INTRODUCTION

This report is a revised version of the report from the City Administrative Officer (CAO), Department of Transportation (LADOT) and Department of Public Works, Bureau of Engineering (BOE) dated August 26, 2013. This revised report includes information concerning the potential economic benefits of the streetcar project and selected minor edits and technical clarifications.

SUMMARY

The purpose of this report is to present the recommendations of the CAO, LADOT and BOE regarding the recommended project delivery method and summary project management plan (PMP) for the LA Streetcar project.

RECOMMENDATIONS

That the Council, subject to the approval of the Mayor:

1. ADOPT the attached summary document which contains the recommended project delivery method and the summary project management plan (PMP) for the LA Streetcar project (Attachment 1).

2. REQUEST the Office of the City Attorney to prepare and present an ordinance allowing the Department of Public Works to let Construction Manager / General Contractor (CM/GC) contracts for the delivery of the LA Streetcar project pursuant to a competitive proposal method.
3. AUTHORIZE the CAO to issue Requests for Proposals to hire a financial advisor, outside counsel and other appropriate consultants, as necessary, to assist with the analysis and development of a Design-Build-Operate-Maintain (DBOM) and/or Design-Build-Finance-Operate-Maintain (DBFOM) project delivery model for the streetcar project.

DISCUSSION

Economic Impact Report

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 AECOM report, dated February 8, 2011, states that 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, creation of new businesses and jobs and increased Downtown tourism.

In summary, AECOM estimates the streetcar project will generate $1.1 billion in additional development, $24.5 million in additional annual tourism spending, $47 million in additional revenues to the City over 25 years and more than 9,000 new jobs. The CAO, LADOT and BOE have not reviewed the methodology and assumptions of the AECOM report to determine if the AECOM estimates are reasonable. An executive summary of the AECOM economic impact report is included as Attachment 2 to this report. This information, while previously provided to the City Council (C.F 11-0329), is presented here for consideration given the addition of new members to the City Council effective July 1, 2013.

Cost Estimate

LADOT’s report (dated February 11, 2013) concerning the 30-year operations funding plan cited a preliminary cost estimate from the Community Redevelopment Agency (CRA) of $125 million to construct the streetcar project. A revised and more comprehensive cost estimate has been prepared by HDR Engineering, Inc., under contract to Metro, as part of the environmental analysis for the project. While still preliminary, the current cost estimate to construct the project ranges from $153 million (excludes Grand Ave. extension) to $162 million (includes Grand Ave. extension), excluding estimated utility relocation costs.

The preliminary cost estimates for utility relocation range from $79.3 million to $165.8 million. The total preliminary cost estimate for the project (including utilities) ranges from $232.3 million to $327.8 million. As directed by the City Council, an independent cost estimate will also be prepared for the project by the contracted project manager (see Next Steps section).
Assuming that the City is awarded the maximum available $75 million grant by the Federal Transit Administration (FTA) as part of the Small Starts program, the total amount of funding available to construct the streetcar project is $137.5 million. This amount includes the $62.5 million from the Community Facilities District (CFD). The preliminary current estimated total shortfall for the project ranges from $94.8 million to $190.3 million. Reductions to the scope of the project and/or additional funding resources will be required as the project moves forward. No additional funding from the City is being requested at this time.

**Project Delivery Method**

After review and discussion of alternative project delivery methods, the consensus recommendation from the CAO, LADOT and BOE is that the City should contract for the project management and design consultant, and utilize the construction management / general contractor (CM/GC) method for input during design and for construction of the project. The City (BOE) is using this method for the Sixth Street Viaduct Replacement project. This is also the preferred project delivery method of CD 14 and LASI for the streetcar project.

The City and LASI will also continue to explore the feasibility of the Design-Build-Operate-Maintain (DBOM) and Design – Build – Finance – Operate – Maintain (DBFOM) project delivery methods. These methods offer the potential for additional transfer of risk from the City to the contractor and the opportunity to include private sector financing for the project.

**Project Management – Partnership Structure**

The CAO, LADOT and BOE also recommend that the City partner with LASI to deliver the project. As part of the recommended partnership approach, the City will assume the lead role in managing the delivery of the project (design, construction, operations) including approval of all specifications and design requirements, procurement methods and contracts. The City will also administer all funds (including any federal grants, CFD, Measure R, etc.) throughout all phases of project delivery.

LASI will continue to be an important project partner and will serve as a voting member of a proposed new LA Streetcar Executive Committee along with the CAO, LADOT and BOE. In addition, LASI will play a number of essential roles including assisting the City in advocating for federal funding, coordinating stakeholder communication and soliciting alternative sources of funding. LASI will also advance project delivery by assisting the City with the coordination of construction activities and provision of professional project management and technical services.

**Financial Risk and Liability**

Both the City and LASI have a shared financial interest in the delivery of the streetcar project. The current plan for delivery and operation of the project has the City contributing 100% of the funding for the ongoing operations (less passenger revenues).
The City will also be responsible for any potential cost overruns for construction and/or operations, and all liability issues. Further, if the project is approved for federal grant funding, the City will be designated as the responsible party by the FTA to deliver and operate the streetcar over the life of the project.

LASI was instrumental in helping the City to secure approval of the new CFD No. 9 (Downtown Streetcar) that is expected to generate an estimated $62.5 million in tax revenues for construction of the project. LASI represents the interests of the property owners who will be paying the new CFD tax over the next 30 years and is accountable to these stakeholders and the LASI Board of Directors. The City, as the CFD administrator, will be legally accountable to the taxpayers and bond holders.

**Next Steps**

There are a number of critical next steps that will need to be completed once the project delivery method and the roles and responsibilities for the City and LASI are defined, including the following:

- LADOT will submit a letter on behalf of the City to the FTA requesting that the streetcar project be considered to enter the project development phase of federal review. The PMP summary approved by the City Council and Mayor will be included with the letter.

- The City with LASI’s assistance will finalize a complete and detailed version of the PMP for inclusion in federal grant application (see below).

- LADOT will submit a Small Starts grant funding application on behalf of the City to the FTA to construct the project (City local match funds derived from CFD tax revenues).

- The City Attorney will prepare and present a draft ordinance authorizing the use of the CM/GC method.

- LADOT, in coordination with BOE, will award a contract for a firm with streetcar experience to help manage the project.

It should be noted that any project work completed prior to entering the project development phase would not be eligible for a letter of no prejudice from the FTA and any City costs would not be reimbursable by the FTA. Further, projects entering the project development phase are not rated by the FTA and are not guaranteed a full funding agreement.

**BACKGROUND**

The City Council, at its meeting on March 6, 2013, approved a 30-year operations funding plan supported by Measure R for the LA streetcar project and authorized
LADOT to submit an FTA Small Starts grant application for the project (C.F. 11-0329-S7). An important element of the FTA grant application is the required project management plan (PMP) which describes in detail how the project will be delivered. The City Council directed LADOT and BOE, with assistance from the CAO and CLA, to work with CD 14 and LASI to report back with a recommended project delivery method and PMP.

**FISCAL IMPACT**

The recommendations in this report do not commit to expend any additional funds for the streetcar project. The CFD tax funds will be used by the City as the local match for federal grant funding (if approved by the FTA), and the City has already committed to use local Measure R funds towards streetcar operations. To the extent that final capital costs exceed funds available from the CFD and federal grant funding (if approved by FTA), the City will need to identify an additional funding source to eliminate the funding shortfall. This additional local funding must be identified before the FTA will award grant funding for the project to the City.

Attachments
Downtown Los Angeles Streetcar Project

Project Delivery - Proposed Roles & Responsibilities

SUMMARY

This document describes the proposed roles and responsibilities of the City of Los Angeles ("City") and Los Angeles Streetcar, Inc. ("LASI") in the delivery of the planned LA Streetcar project ("project").

PURPOSE

The purpose of this document is to establish the roles of the City and LASI to deliver the project in anticipation of formal approval by the Federal Transit Administration (FTA) to enter the "Project Development" phase. Once finalized, the agreed upon roles and responsibilities will be formally incorporated into a detailed project management plan (PMP) to be submitted to the FTA as part of the Small Starts grant funding application for the project. The PMP is a working document designed to manage relationships between the entities tasked with designing, constructing, and operating the project. The PMP provides a broad roadmap for successful project delivery, yet it is designed to be amended and modified to incorporate new information, agreements, and responsibilities as they develop over the course of the project.

PROJECT DEVELOPMENT AND OPERATION

Both the City and LASI share a commitment to implement a successful project. A successful project would be built and operated consistent with the expectations of the community, the City and the Federal Government and within the projected fiscal limitations. While this shared commitment is equally strong, there are significant differences in the corresponding fiscal and legal responsibilities of both entities. The roles and responsibilities reflect these differences but not differences in value or commitment to the success of the project.

LASI - LASI advocacy was instrumental in securing approval of the new Community Facilities District No. 9 -Downtown Streetcar (CFD) that will provide the local match to the federal grant. The CFD is expected to generate an estimated $62.5 million in tax revenues for construction of the streetcar project. LASI represents the interests of the property owners who will be paying the new CFD tax over the next thirty years and is accountable for successful project delivery to these stakeholders and the LASI Board of Directors.
The City of Los Angeles – While the City shares the same commitment to successful project delivery, the City’s fiscal and legal responsibilities are significantly greater. Not only is the City responsible to the CFD property owners, but the City is responsible to CFD Bondholders. The City Administrative Officer is responsible for administration of the CFD. Under FTA guidelines, the City, through LADOT, will be responsible for the use and administration of FTA Funds and construction oversight, as well as 100% of the on-going operations of the streetcar project, less fare revenue. The success of this project will directly impact the City’s relationship with the Federal Government, municipal bondholders and City taxpayers and will impact the ability of the City to finance future opportunities across the entire City, not just downtown, for 30 years.

The City will be ultimately responsible to deliver and operate the project on a long term basis once it accepts Federal Grant Funds and issues CFD bonds. Finally, since LASI has no significant funding source other than tax dollars, any and all project overruns that exceed available funding will be the responsibility of the City. The City Council, at its meeting on March 6, 2013, approved a commitment of $295 million over a 30-year period to fund the streetcar operations pursuant to FTA and CFD requirements that funds for operations be identified.

It is critical that the project is delivered on budget, especially in light of the fact that both FTA grant funds and the local match are capped. If construction costs exceed the grant and match fund amounts, additional funding will need to be identified from City sources. Local property owners have taxed themselves to construct the project, and they expect their tax dollars to construct a viable project with appropriate service levels as articulated in the CFD. It is equally important to ensure that the built project has the best life-cycle cost to reduce the City’s long-term operating costs and that appropriate service levels can be provided with the anticipated public subsidies. All of these elements have been taken into consideration in the development of a formal and enforceable reporting relationship between the builder, operator and policy makers.

PARTNERSHIP STRUCTURE

The proposed partnership structure and specified roles and responsibilities address the issues and the interests identified above.

Overview

The City and LASI will work together in a unique public-private partnership (P3) to manage project delivery.

- The City will serve as the lead agency for the project development, construction and operation. The City will manage project delivery and will oversee approval of
all specifications and design requirements, contracts, procurement methods, and other implementation requirements. The City will also administer all funds throughout all phases of project delivery.

- LASI will work with the City to deliver the project, including advocating for federal funds for the project, coordinating stakeholder communications and soliciting alternative sources of funding, including, but not limited to, naming rights, advertising, and other strategic partnerships (subject to City approval), to the extent permitted by law.
- LASI will assist the City, as needed, with procurement, coordination of construction activities and assist on the procurement of professional project management services. A separate agreement between LASI and the City would be developed to clearly articulate each entity’s role.

**Project Delivery**

The following summarizes the general roles of the City and LASI in delivering the Project.

1. The City Engineer, the General Manager for LADOT, the City Administrative Officer (CAO) and the Executive Director of LASI or designee from the LASI Board will serve on an LA Streetcar Executive Committee (Executive Committee) for the Project.

2. The Executive Committee will meet monthly to review and make decisions regarding all major project issues, including recommended contract awards, technical and policy issues, etc. The committee representatives shall appoint a designee from their respective staffs if they are unable to attend a meeting.

3. Each of the agencies (BOE, LADOT, CAO and LASI) will have one vote on the Executive Committee. The Chair of the Executive Committee will be the General Manager of the Department of Transportation. Staff of the Executive Committee will prepare reports for consideration by the Executive Committee.

4. Staff of the Executive Committee, in coordination with other City departments and with assistance from consultants (as needed), will prepare procurement documents for all aspects of the Project including project management, design, construction, vehicle procurement, operations, etc. Procurement shall comply with all City and Federal Transit Administration (FTA) contract processes and requirements.

5. City staff shall retain final decision-making authority over all project issues and recommendations.
6. The Executive Committee will forward reports (signed by the Chair) to the City's Board of Public Works and/or the City Council and Mayor for approval of major contract awards including project management, design, construction, vehicle procurement, operations, etc. The staff reports may include a section discussing LASI's position regarding the recommendation(s) for consideration by the decision-making bodies.

7. The City will execute agreements for all major contract awards and will be directly responsible for managing these contracts. LASI will provide as-needed assistance and input to the City regarding the management of these contracts.

As the agency with the most extensive experience successfully delivering major capital projects, notwithstanding the Executive Committee structure described above, the City Engineer shall serve as the lead on all Project design and construction matters. As the agency with extensive expertise operating the second largest bus system in Los Angeles County and administering FTA grants, LADOT shall serve as the lead agency on all matters associated with Project operations, vehicle procurement and FTA grant administration. As the agency charged with overseeing the City relationship with the municipal investment community, the City Administrative Officer is the lead on all matters associated with the Community Facility District.

**PROCUREMENT DELIVERY METHOD**

**Recommended Method (CM/GC)**

The recommended procurement/delivery method at this time for design support and for construction of the project is the Construction Manager/General Contractor (CM/GC) process. Utilization of this process by the City would require approval and adoption of an ordinance by the City Council.

This method would have the City hire the project management firm, the design firm, and the construction firm under separate procurement processes, with the construction firm (GC) brought into the process at an early stage to consult on the design. The design firm would be responsible for final design (100%), though in consultation with the GC. The final design should be highly constructible within budget due to the feedback from the construction firm. The City would pay slightly more than under a traditional project delivery method to the GC to garner constructability feedback during design. The GC would then bid on construction. If the City does not accept the bid (e.g. the price is too high), then the City would solicit bids from the market.
**Alternative Methods**

There are other viable methods to procure and deliver the project. It is the consensus opinion of the CAO, BOE, LADOT and LASI that none are as advantageous as CM/GC for the reasons noted below.

**Design-Bid-Build (Traditional)**

The traditional design-bid-build would have a longer schedule due to two sequential procurement processes. In addition, the design would not benefit from practical constructability feedback from a builder (GC).

**Design-Build (D/B)**

D/B could produce an equivalent or faster schedule. However, it would not let City technical staff, elected officials, and/or the public have decision-making authority over final design without change orders. D/B would require the City to make all design concept decisions and identify all standards and requirements up-front, then document them comprehensively in the bid documents and final contract.

**Design-Build-Operate-Maintain (DBOM)**

DBOM is another potentially viable strategy for this project. Because the City is providing operating subsidies and wants to preserve policy flexibility on issues such as service hours and fares, a DBOM arrangement is not recommended at this time.

**PROCUREMENT**

**Project Management**

A project management consultant will be selected through a competitive procurement process to help oversee and coordinate all aspects of the project including design, construction, vehicle engineering, operations, etc. The project management consultant will also oversee preparation of all procurement documents. The City will manage the project management consultant.

**Design**

As previously discussed in the Project Delivery section (CM/GC method), a design firm will be selected through a competitive procurement process. This procurement process will be separate from the construction firm procurement process. Design will be managed by the City and the project management consultant.
**Construction**

As previously discussed in the Project Delivery section, a construction firm will be selected through a competitive procurement process. The construction firm will consult on the project design. The construction process will be managed by the City and the project management consultant.

**Vehicle Procurement**

A vehicle engineering consultant will be selected independently of the project management and vehicle acquisition procurement processes. A vehicle engineering consultant will be retained through a competitive procurement process to assist with the preparation of the specifications for bid, assist with the evaluation of proposals, and oversee the manufacture and delivery of the vehicles. The City (LADOT) and the project management consultant will manage the vehicle procurement consultant.

**Operations**

The City Council and Mayor will approve all operations service policies including the establishment of and modifications to service levels and fares. It is anticipated that project operations will be provided by a firm selected through the competitive contracting process, either concurrent with the procurement of firm(s) for project design and construction or after, and that the City (LADOT) will manage the operations contractor. This is the same structure currently used by the City for its bus transit operations.

**Independent Cost Estimate**

The City is in the process of securing a consultant to perform an independent cost estimate. The independent cost estimate will allow the City Council and Mayor to make an informed decision regarding the potential financial commitment required to successfully complete the project. The independent cost estimate will be presented to the City Council and Mayor prior to any final decision to accept any grant funds awarded by the Federal Government.

Rev. 8/26/13

###
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)
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, catalyzing 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:

<table>
<thead>
<tr>
<th>Source</th>
<th>Annual Spending</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Leisure &amp; Convention Visitors</td>
<td>$6.5 million</td>
<td>Includes 2,300 new hotel room nights</td>
</tr>
<tr>
<td>New Office Employees</td>
<td>$7.5 million</td>
<td>Includes 3,500 new hotel room nights</td>
</tr>
<tr>
<td>New Downtown Residents</td>
<td>$10.5 million</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$24.5 million</td>
<td></td>
</tr>
</tbody>
</table>

NEW DOWNTOWN EMPLOYMENT

<table>
<thead>
<tr>
<th>Source</th>
<th>Construction Jobs*</th>
<th>Permanent Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streetcar</td>
<td>500</td>
<td>50</td>
</tr>
<tr>
<td>Office</td>
<td>1,500</td>
<td>1,700</td>
</tr>
<tr>
<td>Residential</td>
<td>5,200</td>
<td></td>
</tr>
<tr>
<td>Retail, Entertainment, Hospitality</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Total Jobs</td>
<td>7,200</td>
<td>5,800</td>
</tr>
</tbody>
</table>

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

NEW LOCAL SPENDING
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 visitor 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 ongoing 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.

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

Notes:
All values are presented in current 2010$.  
*Construction impacts are spread over 25-year study period.  Construction jobs are reported in job-years.
<table>
<thead>
<tr>
<th>City of Los Angeles Impacts (Net New)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact of Operations</strong></td>
</tr>
<tr>
<td>Annual at Build-out</td>
</tr>
<tr>
<td>Streetcar</td>
</tr>
<tr>
<td>Office</td>
</tr>
<tr>
<td>Housing</td>
</tr>
<tr>
<td>Retail/F&amp;B/Ent.</td>
</tr>
<tr>
<td>Hotel</td>
</tr>
<tr>
<td><strong>Total Jobs</strong></td>
</tr>
<tr>
<td><strong>Total Employee Compensation</strong></td>
</tr>
</tbody>
</table>

Notes:
All values are presented in current 2010$. 
*Construction impacts are spread over 25-year study period. Construction jobs are reported in job-years.