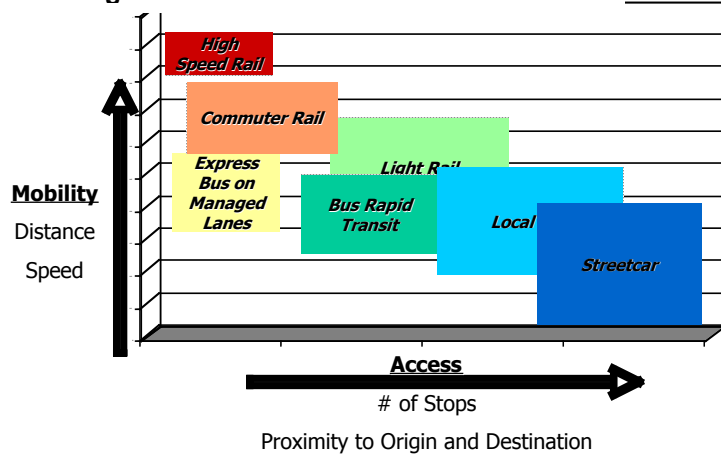


# Appendix III

## Envisioning a Network of Rail and High Capacity Transit

### Meeting Different Needs with Different Modes



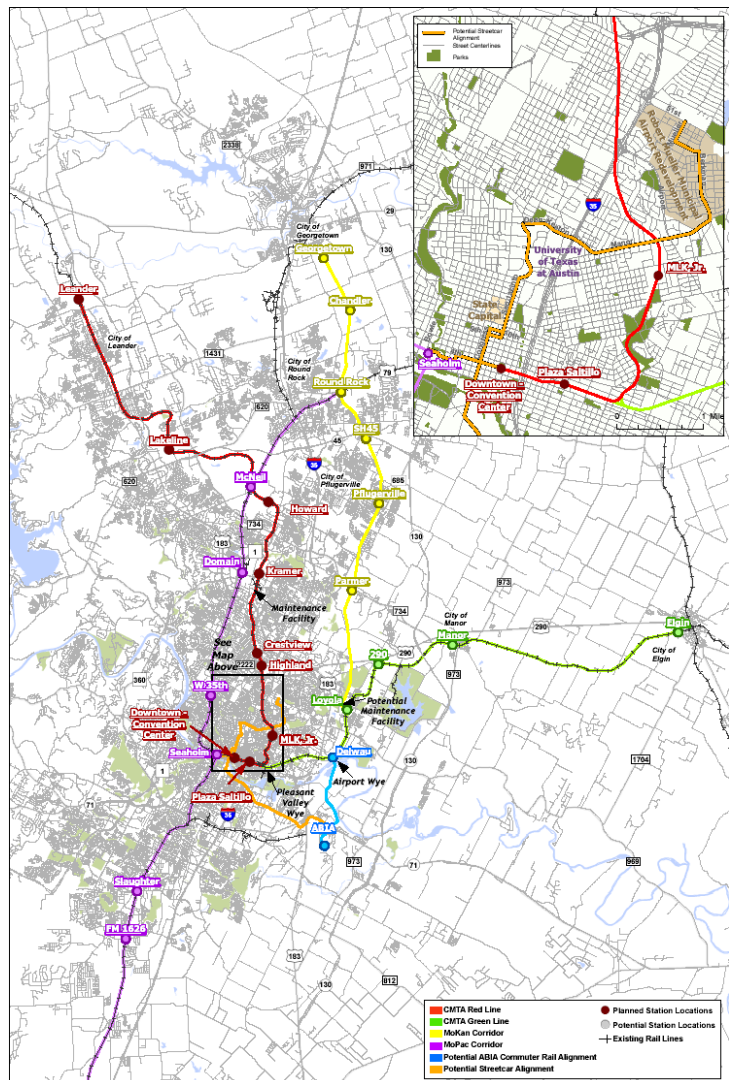
Connecting Activity Centers with Passenger Rail on Existing and New Rail Lines – is a key part of a regional transportation system. When built and operated responsibly, it can achieve several objectives at the same time:

- Helping to connect well-established places and activity centers by moving large numbers of people reliably and safely between them.
- Using smaller rights-of-way with fewer negative environmental impacts and low operational costs.

- Address growth challenges by attracting high quality, mixed residential and commercial development to station areas.

The region is blessed with several existing rail lines and former railways that connect our cities and employment centers. Passenger rail service on these lines would be much easier and cheaper than starting from scratch with the largest expense being the purchase of rail cars, station construction and operational costs. Other lines have freight traffic that will need to be moved elsewhere before passenger trains can provide dependable service. Relocating the freight rail out of congested urban areas will help freight move faster and safer – a costly, but necessary, expense.

Austin has already approved passenger rail for one rail line that will connect Leander with Downtown. Capital Metro has purchased hybrid diesel-electric trains with service scheduled to begin in 2008. There are other existing lines where the rights-of-way are preserved. Capital Metro also owns the existing railroad that runs from Downtown Austin to Manor and Elgin. The Austin-San Antonio Rail District is working to provide passenger rail service along the Union Pacific owned line that runs along Mopac and connect from Georgetown all the way to San Antonio.



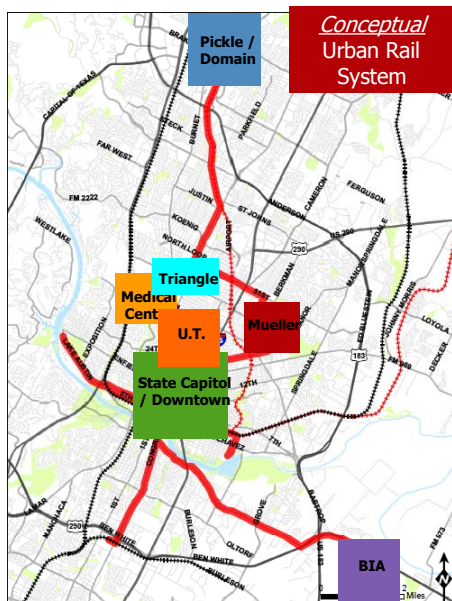
Thanks to LAN Lockwood, Andrews, & Newman, Inc for production of this map.

**New Rail – Circulating people within large and possibly medium-sized activity centers, such as The Domain, can make a regional network more dynamic and give people a safe, reliable transportation option.** Even with all of the existing rail lines in Central Texas, citizens already envision the need for new rail services and are proposing ideas for new services. Ninety percent of the arguments about rail are really about whether and/or what kind of rail should serve the Austin urban core. What do we need? What kind of rail (streetcar, light rail, no rail) will best service these needs? Where and how should it run (in the air like monorail, on the street, underground, or nowhere)? These questions comprise most of the disagreement, and there are good reasons for the differing opinions.



This map shows an urban network created by connecting several activity centers in Central Austin. We are providing a simple line to facilitate thinking about the larger point. The transit technology used to connect these dots will matter. If planned and designed well, it is possible to start with one technology and as demand grows, evolve as objectives (what people want it to accomplish) change over time. Where will the transit operate and is there a lane dedicated to transit? How important is managing development? How will people want to use the transit? How much will it cost? These and other questions raise important public policy decisions for planning and design that should be publicly deliberated and decided. Below is a brief description of different considerations for transit technologies.

**Rapid Bus** is the least costly of the options, but could be used initially for all or part of the urban network. These buses would look and operate more like trains with wider doors for quicker on/offs and more comfortable seating. They would be faster and carry more people with pre-emptive signalization used to move the vehicle through intersections. Rapid Bus is not particularly good at supporting growth management or development objectives. This would not have a dedicated lane and thus would move in traffic.



A **streetcar** is a small rail car that is less costly than most other new rail options. It focuses on providing pedestrian mobility for short trips and can be more sensitive in how it relates to the areas it passes. Capital Metro is currently investigating using a streetcar for a portion of the urban circulator network, two phases from Mueller to UT and Capital Complex to Downtown. A streetcar can be great at attracting development along the rail line since it does not have stations. It can also allow neighbors access without spurring immediate growth in the neighborhoods along Manor Rd. It would not have a dedicated lane and thus would move in traffic.<sup>1</sup>

**Light rail** has a higher construction cost, requires a dedicated lane or separate right-of-way, and focuses development where it picks up and drops off at the stations. Besides the activity centers, we are not indicating any specific places for a stop/station, but light rail can move a lot of people very quickly even during high traffic times or during an event such as a football game. New

development focuses at the stations and how functionality depends on attracting employers, retail/entertainment businesses and residents to locate close to the stations. Much of the expense to build light rail is the required exclusive rights-of-way, either a dedicated lane, elevation structure (e.g. monorail), or underground (e.g. subway) each increasing in cost.

<sup>1</sup> Edited by Shelley Poticha and Gloria Ohland. Street Smart: Streetcars and Cities in the 21st Century (Reconnecting America, 2006). <http://www.reconnectingamerica.org/public/books>

**Austin Area Regional Transit (AART)** is a concept proposed by **THE AART GROUP**, a non-profit organization of Austin architects, city planners and concerned citizens who seek a comprehensive resolution to transportation problems posed by the predicted doubling, and eventual re-doubling, of the population of the Central Texas Region. **“THE AART CONCEPT”** illustrates an integrated Regional [**commuter**] and Urban [**light rail**] **rapid transit** system to serve as a fast connection to surrounding and future activity centers in the region, **as it would look 20 or 30 years from now** (2030 - 2040). **THE AART GROUP** recommends, as the 1<sup>st</sup> step, **adoption of an overall concept now**, similar to this one. Then build out the system in an orderly progression of phases, over the years, until 2030 to 2040.

The concept consists of 4 double-tracked Regional [**commuter**] rail lines, connecting pairs of communities located on opposite sides of Central Texas, passing through suburban and urban activity centers, and – as a bonus - serving as an Urban rail [**rapid transit**] system as it passes east/west across the heart of Downtown Austin. Two of the lines (**S2** and **S3**) would connect the city to a future **AMTRAK High Speed Inter-City Rail station**, just east of the airport (ABIA).

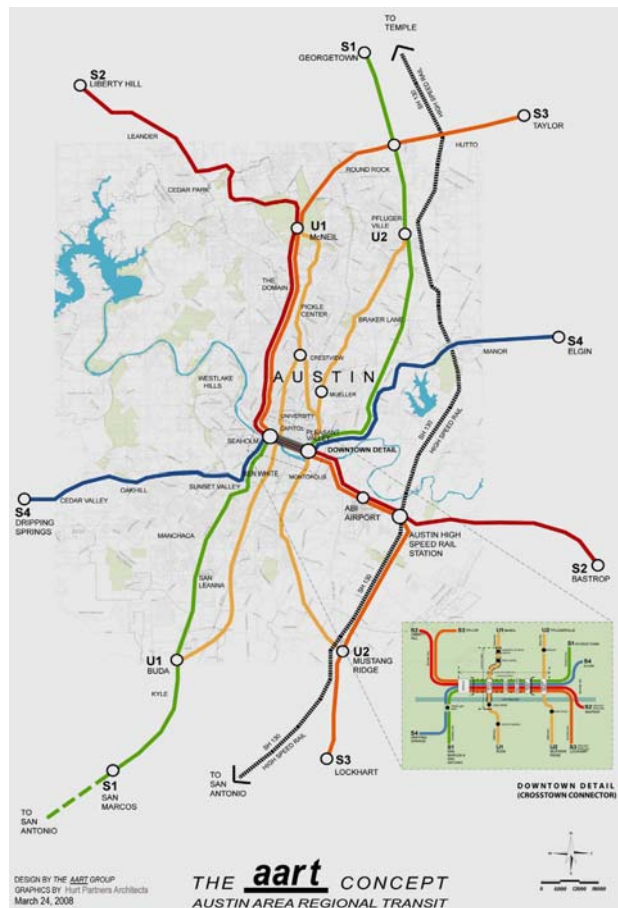
Five of the 8 radial connections [**lines from Austin to Liberty Hill, Georgetown, Taylor, Elgin and San Marcos**] would use already-existing rail rights-of-way (ROW) and 3 lines would require new rail ROW [**from Austin to Bastrop, Lockhart and Dripping Springs**]. While **THE AART CONCEPT** promotes conventional commuting to and from the suburbs, it also enables highly desirable “reverse commuting,” from the city to all parts of the Central Texas region.

Sometimes dubbed the “**spider and the bundle**,” **The AART CONCEPT** gathers the radial rail lines [**the red, blue, green, and orange “spider legs” on the adjacent map**] and “bundles” them into a single set of two-way tracks that pass east-west [**initially on the surface, but eventually through an approximately 1.5 mile long tunnel**] under 4<sup>th</sup> Street in East Austin and downtown, a high-frequency “**Cross-Town Connection**” that city dwellers and downtown office workers - between Plaza Saltillo and the Seaholm area - would use as a **cross-town subway** connecting living, working and shopping activity centers around several central city stations along the route - and **totally eliminating rail interference with the surface pedestrian and automobile traffic systems**. [See Inset Detail].

The central city stations would initially serve as transfer points for probable north-south streetcar lines [**tan-colored lines on the map**] connecting Downtown Austin with the Capitol Complex, the University of Texas campus and the Cultural Complex south of Lady Bird Lake, as well as with multiple urban activity centers farther north and south, including the Mueller Development. The transit stretch from the University campus to Long Center - through the west-central side of Downtown - would, however, eventually be converted from a surface streetcar system to **U1**, an underground Urban rail line [**rapid transit**] in a second tunnel **under these densely-developed parts of Central Austin**. A second Urban rail [**surface rapid transit**] would connect Pflugerville Northeast Austin with Mueller, the Cross-Town [Regional Rail] Connector, Lady Bird Lake amenities, the Montopolis area and Far Southeast Austin [**U2**, **tan-colored line on the adjacent map, connecting Mustang Ridge, Mueller and Pflugerville**].

**Buses and streetcars** would provide **inner-city circulator transit**, feeding riders to the much faster Regional and Urban **rapid rail** system. **Automobile parking garages** at most of the Regional rail stations [**and at selected Urban rail stations**] would complete a **fully integrated public/private transportation system**.

**THE AART CONCEPT** - modeled after the highly successful integrated transit system in the **world-class city of Munich, Bavaria**, in southern Germany - was developed as **a means to achieve the nodal growth pattern** proposed in the **Envision Central Texas Preferred Regional Development Plan**, and it fully supports both the **Sustainable City Initiative** and the draft **CAMPO Regional Growth Concept**.



## Central Texas Transportation Entities

The responsibility for transportation planning and development in Central Texas is distributed, and sometimes shared, by multiple entities:

- **Capital Area Metropolitan Planning Organization (CAMPO)** is comprised of elected officials representing Hays, Travis and Williamson counties and is responsible for transportation planning within the counties and the allocation of federal transportation funds.
- **Capital Metro** provides bus and rail service in Austin and in parts of Travis and Williamson counties.
- **Texas Department of Transportation (TxDOT)** is the state transportation agency and works with local governments through CAMPO.
- **Central Texas Regional Mobility Authority (CTRMA)** is an independent governmental entity created to improve transportation in western Williamson and Travis counties.
- **Austin-San Antonio Intermunicipal Commuter Rail District (ASA Rail)** is working to convert the existing Union Pacific freight rail line into a passenger rail service running from Georgetown to San Antonio.
- **Capital Area Rural Transit (CARTS)** provides limited “demand-response” and medical transit services outside of Capital Metro’s service area in 9 counties.
- **Capital Area Council of Governments (CAPCOG)** furthers regional cooperation and planning in 10 Central Texas counties.
- **Individual cities, counties and other local governments** are responsible for local streets, sidewalks, trails and other transportation facilities.

To plan, design, fund and operate a truly robust network that includes roads and rail will require coordination and cooperation among all of these governmental entities to accomplish a regional vision for transportation that meets the needs of Central Texans.

