

February 8, 2011



L.A. Streetcar Economic Analysis

Executive Briefing



INTRODUCTION

Understanding that a new streetcar system is likely to enhance the long-term competitive position of Downtown Los Angeles, the Community Redevelopment Agency of the City of Los Angeles (CRA/LA) and Los Angeles Streetcar, Inc. (LASI), a non-profit organization, retained AECOM to estimate the economic impact of the proposed Los Angeles Streetcar System.

The Los Angeles Streetcar (the Streetcar) system is currently studying several route alternatives, the longest of which is a 4.75 mile loop around Downtown. This alignment, “Option 1” (see map on next page), was used as the basis for this economic study.

The economic activity created by the Los Angeles Streetcar includes not only the impacts from one-time construction and recurring operation of the streetcar itself, but also the induced impact resulting from the development of new commercial and residential property, reactivation of underutilized properties, creation of new businesses and jobs, increased Downtown tourism, increased numbers of local and overnight visitors, and spending by new employees, residents, and visitors.

These impacts have been measured against an assumed baseline growth rate for Downtown, as determined by historic trends for office, residential,

and visitor and convention attendance over the past fifteen years combined with forecasts considering current and future economic conditions. As a result, the impacts discussed herein are specific estimates of induced development to the Downtown region for the next 25 years specifically resulting from or supported by investment in the Los Angeles Streetcar System.

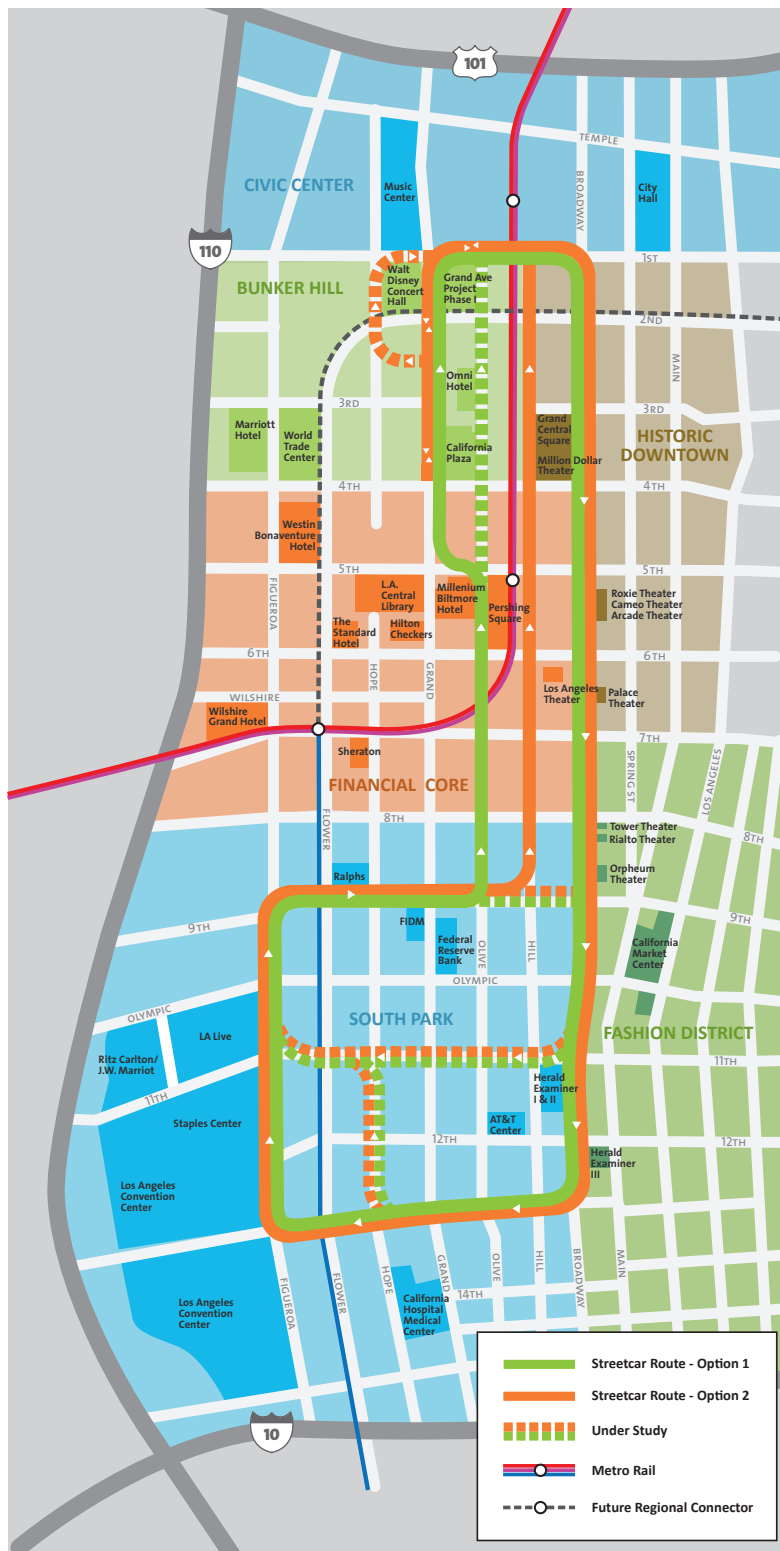
In summary, AECOM found that, in Downtown Los Angeles, the Streetcar will support and induce:

- Development of nearly 675,000 square feet of new and rehabilitated office space, with construction costs valued at \$210 million
- Development of 2,600 new housing units, with construction costs valued at \$730 million, providing housing for 3,600 new residents
- 7,200 new construction jobs* over the development period, with employee compensation of approximately \$500 million
- 2,100 new permanent office, retail, entertainment, and hotel jobs with employee compensation of approximately \$120 million annually by the end of the study period
- 5,800 new hotel room nights from new convention and business visitors
- New retail, restaurant, hotel, and entertainment spending reaching up to \$24.5 million annually over the course of the development period
- \$47 million in cumulative City of Los Angeles tax revenues during the 25-year development period

This economic impact assessment of the proposed Los Angeles Streetcar System was prepared by the Economics team at AECOM, led by William “Bill” Lee, Principal-in-Charge.



* Construction jobs are reported in job-years (one year of one job)



L.A. STREETCAR - PROPOSED ROUTES

The Streetcar alignment route is approximate at this time and subject to change during future planning stages.

THE ROLE OF THE STREETCAR IN DOWNTOWN LOS ANGELES

The past decade has been a period of intense urban renewal for Downtown Los Angeles. Passed in 1999, the City's Adaptive Reuse Ordinance sparked significant redevelopment activity, facilitating the transformation of many historic Downtown office buildings into lofts, apartments, and condominiums. In addition to the creation of new mixed-use developments in other parts of Downtown, this urban renaissance has attracted thousands of new residents to the area, catalyzed the creation of round-the-clock cultural, entertainment and sporting activities and services, leading to a greater variety of retail and dining options, as well as organized community events like Downtown Art Walk. Still, Downtown Los Angeles continues to be characterized by distinct, well-defined sub-districts, rather than being seen and experienced as one cohesive Downtown district.

The proposed Los Angeles Streetcar is a local transportation circulator system that will serve to unify Downtown Los Angeles as an interconnected destination for living, working and enjoying leisure activities. Unlike the regional heavy-rail and light-rail systems that are designed to bring commuters and other riders into Downtown – such as Metrolink and the Metro Red, Purple, Blue, Gold, and Expo Lines – the Streetcar will provide fixed-rail connectivity within Downtown. With the addition of the Streetcar, passengers will enjoy convenient and predictable service that circulates riders within Downtown, connects the numerous Downtown districts, and facilitates multiple-destination trips around Downtown.

Some examples of how the Streetcar would serve Downtown Los Angeles include:

- The 680-room Millennium Biltmore Hotel and the 1,350-room Westin Bonaventure Hotel will have a direct link to the Convention Center to better serve convention delegates and provide them with expanded hotel and transportation options.
- Current and future Downtown residents as well

as visitors and commuters entering Downtown via regional rail and bus lines will be able to conveniently access major employment centers in Bunker Hill, the Financial District, the Historic Core, Civic Center, and the Fashion District without needing to drive or park.

- Downtown workers will be able to use the Streetcar to easily access numerous Downtown districts for lunch, dinner, or special events.
- Visitors to Downtown are more likely to park once to conduct business and enjoy Downtown restaurants, shopping, and other activities before and after an event at the Staples Center, L.A. LIVE, Walt Disney Concert Hall, MOCA, or the many other museums, theaters, and galleries along the Streetcar route.
- Renovation of the historic buildings and theaters along Broadway are likely to be successful due to higher accessibility, visibility, and visitation due to the Streetcar. In particular, safe and easy access to off-site parking via the Streetcar will



provide a tremendous benefit for the Historic Broadway Theatre district venues, many of which lack desirable parking options compared to competitive venues.

The Streetcar will greatly improve connectivity Downtown, thereby making the area a stronger and more competitive regional destination. It also creates a unique infrastructure asset that would separate downtown from surrounding commercial centers by offering an improved, more walkable, vibrant urban street environment. While this benefit is difficult to quantify, streetcar case studies

indicate increased property values and improved leasing conditions for commercial properties in urban areas where modern streetcar systems have been established. The same is expected to be true in Downtown Los Angeles in the short term of 5 to 10 years, with effects becoming more apparent over the course of two to three decades. The result will be more employment, more residents, and more shopping, dining, entertainment, and cultural venues within the central core of California’s largest city. Combined, this translates into more business and economic development activity spurred by the Streetcar system, including:

NEW LOCAL SPENDING		
Source	Annual Spending	Notes
New Leisure & Convention Visitors	\$6.5 million	Includes 2,300 new hotel room nights
New Office Employees	\$7.5 million	Includes 3,500 new hotel room nights
New Downtown Residents	\$10.5 million	
Total	\$24.5 million	

NEW DOWNTOWN EMPLOYMENT		
Source	Construction Jobs*	Permanent Jobs
Streetcar	500	50
Office	1,500	1,700
Residential	5,200	
Retail, Entertainment, Hospitality		300
Total Jobs	7,200	5,800

* Construction jobs are reported in job-years (one year of one job). Operating jobs are permanent new jobs to the Downtown.

Construction and operation of the Los Angeles Streetcar will have a direct and immediate impact on the City's economy.

With an estimated development budget of \$125 million for new track, cars, power, stations, streetscape improvements, and related transportation infrastructure, the Los Angeles Streetcar will inject nearly \$80 million directly into the City's economy over the next four years. Design and construction of the Streetcar line will create more than 500 direct construction jobs* in Downtown, and a total of 900 net new jobs* across the City of Los Angeles, with total associated employee compensation of \$56 million.

With an estimated annual operating budget of \$5 million, the Streetcar operations will support nearly 50 direct jobs in Downtown Los Angeles on an annual basis, including positions for operators, maintenance workers, security, and back-office support services. Including indirect and induced spending impacts of these workers, the Streetcar will support 70 net new jobs across the City of Los Angeles, with \$7 million in annual employee compensation.

Conventions, entertainment and cultural venues, restaurants and bars, and retail stores all gain from increases in the number of Downtown visitors.

By creating a more connected and accessible Downtown, the Streetcar is likely to induce higher delegate attendance at the Los Angeles Convention Center. A modest one percent increase in convention attendance would result in 2,300 new Downtown room nights and \$900,000 in related spending annually, and is likely to occur within the first five years of Streetcar operations.

The streetcar will also promote a “park-once” mentality by providing frequent, easy connections

between destinations within the Downtown region, inducing local and regional visitors to increase their length of stay. If just one percent of Downtown leisure visitors, approximately 220,000 people, stay for an extra two hours (the time it takes to eat a meal in one location and travel to a show or sporting event at another location via streetcar), the Streetcar would induce \$5.7 million in new spending.

Combined expenditures by convention and leisure visitors would support \$6.5 million in new annual spending on food and beverage, hotel, retail, and other purchases. These expenditures will support 100 new jobs Downtown with total employee compensation of \$2.3 million annually. Over the 25-year study period, cumulative sales tax and parking revenues of \$1.5 million and cumulative hotel tax revenues of \$1.0 million will accrue to the City's General Fund.

The Streetcar will strengthen and expand the Downtown commercial office and business market.

The Streetcar will speed commercial real estate leasing and sales, support stronger rent and occupancy growth, and induce new firms to locate in Downtown Los Angeles. Some of these firms will be new to both the Downtown and the City of Los Angeles, while others are likely to relocate from other areas of the City or region.

Because of its fixed-rail service, which is a permanent asset to adjacent real estate, over the 25-year period from 2011 to 2035, the Streetcar will likely induce the development of 675,000 square feet of additional office and an additional 20,000 square feet of other new ancillary businesses, including retail, restaurant, professional service and entertainment venues along the route. More than 1,700 permanent new office jobs are expected to occupy the new development, with annual earnings of more than \$100 million, including 700 net new direct, indirect, and induced jobs across the City of Los Angeles. Cumulative new property tax revenues of nearly \$9 million in new, unrestricted funds will

accrue to the City of Los Angeles' General Fund and to the Community Redevelopment Agency.

Construction and rehabilitation related to new office and ancillary service space will create 1,500 direct construction jobs* in Downtown Los Angeles during the next twenty-five years, including 1,000 net new jobs* with earnings of more than \$62 million across the City of Los Angeles.

New firms locating Downtown will bring clients, staff, and vendors from outside the region to their offices. Many of these business visitors will spend the night in Downtown hotel accommodations, generating demand for 3,500 new room nights annually by 2035, with cumulative hotel tax revenues of \$800,000 accruing to the City of Los Angeles' General Fund over the 25-year study period.

New office workers and business visitors will spend an estimated \$7.5 million annually on food and beverage, entertainment, shopping, hotel, and parking in Downtown. These expenditures are expected to support 80 new jobs with recurring employee compensation of \$2.1 million. Cumulative sales tax and parking revenues of \$400,000 will accrue to the City of Los Angeles' General Fund over the course of the study period.

New residents will be attracted to the convenience of a more accessible, expansive Downtown.

By linking isolated Downtown districts, particularly South Park and the Fashion District, to regional transit systems, local and regional office and employment centers, and nearby entertainment and leisure destinations, the Streetcar will further establish Downtown as a centrally-located, high-value residential neighborhood. Over the next 25 years, the Streetcar will support demand for 2,600 additional housing units with an estimated residential population of 3,600. This growth would be in addition to Downtown's expected baseline growth over the same time period.

With total development costs of roughly \$730 million¹, construction of new housing and supporting retail and restaurant venues will create 5,200 direct construction jobs* in Downtown, including 3,900 net new jobs* within the City of Los Angeles. Estimated new property tax revenues totaling \$33 million in unrestricted funds will accrue to the City of Los Angeles over the study period.

At build-out, new residents will have an aggregate estimated income of about \$240 million and will spend an estimated \$10.5 million annually on lunch, dinner, and convenience retail in Downtown Los Angeles, supporting 120 new jobs with employee compensation of \$3.1 million annually. Direct spending at Downtown establishments will result in cumulative sales tax and parking tax revenues of \$1.4 million accruing to the City's General Fund over the 25-year development period. Including indirect and induced spending impacts, total spending by new Downtown households will support 510 net new jobs in the City of Los Angeles, with \$27 million in associated employee compensation.

ANALYTICAL FRAMEWORK

This study reflects findings from a literature review, interview process, and quantitative analysis. AECOM conducted an extensive literature review to examine current and relevant studies and reports, both academic and professional, attempting to quantify and qualify the economic impacts created by streetcar development and operations. Local stakeholders and developers that are likely to be impacted by the Streetcar were interviewed, as were convention and visitors bureau executives in other cities where Streetcars are already operating. The market history of office, retail, and residential development in Los Angeles were reviewed, with a focus on specific factors affecting Downtown Los Angeles. With this information in hand, AECOM projected baseline market growth for office, residential, and visitor-serving uses before

¹ Not including land

and after introduction of the Streetcar; estimated local spending and adjusted Downtown and City capture rates based on best available data; and used the IMPLAN regional economic impact model to generate total impacts to Downtown and the City of Los Angeles. Impacts are quantified as new jobs and associated earnings, new spending at Downtown retail, restaurant, and hotel establishments, and number of new residents and visitors to Downtown.

LITERATURE REVIEW: The literature review confirmed that for properties located within walking distance of an access point (such as a streetcar station), the introduction of a rail-based transit system will ultimately have a positive influence on property value and development. Benefits associated with close proximity to transit are thought to be greatest in fast-growing, congested areas with a buoyant economy and transit supportive public policies. At the same time, supportive local policies and demographics, well-designed stations, efficient and effective systems, and a strong real estate market are all key factors that allow transit to have a significant effect on property value and development. While the effect of transit on property value and development varies, the following general principles are constant:

- Rail-based transit can have a positive effect on property value.
- Properties within walking distance of a station experience the greatest benefit.
- Properties located in densely populated settings experience greater price premiums.

INTERVIEW FINDINGS: For additional insight, AECOM interviewed local stakeholders and developers, as well as the executives from the Convention and Visitors Bureaus of major cities with an existing streetcar or light rail system. The consensus is that streetcars benefit local businesses and convention operations by providing a convenient and affordable transportation option

for both residents and visitors. Residents commonly use streetcar or light rail to attend sporting events and entertainment districts, while tourists and convention delegates are given added incentive to patronize businesses and hotels within walking distance of the line. Additionally, streetcar and light rail operations provide free branding and marketing opportunities for host cities, allowing them to further define the unique nature of their offerings for a more compelling visitor experience.

DEVELOPMENT FORECAST: A key task in the assessment of economic impact is real estate market assessment of likely impacts on development and renovation within the Los Angeles Central Business District. This task required several steps in order to develop projections for Downtown Los Angeles. First, the study area was defined as the region bordered by the 101 Freeway on the north, the 110 Freeway on the west, Interstate 10 on the south, and Los Angeles Street on the east. Long-term office construction trends in the Downtown were reviewed going back to records from 1970 to present.

Detailed data on office space construction, demolition, occupancy and absorption in the study area were examined over the past 16 years to calculate long-term construction requirements in five-year increments. A **Base Case** scenario forecast of Downtown office construction requirements were developed for the next 25 years (to 2035), based on the historic five-year averages and adjusted for current economic conditions and typical real estate cycles. A second development scenario, **with Streetcar**, was prepared in a similar manner, forecasting office construction after introducing Streetcar improvements to Downtown Los Angeles. Scenarios were informed by the literature review, interviews, and the team’s expertise and experience analyzing urban transit impacts on real estate development.

The induced office development impact of the Streetcar is the difference in amount of constructed

office space between the **Base Case** and **with Streetcar** scenarios. This value then serves as the basis for estimating the number of additional new Downtown office employees, associated retail and restaurant spending, new hotel room demand by business users, and the additional ancillary service space and employment required to service the new business activities, including retail, food and beverage, etc. Construction cost factors were estimated using multiple sources, including RS Means and local developer interviews, among others.

A similar process was used to estimate the impact of the Streetcar on Downtown residential development and ancillary services, with the historic construction average based upon an 11-year history. This timeframe was selected because the current Downtown housing environment was significantly impacted by adoption of the Adaptive Reuse Ordinance in 1999.

IMPACT ANALYSIS: AECOM relies on an input-output model to estimate the total economic impact resulting from construction, operation, induced visitation, and new office and residential construction that would be supported by the proposed Los Angeles Streetcar. Input-output analysis examines relationships within an economy, both between businesses and between consumers and businesses. The analysis captures consumptive market transactions and estimates the resulting indirect and induced economic effects, and produces quantitative estimates of the magnitude of regional economic activity resulting from a specified change in the regional economy. Input-output models rely on multipliers that mathematically represent the relationship between the initial change in one sector of the economy (such as the introduction of the Streetcar, or construction of new commercial and residential structures) and the effect of that change on other regional industries.

A few key terms are defined as follows: **Output** represents the change in regional sales or industry revenues. **Employment** represents the change

in the number of jobs in the regional economy resulting from a change in regional output. Because construction jobs generally occur within a specific timeframe, they are considered in terms of job-years. A construction job-year is equivalent to one job for one year. On the other hand, operational impacts are reported as traditional jobs, with the expectation that the job is permanent and on-going into the future. **Employee compensation** represents the change in gross employee wages and salaries in the regional economy resulting from a change in regional output.

Changes in output, employment, and earnings are broken down into three distinct components. The **direct effect** represents the change in output attributable to a change in demand or supply. For example, total expenditures associated with the proposed Streetcar and captured by business and employees in Los Angeles would represent the direct impact of the Streetcar on the regional economy. The **indirect effect** results from industry-to-industry transactions. This effect is a measure of the change in the output of suppliers linked to the industry that is directly affected. For example, the proposed Streetcar will purchase goods and services from Los Angeles County suppliers, who in turn make purchases from their own upstream suppliers. When the Streetcar begins construction and then regular operations, direct and indirect suppliers will experience an increase in demand for their goods and services. The **induced effect** consists of impacts from employee spending in the regional economy. Employees of the Streetcar and affected businesses contribute to this effect. The **total impact** is the sum of the direct, indirect and induced effects. The total effect measures the impact of an activity as it ripples throughout the regional economy.

SUMMARY OF RESULTS

With an initial capital investment of \$125 million and annual operating expenditures of approximately \$5 million, the Los Angeles Streetcar has the potential to induce significant new activity in Downtown Los Angeles, throughout the City, and across the region. The results of this study are summarized below.

Downtown Impacts (New)		
	<u>Impact of Operations</u> Annual at Build-out	<u>Impact of Construction</u> One-Time
Streetcar	50 jobs	\$125 million 500 jobs*
Office	675,000 square feet	\$214 million 1,500 jobs*
Housing	2,600 units	\$730 million 5,200 jobs*
Retail/F&B/Ent.	70,000 square feet	included above
Hotel	5,800 room nights	n/a
Ancillary Spending	\$24.5 million	n/a
Total Jobs	2,100 jobs	7,200 jobs*
Total Employee Compensation	\$120 million	\$500 million

Notes:

All values are presented in current 2010\$

*Construction impacts are spread over 25-year study period. Construction jobs are reported in job-years.

City of Los Angeles Impacts (Net New)			
	<u>Impact of Operations</u>		<u>Impact of Construction</u>
	Annual at Build-out	Cumulative over Study Period	One-time
Streetcar	70 jobs	n/a	900 jobs*
Office	\$700,000 property tax revenues	\$9 million property tax revenues	1,000 jobs*
Housing	\$2.5 million property tax revenues	\$33 million property tax revenues	3,900 jobs*
Retail/F&B/Ent.	\$220,000 sales and parking tax revenues	\$3 million sales tax revenues	included above
Hotel	\$120,000 hotel tax	\$1.8 million hotel tax revenues	n/a
Total Jobs	1,400 jobs	n/a	5,800 jobs*
Total Employee Compensation	\$50 million	n/a	\$360 million

Notes:

All values are presented in current 2010\$

*Construction impacts are spread over 25-year study period. Construction jobs are reported in job-years.