MEMORANDUM

To: Mayor and Council Members

From: Marc A. Ott, City Manager

Date: February 29, 2012

Subject: **Urban Rail Update**

As you know, work on the City's Urban Rail program has continued this past year, including launch of the federal environmental impact statement, on-going community meetings, and coordination efforts with our regional partners. This memo provides a status update and lays out the "next steps".

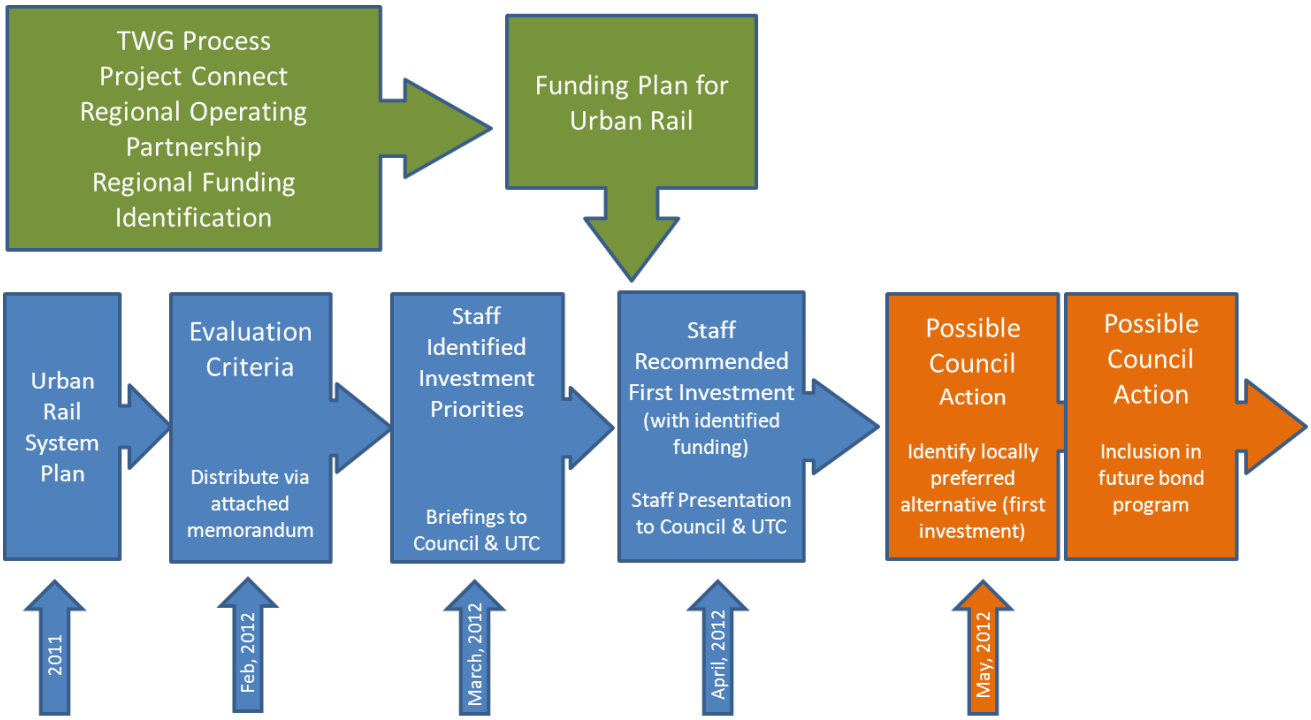
System Plan: A 16.5 mile Urban Rail System Plan has previously been presented to Council. The initial system plan was developed so that its delivery could be phased and extended in multiple directions to satisfy future needs for rail infrastructure. We continue working through CAMPO (via the Transit Working Group) and with our regional transit partners (Capital Metro and Lone Star Rail) through "Project Connect" to vet and revise the high-capacity transit elements of the CAMPO 2035 Plan. This effort will help to better define a regional high-capacity transit system to serve our community into the future. We expect to have draft recommendations via "Project Connect" by April.

Funding: We were successful in securing an additional $4 million in federal Surface Transportation Program Metropolitan Mobility (STP MM) funds through CAMPO to continue the environmental process and detailed conceptual planning and design. The City has engaged national financing experts, Jeffrey A. Parker & Associates to assist with Urban Rail and regional high-capacity transit funding scenarios for capital, operations, and maintenance costs. We expect to bring a funding plan for Urban Rail in March and funding concepts for a regional high-capacity transit system plan April. The Urban Rail funding plan will inform the technical comparison of First Investment phasing options as to our ability to fund the project in order to provide you with a specific recommendation on a First Investment.

First Investment: The next step in the development process for Urban Rail is for City staff to define a First Investment proposal for your consideration. The timeline of our planned engagement with Council on this issue is detailed in the diagram below. We intend to answer the range of questions that have previously been posed by the Mayor and Council as part of a recommendation on a First Investment.

I have directed Rob Spillar to identify phasing criteria that will be used to develop a recommended First Investment. He has completed that work and this methodology is attached.

Proposed Timeline for Identifying A First Investment:



xc: Robert D. Goode, P.E., Assistant City Manager
Robert Spillar, P.E., Transportation Director

MEMORANDUM

To: Mayor and Council Members

cc: Marc A. Ott, City Manager
Robert Goode, P.E., Assistant City Manager

From: Robert Spillar, P.E.
Director, Austin Transportation Depart

Date: February 27, 2012

Subject: **Urban Rail First Investment Selection Criteria and Methodology**

This memo presents the Urban Rail First Investment selection methodology. We will use this process to develop the First Investment recommendation for Council's consideration.

As a reminder, the process is intended to answer the questions that you have asked about the rail program. The work in developing the First Investment recommendation will answer these questions:

1. **What is the First Investment proposed by staff and what portions of the system would be phased later?**
2. **How much would the first phase cost to construct, operate, and maintain?**
3. **How would we pay for a First Investment and can we afford it (both in terms of capital costs and operations and maintenance costs)? What about future phases, how would we afford those system investments?**
4. **Who would operate Urban Rail and how does it fit within a regional system?**
5. **What are the benefits in terms of connectivity/mobility, ridership, economic development, environmental impacts?**

BACKGROUND

The City of Austin is developing alternatives for an Urban Rail system to ***"Improve the mobility, connectivity, and sustainability of Central Austin – Downtown, the Capitol Complex, and the University of Texas."*** Development work on Urban Rail can be found in the July 2010 *Central Austin Transit Study Alternatives Evaluation* and July 2010 *Urban Rail Conceptual Engineering Volumes 1&2*, http://www.austinstrategicmobility.com/urban-rail/. The proposed system plan

was updated and presented to the public as part of the initiation of the National Environmental Policy Act (NEPA) process which began in March 2011.

The Urban Rail system will be the central/foundational piece for a regional high-capacity transit system. Staff has proposed an approximately 16.5 mile Urban Rail system plan, as part of a larger regional high-capacity transit system. The proposed Urban Rail system plan was developed for phased deployment. The first phase – or "First Investment" – will be the primary focus of the NEPA Environmental Impact Statement, required for federal participation. The First Investment is also the project for which the public may be asked to vote on funding, should council decide to move forward with a referendum.

URBAN RAIL FIRST INVESTMENT SELECTION METHODOLOGY

The selection methodology will be based on the following steps: 1) identifying basic requirements, 2) developing evaluation criteria, 3) screening alternative alignments, and 4) scoring First Investment options.

BASIC REQUIREMENTS

The basic requirements to be used to develop the First Investment options are:

- **Logical Termini (ends)**
- **Independent Utility**
- **System Backbone**
- **Maintenance Facility**
- **Single Route**
- **Operational Reliability**
- **Within Identified Funding Goals**

- **Logical Termini (ends)**

  While this may seem obvious, carefully contemplated logical end points of a track, also called termini, prevent the selection of arbitrary points, such as geographic or jurisdictional boundaries, instead of real destinations. In addition, Federal Highway Administration (FHWA)/Federal Transit Administration (FTA) regulations in the Code of Federal Regulations (23 CFR 771.111(f)) require that the project has rational end points.

- **Independent Utility**

  A First Investment must be able to 'stand on its own' and be useful to the community whether or not it is expanded and/or related projects are ever built. Federal regulations recognize this reality and require that the project has independent utility.

- **System Backbone**

  Most successful transportation systems and networks are built from the city core to the periphery (hub and spoke). This fundamental development strategy provides multiple

benefits as it generally aligns with land development patterns and also provides maximum flexibility when pursuing expansion opportunities.

- **Maintenance Facility**

  The Urban Rail First Investment must include a maintenance facility or direct access to a suitable alternative. The facility does not necessarily need to be located on the revenue service alignment, but needs to be within a short distance (less than a 1/4 mile) to be cost effective.

- **Single Route**

  While the full Urban Rail plan would reasonably accommodate multiple routes, the First Investment should have a single route. This will minimize initial fleet size and significantly reduce operations and maintenance costs as compared to a multiple-route starter system. This will also 'keep it simple' for patrons as the community gets to know the system.

- **Operational Reliability**

  For a First Investment to be successful, providing reliable service is crucial. Routes running through less congested choke points, or ones not impeded by special events, such as parades, festivals, etc., are likely to be more reliable. Additionally, alignments that are shared with other high-capacity modes provide operational flexibility, since passengers can transfer to continue their trips.

- **Within Identified Funding Goals**

  The First Investment in Urban Rail is likely to be made in conjunction with other regional mobility investments and in coordination with funding for other, non-transportation related, community infrastructure needs. Through the bond development process, goals will be set for maximum expenditure on any one program. The First Investment recommendation (and subsequent proposed phases) must fit within the funding goals identified for regional mobility at the time of proposed funding.

EVALUATION CRITERIA

Outcomes, drawn from the project purpose and objectives, will be used as the evaluation criteria for First Investment options and are listed below.

Note that the “objectives” are those previously proposed for the overall Urban Rail system, as shown below, whereas the “criteria” are focused on selecting the First Investment. More detail on the criteria is included in the Evaluation Criteria Appendix.

As the community contemplates this significant public infrastructure project, the question becomes, "What would we start with?" or "What would assure that it's a success?" It may be helpful when reviewing the criteria to think, "A First Investment should…"

Objectives

The proposed objectives of the system plan are to:

- **Provide greater mobility options**
- **Improve person-moving capacity**
- **Improve access to and linkages between major activity centers and regional high-capacity transit modes**
- **Support the City's environmental, public health, and planning goals**
- **Encourage investment and economic development**

Criteria

The basic First Investment functional requirements are thus reflected by these objectives and the applicable evaluation criteria for each objective. The evaluation criteria are included in the appendix.

SCREENING

Several alignment options or variants exist within the proposed Urban Rail system plan: Manor Rd. versus Red River St.; 17th St./18th St. couplet versus 17th St. only; Guadalupe/Lavaca couplet versus Congress Ave./San Jacinto St.; and Congress Ave. Bridge versus a new Lady Bird Lake crossing at Trinity St. All of these alignment options will be evaluated in the formal environmental process. However, in order to advance an overall system plan phasing recommendation, a preferred alignment will be established.

Alignment options or variants will be evaluated using a subset of the same criteria developed to select the First Investment. Only those criteria suitable to differentiate between the options themselves will be used during the screening phase. Again, it is important to note that all alignment options will be carried into the formal environmental process and that the screening process here will only be used to identify the First Investment options for more detailed phasing analysis.

SCORING

First Investment options will be scored on a 5-point scale, with qualitative, numerical, and graphical equivalents. Options are scored for each criterion relative to each other. The scores for each criterion, within each objective, are weighted equally. Similarly, the scores for each objective carry equal weight.

APPENDIX – EVALUATION CRITERIA

Objective 1.0 Provide greater mobility options

A key finding of the City's Austin Strategic Mobility Plan was that additional options to auto travel are needed to improve mobility for Central Austin and the region. Urban Rail represents a direct alternative to travel by car and also supports other modes of travel by providing collection, distribution, and circulation service within Central Austin. A system level ridership forecast was prepared for the 2010 Central Austin Transit Study Alternatives Evaluation, estimating 27,600 daily boardings in 2035. Detailed ridership forecasts for Urban Rail will be prepared following the current update to the CAMPO Regional Travel Demand Model (TDM), expected to be completed in early 2012. Therefore, proxies for ridership projections will be used to evaluate first investment options.

Criteria 1.1 ***Serve existing ridership***

Existing transit ridership along a corridor is a good indicator of potential Urban Rail ridership. Current MetroBus boardings per stop will be used to support consideration(s). First Investment options will be evaluated under this criterion according to the following consideration:

- Existing corridor transit ridership

Criteria 1.2 ***Serve new ridership***

Corridors with existing or good potential for new trip generators, like residential population and employment, are also good indicators of potential Urban Rail ridership. A rough estimate of ridership potential can be generated using the Transit Orientation Index (TOI) developed by Portland Metro, which predicts the potential for land use mixes to generate transit ridership. Based on empirical data, ridership per acre is the measure calculated using total jobs, retail jobs, and household densities along the route to indicate whether an option has high to low ridership potential. Existing population is quantified based upon 2010 census data by Census Block falling within a ¼ mile of the corridor (the buffer), irrespective of stop locations. Density is calculated at the parcel level using only the parcels that fall within the buffer. Employment is derived from 2010 3rd Quarter Texas Workforce Commission data, associated with individual parcels, and aggregated for each option using ¼ mile buffers. First Investment options will be evaluated under this criterion according to the following considerations:

- Transit Orientation Index (TOI) of corridor

Criteria 1.3 ***Support for other modes***

Corridors with multiple existing or future alternative travel modes offer synergistic opportunities for increasing use of alternative modes and providing a strong Urban Rail ridership base. For example, pedestrian and/or bicycle usage in a particular corridor will likely grow with the introduction of Urban Rail into that corridor because it is a complementary mode that extends the travel range for both

pedestrians and bicyclists. In a reciprocal fashion, high pedestrian and/or bicycle usage in a corridor will provide a strong ridership base for urban rail. Connecting with bus or other rail service can also provide support for those modes, as well as for Urban Rail. First Investment options will be evaluated under this criterion according to the following consideration:

- Existing/future alternative modes in corridor
- Connections to other transit modes

Criteria 1.4 ***Provide park & ride opportunities***

Urban Rail park & rides outside of the ring of gateway intersections ('Ring of Constraint') can directly address congestion by shifting auto trips in/out of Central Austin to transit. Potential Urban Rail park & rides would likely be located at the end(s) of the line, due to the shorter length of this type of service. Park & rides also provide opportunity for other transit connections, as well. First Investment options will be evaluated under this criterion according to the following considerations:

- Presence of park & ride opportunities on corridor
- Suitability of park & ride opportunities on corridor
- Potential for intermodal transit facilities on corridor

Objective 2.0 Improve access to and linkages between major activity hubs

Activity hubs are key destinations that depend upon convenient, reliable access for sustained success and growth. Major activity hubs – by definition – generate significant numbers of trips and all mobility in Central Austin is affected by how these trips are taken. Considerations include both direct service to the activity hub(s), as well as service *towards* the hub(s), which would demonstrate program commitment to the hub(s) and make it easier to serve with direct connections in the future. .

Criteria 2.1 ***Connect to activity hubs***

First Investment options will primarily be evaluated under this criterion according to the following consideration:

- Number of activity hubs in the Urban Rail system plan served

Related considerations are detailed below.

A long-standing purpose of the project and a critical need identified by the Austin Strategic Mobility Plan and described in detail in the *Central Austin Transit Study Alternatives Evaluation* is for direct, convenient, and reliable connections between the three primary activity hubs in Central Austin: Downtown, Capitol Complex and the University of Texas. The central business district 78701 zip code contains about 117,000 jobs and the entire urban core (the zip codes 78701, 78703, 78704, 78705) accounts for 30 percent of the five county regions jobs, according to the Greater Austin Chamber of Commerce. At the University of Texas, more than 70,000 total

people (including students, faculty, staff and visitors) travel to or from the campus daily, according to the university. Adding capacity to the corridors serving these major trip generators is critical to their long-term sustainability. Alternatively, these three activity hubs are well suited to improved transit service because of the intensity and all-day/two-way nature of trips. First Investment options will be evaluated under this criterion according to the following consideration:

- Connect UT – Capitol – CBD

The City-owned Mueller redevelopment is a close-in transit-oriented/transit-supportive development including a mix of residential, employment, commercial, retail, and recreational uses that can generate significant ridership for Urban Rail. Mueller's density and land use regulatory framework are also closely aligned with federal guidelines for funding. Mueller Austin was designed for transit and many of the currently 4,000 residents and 4,000 jobs are there because of that. Growth projections suggest those numbers are going to triple as it builds out. Mueller is also a designated CAMPO activity center and is therefore targeted by the five-county region for growth and increased density. First Investment options will be evaluated under this criterion according to the following considerations:

- Corridor provides direct service to Mueller
- Corridor extends towards Mueller

The City-owned Austin-Bergstrom International Airport (ABIA) is more than just an airport, it is a hub of activity of commerce and work. The multi-use facility, beyond traditional passenger transportation, hosts 3,000 total employees in hospitality services, concessions, city departments, airlines, federal agencies and shipping operations. The City of Austin Aviation Department is also exploring development of 13 acres at the airport for additional commercial use that will increase employee and customer trip totals and trip frequency. A direct connection to ABIA serves employment at the airport and also primary visitor destinations in downtown, Capitol complex and the University of Texas, along with Austin's growing world-famous events calendar. First Investment options will be evaluated under this criterion according to the following consideration:

- Corridor provides direct service to ABIA
- Corridor extends towards ABIA

Objective 3.0 Improve access to and linkages between regional high-capacity transit modes

The emerging regional high-capacity transit system in Central Texas is key to addressing mobility and economic sustainability needs for our community. Improving access to Central Austin facilitates the region's centers-oriented growth plan, connecting it beyond the isolating effects of traffic congestion. The MetroRail Red Line is just the first step toward a robust system that provides direct, convenient, and reliable travel between Central Austin

and ultimately San Antonio and Georgetown. The Red Line provides commuter service though Austin to the northwest suburbs, the MetroRail Green Line will provide commuter service to the eastern cities of Manor and Elgin, and LSTAR will provide regional service between Georgetown and San Antonio. While these lines each provide necessary and valuable service, it is the potential of the 'network effect' that Urban Rail can add by linking these together, where the sum of the system ridership promises to be greater than the parts. Therefore, the potential for physical connections between lines (i.e, interlining) will also be considered. Another high-capacity mode to be evaluated is the ability to connect with MetroRapid bus service, which will further extend the reach of the network along north-south corridors not directly serviced by rail.

Criteria 3.1 ***Connect to Red Line***

An Urban Rail connection to the Red Line, near the Convention Center at the Downtown Station, can significantly extend the reach of the Red Line, helping it draw additional ridership. Currently, most arriving passengers walk to their final destination, according Capital Metro surveys. Similar to a Red Line connection downtown, one north or east of the University of Texas campus can extend the Red Line's reach into Central Austin from the north. The remaining Connector bus route from the MLK Jr. Station has a high enough ridership to indicate even higher potential ridership for a direct rail connection to campus and the Capitol Complex.

First Investment options will be evaluated under this criterion according to the following considerations:

- Number of Red Line connections by corridor

Criteria 3.2 ***Connect to Regional Rail (LSTAR)***

As cited above, an Urban Rail connection with the Lone Star Rail District's planned LSTAR regional rail line will extend its reach into Central Austin and make it possible to travel by transit as far as San Antonio. The current Urban Rail system plan includes a connection with LSTAR at Seaholm, although its extended timeline is likely to be outside of the Urban Rail First Investment implementation horizon. First Investment options will be evaluated under this criterion according to the following consideration:

- Corridor provides a direct connection to LSTAR

Criteria 3.3 ***Connect to MetroRapid***

MetroRapid bus service is anticipated to begin in 2013 on the Guadalupe-Lavaca corridor, consisting of two routes: North Lamar/South Congress and Burnet/South Lamar. The two complementary modes offer similar synergistic ridership opportunities, extending each other's reach. First Investment options will be evaluated under this criterion according to the following consideration:

- Corridor provides a direct connection to MetroRapid

Criteria 3.4 ***Connect to ABIA***

The City-owned Austin-Bergstrom International Airport (ABIA), which has 3,000 onsite employees, served as a regional point of entry and departure for 8.6 million total passengers in 2010, many of whom have local destinations within Central Austin. Linkage to ABIA ties the airport into the CAMPO-envisioned regional high-capacity system, enhancing mobility options throughout the region for travelers without their own means of transportation. Direct connections to high-capacity transit may mitigate parking congestion during peak travel seasons. First Investment options will be evaluated under this criterion according to the following consideration:

- Corridor provides a direct connection to ABIA

Objective 4.0 Improve person-moving capacity

One of Urban Rail's greatest strengths is its ability to add person-moving capacity within constrained rights-of-way. A one-car train can hold over 160 people in the same space typically occupied by only five cars. The gateway intersections around Central Austin – the 'Ring of Constraint' – have been at capacity during the peak periods for 20 years. The mature arterials in/out of Central Austin have no room for expansion, yet the demand for travel in/out of Central Austin continues to grow and needs to, in order to sustain the vitality and economic health of our city and our region.

Criteria 4.1 ***Break through ring of gateway intersections ('Ring of Constraint')***

Austin's mobility issue can be defined as a gateway constraint issue around the perimeter of Central Austin, where multiple gateway intersections, comprising a 'Ring of Constraint', restrict auto travel in and out of Central Austin. The ring is generally defined by 35th Street to the north, Lady Bird Lake to the south, just west of the I-35 to the east, just east of Mopac to the west. Since additional auto capacity is virtually impossible to create without major expense and even greater community disruption, the focus needs to shift to person-moving capacity. Alternative modes are one way to move more people across this ring without widening roads. Urban Rail is a high-capacity mode that can be added to existing arterials. Additionally, by connecting to other modes that cross the ring, like MetroRail and LSTAR, Urban Rail corridors can effectively leverage those investments. First Investment options will be evaluated under this criterion according to the following considerations:

- Number of 'Ring' crossings
- 'Ring' crossing adds capacity for other modes
- Corridor connects to other 'Ring' crossings

Objective 5.0 Support the City's environmental, public health, and planning goals

City investments should be supportive of City planning goals. However, actual implementation of master, district, and corridor plans often requires direct City investment, especially in supportive infrastructure. A major infrastructure investment can catalyze development beyond what zoning and entitlements can otherwise do. Urban Rail can also

directly support reductions in the growth of carbon emissions, due to shifts in travel modes and changes in land use towards more compact, mixed-use development. Public health benefits of transit are well-documented, due to increases in walking and biking and improvements in air quality.

Criteria 5.1 ***Implement/catalyze planning efforts***

While the City has many opportunities and tremendous capacity to plan, the real challenges often come with implementation. Master plans, for example, involve establishing a vision and design scheme and regulatory plans define specific development regulations; however, both generally rely on the private sector and piecemeal developments to realize these plans. On the other hand, those projects that involve direct investment, like infrastructure, demonstrate City commitment and, as such, are tremendous catalysts with transformative development potential. Examples include City Hall/2nd Street, the Convention Center, and the Mueller Redevelopment, to name a few. In other cases, regulatory plans can be defined by future infrastructure plans, as has been the case with the East Riverside Corridor (ERC) Regulating Plan. The East Riverside community has expressed a willingness to accept higher densities and more intense development if Urban Rail will come to the corridor, thus influencing the regulating plan. Given that virtually all of the major planning initiatives by the City (including, Imagine Austin Comprehensive Plan, Downtown Austin Plan, ERC Master Plan, Seaholm District Master Plan, and Mueller Redevelopment Master Plan) include Urban Rail as a foundational element, First Investment options will be evaluated under this criterion according to the following quantitative consideration:

- Number of master, district, and corridor plans requirements met

Objective 6.0 Encourage investment and economic development

As a mobility project, Urban Rail can support economic development by providing direct access to jobs. The full system plan serves approximately 15 major employers (100+ workforce), including ABIA, AT&T, Bank of America, City of Austin, CSC, GSD&M, Silicon Laboratories, State of Texas, Tokyo Electron, University of Texas, and Whole Foods, all of which depend on access to employees for success. Urban Rail-type public infrastructure investments also have a demonstrated track record of catalyzing private investment. Systems like those in Kenosha, WI; Little Rock, AR; Tampa, FL; and Portland, OR each saw private investment along their routes ranging from 920% to 7500% over the initial public investment. Given the current state of the economy, the City would do well with projects that can generate jobs and attract private investment. Additionally, projects that can stimulate economic activity and cultivate public and private partnerships should be leveraged.

Criteria 6.1 ***Maximize return on economic investment and development opportunities***

Economic investment and development opportunities arise from under-utilized properties along corridor options. Single story buildings with extensive surface parking, for instance, are prime prospects for investment, transforming them into transit-oriented developments, with a mix of uses in a compact arrangement. This new development adds value to the tax rolls, increasing tax revenues, and can be 'captured' to provide funding for the public investment that can catalyze this growth. Tax increment financing (TIF), is the mechanism by which a portion of the increased property tax revenues – due to the infrastructure investment – can be used to fund that same or related infrastructure investments. First Investment options will be evaluated under this criterion according to the following considerations:

- Capacity for economic development along corridor
- Estimated capital cost in year of expenditure

Criteria 6.2 ***Maximize economic activity***

While Criteria 6.1 focuses on longer term returns on investment, maximizing economic activity addresses the more immediate returns, such as sales tax, due to increases in activity around existing development, due to the presence of Urban Rail. First Investment options will be evaluated under this criterion according to the following qualitative consideration:

- Potential for increased economic activity along corridor

Criteria 6.3 ***Maximize partnership opportunities***

Partnership opportunities may take the form of capital or in-kind contributions (like right-of-way or real property) to the project, economic development opportunities (like park & rides and TOD around stops), and operations funding participation (like

sponsorships). This outcome generally evaluates the proximity of potential public and private partners to each of the corridor options. First Investment options will be evaluated under this criterion according to the following qualitative considerations:

- Potential for capital, right-of-way, and property donations
- Potential for development partnerships, at park & rides and station areas
- Potential for O&M participation, primarily through sponsorships

Criteria 6.4 ***Access to jobs***

Access for employees to jobs is critical to support continued economic investment and development within Central Austin. For example, near term job growth for the Capitol Complex and Downtown are estimated at around 15,000 new employees. However, our ring of gateway intersections around Central Austin are already full, so additional transportation capacity is vitally important. First Investment options will be evaluated under this criterion according to the following quantitative considerations:

- Number of jobs along corridor

Criteria 6.5 ***Potential for job creation***

Improved and expanded access to employment not only serves existing jobs, but also facilitates investment in new job opportunities. While this criterion tracks closely with economic investment and development, which includes residential development, the focus of the measure is to gauge the capacity for employment generating development, especially higher paying. First Investment options will be evaluated under this criterion according to the following qualitative considerations:

- Potential for non-residential development

Objective 7.0 Address practical considerations

Beyond how well the corridor options meet the overall project purpose and objectives, there are a number of practical criteria to consider in order to define a First Investment. Practical criteria range from to federal funding competiveness, to minimizing risk. The practical criteria introduce some outcomes that are critical to the successful implementation of an Urban Rail first phase, which are otherwise not accounted for.

Criteria 7.1 ***Cost-effectiveness***

In this context, cost-effectiveness is a relative measure of the estimated difference in capital costs per potential rider between options. Potential ridership will be represented by the Transit Orientation Index (TOI) which considers existing household and employment densities, as discussed above under Objective 1.0. First Investment options will be evaluated under this criterion according to the following considerations:

- Ridership potential based on Transit Orientation Index (population, employment, and retail densities)
- Estimated capital cost in year of expenditure

Criteria 7.2 ***Maximize competitiveness for federal funding (New Starts, TIGERs, etc.)***

City staff anticipates pursuit of FTA New Starts program funding for Urban Rail, which could cover up to 50% of the capital costs. New Starts is a competitive program that evaluates projects, according to several criteria that are listed below as considerations. Other federal funding programs also consider similar criteria, often in addition to project readiness. First Investment options will be evaluated under this criterion according to a composite of the following considerations:

- Economic development
- Mobility improvements
- Environmental benefits
- Cost-effectiveness
- Land use
- Project readiness (especially for TIGER- or ARRA-type grants)

Criteria 7.3 ***Assure O&M facility opportunities***

Access to opportunities for an O&M facility is a basic requirement for a First Investment. Corridor options will be evaluated based upon the number of site opportunities along each option as identified by staff as of October 2011. Those sites include opportunities in the vicinity of Mueller, Hancock Center, Capitol Complex, One Texas Center, and East Riverside Drive (east of Pleasant Valley Road). Given that only a high level site identification and screening has been completed, potential sites are valued equally and it is only the number of options that is recognized. First Investment options will be evaluated under this criterion according to the following quantitative consideration:

- Number of potential options along corridor.

Criteria 7.4 ***Manage risk***

While there are few guarantees with projects of this scope, scale, and complexity, risks should be identified and understood so that they can be managed. Managing risk involves avoidance where practical, minimizing where possible, and mitigating when necessary. First Investment options will be evaluated under this criterion according to a composite of the following considerations:

- Number and/or scale of construction risks due to utilities or potential environmental issues

- Potential need for right-of-way or property acquisitions, which can be time-consuming, expensive, and disruptive for the community
- Public support