

# **MAG LONG RANGE TRANSPORTATION PLAN SUMMARY AND 2000 UPDATE**

## **EXECUTIVE SUMMARY**

The Maricopa Association of Governments (MAG) Long Range Transportation Plan (LRTP) addresses all modes of transportation in the region. This Plan is usually updated each year and is based on a 20 year, or longer, time horizon. In this 2000 Update, the time horizon of the Plan is extended from 2019 to 2020. This document summarizes the current status of the Plan and highlights any changes made since approval of the 1999 Plan Update.

### **OUTLOOK**

Over the life of this Plan, resident population in Maricopa County is projected to increase almost 55 percent, while regional travel is projected to increase approximately 80 percent. In response to this growth, the MAG LRTP calls for a considerable expansion of regional transportation facilities. Some of the planned expansions to roadways and transit services include:

- ▶ an 89 percent increase in freeway/expressway miles,
- ▶ nearly a 50 percent increase in street lane miles,
- ▶ a tripling of local bus services,
- ▶ a quadrupling of express and commuter bus service, and
- ▶ a 39 mile light rail transit system.

Even with these expansions to the regional transportation system, congestion levels are projected to increase. However, average traffic speeds are projected to remain about the same as population growth occurs primarily in outlying areas that currently experience little congestion and planned freeways will be completed throughout the region. Without the planned improvements (No-Build), peak hour speeds are projected to decline and congestion levels per mile of travel are projected to double.

### **FINANCE**

The Transportation Equity Act for the 21<sup>st</sup> Century requires the MAG LRTP to include a balanced funding plan. The MAG funding plan is based on a trend funding concept, that is, current transportation revenue sources are assumed to continue in the future with periodic adjustments for growth and inflation as needed.

For example, it is assumed that local contributions to transit and street construction will continue in the future. Private contributions to street construction are also projected to continue. Federal funding is projected to continue, but at a declining rate in constant dollar terms. At the State level, it is assumed that there will be periodic adjustments in the gasoline tax rate (or equivalent funding) to keep pace with inflation, and that a fair share of these funds will be allocated to the MAG region.

Potential “new” funding sources under consideration are actually variations of historic sources needed to maintain a trend level of commitment to meet ongoing regional transportation needs in this high growth area. The last increase in the gas tax in Arizona was in 1990. Since that time fuel taxes per mile of travel have slowly eroded from inflation and more fuel efficient vehicles. This analysis assumes that the equivalent of a ten cent fuel tax occurs in 2002 and that Arizona fuel taxes are indexed for inflation at that time. Regional or State sales taxes could also raise funding of this magnitude. This 2000 Update of the MAG LRTP also recognizes the end of the one-half cent sales tax for freeways in 2005, and includes the equivalent of nearly a one-half cent sales tax for transit. Passage of transit sales tax initiatives in Tempe and Phoenix are a major step towards this level of funding.

## **FREEWAYS/EXPRESSWAYS**

The 2000 Update of the LRTP is based on a fair share funding concept in which transportation taxes paid into state and national accounts are largely returned to the region for transportation improvements. Completion dates for new freeways are accelerated and additional improvements to existing regional routes are added to the LRTP. A county-wide map of regional projects is included as Figure EX-1, while specific opening dates for projects to be completed by 2007 are shown in Figure EX-2.

**New Freeways.** In 1985 voters approved a half-cent sales tax to fund new freeways and expressways in the region. Since 1985, the miles of new freeways in the region have more than doubled and 129 miles remain to be completed. In the 1998 Update of the LRTP, new freeways were to be completed by 2014. This update targets these facilities for completion by the year 2007. This acceleration will be largely accomplished with additional bonding.

**Existing Freeways.** The MAG High Occupancy Vehicle (HOV) Plan provides overall direction for improvements to existing freeways. The highest MAG priorities for Arizona Department of Transportation (ADOT) discretionary funds in the region are completion of HOV lanes on the Black Canyon, Superstition and Squaw Peak, respectively. HOV lanes on the Black Canyon are now under construction and funding for HOV lanes on the Superstition and Squaw Peak have been programmed. The Long Range Transportation Plan also includes additional widening of the Black Canyon, and the Superstition east of Price Road, as well as collector/distributor roads between Baseline Road and 16<sup>th</sup> Street.

**Regional Access Routes.** Regional access routes into and out of the region are also part of the LRTP. To the northeast much, of State Route (SR) 87 has been widened to four lanes. To the northwest, final improvements to complete U.S. 60 as a four-lane facility have been programmed. Further widening of I-10, I-17 and S.R. 85 are part of this LRTP Update.

## TRANSIT

The Regional Transit Plan is to triple local bus service, triple dial-a-ride service, quadruple express bus service and complete a 39 miles of light rail transit system. Funding needed to support this plan is being actively pursued at the local, regional, state and federal level.

**Fixed Route Bus Service.** Fixed route bus service generally follows the mile grid street system of the Phoenix metropolitan area. The regional transit plan calls for nearly a tripling of revenue miles of service with enhanced frequencies in areas with existing service and new service in areas currently unserved. Evening hours are extended and Sunday service is added.

**Dial-a-Ride Service.** Since 1992, the regional plan has supported tripling paratransit service. This plan remains intact with service doubling by 2010 and tripling by 2020.

**Express and Commuter Service.** This Update quadruples the number of miles of express bus service (Figure EX-3). The planned express service is focused on meeting peak-period demand. Express bus service extends to outlying communities such as Carefree and Cave Creek. Commuter bus service would provide peak period service on weekdays to the communities of Buckeye, Gila Bend and Wickenburg. The system also includes park-and-ride lots and on-line stations which incorporate express bus, local bus, light rail, and shuttle services.

**Shuttles/Circulators.** Shuttles and neighborhood circulators are used to meet local circulation needs for the light rail system and express bus network, especially in central activity areas.

**Light Rail Transit.** The light rail transit (LRT) plan includes a 39 mile system (Figure EX-4). Elements of the LRT include provisions for park-and-ride lots and signal prioritization to improve speeds. Shuttle buses and an improved fixed route network also play an important role in the LRT system.

## **STREETS**

Major arterial streets are generally located on the mile grid and carry most of the traffic in the region. The MAG Plan calls for nearly a 50 percent increase in major street lane mileage over the next 20 years. Most of these new lanes are located on the edge of the metropolitan area and are associated with new development. In built-up areas, streets are being widened to the usual standard of five or six through lanes. This Update incorporates the latest information on local street plans updates the funding plan and extends the planning horizon to 2020.

## **AIRPORTS**

An update of the MAG Regional Airport System Plan (RASP) was adopted by the MAG Regional Council in December, 1993. An Implementation Study, designed to facilitate carrying out the MAG RASP recommendations, was completed and approved by the MAG Regional Council in December, 1996 and a new plan update is underway. The latest projections indicate that air passenger demand at Sky Harbor will nearly double over the next 20 years, while general aviation demand is projected to increase 30 percent.

The MAG RASP includes 17 airports. Sky Harbor is the commercial service airport and Luke Air Force Base is a major military base. Reliever airports include Chandler, Glendale, Mesa - Falcon Field, Phoenix - Deer Valley and Phoenix - Goodyear. Williams Gateway Airport has been converted from a military base to a civilian airport serving commercial carrying cargo and general aviation. The MAG RASP calls for additional runways at Phoenix Sky Harbor, Phoenix - Goodyear and Glendale. Runway extensions are planned at Buckeye, Glendale, Mesa - Falcon Field and Wickenburg. The Plan recommends that potential sites for a new general aviation airport be investigated for potential implementation beyond twenty years.

## **BICYCLES**

The MAG Bicycle Plan was approved in 1992. Elements of the plan were updated in 1998 to better address emerging issues and needs in bicycling. This plan identifies a planned regional bikeway system which emphasizes on-street facilities, an off-street system plan is under development. The Bicycle Plan includes a bicycle policy statement consisting of four overall goals and numerous objectives. The goals and objectives are designed to provide guidance in planning, designing and implementing a system of internal and regionally connected bikeways that serve the daily travel needs of bicyclists. At the regional level, transportation enhancement funds and Congestion Mitigation and Air Quality Improvement (CMAQ) funds have been applied to bicycle projects, while at the local level, Highway User Revenue Funds (HURF) and general funds are used for bicycle projects.

## **PEDESTRIAN**

On December 8, 1998, the MAG Regional Council updated the pedestrian plan that was developed in 1993. This revised plan -- *Pedestrian Plan 2000*-- identifies and recommends programs and actions to guide and encourage the development of pedestrian areas and facilities and ultimately to encourage increased walking as a viable mode in the region. It also incorporates a unique approach: flexible design tools (Roadside Performance Guidelines) to assist MAG member agencies in creating better walking environments. The plan revision was overseen by the MAG Pedestrian Working Group with direct input provided by a stakeholders group.

## **DEMAND AND SYSTEM MANAGEMENT**

Transportation Demand Management (TDM) programs and Transportation System Management (TSM) strategies are included as integral parts of the MAG LRTP with specific projects designated for funding in the MAG five-year program. Ongoing TDM efforts include telecommuting, rideshare, and vanpool programs. Ongoing TSM efforts include projects that are making operational improvements through real-time traffic management during congested periods, and infrastructure-based capacity improvements. Capacity improvements include improvements to intersections and interchanges.

Operational TSM improvements are being made through Intelligent Transportation Systems (ITS) projects that include advanced traffic management systems, telecommunication links that enable cross jurisdictional coordination, frequent and accurate traveler information and advisories via radio, television and the internet, smoother interfaces at arterials-freeway crossings. ITS projects are becoming increasingly important in regional transportation planning efforts. The MAG ITS Committee will complete an update of the region's ITS Strategic Plan by the end of 2000. This plan will serve well into the future as the region's road map for the investments in ITS infrastructure that consist of advanced systems and effective management strategies.

## **HUMAN SERVICES AND SAFETY NEEDS**

The transportation needs of special populations is a regional concern. Limitations caused by age or disability complicate securing transportation for a portion of our population. In addition, those who are seeking employment or training and those who have few financial resources find limited transportation options available to reach second shift and weekend employment.

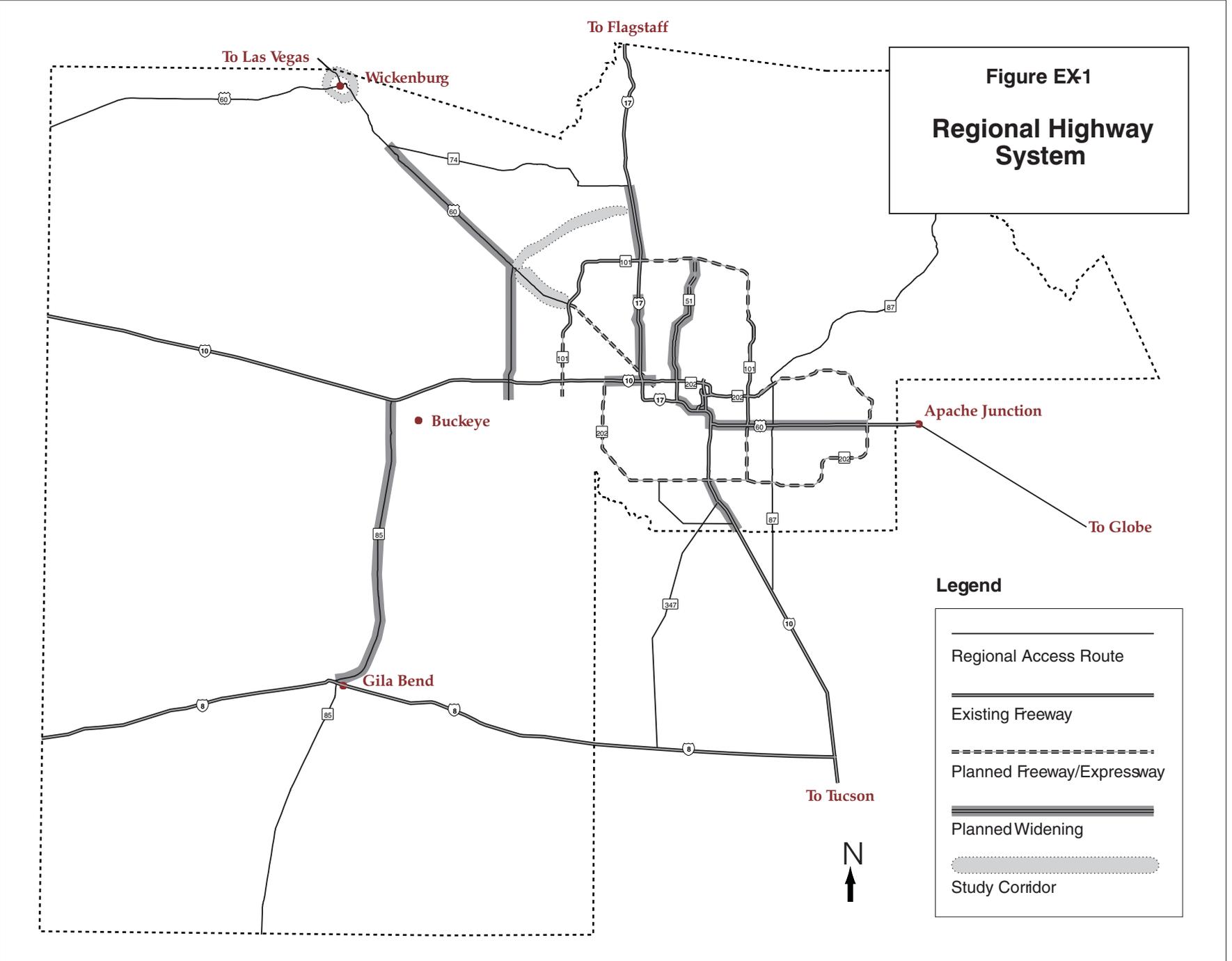
The Long Range Transportation Plan includes federal, state and local funds to provide for transportation services. Among the services provided are:

- Work Links program which seeks to match low-income persons with available transportation resources,

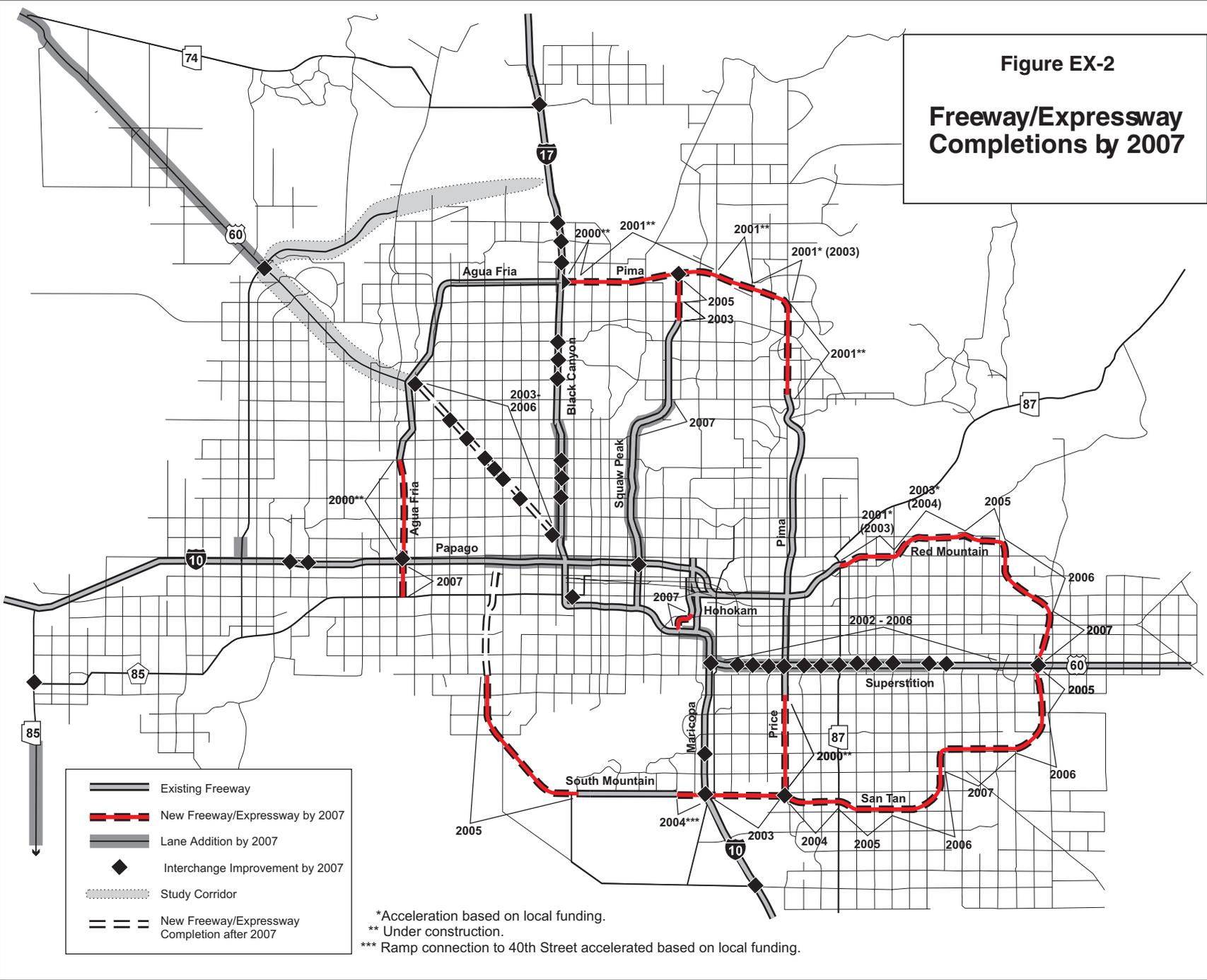
- Wheels-To-Work program that promotes a tax credit for donated cars to be used by cash assistance recipients,
- Elderly and Persons with Disabilities Transportation Program which provides capital assistance funds (van purchases) to non-profit organizations and local jurisdictions who serve the elderly and persons with disabilities,
- The development of an elderly mobility project to address the transportation challenges facing the senior population.
- Local programs such as reduced bus fares, Dial-A-Ride, van and car pools, donated bicycles and various other programs.

Ensuring high levels of safety on the regional transportation system is a primary goal of the region. Safety on the urban freeway system is expected to continue to improve with median barrier installation and the planned Highway Service Patrol. There is room for improvement in the area of street and intersection safety. Bicycle and pedestrian plans have addressed safety needs. Crash history figures for the region indicate that between 1994 and 1998 total crashes have increased by 17% while fatal or injury crashes have increased by only 4%.

Figure EX-1: Regional Highway System



**Figure EX-2**  
**Freeway/Expressway**  
**Completions by 2007**



- Existing Freeway
- New Freeway/Expressway by 2007
- Lane Addition by 2007
- Interchange Improvement by 2007
- Study Corridor
- New Freeway/Expressway Completion after 2007

\*Acceleration based on local funding.  
 \*\* Under construction.  
 \*\*\* Ramp connection to 40th Street accelerated based on local funding.

Figure EX-3: Express Bus Plan

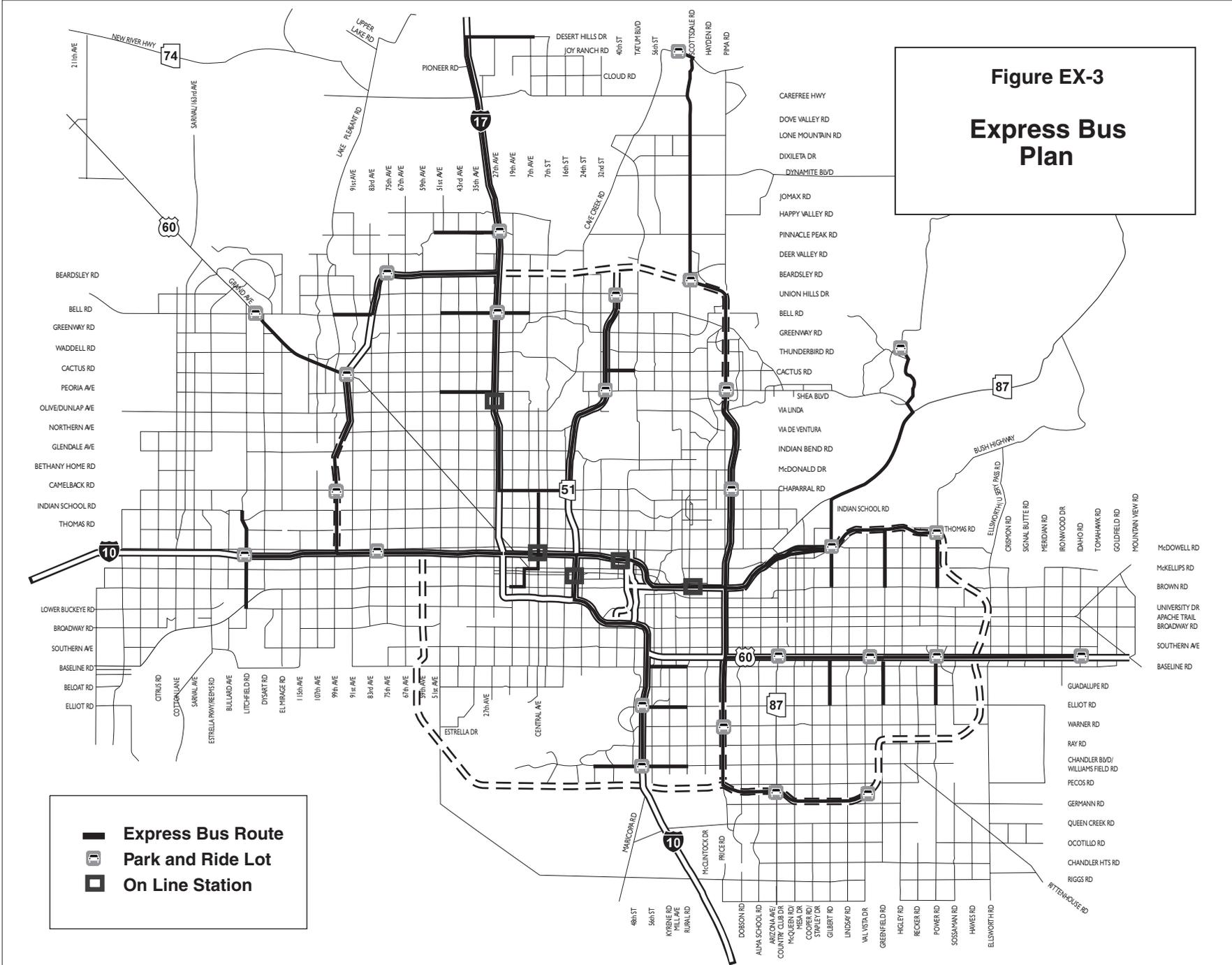


Figure EX-4: Light Rail Service

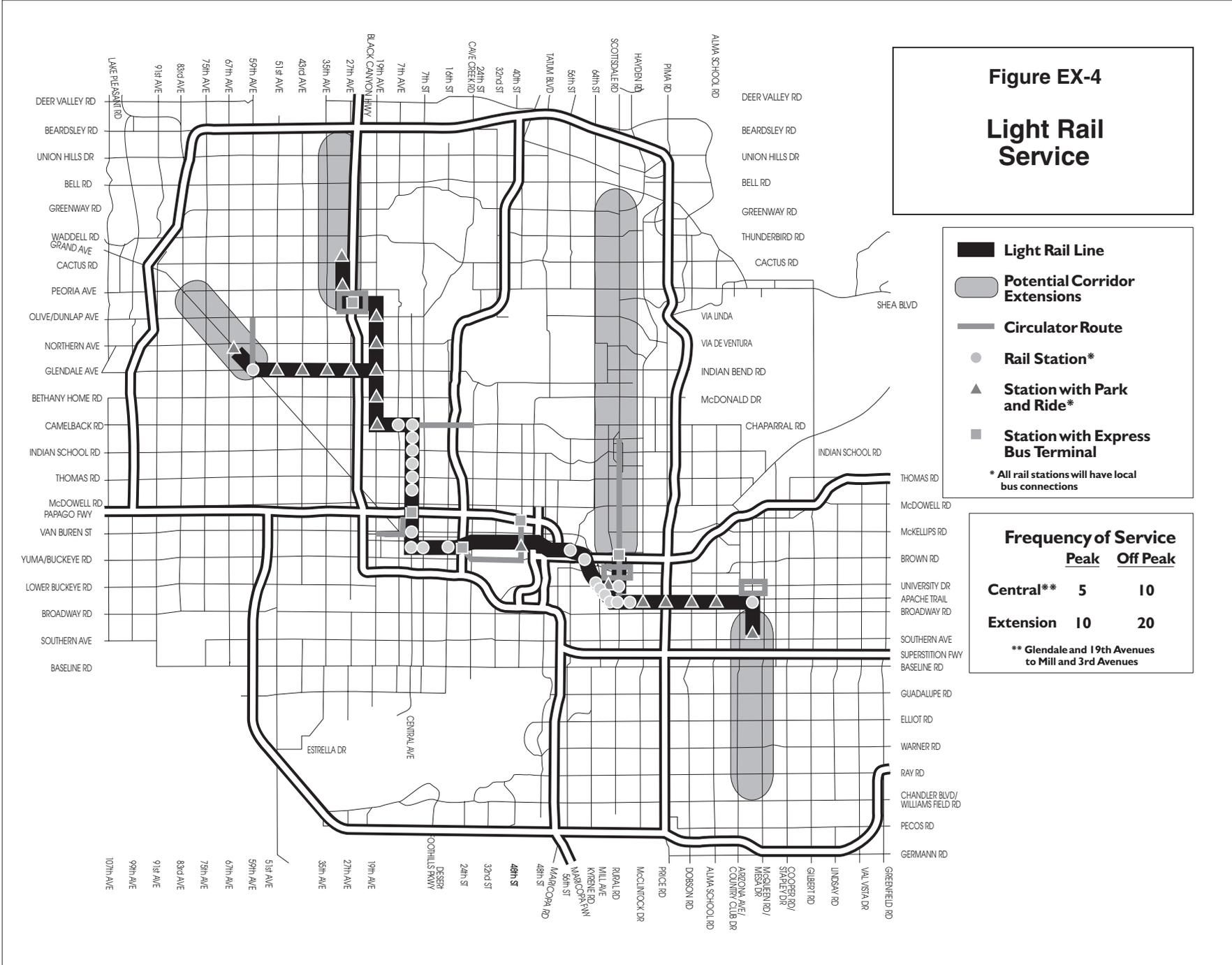


Figure EX-4  
Light Rail Service

- Light Rail Line
- Potential Corridor Extensions
- Circulator Route
- Rail Station\*
- Station with Park and Ride\*
- Station with Express Bus Terminal

\* All rail stations will have local bus connections

**Frequency of Service**

	Peak	Off Peak
<b>Central**</b>	5	10
<b>Extension</b>	10	20

\*\* Glendale and 19th Avenues to Mill and 3rd Avenues