



**Tempe Streetcar
Frequently Asked Questions
January 2011**

General Questions

Q. What is modern streetcar and how does it differ from bus or light rail?

A. Modern streetcar operates on tracks, typically mixed with automobile traffic, and powered by overhead power lines. It differs from light rail in its smaller vehicle size and single-car operation. Streetcar stops every few blocks similar to local bus service, but has a greater ability to attract new riders and alter the surrounding land use. Lastly, modern streetcar should not be confused with a vintage trolley as you might see in San Francisco; these are two very different modes.

Q. How does streetcar benefit the local community and region?

A. Streetcar will...

- Increase transit ridership in the Mill Avenue corridor
- Connect neighborhoods to downtown Tempe
- Encourage redevelopment of underutilized parcels
- Encourage reinvestment in neighborhoods
- Stimulate an urban living environment
- Attract a new rider market
- Provide seamless connection to the existing transit network
- Enhance mobility of employees, students, visitors and special event-goers in this area

Streetcar has the ability to strengthen a downtown core by attracting new riders, strengthening and revitalizing existing neighborhoods, enhancing the unique character of the area and creating higher-density development in a way that bus cannot.

Q. What is the problem being solved by streetcar? We already have bus service on Mill Avenue.

A. There is a significant and growing demand for transit service around ASU, downtown Tempe and the region's urban core. The streetcar would provide an enhanced mobility option in this area. It would work in complement with the existing transit network to move people more efficiently around Tempe and the region.

Streetcar also provides an economic development advantage that bus service typically does not. Fixed rail generates greater reinvestment in neighborhoods and surrounding areas and can achieve greater ridership. In studying Tempe South, it was determined that for every \$1 invested in rail transit, would provide \$1.30 in return in other community benefits. This is evident with the light rail starter line as it is experiencing approximately \$7 billion in public and private investment within a half-mile of the line.

Q. Who will ride Tempe Streetcar?

- A. Today, buses carry approximately 800 daily riders in the section of Mill Avenue where Tempe Streetcar will operate. Initial streetcar ridership is estimated at between 1,100 – 1,600 boardings per day, and these numbers do not include special event-goers who will be an important ridership market.

More people are willing to take rail transit over bus, as illustrated by the 20-mile light rail line. Nearly half of all light rail riders are new to transit, never having ridden a bus before, and the system carries 20 percent of all transit riders in the region.

Riders will use Tempe Streetcar for a cross-section of purposes. Commuters, students, visitors, event attendees, residents seeking entertainment options are some of the expected user groups. Streetcar will also enhance the circulation in the area with short trips taken by neighboring residents and employees. In addition, future redevelopment opportunities will increase ridership on the overall system.

Q. Have streetcar projects in other cities seen success?

- A. Portland, Oregon is the most notable streetcar system in the country and their success is well documented. During a ten-year period when streetcar was integrated into their transit system, transit miles of service increased by 16 percent, population grew by 27 percent, vehicle miles of travel in the region increased by 19 percent and overall transit ridership grew by 46 percent. Transit ridership growth outpaced population and vehicle miles of travel bringing new transit riders to the entire system as a result of adding a streetcar line.

While a newer system, Seattle's streetcar line is also seeing success with growing ridership and new development.

In total, more than 35 cities throughout the country either have a streetcar line or are pursuing a streetcar investment due in large part to the success of Portland and Seattle.

Q. What are the benefits of the Mill/Ash Avenue loop?

- A. The Mill/Ash Avenue loop is the lowest cost route alternative, avoids more utility and parking impacts, provides operating flexibility for special events and minimizes construction on Mill Avenue. It can also help generate development along Mill Avenue and on the west side of downtown Tempe, in and around Ash Avenue.

Q. What are the future phases of Tempe Streetcar?

- A. The 2.6-mile project is the start of a streetcar network in the Valley. METRO would like to pursue extensions as appropriate and as funding becomes available. While funding has not been identified for future extensions, planners have envisioned possible expansion of streetcar on Southern Avenue to Rural Road and Rio Salado Parkway to better connect the region.

Streetcar, like every transit mode, serves a certain purpose and market. Many modes working in concert are what creates a successful transportation network that supports regional growth and quality of life.

Q. What are the redevelopment opportunities along the line?

Rail can create revitalization and reinvestment in a way that bus cannot. And streetcar, specifically, has the unique ability of activating the entire route because its stops are every few blocks. Redevelopment opportunities have been identified along the length of the proposed route.

Streetcar focuses development in areas where the community desires to encourage reinvestment. In Portland, nearly \$3.5 billion in new development has been invested within two blocks of the streetcar line since it opened in 1997, representing nearly two-thirds of all development in Portland's Central City area during that time. The Portland example illustrates how public investment in high quality transit can act as a catalyst to spur private development.

Funding Questions

Q. What is the cost to build Tempe Streetcar and how will it be paid for?

A. The 2.6-mile Tempe Streetcar project is estimated at \$160 million (in year of expenditure dollars). It will be paid for using a mix of regional, Proposition 400 sales tax revenue, as designated in the *Regional Transportation Plan*, and a matching level of federal grant money.

Q. What is the operational cost of Tempe Streetcar and how will it be paid for?

A. The estimated operational and maintenance cost for the streetcar is \$3 million annually (in year of expenditure dollars) for the 2.6 mile. All operational costs are the responsibility of the city of Tempe. Tempe is in the process of developing a financial plan that will support the streetcar. It is expected that operational costs will be partially offset by passenger fares and the restructuring of Mill Avenue bus service. In addition, alternative funding sources and revenue-generating opportunities are being considered.

Q. Why plan for streetcar when transit services are being reduced?

A. The Tempe Streetcar project is expected to commence operations in 2016. It is a result of a three-year study and part of a longer-term planning effort to build a voter-approved transit system suitable for the future growth of this community and region. It is necessary to continue planning for the capital investments and services needed for the future.

This project is part of the 57-mile high-capacity transit plan included in the Maricopa Association of Government's *Regional Transportation Plan*. The plan was developed and approved by voters with their passage of Proposition 400, a county-wide, half-cent transportation sales tax, in 2004.

The current reduction in transit services are necessary to address an immediate financial deficit issue as a result of declining local sales tax revenues and are unrelated to the streetcar planning.

Q. Is the federal grant money competitive and how might Tempe Streetcar fare?

A. The federal grant money that METRO will apply for comes from the Federal Transit Administration (FTA) New Starts program. METRO plans to request \$75 million for this project; the initial application will be made in 2011. Federal sources – largely New Starts and some other, smaller formula funds that support air quality in this region – will pay for 60 percent of the capital needed for this project; the balance will come from regional Proposition 400 funds.

There have been recent changes to FTA's evaluation criteria that place more emphasis on land use, economic development, sustainability and neighborhood connectivity. Streetcars are very competitive projects for this new focus and this project should fare well in the competition.

Recently, the federal government has awarded streetcar projects in Tucson, Portland, St. Louis, Charlotte, Cincinnati, Salt Lake City and New Orleans with funds to expand or initiate their programs.

Tempe Streetcar Design & Construction Questions

Q. What will the right-of-way impacts be?

- A. In 2011, METRO will begin design of the Tempe Streetcar project. The design process will take 18 – 24 months and reveal the possible impacts to the neighboring environment.

At this point in time, the precise right-of-way impacts are unknown, but the design, at various stages, will be taken out for public review and comment. METRO does not anticipate that the impacts will be as significant as they were for light rail; streetcar will fit into the existing street network without much difficulty.

Q. What will the historical property impacts be?

- A. METRO will complete an Environmental Assessment in 2011 to understand this project's impact, if any, on historical properties. Every effort will be made to avoid or minimize the impact to these properties.

Q. Will there be streetscape impacts and/or improvements?

- A. METRO anticipates that minimal right-of-way will be required by the streetcar design criteria. Streetscape character and sidewalks are expected to stay largely intact.

The trees that line Mill Avenue are an important element to the character of the area and will be considered during project design. While tree branches cannot interfere with possible overhead power lines, the two can co-exist as seen in Portland.

Q. Will Mill Avenue on-street parking be affected?

- A. In 2011, METRO will begin design of the Tempe Streetcar project. The design process will take 18 – 24 months and reveal the possible impacts to the neighboring environment.

At this point in time, parking impacts are unknown, but the design, at various stages, will be taken out for public review and comment. If parking were to be impacted or removed in places along the line, an effort will be made to replace it in other locations.

Q. Will there still be a bike lane on Mill Avenue? How will bikes safely interact with streetcar?

- A. METRO and city of Tempe recognize the importance of biking in Tempe and will do all they can to maintain existing bike lanes. More detailed analysis will occur in the design phase to better understand the future street configuration and exact location of bike facilities.

Work will be done during design to understand how bikes will access the system and cycle safely across the rails. With the light rail system, bikes are encouraged to cross perpendicular to the rail and the system includes elements that accommodate bikes on board.

Q. What will stations look like?

A. Streetcar “stops” consist of less infrastructure and amenities than light rail stations. They more closely resemble bus shelters. From researching other streetcar lines, stops can exist in the middle of the roadway and/or off to one side or another. More detailed analysis will occur in the design phase to understand the stop locations and appropriate infrastructure.

Q. Is a park-and-ride being planned?

A. METRO is exploring the opportunity for a park-and-ride near the southern end of the streetcar line. Further analysis is still needed in order to determine its viability. This analysis will be conducted as part of the project’s design process.

Q. Will Tempe Streetcar cross light rail tracks?

A. Crossings between light rail and streetcar will occur on Mill and Ash Avenues. Crossings will be built into the design and, as seen in Portland, they work effectively. Streetcar, like automobile traffic, will use the traffic control devices to safely navigate through light rail crossings.

Q. What will the construction impact be?

A. Streetcar can employ a simpler construction technique and requires less infrastructure than light rail. Streetcar construction is usually confined to the trackway.

In evaluating other cities with streetcar, in many cases, adjacent travel lanes and/or sidewalks were able to remain open during construction. This project’s construction impacts will be better known as design is conducted.

Tempe Streetcar Operations Questions

Q. How will Tempe Streetcar impact bus service?

A. The existing transit network will need to be restructured in order to allow all modes to work optimally. This is the case anytime you add new service to an area. Bus service will not be reduced because of streetcar, but reconfigured to work in complement with this new mode.

Q. When and how often will Tempe Streetcar operate?

A. Hours of service and frequency are being analyzed and will be compatible with the existing transit service in the area, both bus and light rail.

Q: Is safety a concern with streetcar being integrated into the same roadway with automobile and pedestrian traffic?

A. Safety will continue to be a METRO priority and all necessary safeguards will be built into the streetcar system to help it navigate safely in mixed traffic. It should be noted that streetcar does travel at a slower rate of speed than light rail and in Portland, a city with one of the larger streetcar systems, the collision rate is reported at one incident per year, with no injuries involved.

Q. What are the noise impacts of modern streetcar?

A. METRO will complete an Environmental Assessment in 2011 to understand any potential noise impacts.

Q. How will events on Mill Avenue be handled when mixed with Tempe Streetcar?

A. METRO and city of Tempe recognize that special events are often and essential to downtown Tempe and the region. Discussions are underway to understand how the new line can work with or around these events. Streetcar can provide greater operational flexibility than light rail to accommodate and serve the large events.

In other cities with streetcar, procedures have been created to allow the vehicle to navigate safely through crowds and truly work in support of the event.