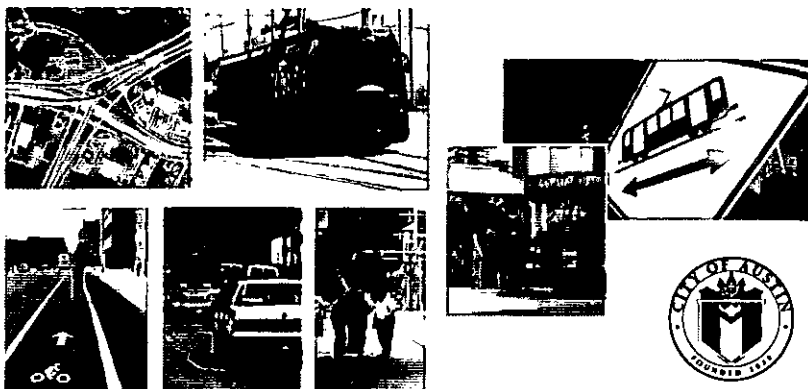


Late Backup

Austin Strategic Mobility Plan Urban Rail Alternatives Evaluation



June 24, 2010

City of Austin Urban Rail Program

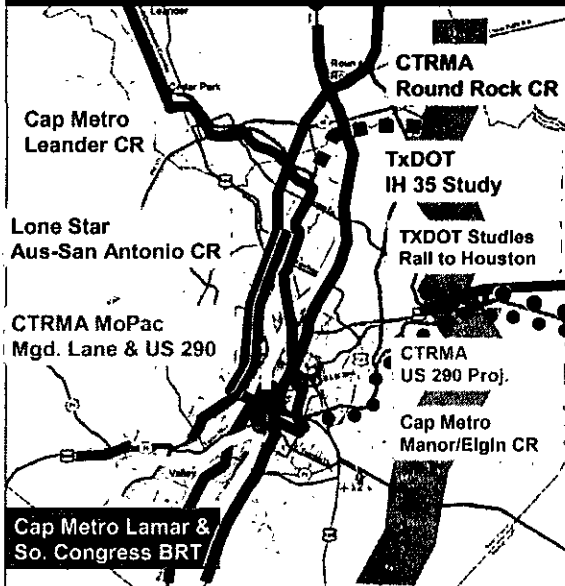
- **October 2009 Council funds Strategic Mobility Plan**
 - Directs staff to develop plan for Urban Rail based on previous regional efforts
- **Presentation Today:**
 - Context of regional rail network
 - Urban rail system plan
 - Next steps



Strategic Network

- **TxDOT/CTRMA**
 - MoPac Loop 1 Mgd. Lanes
 - US 290 Oak Hill Y
 - Round Rock CR Spur
 - I- 35 Study
 - Rail to Houston
- **Lone Star Rail**
 - Austin-San Antonio Intercity Commuter Rail and ABIA Spur
- **Capital Metro**
 - MetroRail (Austin to Leander)
 - Metro Rapid (Burnet/Lamar and Lamar/So. Congress Rapid Bus)
 - Future MetroRail (Austin to Manor/Elgin; Georgetown, Pflugerville)
- **Cities/Counties**
 - SH 130
 - Regional arterials

Long Range Regional Transportation Network



Transportation Vision

An integrated mobility network for all of Austin, providing safe, efficient and diverse choices for people to travel

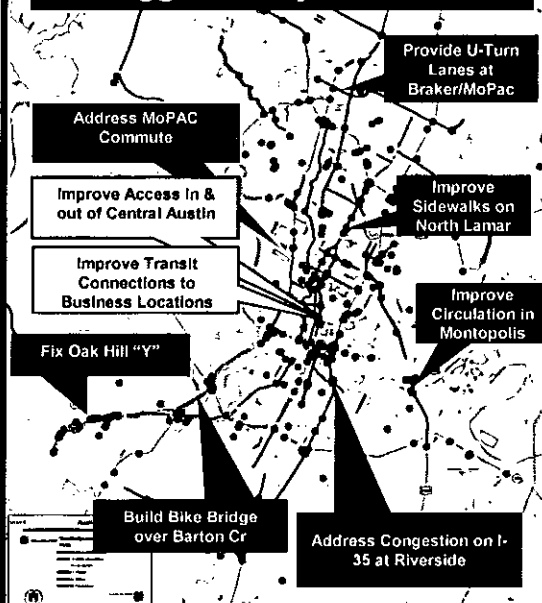


A Public Driven Vision

Austinites Identify Mobility Gaps

- Informed by citizen comments
- Over 3,000 multimodal gaps identified
- Urban Rail ranked as an "A" or high priority project to address need for improved access to Central Austin

Many Problems Suggest Many Solutions



Central Austin Mobility Needs

Insufficient Network Capacity

- Existing points of constraint limit commuter access during peak travel times (99% Volume to capacity ratios at constraint points)
- No room to widen roads within urban core without major disruption to neighborhoods and local businesses (same roadway system for past 50 years or more)

Increasing Population Growth

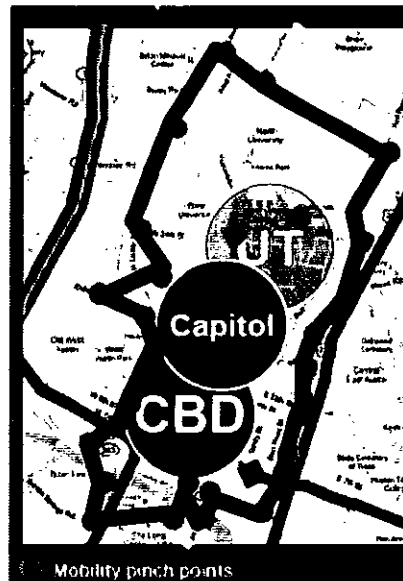
- Continued growth of Austin (1M regional population growth projected) will create more need for travel and access to central core

Insufficient Connectivity

- Connectivity between regional rail investments is lacking: LSTAR and Metro Rail
- Connectivity between regional rail investments and major destinations within Central Austin is lacking
- Connectivity between major generators (downtown, Capitol complex, UT, Mueller, ABIA) is needed

Sustained Economic Development

- Economic sustainability of Central Austin requires on-going access to customers and employees
- Central Austin generates excess revenue which helps support city services throughout Austin

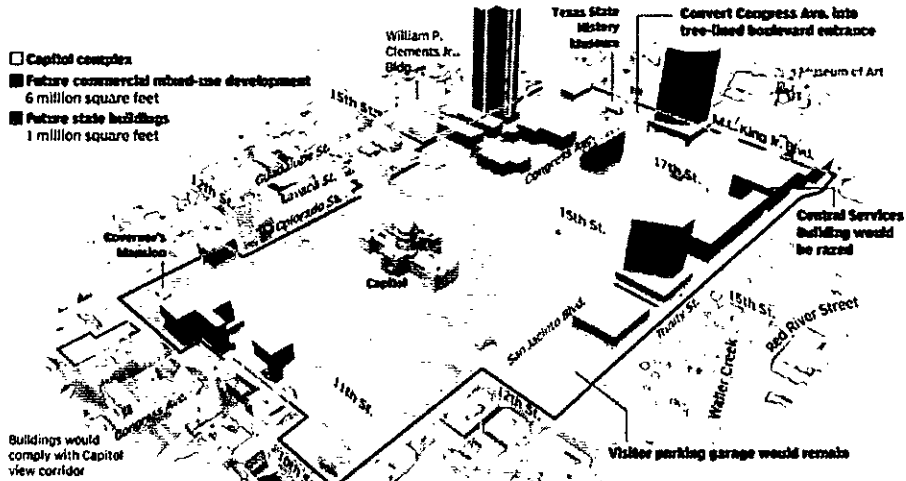


Capital Complex Growth Plan

□ Capitol complex

■ Future commercial mid-rise development
6 million square feet

■ Future state buildings
1 million square feet



Sources: Texas Facilities Commission, renderings by Aundre S. Dukes

Robert Calenda ARCHITECTS

Dense Urban Core, no additional parking, reliant on Urban Rail

Commitment to Central City

- Downtown Austin Plan
- Waller Creek Tunnel & Master Plan
- State Capitol Complex Growth Plan
- Green Water Treatment Plant
- Seaholm District Master Plan
- East Riverside Master Plan
- Mueller Master Development Plan

Urban Rail Study Area



Why Invest in Central Austin Transportation Network?

Project Purpose

- Improve Place Connectivity
- Improve Transit Connectivity
- Improve Mobility
- Maximize Community Benefits
- Maximize Environmental Benefits
- Maximize Economic Benefits



Alternatives Considered

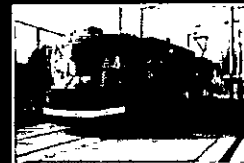
- **No Build**
Existing and planned transit services included in the All-Systems Go regional long range transit plan



- **Better Bus**
High capacity/circulator bus and systems management improvements



- **Urban Rail**
Existing and planned transit services plus Urban Rail serving Mueller, UT, Capitol, Downtown, Riverside, ABIA



What is Urban Rail?

- Typically overhead-electric powered vehicle
- Operates in mixed traffic or on dedicated right-of-way
- Similar to Light Rail but smaller, lighter and more maneuverable
- Generally has two sets of tracks, one in each direction
- Operates at comparable traffic speeds based on:
 - Signal characteristics
 - Number of stop locations



Urban Rail Meets Identified Goals

Goal	No Build	Better Bus	Urban Rail
1. Improve place connectivity	○	◐	●
2. Improve transit connectivity	○	●	●
3. Improve mobility	○	●	●
4. Maximize community benefits	○	◐	●
5. Maximize environmental benefits	○	◐	●
6. Maximize economic benefits	○	◐	●
OVERALL RATING	○	◐	●

Performance: Lower ○ → ⊕ Higher

Why Urban Rail

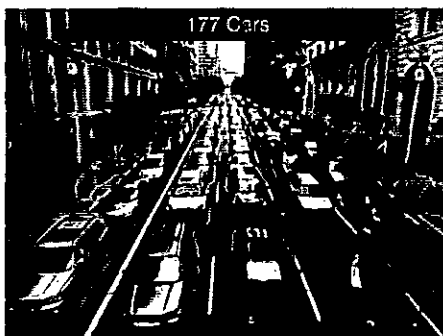
Goal	Urban Rail
1. Improve place connectivity	●
2. Improve transit connectivity	●
3. Improve mobility	●
4. Maximize community benefits	●
5. Maximize environmental benefits	●
6. Maximize economic benefits	●
OVERALL RATING	●

• Complements and Extends Bus System

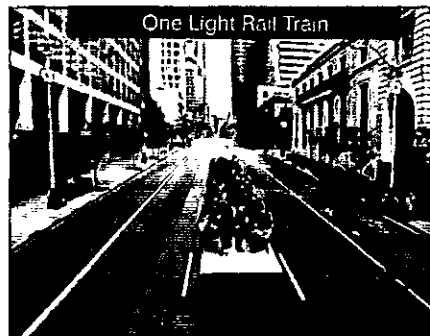
- Greater people-carrying capacity
- Increased comfort
- Proven increase in ridership
- Reduction in operating cost per passenger
- More environmentally-friendly (fuel, noise, emissions)
- Influences land use

Why Urban Rail

- Greater people carrying capacity



Single Occupancy Vehicles

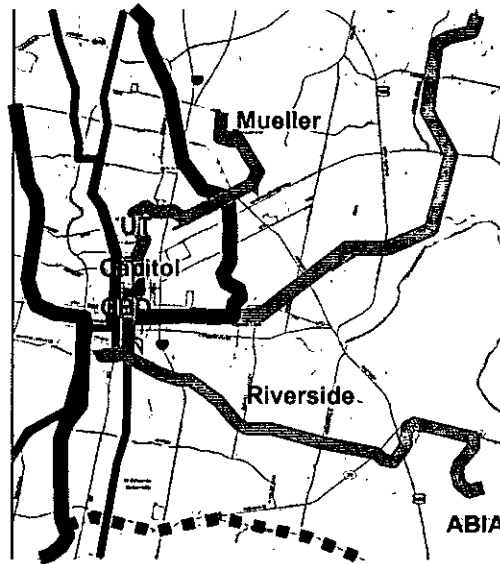


Typical LRT Streetcar

Evolving Regional Transit Network

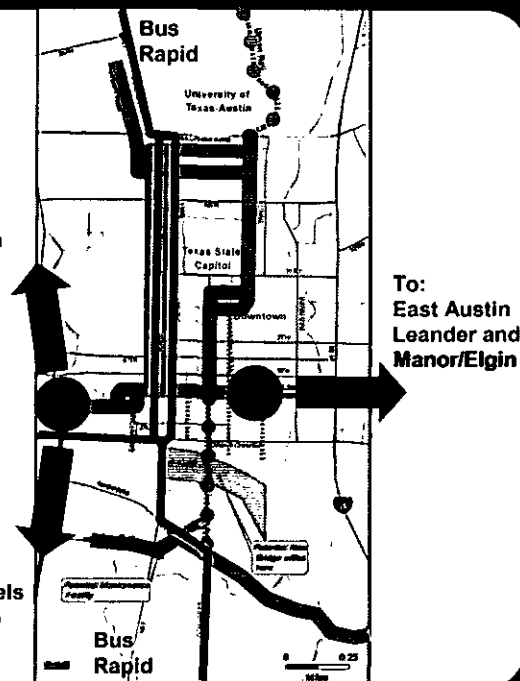
CAMPO 2035 PLAN

- MetroRail
 - Red Line to Leander
 - Green Line to Manor/Elgin
- Rapid Bus
 - South Congress
 - Lamar
- LSTAR
 - Georgetown
 - Buda
 - San Marcos
 - New Braunfels
 - San Antonio
- Urban Rail
 - Mueller
 - UT
 - Capitol Complex
 - Downtown (CBD)
 - Riverside
 - ABIA



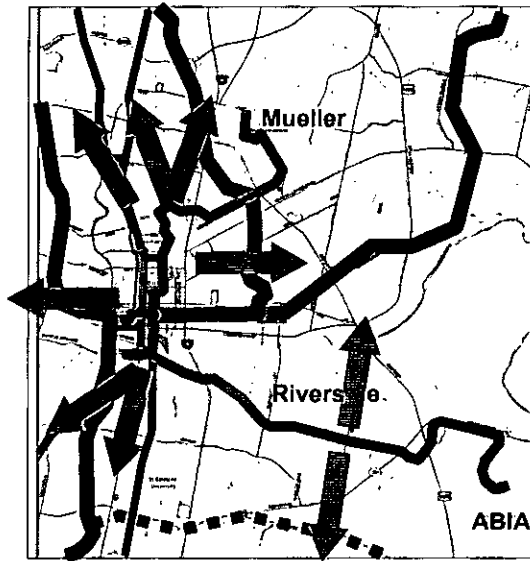
Urban Rail System Plan (Central Austin)

- Central Austin Circulator Study
 - Transit Working Group Submittal and Downtown Austin Plan
 - Urban Rail Studies
- To: Georgetown
- To: Buda
Kyle
San Marcos
New Braunfels
San Antonio
- To: East Austin
Leander and Manor/Elgin



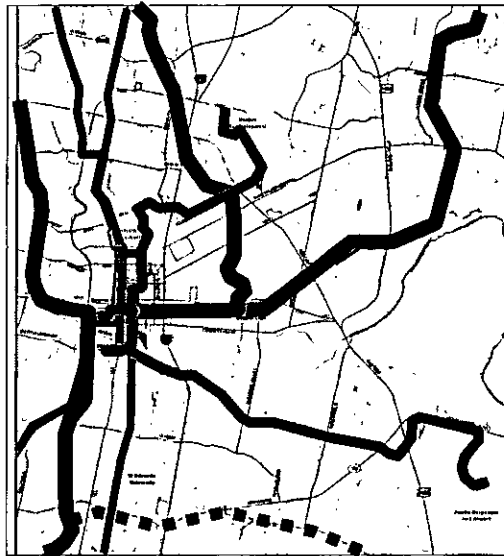
Urban Rail System Plan

- Provides rail capacity for future growth
 - North/South
 - East/West
- Provides connectivity to regional transit network
- Provides direct connection to:
 - Mueller
 - UT/Capitol/CBD
 - Riverside
 - ABIA



Recommended Urban Rail System Plan

- Mueller to ABIA
 - Congress, San Jacinto
 - Guadalupe, Lavaca
 - 4th Street
 - 17th/18th Street
 - Riverside
- Maintenance facility south of river
- River crossing decided as part of NEPA



Recommended Urban Rail System Plan

- **Length:**
33.8 track miles
(16.5 double-tracked
route miles)
- **Service Frequency:**
10 minute headways,
16 hrs/weekdays,
7 days/week
- **Travel Time:** 32/33 minutes
Mueller to Downtown or
ABIA to Downtown
- **Estimated Ridership:**
28,000 weekday riders by
2030 (full system)



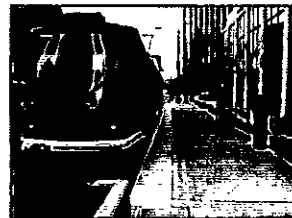
*Ticket Pay Station
Seattle, WA*



*Urban Rail at Station
Seattle, WA*

Recommended Urban Rail System Plan

- **Capital Cost:**
 - \$955 million in 1Q 2010 dollars
 - \$1.26 billion in year of expenditure
 - \$37.2 M per track mile year of expenditure
- **Operations Costs:**
 - \$22 to \$25 million per year Mueller to ABIA (full system)



*Urban Rail at Station
Seattle, WA*



*Urban Rail on Campus
Portland State University
Portland, OR*

Why are new costs higher then previously projected?

- Implementation year
 - Base year of estimate 2010 v. 2008
 - Year of expenditure estimate v. base year
- Longer track alignment proposed
 - 33.8 track miles v. 30.6
 - Increased fleet to accommodate expanded routing option and length
 - Larger maintenance facility to accommodate larger fleet
- Increase in assumed design and contingency allowances to accommodate design build option
 - 30% v. 20% of total costs
 - 13 additional vehicles assumed due to added network
 - 12% contractor markup allowed for federalized projects



Urban Rail Maintenance Facility Adjacent Urban Residential Seattle, WA

Next Steps: Regional Coordination

- Coordination with regional partners:
 - Travis County
 - Capital Metro
 - LSTAR Rail District
 - State Facilities Commission
 - University of Texas, ACC, AISD, etc.
 - CTRMA
 - CAMPO Board and Transit Working Group
 - CAPCOG
 - ECT



Urban Rail on Campus Portland State University Portland, OR

Next Steps: Policy Decisions

- **Adopt System Plan (Locally Preferred Alternative)**
- **Initiate NEPA Environmental Studies**
 - Evaluate River Crossing, maintenance facility location
- **Refine Operations and Maintenance Plans**
 - Determine vehicle type & detailed start-up operations plan
- **Identify Costs for First Investment Segment**
- **Pursue Funding Options**
 - Federal Grants/Loans
 - Tax Increment Financing District (TIF)
 - Special District
 - Partners
 - Bonding capacity
- **Adopt First Investment Segment**
- **Initiate Regional Governance Discussion**
 - Cooperation for operating rail systems
- **Support Economic Development Opportunities**
 - Facilitate State properties redevelopment with rail access
 - Public/Private partnerships



*Urban Rail Demonstration
Vancouver, B.C. Canada*

www.austinstrategicmobility.com