or a single rail car operating on a rail track in exclusive rights-of-way, or in the street with mixed traffic. Light rail cars are commonly powered by an overhead catenary and electric line, or by an on-board diesel or electric motor. Main features include rail vehicles, rail tracks, overhead electric lines, modern rail stations, signal priority at intersections, and integration with transit-oriented development strategies.

**WHAT IS BUS RAPID TRANSIT (BRT)?**

BRT is an integrated bus-based “rapid” transit system utilizing highly-flexible service and advanced technologies to improve customer convenience and reduce delays. BRT can operate on exclusive transitways, HOV lanes, expressways, or ordinary streets. Main features include modern low-floor busses, signal priority at intersections, maximum off-vehicle fare collection, reduced headways, real-time information displays, and modern stations.

**WHAT INFORMATION IS AVAILABLE FROM PAG’S HIGH CAPACITY TRANSIT FORUM?**

On June 17th, PAG hosted both a public forum and a technical forum on high-capacity transit systems to help local transportation officials, top decision-makers, and the general public better understand various aspects of high-capacity transit systems and the role these transit systems might have in the Tucson region’s transportation system.

Three transit experts from outside the region reviewed various aspects of high-capacity transit: planning, engineering, funding, and operational comparisons, with a special focus on LRT and BRT applications.

---

* The top three issues were: Safety; Cross Town Mobility and Traffic Flow; and Transit and Multi-modal choices
From the University of Washington, Scott Rutherford’s overview of different types of high-capacity transit systems included specific examples of light rail, bus rapid transit, commuter rail, trolley, and express bus service as well as engineering details and an historical overview of local planning and funding processes.

Mike Baltes of the National Bus Rapid Transit Institute (NBRTI) examined all aspects of Bus Rapid Transit (BRT): how it started, elements of a BRT system, planning, engineering, funding, and operations. He presented examples that exemplified the many applications of BRT within local urban environments and compared light rail and bus rapid transit costs and performance levels, demonstrating the efficiency of BRT in reaching overall ridership goals at lower start-up costs than LRT.

Dwayne Weeks of the Federal Transit Administration (FTA) explained the nuts and bolts of the planning processes required for the FTA New Starts Program, which assists local communities in securing federal funding for high-capacity transit systems. He also reviewed the high level of competition and demand for federal funding throughout the United States, as well as future policy changes that might be made to accommodate more inexpensive transit systems, such as BRT.

**HOW MIGHT HIGH CAPACITY TRANSIT FIT INTO THE REGION’S LONG RANGE TRANSPORTATION PLAN, THE 2030 RTP?**

In addition to the extensive public involvement and technical analysis conducted as part of PAG’s 2030 Regional Transportation Plan (RTP), PAG and its member jurisdictions are developing information and analyses to help local decision-makers and transportation professionals make informed decisions regarding future transportation investments. Public input to date has shown substantial interest in high-capacity systems such as Bus Rapid Transit (BRT) and Light Rail Transit (LRT).

An outcome of PAG’s High Capacity forum included the following points from Scott Rutherford of the University of Washington as to how the Tucson region might pursue development of a high-capacity transit system:

- There is a high level of competition for federal funds and an often time-consuming, extensive Alternatives Analysis study process required in order to obtain federal funding for high-capacity transit systems Tucson is on the right track by considering light rail among future alternatives and starting these analyses now.
- So as not to disadvantage one mode over the other, a variety of alternatives should be compared equally and include evaluation of the benefits that each alternative offers for a set amount of funding (e.g. what will you get in return for a $1 billion dollar investment over 30 years?).
- An open and comprehensive evaluation process is needed to identify the best investment for transit services in the PAG region.
- Light rail is most successful when people vote for it knowing the true costs, impacts, and alternatives.

**NEED TO KNOW MORE?**

Contacts with information regarding transit and high capacity transit include:

- Federal Transit Administration (FTA)  
  - [www.fta.dot.gov](http://www.fta.dot.gov)
- American Public Transit Association (APTA)  
  - [www.apta.com](http://www.apta.com)
- Arizona Department of Transportation (ADOT) Transit Division  
  - [www.dot.state.az.us](http://www.dot.state.az.us)
- Arizona Transit Association (AzTA)  
  - [www.azta.org](http://www.azta.org)
- National Bus Rapid Transit Institute (NBRTI)  
  - [www.nbrti.org](http://www.nbrti.org)

To stay informed or get involved in PAG planning activities:

- Visit the PAG website at [www.pagnet.org](http://www.pagnet.org)
- Add your name to PAG’s 2030 RTP mailing list by calling PAG at 792-1093, Extension 502
- Schedule a speaker for your next meeting

PAG is developing a new long range transportation plan for eastern Pima County and the Tucson metropolitan area that will identify transportation needs, potential solutions, and funding requirements through the year 2030. The 2030 RTP program for public education and outreach includes a series of educational forums and/or seminars. This is one of a series of informational Fact Sheets related to the 2030 RTP educational events.