

TEMPE SOUTH

ALTERNATIVES ANALYSIS/
ENVIRONMENTAL IMPACT STATEMENT



SCOPING BROCHURE



INTRODUCTION

Study Description, Project Background

METRO, in cooperation with the Federal Transit Administration (FTA), is conducting a study to analyze potential high capacity transit improvements in the cities of Tempe and Chandler.

In order to qualify for federal funding, the study follows a planning process known as an Alternatives Analysis. The Alternative Analysis is the first stage of the transit planning process required by the FTA. During the course of the 24-month study, several potential transit technologies and

alignments that could be implemented in the study area will be evaluated. Upon completion of the Alternative Analysis, environmental documentation will be completed according to the National Environmental Policy Act (NEPA) and FTA guidance.

The study includes a public involvement component designed to obtain community feedback, share project details, and ascertain community desires regarding potential high capacity transit service improvements. Public input will help METRO identify the route and transit technology that will provide the best transportation choices for Tempe and Chandler residents.

The Tempe South study is funded by the Proposition 400 half-cent transportation sales

tax extension approved by Maricopa County voters in 2004, and is contained in the adopted Regional Transportation Plan as a component of the 57 mile high capacity transit/light rail network to be implemented by 2026 (Figure 1). The 20-mile Central Phoenix/East Valley (CP/EV) light rail starter line now under construction runs through Phoenix, Tempe and Mesa, and will open for passenger service in December 2008.

High capacity transit improvements in the Tempe South study area are anticipated to be completed in 2015. The Tempe South study area is bounded by the Tempe Branch of the Union Pacific Railroad on the west, Route 202 (Santan Freeway) on the south, Loop 101 on the east, and Route 202 (Red Mountain Freeway) on the north (Figure 2). The study

area for this project was determined based on an evaluation of travel markets which shows a strong demand for travel between locations along the CP/EV light rail starter line (currently under construction) in north Tempe, south Tempe, and west Chandler. Other high capacity/light rail corridors are scheduled for implementation as follows:

- Northwest Extension Phase I opens in 2012
- Central Mesa opens in 2015
- Northwest Extension Phase II opens in 2017
- Glendale opens 2017
- I-10 West opens in 2019
- Northeast opens in 2025

Figure 1

REGIONAL TRANSPORTATION PLAN TRANSIT CORRIDORS

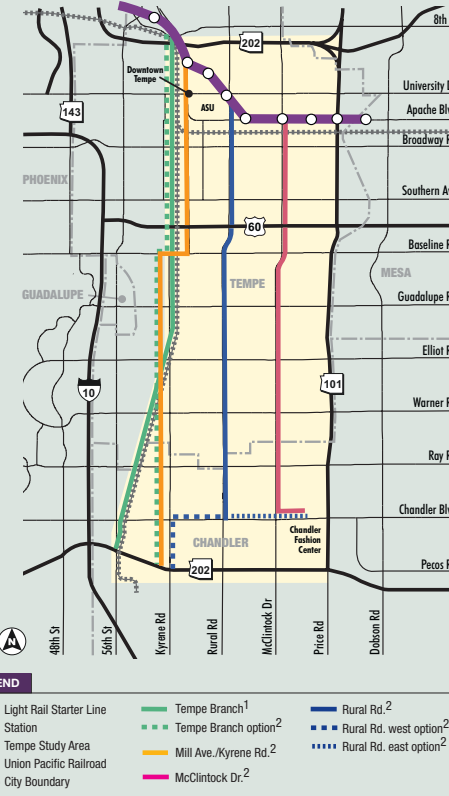
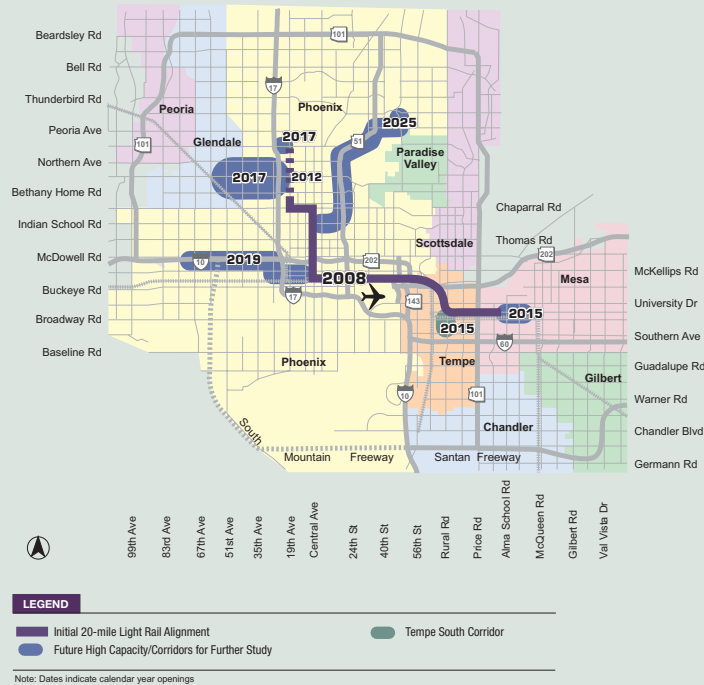


Figure 2
TEMPE SOUTH
STUDY AREA AND
POTENTIAL ROUTE
ALTERNATIVES

Note 1: Could be Bus Rapid Transit, modern streetcar, Light Rail Transit, or commuter rail.
Note 2: Could be Bus Rapid Transit, modern streetcar, or Light Rail Transit.

STUDY PURPOSE

At this early stage of project planning, the draft study purpose is outlined below. These objectives are under review by METRO and the cities of Tempe and Chandler, and will be further refined based on public comments received during the scoping process.

1. Identify an alignment and technology for improved transit service, connecting to Downtown Tempe, Arizona State University and sections of Chandler with the 20-mile CP/EV light rail starter line.
2. Identify a transit option to provide improved connectivity throughout Downtown Tempe and ASU.
3. Identify a transit alternative that improves access to employment opportunities throughout the study area in Tempe and Chandler as well as in the Central Phoenix/East Valley region.
4. Identify an improvement that provides transit options to relieve peak period congestion on north-south arterials in the study area, as well as on Tempe streets.
5. Identify transit options to address mid-day travel demand and bus overcrowding.
6. Identify a transit alternative that will facilitate continued development of a comprehensive and inter-connected regional transit network that is multi-modal, that offers a range of choices for current and future transit riders, and that attracts new transit riders to the regional system.
7. Identify an alternative that provides cost-effective transit service.
8. Identify a transit alternative that supports economic development and enhances connectivity among developing transit-oriented, high-density projects, activity centers and attractions in the study area.

THE SCOPING PROCESS

Scoping is a study process designed to inform public interest groups and participating agencies about the proposed project, potential alternatives under consideration, and issues needing review and input. The goal is to encourage early and active participation in the decision-making process.

The scoping process defines the alternative routes and alignments that will be examined in the study, identifies potential impacts that could arise from implementation of each alternative under consideration, and establishes the goals and objectives that will guide the evaluation of the alternatives. Citizens, agencies and community organizations are encouraged to comment at key milestones throughout the process in order to help guide the direction of the study, define project goals and objectives, and identify issues and impacts.

Public scoping meetings to accept comments on the study will be held on the following dates:

Tuesday, Jan. 29, 2008

6 to 8pm
Corona del Sol High School
1001 East Knox Road
Tempe, AZ 85284

Wednesday, Jan. 30, 2008

6 to 8pm
Tempe Public Library
3500 South Rural Road
Tempe, AZ 85282

The buildings used for the scoping meetings are accessible to persons with disabilities. Any individual who requires special assistance, such as a sign language interpreter, to participate in a scoping meeting should contact Dawn M. Coomer, City of Tempe, 31 East Fifth Street, Tempe, AZ 85281, 480-350-8550 at least 48 hours in advance of a meeting in order for METRO and the City of Tempe to make the necessary arrangements.

In addition, a scoping meeting will be held for governmental agencies:

Thursday, Feb. 7, 2008

10am to noon
METRO
101 North 1st Avenue, Suite 1300
Phoenix, AZ 85003

Written and e-mailed comments on the scope of study, including the alternatives to be considered, and the impacts to be assessed, should be sent to:

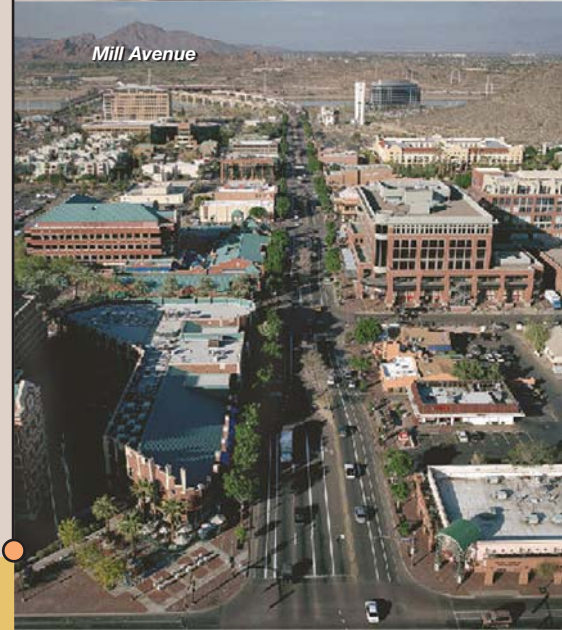
Mr. Marc Soronson
METRO
101 North 1st Avenue, Suite 1300
Phoenix, AZ 85003

E-mail: Tempesouth@metrolightrail.org
Phone: (602) 254-RAIL (7245)
Fax: (602) 252-7453

Palm Walk on ASU Campus



Chandler Transit Center

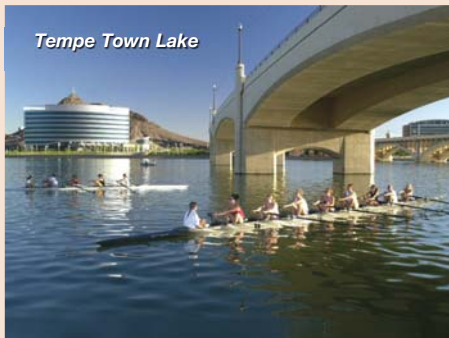


Mill Avenue

PROJECT DEVELOPMENT PROCESS

The Alternatives Analysis and subsequent Environmental Impact Statement will be prepared in accordance with the National Environmental Policy Act (NEPA) and with the FTA/Federal Highway Administration regulations for “Environmental Impact and Related Procedures” (23 CFR Part 771). Those regulations require, in part, that FTA comply, to the maximum extent practicable, with those portions of the following Federal and environmental laws, regulations, and executive orders, as well as other legislation that may apply to the proposed project, during the environmental review process. These requirements include, but are not limited to:

- Environmental and public hearing provisions of Federal transit law
- Project-level air quality conformity regulations of the U.S. Environmental Protection Agency
- National Historic Preservation Act
- Section 4(f) of the Department of Transportation Act (for protection of historic sites and certain publicly owned lands)
- Endangered Species Act



Tempe Town Lake

- Clean Water Act (Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or fill Material)
- Executive Orders on environmental justice, floodplain management, and wetlands

Alternatives under Consideration

At a minimum, the alternatives to be considered in the Alternative Analysis include:

- **No-Build.** Implements modified existing and committed road and transit improvements as defined by the Regional Transportation Plan and coordinated by the cities of Tempe and Chandler.
- **Transportation System Management (TSM).** Includes reasonable, cost-effective transit service improvements short of a major capital investment in fixed guideway. The TSM implements all of the projects in the No-Build alternative.
- **Build Alternatives.** Includes projects defined in the No-Build Alternative and programmed bus service expansion. All Build Alternatives begin at various locations along the CP/EV light rail starter line in Tempe and extend south to Chandler (*Figure 2*) on either:
 - Tempe Branch of the Union Pacific Railroad
 - Mill Avenue/Kyrene Road
 - Rural Road
 - McClintock Drive

High capacity transit technologies being considered are bus rapid transit (BRT), light rail transit (LRT), modern streetcar, and commuter rail. All of the technologies, except commuter rail, are being considered for all of the proposed alignments. Commuter rail is only being considered on the Tempe Branch of the Union Pacific Railroad.

Between US 60 and a new park-and-ride in the vicinity of the Loop 202 (Santan Freeway) in Chandler, the following options are being considered for the Tempe Branch of the Union Pacific Railroad:

- Continue south to the Loop 202 using the same transit mode that is considered in the northern portion of the study area.
- For LRT and streetcar modes, two additional options that connect at US 60 to BRT with limited stop service are considered:
 - BRT operating along the railroad line; or
 - BRT operating along Kyrene Road.

For all other alternative alignments, BRT with limited stop service would continue south of US 60 to Chandler along either Kyrene Road, Mill Avenue/Kyrene Road, Rural Road, or McClintock Drive. For the Kyrene Road and Mill Avenue/Kyrene Road alignments, the alignment would continue south to a new park-and-ride facility at the Loop 202 (Santan Freeway) that would be built somewhere in the vicinity between I-10 and Kyrene Road. The McClintock Drive alignment would continue south to Chandler Fashion Center via Chandler Boulevard. The Rural Road alignment has two options that could travel south to: 1) the new park-and-ride facility at the Loop 202; or 2) to Chandler Fashion Center.

In addition to the alignments under study, local bus service would be reconfigured to complement the Locally Preferred Alternative.

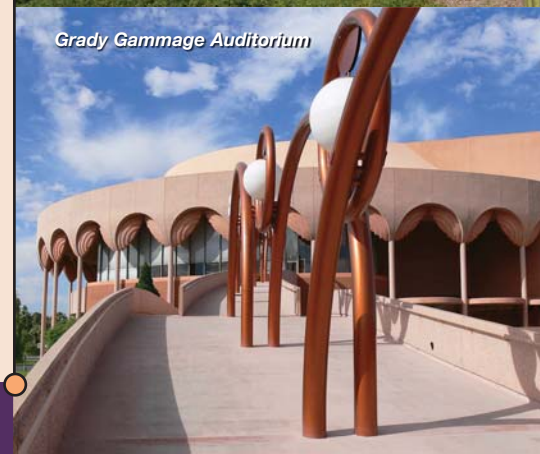
These alternatives will be developed further during preparation of the Alternative Analysis and Environmental Impact Statement. Additional build alternatives suggested during the scoping process that meet the purpose and need and are reasonable for the project may also be considered for the project.



Mill Avenue



Chandler Fashion Center



Grady Gammage Auditorium

TRANSIT TECHNOLOGIES

Transit technologies under consideration are bus rapid transit, modern streetcar and light rail transit. In addition to these three transit modes, commuter rail will be considered in the Tempe Branch of the Union Pacific Railroad.

Bus Rapid Transit

Bus rapid transit (BRT) is a limited-stop bus service that relies on technology to help provide improved service and travel times. BRT can operate in exclusive transit corridors, in High Occupancy Vehicle (HOV) lanes, on expressways or in mixed traffic on city streets. A BRT line provides improved transit features such as upgraded bus system performance (e.g. more reliable service, increased operating speed, and reduced travel time), convenient fare collection, intelligent transportation systems technology, and improved integration with the urban environment.

These features often characterize BRT:

- **Arterial Busway**
Busways are special lanes designed for exclusive bus use. BRT on arterial streets may include lanes reserved for buses and street enhancements, such as dedicated bus lanes, or separate guideways, that result in increased bus speed and improved service.
- **Traffic Signal Priority**
Traffic signals are designed to give preference to buses. As the bus travels along its route, electronic sensors cause traffic signals to shorten or eliminate intersection wait times for buses.

- **Boarding and Fare Collection Improvements**
Rapid fare collection through prepaid or electronic passes and low-floor/wide-door boarding results in time savings. Level boarding and precision docking may be a feature of BRT, similar to light rail and street car operations.
- **Limited Stops**
Increasing distances between stations or shelters increases travel speeds and improves passenger travel time.
- **Improved Stations and Shelters**
Bus terminals and unique stations or shelters differentiate BRT service from standard bus service and provide additional passenger amenities.
- **Intelligent Transportation Systems Technologies**
Advanced technology can maintain more consistent distances between buses and inform passengers when the next bus is arriving.
- **Streamlined vehicles**
Improved vehicles offer a variety of seating options, easier boarding, smoother rides, and greater appeal to the riding public.

Modern Streetcar

Modern streetcars are rail transit vehicles designed for local transportation and powered by electricity provided from an overhead electrified wire support. The overhead wire is suspended

approximately 20 feet over the lane in which the streetcar runs. Vehicles typically operate along a fixed rail guideway that is embedded within the surface of the roadway, on existing streets in mixed traffic, or in a traffic separated condition. Streetcars may also utilize some form of traffic signal pre-emption that enables the transit vehicle to communicate with traffic signals to gain priority (a green light) through an intersection.

Streetcars are related to light rail transit. However, streetcars are smaller, lighter, and have maximum travel speeds typically lower than light rail, ranging from 35 mph to 45 mph. Stops are typically spaced one-quarter to one-half mile apart. Frequent stop spacing enhances streetcar transit as a pedestrian-friendly local circulator. The light weight and slow speeds of streetcars allow for fewer impacts on underground utilities and lower construction cost compared to light rail transit. While streetcars can operate on light rail transit track and infrastructure, the reverse is not possible unless the streetcar system was built for the additional weight and size of the light rail transit vehicles. Streetcars can be designed to operate in one or two vehicle configurations. The Portland Streetcar system is an example of modern streetcar service.

Light Rail Transit

Light rail transit (LRT) features single cars or multi-car trains (up to three vehicles). LRT is powered by electrified overhead wires, allowing light rail to travel alongside mixed vehicle traffic and pedestrians, typically in a traffic separated condition. Light rail can operate on tracks

embedded in the street, at-grade with street and pedestrian crossings, and in exclusive rights-of-way. LRT stations are typically spaced one-half mile to one mile apart. Top speed is 55 miles per hour, with average speeds of 15-25 miles per hour. Each vehicle generally carries 175 passengers. Examples of light rail are the METRO CP/EV 20-mile starter line in Phoenix, the Portland MAX, and Dallas DART system.

Commuter Rail

Commuter rail is generally defined as diesel powered passenger units or a separate diesel locomotive that operate in existing freight rail corridors. Trains are typically operated in the direction of peak hour travel and run less frequently than bus rapid transit, light rail transit, or streetcar. Commuter rail is suitable for longer distance trips, and typically operates in dedicated right-of-way, separated from vehicle traffic. It usually operates at higher speeds and stations are spaced five or more miles apart. Top speed varies and can be as high as 79 miles per hour depending on the track condition, but acceleration is slower than other rail technologies. Passenger units can carry up to 150 passengers with three to five units per train.



OPPORTUNITIES FOR PUBLIC INVOLVEMENT

METRO and the cities of Tempe and Chandler welcome your participation to help identify important issues and to bring fresh ideas and suggestions to our attention. We encourage you to review the information contained in this booklet; it provides the background information that will help you formulate your comments on the study.

Opportunities for community input will occur at each important milestone as the study progresses. If you have questions or want more information on how to provide input you are encouraged to contact METRO.

PROJECT HOTLINE
602-254-RAIL (7245)

WEBSITE
MetroLightRail.org/tempesouth

www.MetroLightRail.org
Info@MetroLightRail.org

To receive this information in alternative formats call (602) 254-7245/
TTY (602) 322-4499.

