

20.0 FINANCIAL FEASIBILITY

Section 19, Cost Estimates, provides an estimate of capital and operating costs for the Miami Streetcar project. Total capital costs at this stage of project development are estimated to be in the range of \$133 million (2004 dollars). Table 20.1 shows the breakdown of capital costs by components.

Table 20.1 - Capital Costs (\$1,000)

Track, Roadway, Utilities	\$ 62,322
Maintenance Facility (including site acquisition)	\$ 33,833
FEC Rail Crossings	\$ 5,000
Sub-total Construction	\$ 101,155
Vehicles	\$ 18,640
Design	\$ 9,340
Construction Management	\$ 3,120
TOTAL	\$ 132,255

Annual operating costs are estimated at \$3.5 million (2004 dollars) for 2008, the year in which service would begin. The proposed Streetcar operating plan, which provides the basis for the operating cost estimate, is contained in Section 19, Cost Estimates.

20.1 Capital Funding Sources

Funding of capital costs is anticipated from a variety of programs and sources. Grants, loans, and other debt structures were explored, along with real estate-related revenue sources and contributions from local agencies that stand to benefit from the project.

The following describes each funding source and provides an assessment of its applicability to the Streetcar project.

20.1.1 Federal

Federal funds typically are involved in the funding of new rail system initiatives. The Federal Transit Administration (FTA) administers funding programs designed to assist local agencies fund new rail starts. Competition for FTA “New Starts” funding is fierce nationally as many cities around the country develop “New Starts” projects, seeking Federal participation as a principal funding source. For example, FTA received over 60 applications for “New Starts” projects this year. The cost of new rail systems can be high, sometimes in the billions of dollars. As a result, the FTA process for qualifying a project for “New Starts” funding is very structured and comprehensive.

New Federal transportation legislation is currently under consideration by the U.S. Congress. One of the initiatives under consideration is the creation of a “Small Starts” program designed for projects that require generally less than \$75 million in Federal funds. Proposals differ between the House and Senate bills, but transit advocates are seeking more simplified requirements for qualifying less expensive, smaller projects to receive Federal funds. Depending on the outcome of the legislation, this new program initiative

may be a potential source of funds for the Miami Streetcar project, providing as much as 50 percent of the total project capital costs.

20.1.2 State

Table 20.1.1 provides a preliminary assessment of potential state funding sources administered by the Florida Department of Transportation (FDOT). Both grant programs and FDOT’s State Infrastructure Bank (SIB) were explored.

FDOT administers grant programs to assist local agencies in funding new rail initiatives. Some are discretionary programs where awards are made from a

statewide pool of funds. Others, such as FDOT’s Intermodal Development Program, are administered by the FDOT district offices from a specific allocation of funds available to each district.

The most notable recent example of state discretionary grant awards is FDOT’s commitment of \$100 million to accelerate Miami-Dade County’s planned Earlington Heights Metrorail connection to the proposed Miami Intermodal Center. There is a high probability that this pool of discretionary funds, along with other grant funds allocated to FDOT’s Miami district office, would be available to assist the City with funding the capital costs of the Miami Streetcar project.

Table 20.1.1 Preliminary Assessment of State Funding Sources

Funding Source/Program	Implementing Agency	Description	Associated Issues	Revenue Potential
Transit/Rail Service Development	FDOT	Discretionary funding allocated to specific projects by FDOT policy makers to assist in initiating new transit or rail service. Assistance can be either capital or operating grants, although operating assistance is limited to a defined timeframe - typically three years.	Project must be consistent with the local comprehensive plan, and be included in MPO plan and TIP.	High potential. Can be as much as 50% of the non-federal share of capital and operating costs.
Strategic Intermodal System (SIS)	FDOT	A new initiative by FDOT to provide funding for statewide and regionally significant transportation facilities and services.	Initial focus is on improving intercity transportation corridors, rather than local services.	Low potential.
Park and Ride; Commuter Assistance	FDOT	Programs to facilitate the use of car pools/vanpools by providing funding for planning, marketing, and capital projects.	Not designed for the Streetcar project.	Low potential.
Intermodal Development	FDOT	Program designed to provide funding for improved access, connections to other modes (airports, seaports, rail, etc.), and to facilitate intermodal or multi-modal movement of people and goods.	Project must be consistent with the local comprehensive plan, and be included in MPO plan and TIP.	High potential.
Public Transit Block Grants	FDOT	Formula grants to established transit providers (MDT) for use on capital projects or operating assistance.	Project must be consistent with the local comprehensive plan, and be included in MPO plan and TIP.	Medium potential. Provides a recurring source of state funds for operating assistance to existing transit agencies.
State Infrastructure Bank (SIB) Loans	FDOT	Provides low interest loans for transportation projects - all modes. Repayment terms are flexible and are negotiated on a case-by-case basis.	Project must be consistent with the local comprehensive plan, and be included in MPO plan and TIP.	High potential. SIB loan awards vary by project. FY 04/05 awards averaged close to 15% of project costs.

The SIB provides loans to eligible transportation projects at very competitive interest rates and flexible repayment terms. Since its inception, SIB loans have totaled approximately \$650 million, representing approximately 15 percent of total project costs. Interest rates applied to these loans have generally been in the 0 to 2 percent range, with repayment terms ranging from as little as 2 years to as much as 30 years. The SIB provides an excellent opportunity for the City to cost-effectively leverage its share of the County half-cent sales tax increase, which is supporting implementation of the County’s Peoples Transportation Plan (PTP).

SIB loan applications are reviewed annually (typically end of September) for the subsequent fiscal year. Therefore, a SIB loan may not be applicable for items with long lead times, such as vehicle procurement or maintenance facility property acquisition. A SIB loan would be more suitable for construction costs incurred in 2006 to 2008.

20.1.3 Local

Table 20.1.2 provides a preliminary assessment of local funding sources potentially available to fund the capital costs of the Miami Streetcar project. The assessment included a review of the following sources: PTP revenues-County portion, PTP revenues-City portion, parking-related revenues, real-estate-related revenues, and potential contributions from other local agencies.

Bay Link Joint Use Funding: On-going coordination with the study team responsible for Miami-Dade County’s proposed Bay Link project, a new rail initiative linking Downtown Miami to Miami Beach, revealed that there are opportunities for joint use of project

**Table 20.1.2
Preliminary Assessment of Local Funding Sources**

Funding Source/Program	Implementing Agency	Description	Associated Issues	Revenue Potential
Peoples Transportation Plan Revenues - County Portion	Miami-Dade County	Bay Link project will share portions of the Miami Streetcar guideway and potentially its maintenance facilities. The County has expressed a willingness to also share in the cost of these joint use facilities.	Timing of Bay Link project is long-term, thus no immediate benefit to County. Countywide prioritization of PTP revenues.	High potential. Negotiate appropriate County share of joint use facilities costs.
Peoples Transportation Plan Revenues - City Portion	City of Miami	City receives approximately \$9-10\$ million per year in PTP revenues; at least 20% must be used for transit improvements.	Funds can be used for pay-as-you-go requirements or to repay debt. Citywide prioritization of PTP revenues.	High potential. Optimum use may be to leverage a modest revenue stream to leverage capital financing, leaving a residual portion to fund operating costs.
County Funding In Lieu of Bus Service	Miami-Dade County	MDT provides bus service in the Miami Streetcar project corridor. Replacement of bus service with Streetcar service potentially frees MDT operating funds.	Funding in lieu would compete with other MDT system wide operating priorities.	Medium potential.
Parking Related Revenues	City of Miami Parking Authority	Parking Authority manages in excess of 17,000 parking spaces, of which over 6,900 are metered spaces on City streets. Either an increase in parking rates or an expansion of parking facilities to support the Streetcar project could generate additional revenue.	Parking facilities coverage supporting the Streetcar project corridor should be assessed.	Needs further analysis and coordination with the Parking Authority.
Tax Increment Financing	N/A	Future redevelopment in the Miami Streetcar corridor could yield incremental increases in ad valorem tax revenue. Formation of a new development district could yield revenues for the project.	Much of the corridor is covered by the existing Community Redevelopment Districts.	Needs further analysis to assess and quantify revenue potential.
Other Real Estate Related Revenue	N/A	Formation of a business improvement district (BID) can yield real estate related revenue for improvements in a defined area. Notable examples include the Miracle Mile BID in Coral Gables and the Times Square Alliance BID in New York.	A majority of property owners must agree to a self assessment.	Needs further analysis to assess and quantify revenue potential.
Contributions by Local Agencies.	N/A	The Streetcar project will aid existing organizations such as the Community Redevelopment Agency and the Downtown Development Authority in carrying out their missions. Contributions by these agencies should be explored.	N/A	Needs further coordination with potential contributing agencies.

facilities. For example, the Bay Link project and the Miami Streetcar project could effectively share track/guideway in the downtown area. Additionally, a shared maintenance facility would be a much more cost effective scheme compared to each project having its own maintenance facility and equipment. The estimated total cost of these potential joint use facilities is approximately \$72 million. Although further coordination is required between the City and Miami-Dade County, an equal sharing of these costs would result in the County/Bay Link project contributing approximately \$36 million toward these joint use facilities. The joint use facilities contribution thus would become a capital funding source for the Miami Streetcar project.

Peoples Transportation Plan Revenues: Estimated PTP revenue allocations for the City of Miami (the City) are shown in Table 20.1.3. Also shown in Table 20.1.3 is the potential allocation of the City’s total PTP revenue that must be spent on transit projects. A minimum of 20 percent of the PTP revenue must be spent by the City on transit projects; however, the

**Table 20.1.3
City of Miami Allocation of PTP Revenues (\$1,000)**

Year	Total	16% Transit	20% Transit	Year	Total	16% Transit	20% Transit
2004	10,688	1,710	2,138	2019	25,127	4,020	5,025
2005	11,179	1,789	2,236	2020	26,635	4,262	5,327
2006	11,738	1,878	2,348	2021	28,233	4,517	5,647
2007	12,313	1,970	2,463	2022	29,927	4,788	5,985
2008	12,966	2,075	2,593	2023	31,723	5,076	6,345
2009	13,718	2,195	2,744	2024	33,626	5,380	6,725
2010	14,513	2,322	2,903	2025	35,644	5,703	7,129
2011	15,486	2,478	3,097	2026	37,782	6,045	7,556
2012	16,461	2,634	3,292	2027	40,049	6,408	8,010
2013	17,531	2,805	3,506	2028	42,452	6,792	8,490
2014	18,688	2,990	3,738	2029	44,999	7,200	9,000
2015	19,903	3,184	3,981	2030	47,699	7,632	9,540
2016	21,097	3,376	4,219	2031	50,561	8,090	10,112
2017	22,363	3,578	4,473	2032	53,595	8,575	10,719
2018	23,705	3,793	4,741	2033	56,811	9,090	11,362
				Total	\$827,212	\$132,354	\$165,442

Source: Pro Forma, The People’s Transportation Plan Financial Capacity Analysis, 2003.

demand for this revenue for other transit projects, such as circulator systems, may reduce the portion available for the Streetcar to less than the full 20 percent. For purposes of the financial analysis a 16 percent (80 percent of 20 percent) Streetcar transit allocation will be evaluated, along with an allocation of the total 20 percent transit minimum. Table 20.1.3 allocations are based on the County's official estimate of the half-cent sales tax revenue, including the revenue growth estimates over a 30-year period. Additionally, for the City's estimated total allocations, it was assumed that its proportionate share of the total allocations to municipalities remains constant, at approximately 33 percent.

The City's allocation of PTP revenues provides an excellent source of funding for both the capital and operating costs of the Miami Streetcar project. A conservative approach was taken for this initial financial feasibility analysis. Use of the City's allocation of PTP revenues was limited to the 20 percent minimum that must be spent on transit in Funding Scenarios 1, 2, and 3 which appear below. In Funding Scenario 4, a 16 percent Streetcar allocation was used. The City is currently reviewing options for bonding its allocation of PTP revenues, not only for the Streetcar project but also to accelerate the roadway and transit projects contained in the larger PTP-funded Five Year Municipal Transportation Improvement Program.

Local Option Gas Tax: Discussions with the City's budget and finance personnel included an interest on the City's part to also consider bonding other revenue sources for transportation improvements, such as the City's share of the Local Option Gas Tax. This revenue source yields approximately \$7 million per year, which

would provide an additional significant resource for leveraging debt. Funding from this source could be used for all legitimate transportation purposes and for Public Works Department or Miami-Dade County (MDT) needs. Should this option be pursued, consideration should be given to the allocation of additional bond proceeds to the Miami Streetcar project.

Homeland Defense Bonds: The City's Homeland Defense/Neighborhood Improvement Bond Program contains certain roadway and infrastructure improvement projects. To the extent there is overlap between the roadway and infrastructure improvements contained in the Homeland Defense Bond Program with the roadway improvements required for the Miami Streetcar guideway installation, shared funding at these locations should be considered.

Parking Surcharge: The City imposes a 20 percent surcharge on the gross parking receipts associated with public and private parking facilities, excluding residential parking and metered parking on public right-of-way. In fiscal year (FY) 2001/02, the revenues from the parking surcharge were estimated at \$13 million. Although surcharge revenues accrue to the City's general fund as a means to contain ad valorem tax rates, a portion of this revenue source may be used for capital improvements. State legislation passed in 2004, which is currently under review by the City, affected the disposition and use of these revenues. Pending the outcome of the City's review of this legislation, revenues from the parking surcharge also could provide a capital funding source for the Miami Streetcar project.

Tax Increment Financing: Per requirements stipulated in Florida Statute (F.S.) Chapter 163, municipalities or

counties may designate a Community Redevelopment Area to address the removal of slum and blight. Following a process that includes the Finding of Necessity (by resolution), the adoption of a Redevelopment Plan (by public hearing/ordinances), and the creation of a Tax Increment Trust Fund (by public hearing/ordinances), the city/county establishes a Community Redevelopment Agency. The financing instrument under this program enables the CRA to receive contributions from the affected taxing jurisdictions within the planning area. The contribution formula is based on 95 percent of the ad valorem tax revenues generated by each taxing entity from any new taxes generated within the CRA subsequent to the adoption of the Redevelopment Plan. All revenues from these contributions must be deposited into the Tax Increment Trust Fund and the monies spent on implementing programs identified in the adopted plans to remove slum and blighting conditions. The Streetcar Corridor is proposed to run through two existing CRAs, Omni and Southeast Overtown Park West (SEOPW), as well as one to be created, Midtown. The CRAs have a 30-year "sunset" provision.

The City's Community Redevelopment Agency was consulted to gain a better understanding of Tax Increment Financing (TIF) and the potential application of that mechanism to generate revenue for the Miami Streetcar project. The existing CRA community redevelopment districts are projected to generate approximately \$7 to 8 million for 2005; however, this revenue stream has taken several years to mature. Consequently, TIF revenues, or similar mechanisms that depend on the increase in property values, may be better suited as a potential source of operating funds

for the project, as Streetcar operations are not scheduled to begin any sooner than 2008. New TIF district boundaries that the City should consider include (1) the area between the Omni CRA and the Midtown Miami Improvement District, extending to the west along NE 2nd Avenue and to the east along Biscayne Boulevard (because the Streetcar, among other things, would act as a reliever for the vehicular traffic using Biscayne); and (2) the area south of the Southeast Overtown/Park West CRA to include SW 1st Street, extending west to Miami Avenue, and east to Biscayne Boulevard.

Other Real Estate Related Revenue: Coordination with the City's economic development staff resulted in a suggestion to assess the formation of a Business Improvement District (BID) as an additional means of generating real estate related revenue for the Streetcar project.

Under F.S. Chapter 170, Business Improvement Districts may be established by a municipality or county resolution. The establishment of a BID is predicated on the approval of a majority of the property owners to be included in the designated districts. The funds from the non-ad valorem assessment of the property owners can be used to promote/market the area, and to enhance security, maintenance, beautification, and transportation. The property owners shall be specially benefited by the provision of the BID services and will be assessed upon each such property in reasonable proportion to the benefits derived from the services. Numerous such BIDs are established throughout Florida.

BIDs typically rely on an assessment applied to the properties within a defined area based on assessed property values, per-square-foot charges, or linear frontage. The property owners must agree to the

assessment. The Miracle Mile BID in Coral Gables, formed in 1997, assesses property owners based on \$2.25 per \$1,000 of assessed property value. Today, the assessment generates approximately \$420,000 per year. The revenues are used for marketing and advocacy on behalf of the businesses in that area. The statutes enabling the formation of BIDs provide flexibility in purpose and disposition of BID assessments. For example, the provision of mass transportation systems is specifically referenced in the law.

The real estate development projections identified in the Section 13.7 provide the city with financial flexibility in the allocation of resources for the streetcar system capital costs. The conservative approach in calculating the real estate assessment values indicates that over 14,500,000 sq ft of development are identified as Large Scale Development projects that are within a two-block area of the proposed Phase 1 system. These developments will generate almost \$11,400,000 per year in new ad valorem taxes for the City as they are completed and come on the tax rolls. Even if no additional new developments occur within the 2030 timeframe, there would be ad valorem growth through the periodic re-valuation process of existing parcels within the study area. The current valuation for the Impact Area is \$4.2 billion. Conservative growth in this base of 1.5 percent a year would generate \$18,000,000 in new annual ad valorem tax revenues for the City by the year 2030. Adding in the anticipated new development indicated by the Near-Term Scenario would increase the potential annual taxes by \$15,000,000.

Contributions by Local Agencies: Both the City's Community Redevelopment Agency and the Downtown

Development Authority were contacted to ascertain their interest in financially contributing to the Miami Streetcar project. While the contact was made at the staff level and not through the respective governing boards, both agencies viewed the Streetcar project as a means to facilitate their respective missions and expressed a willingness to support the project financially. The CRA's revenue mechanism is described above (TIF). The Miami Downtown Development Authority (DDA) is funded from a half-mil ad valorem tax, which currently generates approximately \$2.5-\$3.0 million per year. Contributions from agencies like the CRA and the DDA should be further explored by the City and ideally solidified concurrent with future phases of the project development process.

Miami-Dade County tax assessment rolls within the Impact Area were reviewed and used to determine the average current assessment based on land use categories. These values include both land and improvements. Factoring these assessments, the projected assessed value of additional new development through 2030 approaches \$1.4 billion. At current millage rates (14.7315), the additional ad valorem revenue generated would be just over \$12.2 million per year; current levels of impact fees would provide one-time revenues of an additional \$18.5 million. *Roughly half of the ad valorem revenues generated by this demand would be within existing CRAs.* Currently, the Omni CRA and the Southeast Overtown Park West CRA have transportation elements in their adopted plans with budgeted funding. The Midtown CRA has a negotiated agreement with the city and county whereby the TIF trust fund monies can be

used only to underwrite costs associated with parking facilities and public plazas or other open spaces.

The DDA has a half-mil ad valorem assessment on all properties within its district, which includes both the Omni and SEOPW CRAs. The DDA's annual revenue is approaching \$3.0 million per year. The growth in its revenues will be restricted to the DDA area south of the SEOPW CRA and north of the SE 15th Road. The DDA increases in the two existing CRAs will be contributed to their respective TIF Trust Funds. Because the DDA has expressed a willingness to support the streetcar system, particularly to enhance the Jewelry District opportunities, an annual contribution by the agency could be developed to assist in operating costs. This contribution could follow a formula methodology based on linear front feet, square footage of each parcel or square footage of improvements on each parcel within a specified distance of the streetcar line (500-1000 feet).

Additional consideration should be given to establishing a "transportation trust fund", requiring all new developments to pay an established fee for the rights to build parking spaces. This trust fund would be established for all properties within 500 feet to 1,000 feet of the streetcar line. The projected parking spaces for the Large Scale Projects within two blocks of the line exceeds 10,000 spaces. To encourage streetcar use and reduce intra-City traffic within the study area, an annual assessment on each new parking space would be made for operating expenses. For each parking space, a monthly or annual transit pass would be allocated for riding the streetcar without additional charge. These new trust fund revenues could be combined with increased parking fees for existing on-street and off-

street parking facilities within the same 500- to 1,000-ft distance from the streetcar line.

Special Assessments: The following examines the potential yield of a special assessment mechanism for producing revenue for the project. Assessments are distinguished from other district-type revenue mechanisms, as follows:

Tax Increment, collected and spent by a Community Redevelopment Agency, is ad valorem tax revenue collected at the same tax rate as other areas but with the increment of new revenue directed to the CRA.

Business Improvement Districts collect an additional amount of ad valorem revenue from each property within the BID, to be used for programs and assessments benefiting the BID.

Assessments are a charge collected on a rational basis from properties within the district of benefited properties for specific purposes.

Assessments in general are addressed primarily in F.S. Chapters 170 and 190. Municipalities and counties may choose to create a special assessment district to provide services or construct capital infrastructure for specified benefits to property owners. Creating the assessment district, adopting an equitable formula, and documenting the benefits may be accomplished by resolution of the City or County. Much like the BID requirements, the properties being assessed must be specially benefited by the services and/or capital improvements and the assessment must be reasonably proportionate to the benefits. Unlike the BID, the governing jurisdiction may create the resolution without any vote of the affected property owners. The special

assessment allows much greater flexibility than that allowed in BIDs.

“Special assessments” are a valid tool for generating revenues for financing the local share of capital and/or operating costs associated with the proposed streetcar system. There are as many variations of special assessments as there are projects that employ them. The viability of this approach is determined by the rationale for allocating the cost burdens to potential beneficiaries, and by the impacts on property values that might result from both the benefit to be received and the costs to be allocated. There are at least five basic approaches to such special assessments:

- They may be allocated based on the taxable value of properties;
- They may be allocated on the basis of proximity to the benefit;
- They may be allocated on a simple linear, or frontage-foot, basis;
- They may be allocated on the basis of site size; or
- They may be allocated on the basis of site development intensity.

Each approach has its pros and cons, its advocates and opponents. Given the City’s current ad valorem property tax structure, the first approach cannot be considered until a legal opinion is obtained regarding the potential negative impacts on taxing authority. Each of the other four was considered, although it is not possible at this time to ascertain which, if any, would be acceptable to city leaders and affected property owners.

The range of potential assessment rates also varies, and the experience of other communities was researched for similar assessment districts and rates used to fund local transportation-related infrastructure. Based on the beneficial effect of streetcar or light rail projects on property values and development in other U.S. cities, it is reasonable to forecast that the streetcar system itself would benefit nearby properties by enhancing their access to other activity centers and housing within the Downtown Miami area.

Some fundamental principles guide the preliminary evaluation of alternatives:

- Vacant or underutilized properties located between downtown and midtown Miami are likely to benefit more than those properties that are fully or substantially built out.
- Proximity to the proposed streetcar alignment is beneficial.

- Frontage on double-track segments is more valuable than frontage on single-track segments.
- Some land uses, such as retail establishments, may benefit more than others.
- Frontage-foot or land area assessments may encourage more intense development.

As a financing tool, assessments have the potential advantage of providing funds early in the process if applied to existing development as well as future development, which might be more speculative. The following calculations of potential assessment revenues illustrate how existing land and improvements may be tapped to generate an immediate revenue potential of \$2 to 4.5 million annually. When and if applied to the property improvements or their values, revenue may grow significantly over time, while fixed determinants (such as front-footage) may prove static.

**Table 20.1.4
Special District Assessment Methodologies - Streetcar Impact Area**

	2004	2008
PER FRONT FOOT:		
front feet (net) -double track	10,000	10,000
front feet (net) - single track	20,000	20,000
assessment rate - double track	\$ 100.00	\$ 150.00
assessment rate - single track	\$ 50.00	\$ 75.00
assessment revenues	\$ 2,000,000	\$ 3,000,000
PER SQUARE FOOT/LAND:		
square feet/land	11,606,196	11,606,196
assessment rate	\$ 0.50	\$ 0.50
assessment revenues	\$ 5,803,098	\$ 5,803,098
PER SQUARE FOOT/BUILDING:		
square feet/buildings	17,208,142	20,657,920
assessment rate	\$ 0.25	\$ 0.25
assessment revenues	\$ 4,302,036	\$ 5,164,480

SOURCE: Real Estate Research Consultants, Inc.

Table 20.1.4 illustrates that reasonable assessment rates applied to the streetcar alignment or to the land and/or improvements in the Impact Area can generate significant revenues, which can be applied to capital or operating costs. Given the average assessed values of vacant land in the Impact Area, these assessment rates are less than 5 percent of the average values. Compared to the average assessed values of existing office and retail buildings, these rates are even less (2-4 percent). Given the potential benefits to be realized by most properties, such impacts should be easily recovered through enhanced property values.

The basic assumptions included in these calculations are considered quite conservative, as the Impact Area is limited to two blocks on either side of the streetcar alignment and only minimal new development is assumed to occur by 2008. By assigning greater premiums for proximity or by varying the rates for land uses (similar to impact fee schedules), a re-allocation of costs may achieve equal or greater revenues. These calculations do assume the legal establishment of a designated benefit district, which overlays other CRAs and business districts in the Downtown to Midtown area.

20.2 Financial Feasibility—Capital Funding Sources and Scenarios

Four capital funding scenarios, shown in Tables 20.2.1, 20.2.2, 20.2.3, and 20.2.4 were developed for consideration by the City.

For the first scenario, in Table 20.2.1, no Federal participation is assumed. The assumption underlying state participation is based on discussions to date with FDOT and represents a reasonable but conservative

expectation. Bay Link joint use funding is predicated on the County contributing 50 percent of the cost of the potential joint use facilities described above. PTP bond proceeds assume that an amount equal to two-thirds of the 20 percent transit minimum would be leveraged for capital financing, with the remaining one-third available to help fund the project's operating costs. The \$40 million estimate is conservative and is based on the net present value (NPV) of the revenue stream over 25 years using a 5 percent interest rate. Additional City bond proceeds could include debt supported by additional amounts of PTP revenues above the 20 percent transit minimum; new debt supported by other City revenues sources, such as the Local Option Gas Tax or Parking Surcharge; or contributions of bond proceeds from other programs, such as the Homeland Defense Bond Program. Contributions by others assume that other local agencies, such as the CRA, would be willing to contribute to the project. Tax increment financing (TIF) revenues and the projected growth in the increment could approach \$6.4 million per year if the City's Large Scale Projects were all within an existing or expanded CRA. Of this revenue, \$1.1 million would come from development outside of existing CRAs. However, if tax increment revenues are limited as an option, then the ad valorem taxes from the Large

Scale Projects alone would provide almost \$3.8 million annually in new revenues. In addition, the road (transportation) impact fees on these projects would generate an additional \$7 million in one-time revenue.

Finally, a special assessment applied along the corridor using one of the previously described methodologies is estimated to generate \$2 to \$4.5 million annually based on expected development levels in the 2004-to-2008 time frame and provides a dedicated revenue stream for both capital and operating costs.

A combination of two or more of these types of local funding sources could be reasonably expected to generate an additional \$5 million in capital funding during the project implementation period, which would close the funding gap for Scenario 1. All together, these funding sources could be leveraged to yield capital funding at a much greater level; however, this conservative assumption was applied due to the current unknowns concerning the legal structure, political acceptance, and policy direction from City leaders in how funding from the various sources could be applied.

The second scenario, in Table 20.2.2, also assumes no Federal participation. The assumption underlying state participation is based on discussions to date with

FDOT. Bay Link joint use funding is predicated on the County contributing 50 percent of the cost of the potential joint use facilities. The amount of PTP bond proceeds is increased and assumes that an amount equal to 100 percent of the 20 percent transit minimum would be leveraged for capital financing, leaving no revenues from this source available to help fund the project's operating costs. The \$60 million estimate is conservative and is based on the NPV of the revenue stream over 25 years, assuming a 5 percent interest rate. Additional City bond proceeds could include debt supported by additional amounts of PTP revenues above the 20 percent transit minimum; new debt supported by other City revenue sources, such as the Local Option Gas Tax or Parking Surcharge; or contributions of bond proceeds from other programs, such as the Homeland Defense Bond Program.

The third scenario, in Table 20.2.3, assumes Federal participation at approximately one-third of total project capital costs, anticipated to be derived from the proposed FTA "Small Starts" program discussed earlier. As with the first and second scenarios, the assumption underlying state participation is based on discussions to date with FDOT. Bay Link joint use funding was reduced to approximately 25 percent of the cost of the potential joint use facilities,

anticipating that no immediate benefit would accrue to the County by this investment, as the Bay Link project is scheduled well beyond the opening date for the Streetcar. As in Table 20.2.1, PTP bond proceeds assume an amount equal to two-thirds of the 20 percent transit minimum would be leveraged for capital financing, with the remaining one-third available to help fund the project's operating costs. The \$40 million estimate is conservative and is based on the NPV of the revenue stream over 25 years using a 5 percent interest rate.

The fourth scenario, Table 20.2.4, assumes Federal participation at approximately one-third of total project capital costs, anticipated to be derived from the proposed FTA "Small Starts" program discussed earlier. As with the previous scenarios, the assumption underlying state participation is based on discussions to date with FDOT. Bay Link joint use funding was again reduced, in this scenario to approximately 35 percent of the cost of the potential joint use facilities, anticipating that no immediate benefit would accrue to the County by this investment, as the Bay Link project is scheduled well beyond the opening date for the Streetcar. Unlike the previous scenarios, PTP bond proceeds assumes a lesser allocation to the Streetcar of only 16 percent of the PTP revenue available to the City, of which two-thirds would be leveraged for

Table 20.2.1
Capital Funding Scenario 1 (\$1,000)
No Federal/13.2% PTP for Capital/City Bonds/Contributions by Others

FTA "Small Starts"	\$	-
State Discretionary Grants	\$	30,000
Baylink Joint Use Funding	\$	36,000
PTP Bond Proceeds	\$	40,000
Additional City Bond Proceeds	\$	22,000
Contributions by Others	\$	5,000
Total	\$	133,000

Table 20.2.2
Capital Funding Scenario 2 (\$1,000)
No Federal/20% PTP for Capital/City Bonds/
No Contributions

FTA "Small Starts"	\$	-
Sate Discretionary Grants	\$	30,000
Bay Link Joint Use Funding	\$	36,000
PTP Bond Proceeds	\$	60,000
Additional City Bond Proceeds	\$	7,000
Contributions by Others	\$	-
Total	\$	133,000

Table 20.2.3
Capital Funding Scenario 3 (\$1,000)
Federal "Small Starts"/13.2% PTP for Capital/No City
Bonds/No Contributions

FTA "Small Starts"	\$	45,000
State Discretionary Grants	\$	30,000
Bay Link Joint Use Funding	\$	18,000
PTP Bond Proceeds	\$	40,000
Additional City Bond Proceeds	\$	-
Contributions by Others	\$	-
Total	\$	133,000

Table 20.2.4
Capital Funding Scenario 4 (\$1,000)
Federal "Small Starts"/10.6% PTP for Capital/No City
Bonds/No Contributions

FTA "Small Starts"	\$	45,000
State Discretionary Grants	\$	30,000
Bay Link Joint Use Funding	\$	26,000
PTP Bond Proceeds	\$	32,000
Additional City Bond Proceeds	\$	-
Contributions by Others	\$	-
Total	\$	133,000

capital financing, with the remaining one-third available to help fund the project’s operating costs. The \$32 million estimate is conservative and is based on the NPV of the revenue stream over 25 years using a 5 percent interest rate.

Tables 20.2.3 and 20.2.4 clearly demonstrate the advantage of seeking Federal funding from a finance perspective. With Federal participation as part of the capital funding plan, the City gains more flexibility in its use of the PTP revenues, enabling part of the Streetcar’s allocation from this revenue source to be set aside for the Streetcar’s operating costs. Also, less dependency can be placed on the Bay Link joint use funding component and contributions from other agencies. Conversely, seeking Federal funds presents tradeoffs, including but not limited to (1) the uncertainty of whether the new FTA “Small Starts” program will be created, (2) its composition with respect to eligibility requirements, which could delay the project delivery schedule if too burdensome, and (3) the expected competition for this new funding source.

It also should be noted that state SIB loans were not factored into the four capital funding scenarios. FDOT anticipates having available \$50 to \$75 million per year in FY 05/06 and FY 06/07. Based on historic SIB loan awards, the Streetcar could anticipate receiving approximately \$20 million in loans over this two-year period. As this would add to the leveraging capabilities of the City’s PTP revenues, it deserves additional consideration within the context and timing of a larger City debt initiative.

20.3 Operating Funding Sources:

As with the capital funding analysis, a variety of funding programs and sources also were explored to help fund the Streetcar’s annual operating budget, as farebox revenues are expected to fund approximately 25 percent of the total operating budget requirement. Tables 20.1.1 and 20.1.2 describe potential sources of operating funds from state programs and local revenue sources. Additionally, private participation through several ancillary revenue mechanisms was assessed, the details of which are contained in Section 20.5.

20.3.1 State

Table 20.1.1 indicates that at least two potential state sources of funds may be available to help support the Streetcar’s operating costs. These include service development funding and funds derived from the County’s share of FDOT’s State Public Transit Block Grant program.

No estimate was made for service development funding, as projects typically compete for a limited statewide pool of funds each year. To the extent this competition takes place in 2008, the City is encouraged to apply for these funds. Service development funding is intended to assist with the initiation of new transit services and is typically available for the first three years of a system’s operation. It is not intended as a permanent source of operating funds.

The County receives approximately \$15 million per year in State Public Transit Block Grant funds. This funding source can be used for either capital or operating costs. Each operating public transit agency receives an annual allocation of these funds based on

a three-part formula (one-third population, one-third revenue miles, and one-third ridership). When the Streetcar becomes operational, it is assumed to result in a net increase in the transit service available to the public and, consequently, an increase in the County’s allocation of State Public Transit Block Grant funds. The Streetcar’s potential share of these funds was not estimated, however, as this would be difficult to estimate at this time. First, a public transit system is eligible for these funds only after it has become operational. Revenue miles and transit riders as used in the formula are based on a system’s actual performance. Second, the County’s projected allocation of these funds in 2009 or 2010 would have to be estimated, considering all of the transit systems that would be operational at that time. Third, an estimate also would have to be made of whether the Streetcar’s operations resulted in an incremental increase in the County’s total allocation and thus the portion of the County’s allocation attributable to the Streetcar’s operations. The State Public Transit Block Grant program provides another potential funding source for the Streetcar’s operating costs. The City should seek participation from this source at the appropriate time.

20.3.2 Local

Table 20.1.2 contains several potential local funding/revenue sources that could be applied to help pay for the Streetcar’s operating costs.

Peoples Transportation Plan Revenues: As used in two of the capital funding scenarios, one-third of the City’s PTP, 20 percent transit minimum, revenue stream was assumed to be available to help pay for the Streetcar’s operating costs. This funding source was also evaluated using one-third of a 16 percent

Table 20.3.1
One-Third of PTP Transit Minimum (\$1,000)
16% and 20% Scenarios

Year	16% Amount	20% Amount	Year	16% Amount	20% Amount
2004	564	705	2019	1327	1,658
2005	590	738	2020	1406	1,758
2006	620	775	2021	1491	1,863
2007	650	813	2022	1580	1,975
2008	685	856	2023	1675	2,094
2009	724	905	2024	1775	2,219
2010	766	958	2025	1882	2,352
2011	818	1,022	2026	1995	2,494
2012	869	1,086	2027	2115	2,643
2013	926	1,157	2028	2241	2,802
2014	987	1,233	2029	2376	2,970
2015	1051	1,314	2030	2519	3,148
2016	1114	1,392	2031	2670	3,337
2017	1181	1,476	2032	2830	3,537
2018	1252	1,565	2033	3000	3,750
			Total	43,677	\$54,596

Table 20.3.2
Operating Funding Reserve (\$1,000)

Year	One-Third of 16% Transit PTP Revenue	One-Third of 20% Transit PTP Revenue	
2005	590	\$ 738	
2006	620	\$ 775	
2007	650	\$ 813	
2008	685	\$ 856	
Total	2545	\$ 3,182	Operating Reserve

Note: Interest earnings not included.

Streetcar allocation, allowing the City to use the remaining 4 percent for other City transit initiatives. This revenue stream is shown in Table 20.3.1 for the 16 percent and 20 percent scenarios.

Prior to the initiation of Streetcar operations, this funding source for the years 2005 through 2008 could be used to accumulate an operating reserve to offset the potential ramp-up of other proposed operating revenue sources. The operating reserve is illustrated

in Table 20.3.2. After 2008, the projected annual revenues from this source would be applied to the annual operating costs of the Streetcar project.

County Funding in Lieu of Bus Service: The Streetcar may replace existing bus service now provided by MDT in the project corridor. Should this be the case, it would represent a savings to MDT and thus a potential contribution to the Streetcar's operating costs. No estimate was made for this potential source of funding, however, as additional service coordination and funding negotiation with the County is required.

Parking Related Revenues: Additional parking facilities are not expected to be needed to support potential streetcar riders (i.e., not a park and ride system). However, additional parking would be needed to support additional development and redevelopment that will occur along the corridor, drawing both streetcar riders and automobile traffic. An additional 100-150 metered parking spaces along the proposed Streetcar alignment will also be created along the NE 2nd Avenue corridor between NE 17th Street and NE 29th Street where on street parking is not currently metered or enforced. The revenue derived from additional parking facilities, net of any capital cost for installation, could be used to help fund the Streetcar's operating costs. Also, the City may want to consider a modest increase in parking rates for existing parking facilities located along the project's alignment.

Real-Estate-Related Revenues: As discussed in the capital funding sources section, the existing CRA community redevelopment districts are projected to generate approximately \$7-8 million for 2005, noting that this revenue stream has taken several years to

mature. The Miracle Mile BID in Coral Gables, which assesses property owners based on assessed property value, generates approximately \$420,000 per year. Consequently, these types of mechanisms may be well suited as potential sources of operating funds for the Streetcar project. Property values have been on the rise in the Miami area, contributing to and enhancing the performance of existing real-estate-related revenue mechanisms.

The real estate development projections identified in the previous section provide ample support for financial flexibility in allocating resources for the operating costs associated with the streetcar system. The conservative approach in calculating the real estate assessment values indicates that the Large Scale Development Report identifies more than 5,100,000 sq ft of development. These developments will generate almost \$3,800,000 per year in new ad valorem taxes as they are completed and come on the tax roles. The appreciated value of the existing properties will also generate an increase in ad valorem revenues which, combined with the new projects, are anticipated to reach \$18,575,000 per year by 2030.

Contributions by Local Agencies: As noted earlier, both the City's Community Redevelopment Agency and the Downtown Development Authority were contacted to ascertain their interest in financially contributing to the Miami Streetcar project. Both agencies viewed the Streetcar project as a means to facilitate their respective missions and expressed a willingness, at the staff level, to support the project financially. The CRA's revenue mechanism (TIF) and the DDA's revenue source have been described previously. Contributions from agencies such as the CRA and the DDA should be

further explored by the City and ideally solidified during future phases of project development.

Calculations based on all the large-scale projects included within an existing, expanded, or new CRA, project new tax increment revenues at \$6,388,000 (millage rate of 14.7315). Currently, the Omni CRA and the southwest Overtown Park West CRA have transportation elements in their adopted plans with budgeted funding. The Midtown CRA has a negotiated agreement with the city and county whereby the TIF trust fund monies can be used only to underwrite costs associated with parking facilities and public plazas or open spaces.

The Miami DDA has a half-mil ad valorem assessment on all properties within its district, which includes both the Omni and SEOPW CRAs. The DDA's annual revenue is approaching \$3.0 million per year. The growth in its revenues will be restricted to the DDA area south of the SEOPW CRA and north of the SE 15th Road. The DDA increases in the two existing CRAs will be contributed to their respective TIF Trust Funds. Because the DDA has expressed a willingness to support the streetcar system, particularly to enhance the Jewelry District opportunities, an annual contribution by the agency could be developed to assist in operating costs. This contribution could follow a formula methodology based on linear front feet, square footage of each parcel, or square footage of improvements on each parcel within a specified distance of the streetcar line (500 to 1000 feet).

Additional consideration should be given to creating a "transportation trust fund", requiring all new developments to pay an established fee for the rights to build parking spaces. This trust fund would be established for all properties within 500 to 1,000 ft of

the streetcar line. More than 10,000 parking spaces within two blocks of the Miami Streetcar line are projected for the Large Scale Projects. To encourage streetcar use and reduce intra-city traffic within the study area, an annual assessment on each new parking space would be made for operating expenses. Each parking space would be allocated a monthly or annual transit pass to ride the streetcar without additional charge. These new trust fund revenues could be combined with increased parking fees for existing on- and off-street parking facilities within the same 500- to 1,000-ft distance of the streetcar line.

20.3.3 Farebox Revenues

Three farebox revenue scenarios were developed based on the ridership forecasts contained in Section 15. Farebox revenues have been estimated in the range of \$1-2 million per through 2025. The range was driven by differing land use and redevelopment assumptions, which influenced the underlying ridership forecasts. The difference, however, in the farebox revenue projections amounts to less than \$500,000 in 2025. It is assumed that the total amount of farebox revenues collected each year would be used to help pay for the Streetcar's operating costs. For this study, the most conservative farebox revenue projection was used.

20.3.4 Ancillary and Secondary Revenues

An estimate of ancillary revenues was prepared, the details of which are contained in Section 20.5. Two revenue components were analyzed: (1) the media value of advertising on, within, and near the vehicles, and (2) exclusive concession agreements and rental fees on or near each of the proposed 24 station stops.

Table 20.4.1
Operating Funding Scenario 1 (\$1,000)

Uses:	2009	2010	2011	2012	2013	2014	2015
Annual Operating Cost	\$ 4,057	\$ 4,179	\$ 4,305	\$ 4,434	\$ 4,567	\$ 4,704	\$ 4,845
Sources:							
One-Third 20% Minimum	\$ 905	\$ 958	\$ 1,022	\$ 1,086	\$ 1,157	\$ 1,233	\$ 1,314
Farebox	\$ 1,033	\$ 1,053	\$ 1,074	\$ 1,096	\$ 1,118	\$ 1,140	\$ 1,163
Ancillary Revenues	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745
Contributions	\$ 300	\$ 309	\$ 318	\$ 328	\$ 338	\$ 348	\$ 358
TIF/BID	\$ 800	\$ 824	\$ 849	\$ 874	\$ 900	\$ 927	\$ 955
Operating Reserve Draws	\$ 275	\$ 290	\$ 296	\$ 305	\$ 309	\$ 310	\$ 309
Total Sources	\$ 4,058	\$ 4,179	\$ 4,304	\$ 4,434	\$ 4,567	\$ 4,703	\$ 4,844

Table 20.4.2
Operating Funding Scenario 2 (\$1,000)

Uses:	2009	2010	2011	2012	2013	2014	2015
Annual Operating Cost	\$ 4,057	\$ 4,179	\$ 4,305	\$ 4,434	\$ 4,567	\$ 4,704	\$ 4,845
Sources:							
One-Third 20% Minimum	\$ 905	\$ 958	\$ 1,022	\$ 1,086	\$ 1,157	\$ 1,233	\$ 1,314
Farebox	\$ 1,033	\$ 1,053	\$ 1,074	\$ 1,096	\$ 1,118	\$ 1,140	\$ 1,163
Ancillary Revenues	\$ 1,100	\$ 1,133	\$ 1,167	\$ 1,202	\$ 1,238	\$ 1,275	\$ 1,313
Contributions	\$ 300	\$ 309	\$ 318	\$ 328	\$ 338	\$ 348	\$ 358
TIF/BID	\$ 800	\$ 824	\$ 849	\$ 874	\$ 900	\$ 927	\$ 955
Total Sources	\$ 4,138	\$ 4,277	\$ 4,430	\$ 4,586	\$ 4,751	\$ 4,923	\$ 5,103
Surplus/Deficit	\$ 81	\$ 98	\$ 125	\$ 152	\$ 184	\$ 219	\$ 258

Table 20.4.3
Operating Funding Scenario 3 (\$1,000)

Uses:	2009	2010	2011	2012	2013	2014	2015
Annual Operating Cost	\$ 4,057	\$ 4,179	\$ 4,305	\$ 4,434	\$ 4,567	\$ 4,704	\$ 4,845
Sources:							
1/3 of 16% Streetcar Allocation	\$ 724	\$ 766	\$ 818	\$ 869	\$ 926	\$ 987	\$ 1,051
Farebox	\$ 1,033	\$ 1,053	\$ 1,074	\$ 1,096	\$ 1,118	\$ 1,140	\$ 1,163
Ancillary Revenues	\$ 1,100	\$ 1,100	\$ 1,100	\$ 1,100	\$ 1,100	\$ 1,100	\$ 1,100
Contributions	\$ 300	\$ 309	\$ 318	\$ 328	\$ 338	\$ 348	\$ 358
TIF/BID	\$ 800	\$ 824	\$ 849	\$ 874	\$ 900	\$ 927	\$ 955
Operating Reserve Draws	\$ 100	\$ 127	\$ 146	\$ 167	\$ 185	\$ 202	\$ 218
Total Sources	\$ 4,057	\$ 4,179	\$ 4,305	\$ 4,434	\$ 4,567	\$ 4,704	\$ 4,845

The media revenue component was considered less speculative, given the established transit media market and the availability of comparables. Concession revenues, however, were more speculative as comparables were not as readily available. Additionally, because much of the Streetcar’s proposed alignment is undergoing redevelopment, future pedestrian traffic and shifting demographics along the corridor would impact concession returns.

Ancillary revenues were estimated to be in the range of \$745,000 to \$1.4 million per year, subdivided into the two components: media, at \$510,000 to \$875,000, and concessions, at \$235,000 to \$565,000.

20.4 Financial Feasibility—Operating Funding Sources and Scenarios

Tables 20.4.1 and 20.4.2 present two operating funding scenarios for consideration by the City. They illustrate the feasibility of funding the Streetcar’s operating costs from the funding sources shown. The time frame covered by these scenarios begins in 2009, the first full year of Streetcar operations, and extends through 2015.

20.4.1 Uses of Funds

Annual operating costs were estimated to be \$3.5 million (2004 dollars) for 2008, the year in which service would be initiated. This amount was escalated for inflation at 3 percent per year, resulting in an amount of approximately \$4 million (2009 dollars) for 2009, the first full year of operations. The operating costs values shown in Tables 20.4.1, 20.4.2, and 20.4.3 were further inflated at 3 percent per year through 2015.

20.4.2 Sources of Funds

One-Third of the PTP Transit Revenue: The projections shown conform to the values in Table 20.3.1, which is based on the County’s official estimate of the half-cent sales tax increase (PTP) revenue, including long-term revenue growth.

Farebox Revenues: Revenues from this source are projected to grow at only 2 percent per year based on the most conservative ridership forecast, which is described in more detail in Chapter VI.

Ancillary Revenues: As already noted, ancillary revenues were estimated to be in the range of \$745,000 to \$1.4 million per year. For this analysis, the lower end of the range (\$745,000) was used. Because ancillary revenue growth would be a function of the strength of the advertising market at a future point in time, no attempt was made to estimate an appropriate growth rate for this revenue stream.

TIF/BID: It is assumed for this analysis that some form of real-estate-related revenue mechanism would be established for the purpose of partially funding the Streetcar’s operating costs. An amount of \$800,000 beginning in 2009 was used, which is considered conservative because it represents less than 10 percent of the existing CRA TIF and Coral Gables BID revenue streams combined. A conservative inflation factor of 3 percent per year was applied to this revenue stream, as it is tied to the strength of the real estate market.

The TIF financing is directly tied to the growth of the ad valorem tax base. The development activity associated with the City’s Large Scale Projects Report will generate almost \$3.8 million in city ad valorem

tax per year. If these projects are included in an existing or expanded tax increment area, that number approaches \$6.4 million per year.

The concept of an assessment program is addressed in section 20.3.2. There are a variety of approaches in developing the criteria for assessing properties as well as developing the appropriate formula for each parcel’s assessment. Operating funds would seem to lend themselves to this type of funding. In addition to the previously described BID program, there are a variety of assessment vehicles that deal with road improvements, street lighting, maintenance of rights-of way, public safety, etc. An assessment program supporting the streetcar operation could be developed around a parking/transportation enhancement concept. If established with the appropriate formula and with a specific time limitation that can be renewed based on performance, an assessment program appears to be viable and could be a significant source of revenue to augment those resources already identified. Once established, such a program may very well be able to replace one or more revenue sources.

Contributions: Based on the positive reaction received from the staff at the CRA and the DDA, and their interest in seeing the Streetcar project succeed, it was assumed for this analysis that a contribution in the amount of \$300,000 per year would be achievable to help pay for the Streetcar operating costs. Again, a conservative inflation factor of 3 percent per year was applied to this revenue stream, as both agencies’ revenue sources are tied to the strength of the real estate market.

Operating Reserve Draws: Table 20.3.2 contains the accumulated value of the proposed operating reserve

for the years 2005 through 2008. The operating funding scenario shown in Table 20.4.1 consumes only two-thirds of the reserve, leaving approximately \$1 million in reserve to address any potential shortfalls that may accrue beyond 2015.

Table 20.4.2 shows a slight variation from the assumptions used in Table 20.4.1, but the result is significant. Table 20.4.2 uses the mid-point of the estimated ancillary revenues estimate range noted above and escalates these values at 3 percent per year. In this scenario, there is no need to draw from the operating reserve and for each year a surplus of operating funds exists. The surplus could be used to absorb operating cost increases above the estimate, or less dependence could be placed on the other sources of funds listed. Additionally, because no reserve is needed in this scenario, this amount can be available to leverage additional capital financing or pay for capital costs from available cash.

Table 20.4.3 shows the impact of reducing the Streetcar’s allocation of PTP revenues to 16 percent of the City’s total revenues from this source. One-third of the 16 percent allocation is used to help pay for operating costs, and the remaining two-thirds is used to leverage capital financing. As in Table 20.4.2, a mid-point of the range of estimated ancillary revenues was used, except that in this case no escalation was applied. Operating reserve draws are necessary, but less than half of the total reserve shown in Table 20.3.2 was consumed.

In summary, the three operating scenarios demonstrate the financial feasibility of operating the Streetcar project. The revenue estimates for the funding sources shown are considered to be achievable, and their respective growth over time

conservative. It also should be noted that the funding sources used were not all inclusive. As discussed earlier, additional potential sources were not estimated at this time for the reasons mentioned in the respective sections. These include additional state sources, County sources, and parking-related revenues. Thus, in light of the conservative approach applied to the scenarios shown in Tables 20.4.1 through 20.4.3 and the presence of additional untapped funding sources, implementing a viable operating finance plan for the Streetcar project should not be problematic.

20.5 Ancillary Revenue

The estimate of ancillary revenue is for the Phase 1 alignment of the Miami Streetcar (expected to open in 2008 or after), which is presumed to feature eight cars running between the downtown business district. Additional analysis and surveys could develop more precise estimates and fully identify potential private and public sector hurdles and opportunities that may impact the full realization of these revenues.

20.5.1 Components

The ancillary revenue for this system has two components:

- The media value of the advertising on, within, and near the vehicles
- Exclusive concession agreements and rental fees on or near each of the proposed 24 station stops

The media revenue component is less speculative, given the established transit media market and the plentiful availability of comparables. Concession revenues, on the other hand, are the most variable.

There are yet unexplored implementation issues related to community receptivity and governmental acceptance. Comparables are not readily accessible, and additional analysis is required to adequately predict customer usage and corporate participation. Finally, much of the future Miami Streetcar alignment is undergoing redevelopment. Future pedestrian traffic and shifting demographics along the corridor would particularly impact concession returns.

20.5.2 Research Process

Site Visits

The following were observed and evaluated:

- Existing commercial development, media sites, traffic, and other factors along the recommended alignment
- Fully developed commercial districts on Biscayne Boulevard, Brickell Avenue, and Collins Avenue as potential comparables for the future build-out of the proposed Streetcar route
- The existing bus system running in these commercial districts. The ridership profile was gauged, and typical interior advertising, bus shelter advertising, and other ancillary revenue opportunities were identified.

Interviews

Phone interviews were conducted with the following:

- Media sales representatives employed by major transit advertising companies which operate in Ft Lauderdale, Tampa/St Petersburg, Orlando, Cleveland, and Denver. (Cleveland is the 16th largest TV market, Miami is the 17th, and Denver is the 18th. Comparing these three provided an opportunity to evaluate the impacts of regional and demographic variations.) The following were queried:

- The general health of the local ad market
- Community and governmental receptivity to outdoor advertising
- Prices for various forms of transit media, with a particular emphasis on prices and terms for full bus wraps, interior ad cards, and bus shelters
- The County official who currently manages Miami’s bus advertising inventory, Chuck Devine, to obtain similar information. (This inventory is not currently represented by an outside media sales organization, although it is anticipated that within a few months from June 2004 a regional or national company will likely be awarded a contract.)

20.5.3 Miami Streetcar in the Context of Comparable Systems

In addition, the activities of trolleys and light rail systems in Tampa, Portland, Cleveland, New Orleans, and San Diego were briefly reviewed. Each system has taken a slightly different approach to securing ancillary revenues, as follows:

- Tampa, Florida
 - Sold naming rights to the entire system to a local company.
 - Has a naming rights sales effort underway that will sell rights to each of the eight cars and 10 stations to local companies and small businesses.
 - Has a name branding that is discreet and limited to logos and such.
 - The respective sponsors’ name is announced at each sponsored stop via an automated announcement on board each vehicle.

- No regular advertising is yet accepted on the system.
- Portland, Oregon
 - Numerous station and individual car sponsorships have been sold at relatively modest amounts; station sponsorship is priced at \$4800 per station per year, and vehicle sponsorships at \$25,000 per vehicle per year.
 - The respective sponsors’ name is announced at each sponsored stop via an automated announcement on board each vehicle.
 - Local restaurants are involved in sponsoring the system maps.
- San Diego, California
 - The trolley has been under a 20-year advertising and sponsorship moratorium.
 - The moratorium was temporarily lifted during a Super Bowl.
 - Trolley car wraps were then sold on 10 vehicles (less than 10 percent of the fleet); local and national advertisers eagerly paid for this inventory.
 - The system’s board subsequently elected to reinstate the moratorium on all rail vehicles.
 - San Diego’s bus fleet accepts all forms of advertising, including wraps.
 - The system has an agreement with the Coca Cola Company to place vending machines at 43 of the trolley’s 46 stations. A revenue-sharing agreement is in place.
 - An outside vendor serves as a general contractor to provide cart-based amenities (coffee, newspapers, souvenirs etc.) to riders at selected stations.

- New Orleans, Louisiana
 - Traditional transit ads are placed on the sides and back of the vehicles. This inventory is represented by Clear Channel Outdoor.
 - Ad rates for traditional exterior transit ads on street cars range from \$300 to \$650 per month per car depending on the kind of street car selected. By comparison, full wraps of the city’s buses are offered at \$2,000 to \$3,000 per month by Clear Channel Outdoor.
- Cleveland, Ohio
 - The light rail system allows some branding and advertising on its cars (but not full wraps); advertising is accepted on only one side of each vehicle at a cost of \$800 per vehicle per month.

Because the Miami Streetcar would be operating in the out-sized, vibrant Miami market and is being designed from the ground up, there is an opportunity to build a much more exciting, stylized, and lucrative advertising presence into the basic design (and to prepare the public for it). From a strategy and revenue perspective, much depends on whether the management takes a more modest civic sponsorship-based approach or is willing to select the broader, “streetcar-as-bigger-than-life-advertising-platform” path (or some hybrid blend of these options). Selecting against the latter approach is likely to significantly reduce the revenue potential. For either path, public acceptance should be more easily attainable with a consistent message: these revenues would help defray operating costs and minimize demands on public funds. Furthermore, no precedent exists for signage and graphics standards on streetcars in Miami, so there are no public expectations. To this end, it would likely make sense to ensure that all

preliminary drawings and public presentations include vehicles wrapped in advertising.

At this phase of the study, the intent of the research and analysis has been to present top-line findings regarding the operations of other, similar systems. More complete phone interviews with current operators of these systems and possible site visits may yield more useful information on the opportunities and limitations of securing ancillary revenues for these types of transit systems.

Revenues from the newly opened Las Vegas monorail, and estimates for the proposed 42nd Street light rail transit (LRT) in Manhattan were not seriously considered as comparables because the first phase of the Miami Streetcar would not carry the same high level of ridership and would not traverse thoroughfares that are as busy and as storied as those in Las Vegas or Manhattan. (However, it should be noted that the proposed Bay Link alignment through South Beach would have a related marquee value). The success of Las Vegas in selling non-traditional sponsorships and 10-year contracts for \$10 million full-vehicle wraps does provide an important industry precedent.

20.5.4 Ancillary Revenue - Findings, Recommendations, Assumptions and Estimates

Media

The local advertising market is quite healthy, as confirmed by all of the sales representatives interviewed. Two of four local companies had already achieved 80 percent of annual sales goals within the first six months of the year. Furthermore, all reported that the City’s aversion to outdoor billboards is making transit media more valuable.

Recommendation

If the desire of the City is to maximize the revenue potential of the proposed system, it will be important to present the ad platform on each streetcar as something special, rare, and different from traditional bus advertising, and to be prepared to wrap each car with a brand message. Wraps create a large, approximately 65-ft advertising platform, which compare favorably to a normal city bus, which measures 45 ft for advertising. Streetcars are inherently held in higher regard than buses; they are typically perceived by the public as affinity properties (again very different from buses). The opportunity to “own” a wrapped streetcar could be marketed to prominent national companies or major Miami-headquartered companies to showcase their brand and show civic pride to visitors and residents.

Some advertising may be included in packages with exclusive concession relationships for participating companies (such as a bank looking for automatic teller machine (ATM) rights, described below). Ad revenues from station shelter and vehicle interior ad panels can also be packaged into sponsorships, but it would probably make sense to sell them as traditional transit ads via a traditional third-party ad sales organization. To achieve related revenues, station shelter and vehicle interior designs should be modified as needed to include backlit ad panels.

It is important to realize that there are many approaches to packaging and selling advertising and packages that can work for Miami Streetcar. As discussed above, Miami may also opt to pursue naming rights sales and low-key civic sponsorships, instead of vehicle wraps, interior advertising, and station ad panels. However, for the purposes of developing a

financial plan, wraps and traditional advertising are recommended. They are part of the established transit and outdoor billboard media market, are easy to benchmark, and can be reliably estimated. Naming rights, station sponsorship, etc. are inherently more speculative but can be studied more fully if desired; in any event, the associated revenue is very unlikely to exceed that which transit advertising would generate.

Assumptions

- Each streetcar would be available for a “full-wrap” ad featuring a single advertiser (with no restrictions on window covering, etc.); if wraps cannot be sold, these estimates should be discounted by 50 percent or more.
- Interior ad cards would be available for advertising by one sponsor or multiple advertisers. A typical city bus can accommodate about 15 interior ad cards, and it is assumed that each streetcar would accept 25 interior ad cards.
- Stations would be covered stops, similar to bus shelters, and would accommodate at least two advertising panels.
- Annual estimates for all three units (wraps, ad cards and station panels) would be based on 13 billing periods, as transit advertising is customarily sold in 28-day increments.
- Income from advertising and graphics preparations (post-up or “make ready” charges) and associated mark-ups are not included in these estimates. If collected, they would vary depending on if the production is done in-house or out-sourced, as well as based on the frequency of ad changes.
- All estimates are for gross revenues and are not net of any sales commissions.

Annual Revenue Estimate (2004 dollars)

Revenue Source	High Scenario	Low Scenario
Streetcar Wraps	\$505,000	\$240,000
Streetcar Interior Cards	\$50,000	\$30,000
Station Ad Panels	\$320,000	\$240,000
Media Subtotal	\$875,000	\$510,000

20.6 Secondary Revenue Sources

Four broad, ancillary revenue opportunities have been identified for initial study. (There may be more opportunities as well, but further time and study will be required to identify and evaluate them.) Each considered initiative would provide riders, visitors, and area residents with an essential utility that is unrelated to transportation. To realize the related revenue potential, new precedents would have to be set as to how each station stop is designed, situated, and utilized. Current aesthetic and regulatory considerations have not been fully factored into this study, as project design and planning efforts are only just beginning. However, by identifying these opportunities at this stage, it may be possible to ensure their inclusion from the ground up, rather than trying to retrofit to include them after the fact.

In the event that planning and design challenges are met, a rough, order-of-magnitude estimate is provided below. The revenue consulting experts believe that these initiatives are quite achievable assuming that the management and political leaders deem the tangible and intangible costs and benefits worth the effort.

20.6.1 Recommendation

The proposed design of stations should accommodate the following concessions: automated teller machines, beverage vending machines, and wireline phones

(potentially with wi-fi transmitters). These concessions would generate commissions from sales, usage, and/or leasing. Further, note that some or all stations may accommodate small cellular phone base station antennas, generating rental income from mobile phone carriers.

To maximize revenues, these concession rights could be bundled, when possible, as components of larger, packaged arrangements, which would also include ad-buying commitments.

Concession agreements are typically structured either to produce guaranteed revenues/rental income or to pay returns on a revenue-share basis. For the Miami Streetcar, these options are likely to be selected or blended on a case-by-case basis, to balance risks and returns, and in response to indications from the private sector. As mentioned above, good value may also be derived from packaging concession rights into larger, long-term sponsorship deals. On revenue-share deals, returns from most of these sources would likely be “lumpy”, spiking during events and conventions, and varying seasonally.

Design changes to stations would include adding appropriate, secure spaces or slots for concession machines/devices. There would need to be appropriate circuits and power outlets available. A tasteful, convenient, modular design can be developed in consultation with likely concession service providers and industry experts; this input could be gathered during a future study phase.

The MPO’s proposed Bay Link FEIS/PE project has proceeded through form and fit analysis and station concept planning.

Beverages/Vending

Each station could accommodate a beverage and/or snack vending machine of appropriate size and secure design. This machine would be accessible to waiting passengers as well as passing pedestrians. Each station stop would need to provide an appropriate power outlet. A wide variation in sales from station to station is expected.

Assumptions

- All 24 stations could accommodate these machines, and some or all may be selected as viable locations.
- The retail price per item would be \$1.00, with a portion paid in commission income to the management.

Annual Revenue Estimate (2004 dollars)

Revenue Source	High Scenario	Low Scenario
Beverages/Vending	\$175,000	\$70,000

Automatic Teller Machines

Each station could accommodate an automatic teller machine; however, it is likely that only a few stations in high-traffic areas, particularly those that host out-of-town visitors, would be desirable candidates for ATMs. Ultimately a bank partner or a third-party ATM supplier would be best suited to evaluate the suitability of each station location for an ATM (during pre-bid discussions or as part of a proposal process). The ATM machines envisioned would be accessible to waiting passengers as well as passing pedestrians. Each station stop would need to provide an appropriate power outlet. The ongoing, long-term viability of ATMs as a revenue source should be

monitored as more and more of the populace shifts to conducting cashless transactions.

An interesting side note: The Charlotte Area Transit System (CATS) has issued a request for proposals for ATMs at LRT stations. Instead of a revenue-sharing or rental arrangement, however, CATS has requested that the ATMs be configured to vend tickets as a cost offset. The net value to be gained or lost by this offset approach is not yet clear, nor are the operational ramifications. However, it is possible that an ATM/ticket-vending machine will already have been developed for CATS by a national bank partner by the time the Miami Streetcar opens.

Assumptions

- All 24 stations could accommodate ATMs, but not all would be used.
- The transaction charge would be \$1.50, with 50 percent, or \$0.75, paid in commission income to Miami Streetcar.
- Many transactions are expected at various stations but not all would be commissionable if a prominent local bank provides the ATMs and existing customers of that bank use these machines for free.
- A majority of the commissionable transactions are likely to occur near the convention and hotel area, and would be driven by out-of-town visitors.

Annual Revenue Estimate (2004 dollars)

Revenue Source	High Scenario	Low Scenario
ATMs	\$160,000	\$70,000

Wireline Pay Telephones

Each station could accommodate one or more pay phones. The pay phones are assumed to be accessible to waiting passengers as well as pedestrians. The continuing revenue viability of pay phones over the long term must be examined from time to time as more and more of the populace shifts to wireless devices. A vending machine that disburses pre-paid phone cards could offset some of this possible revenue erosion. Some major telephone companies are also installing wi-fi hubs at their pay phone locations. In addition to revenue generation, the presence of pay phones is sometimes perceived to be a helpful public safety measure. (In other cases, a regular clientele can be perceived as a nuisance.)

Assumptions

- All 24 stations could accommodate pay phones.
- Each call would cost the consumer an average of \$0.50, with half paid as a commission to Miami Streetcar.

Annual Revenue Estimate (2004 dollars)

Revenue Source	High Scenario	Low Scenario
Pay Phones	\$100,000	\$40,000

Wireless Base Station Antennas

Wireless companies often situate base station antennas at or near busy street corners to provide uninterrupted cell coverage to their subscribers. They typically pay lease or rental fees to property owners. Often one company will secure the station via a lease or rental agreement and then proceed to “sublease” the antenna for use by competitors. While all 24 stations could accommodate these antenna devices, only a few stations may be eligible based on each

location’s ability to alleviate a local dead spot in wireless coverage.

Assumptions

- All 24 stations could accommodate antennas, but most would not be desirable locations.
- Each location would generate a flat monthly fee.

Annual Revenue Estimate (2004 dollars)

Revenue Source	High Scenario	Low Scenario
Antenna Leases	\$130,000	\$55,000

Over the long-term, inflation in media costs is likely to exceed CPI on an annual basis, while the retail sales price of the concessions envisioned at each stop are not likely to keep up with CPI. In the short-term, however, market fluctuation is likely to render any fixed rate growth assumptions unsound. Consequently, no inflation-related adjustments were made to the estimates above.

All Estimates are for Gross Sales

All potential revenue estimates in this study are for gross sales. It is highly likely that sales commissions would be paid for sponsorship and ad sales. Long-term sponsorship sales commissions typically range from 15 percent to 25 percent, whereas traditional ad sales efforts by the third-party sales organizations often entail 40 percent or more in sales commissions, depending on the level of upfront revenue guarantees provided (if any). Within the transit world, agencies with in-house sales people typically pay between 5 percent to 15 percent sales commission. Different sales forces can also deliver different sales results, with large third-parties typically having better access to national advertisers.

Table 20.5.1
Summary Table

PROJECTED GROSS ANNUAL ANCILLARY REVENUE POTENTIAL (2004 dollars)

Revenue Source	High Scenario	Low Scenario
Media		
Streetcar Wraps	\$505,000	\$240,000
Streetcar Interior Cards	\$50,000	\$30,000
Station Ad Panels	\$320,000	\$240,000
Media Subtotal	\$875,000	\$510,000
Secondary Sources		
Beverages/Vending	\$175,000	\$70,000
ATMs	\$160,000	\$70,000
Pay Phones	\$100,000	\$40,000
Antenna Leases	\$130,000	\$55,000
Secondary Subtotal*	\$565,000	\$235,000
Gross Ancillary Revenue Potential:	\$1,440,000	\$745,000

* Estimates are not net of sales commissions and are in 2004 dollars

20.6.2 Next Steps

As financial plans and physical designs for the Miami Streetcar progress, there are a number of steps that can advance the revenue opportunities identified in this study:

- Research
 - Meet with other Florida agencies to discuss strategies and determine actual revenue yields from ancillary sources as well as to identify typical costs and any additional barriers.
 - Explore nationwide experiences and yields from naming rights and “low-key” sponsorships and compare them to traditional and wrap advertising.
 - Survey common post-up charge yields.

- Facilitation
 - Describe opportunities and risks to stakeholders.
 - Build consensus around an ancillary revenue plan.
- Finance
 - Revise ancillary revenue estimates to reflect the accepted plan.
 - Refine and update projections.
 - Incorporate into pro forma.
- Design
 - Consult station and vehicle plans to ensure that ancillary revenue opportunities are being maximized in all designs.
 - Invite potential concessionaries to provide design feedback.
 - Get details on wrapping from wrap manufacturers and other local agencies and incorporate the information into yard and shop needs (if necessary).
- Strategy and implementation
 - Develop and implement a proprietary sales and sponsorship packaging strategy (once the project has moved through the approval process). Include:
 - Close long-term sponsorship deals.
 - A contract for an outdoor advertising sales agent to handle traditional media (potentially with a revenue guarantee).
 - A package and source concession and cell tower rights.

Summary

This section has discussed a number of funding options which the City could finance the construction and operations of the Miami Streetcar. As the project continues to be developed, additional funding options will be identified and examined as to viability. The intent within this study was to determine if the project was financially feasible.

Since the preparation of this section, a number of discussions have been held with respect to the project financing. Based upon these discussions, it is apparent that there are a variety of means that the City can use to finance this project. A final project finance plan will be developed as the project proceeds and decisions are made as to which sources of funds will be used for project implementation. At this time, there is no reason to believe that the project is not financially feasible.