

**Regional Connector Transit Corridor
Draft Environmental Impact Statement/
Draft Environmental Impact Report**

APPENDIX X



CULTURAL RESOURCES -
BUILT ENVIRONMENT (UPDATED)

California State Office of Historic Preservation Coordination

The Cultural Resources – Built Environment Technical Memorandum for the Regional Connector Transit Corridor project contained in this appendix was submitted to the California State Office of Historic Preservation. The State Historic Preservation Officer (SHPO) reviewed the technical memorandum including the determinations of eligibility for all potentially eligible properties within the Area of Potential Effect (APE). On June 1, 2010, the SHPO concurred with the determinations of eligibility and with the findings of effect from project alternatives. That concurrence letter is included in the following pages.

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1 June 2010

Reply To: FTA090409B

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Re: Determinations of Eligibility and Finding of Effect for the Regional Connector Transit Corridor Project, Los Angeles, Los Angeles County, CA

Dear Ms. Saltarelli:

Thank you for your letter of 19 April 2010 continuing consultation on behalf of the Federal Transit Authority (FTA) for the above referenced undertaking in order to comply with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulation at 36 CFR Part 800. You are requesting that I review the determinations of eligibility and assessment of effects for the Regional Connector Transit Corridor Project.

After reviewing the enclosed cultural resources report, I am able to concur with FTA's determinations of eligibility. 289 properties were identified in the APE for the project. Of those 289, 118 were of sufficient age to be considered for inclusion in the National Register of Historic Places (NRHP). Fifteen properties were previously listed in the NRHP and 33 were determined eligible by FTA. FTA has determined the following properties are eligible for inclusion in the NRHP:

1. Barker Brothers, 818 West 7th Street
2. Fine Arts Building, Global Marine House, 811 West 7th Street
3. 811 Wilshire Building, Tishman 615 Building, Wilflower Building, 811 Wilshire Boulevard
4. The California Club, 528 South Flower Street
5. 2nd Street Tunnel, Bridge# 53C 1318
6. Los Angeles Civic Center Historic District
7. Los Angeles Department of Water and Power Building, John Ferraro Office Building, 111 North Hope Street
8. Ahmanson Theater, 135 North Grand Avenue
9. Mark Taper Forum, 135 North Grand Avenue
10. Dorothy Chandler Pavilion, 135 North Grand Avenue
11. Los Angeles County Hall of Administration, Kenneth Hahn Hall of Administration, 500 West Temple Street, 222 North Grand Avenue
12. El Paseo de los Pobladores de Los Angeles, 224 North Grand Avenue
13. Los Angeles County Courthouse, Stanley Mosk Los Angeles County Courthouse, 111 North Hill Street
14. County of Los Angeles Central Heating and Refrigeration Plant, 301 North Broadway
15. Los Angeles County Hall of Records, 320 West Temple Street
16. Court of Historic American Flags, 224 North Hill Street, 100 block Hill Street
17. Los Angeles County Law Library, Mildred L. Lillie Building, 301 West 1st Street
18. Hall of Justice, Los Angeles County Jail, 211 West Temple Street

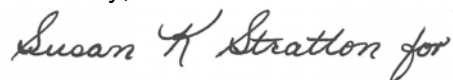
19. Clara Shortridge Foltz Criminal Justice Center, 210 West Temple Street
20. Los Angeles City Hall, 200 North Spring Street
21. City Health Building, City Hall South, 111 East 1st Street
22. Federal Building, North Los Angeles Field Office, 300 North Los Angeles Street
23. The Police Facilities Building, Parker Center, Motor Transportation Division, 150 North Los Angeles Street and 151 North Judge John Aiso Street
24. Mark Kuwata Real Estate, 301 East 1st Street, 104-106 North San Pedro Street, 104-106 Judge John Aiso Street
25. Koyasan Buddhist Temple, Koyasan Church, Koyasan Temple, 342 East 1st Street
26. John A. Roebling's Sons Co., Robert Arranaga & Company, Incorporated, 216 South Alameda Street,
27. Los Angeles Times Building, 202 West 1st Street
28. The Mirror Building (Site of Butterfield Stage Station), Los Angeles Times-Mirror Annex, Times Building South, Mirror-News Building, 145 South Spring Street
29. Cathedral of Saint Vibiana, 214 South Main Street
30. Cathedral of Saint Vibiana, Rectory, 114 East 2nd Street
31. J.R. Newberry Company Building, 900 East 1st Street
32. 1st Street Viaduct, 1st Street between Vignes Street and Mission Road
33. Walt Disney Concert Hall, 111 South Grand Avenue

I concur with the NRHP determinations but will not comment on those properties identified solely for CRHR determination. The remaining resources in the APE are not eligible for inclusion in the NRHP.

Only one historic property, the 2nd Street Tunnel will be adversely affected by the project. I concur with the FTA's determination of adverse effect. Once FTA has submitted a draft MOA for the consultation I can comment on the mitigation measures for the undertaking.

Thank you for considering historic properties in your planning process. If you have any questions, please contact Amanda Blosser of my staff at (916) 654-7372 or e-mail at ablosser@parks.ca.gov.

Sincerely,



Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

MWD:ab

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**Regional Connector Transit Corridor
Cultural Resources – Built Environment
Technical Memorandum
Updated**

April 5, 2011

Prepared for

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ACRONYMS

ACHP	Advisory Council on Historic Preservation
AGELRT	American Meteorological Society / EPA Regulatory Model
APE	Area of Potential Effects
California Register	California Register of Historical Resources
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CRA	Community Redevelopment Agency
CRHR	California Register of Historic Resources (California Register)
DPR	Department of Parks and Recreation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FTA	Federal Transit Administration
FULRT	Fully Underground LRT Alternative – Little Tokyo Variations 1 & 2
GBV	Ground Borne Vibration
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power

LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
LTS	Less Than Significant Impact
Metro	Los Angeles County Metropolitan Transportation Authority (LACMTA)
NAHC	California Native American Heritage Commission
National Register	National Register of Historic Places
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHPA	National Historic Preservation Act of 1966
NRHP	National Register of Historic Places (National Register)
OHP	Office of Historic Preservation
POC	Pedestrian Overcrossing
PPV	Peak particle velocity
PRC	Public Resources Code
PUC	Pedestrian Undercrossing
SCCIC	South Central Coastal Information Center
SI	Significant Impact that can be mitigated to less than significant
SHPO	State Historic Preservation Officer
SU	Significant and Unavoidable Impact
TBM	Tunnel Boring Machine
TPSS	Traction power substations
TSM	Transportation Management System



UELRT Underground Emphasis LRT Alternative
USDOT US Department of Transportation

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1.0 SUMMARY

1.1 Purpose and Scope

SWCA Environmental Consultants (SWCA) conducted a cultural resources inventory of the built environment that may be affected by the proposed Regional Connector Transit Corridor project (the project). Cardno ENTRIX, Inc. reviewed and revised the Inventory and prepared this Technical Memorandum. Cardno ENTRIX prepared revisions to the Technical Memorandum to address refinements to the Locally Preferred Alternative (LPA).

The Metro Board of Directors has designated the Fully Underground LRT Alternative as the LPA. Based on input received during the Draft EIS/EIR review period, refinements to the LPA were made to reduce impacts. Revisions (excluding minor edits for consistency and correction of minor typographical errors) are indicated by a vertical line in the margin. No changes to the NEPA impact findings or CEQA impact determinations were identified as a result of refinements to the LPA, responses to comments, or other developments since publication of the Draft EIS/EIR.

The project is approximately 1.9 miles in length and is located in the City of Los Angeles, in Los Angeles County, California. The purpose of this project is to improve the region's public transit service and mobility within the corridor by connecting the light rail service of the Metro Gold Line to Claremont and the Eastside with the Metro Blue Line to Long Beach and the Metro Expo Line to Santa Monica. This link would serve communities across the region, allowing greater accessibility while serving expected population and employment growth in downtown Los Angeles.

This Technical Memorandum was prepared to comply with federal and state cultural resource compliance regulations and guidelines. The National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) of 1966 regulations require the identification of historic properties and evaluation of project-related effects on those properties. Section 106 of the NHPA defines "historic properties" as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places" (National Register) (36 CFR Section 800.16 (l) (1)).

The California Environmental Quality Act (CEQA) and CEQA Guidelines also require lead agencies to evaluate proposed projects for the potential to cause significant impacts on "historical resources." This Technical Memorandum was completed under provisions of CEQA (Section 15064.5) and CEQA Guidelines (Title 14, California Code of Regulations or CCR, Chapter 3, Article 5) for determining "significance of impacts to archeological and historical resources."

1.2 Architectural Field Survey Findings

Cardno ENTRIX concluded that there are a total of 55 architectural historical properties that are listed in or eligible for listing in the National and/or California Registers within a 0.25 mile radius of the area of potential effect (APE). The State Historic Preservation Officer (SHPO) confirmed the definition of the APE in a letter dated February 10, 2010.

SWCA architectural historians conducted reconnaissance-level built environment surveys of the 1.8-mile-long APE in April 2009. In December 2009 a new alternative was added to the proposed project, requiring subsequent field surveys, bringing the total project length to approximately 1.9 miles. Each parcel in the direct and indirect APE containing improvements completed in or before 1968 was digitally photographed and researched, using data from the Los Angeles County Office of the Assessor and other sources. All properties in the APE were field-checked to verify whether or not their construction may have occurred more than 50 years prior to the anticipated project opening date.

In April and May 2009 and again in December 2009, SWCA conducted intensive-level surveys of properties containing improvements completed in or before 1968 within the APE that required evaluation or re-evaluation for historical significance. SWCA reviewed those properties in the field, photographed, and performed subsequent building permit and other research on properties that appeared to retain sufficient integrity to warrant evaluation for National Register and/or California Register eligibility.

The architectural field survey identified a total of 289 properties in the Project APE. ENTRIX concluded that of the 289 historical resources, 118 buildings, structures or objects were found to have been constructed 50 years or more before the assumed project construction date of 2018. California Department of Parks and Recreation (DPR) series 523 forms were prepared for each property containing improvements completed in or before 1968 that were not previously listed in or determined eligible for the National and California Registers. The DPR series 523 forms are used to evaluate eligibility for listing on the National and/or California Registers. Of the 118 resources evaluated within the APE, 49 were found to be eligible for both the National and California Registers; six were found to be only eligible for the California Register; while 63 of the resources were found to be ineligible for either list.

In June 2010 the SHPO reviewed the draft Technical Memorandum and Inventory. SHPO concurred on the initial determinations of eligibility and effects for NRHP eligible properties. SHPO did not comment on California Register eligible properties or effects.

The draft Technical Memorandum was included with the draft Environmental Impact Statement (DEIS) that was released for public comment on September 3, 2010. Two variations of the Fully Underground LRT Alternative (Little Tokyo Variation 1 and Little Tokyo Variation 2) are analyzed in this report. Little Tokyo Variation 2 was subsequently dropped

from consideration, and Little Tokyo Variation 1 became the sole alignment for the Fully Underground LRT Alternative. Both variations are described in this report, and the LPA (as refined) is described separately.

On October 28th, 2010, Metro's Board of Directors approved staff's recommendation to select the Fully Underground Alternative described in the publicly reviewed Draft EIS/EIR for the Regional Connector Transit Corridor as the Locally Preferred Alternative (LPA). The LPA would provide a direct connection from 7th Street/Metro Center Station to the Metro Gold Line at 1st and Alameda Streets. The Metro Gold, Blue and Expo light rail lines would be connected allowing trains to operate between Azusa and Long Beach, and from Culver City and the Eastside. In the action for approval, the Board also directed staff to remove the property located on the southeast corner of 2nd and Spring Streets from the list of potential acquisitions as well as eliminated the station at 5th and Flower Station due to its close proximity to the existing 7th St. Metro Center station and to reduce cost. The approved LPA thus includes three new stations instead of the original four described in the Draft EIS/EIR and northern entrances to the existing 7th St. Metro Center station are to be studied.

On January 4th, 2011, the Federal Transit Administration (FTA) authorized Metro to initiate Preliminary Engineering as part of FTA New Starts funding program. In its authorization, FTA requested that Metro among other items pursue the identification of appropriate mitigations and realize potential cost savings. Consistent with FTA's authorization, refinements to the Locally Preferred Alternative have been identified and are to be analyzed as part of the development of the Final EIS/EIR. The refined Locally Preferred Alternative is described in Section 2.4 Project Description.

This document was updated to describe the effects on historic properties and impacts on historical resources from the project refinements.

1.3 Project Effect/Impact Conclusions

Under NEPA for the No Build Alternative and the Transportation System Management (TSM) Alternative, project construction and operations would not result in any adverse construction or implementation-related effects on historic properties in the Project APE. Under CEQA, construction and operation of the No Build and TSM Alternatives would not result in any direct or indirect significant impacts on historical resources, and would not be expected to result in cumulative effects to historical resources under CEQA. The TSM and No Build alternatives would not result in any Section 4(f) effects.

Under NEPA, for the At-Grade Emphasis Light Rail Transit (LRT) Alternative, project construction and operations would result in an adverse effect to the NRHP/CRHR eligible 2nd Street Tunnel. Under CEQA, the project would result in one direct significant impact and 14 indirect significant impacts to historical resources. Implementation of mitigation measures

would reduce the adverse impacts to a less than significant level. Under Section 4(f), this alternative would require the partial acquisition and use of five NRHP eligible properties.

Under NEPA, for the Underground Emphasis LRT Alternative, the project is not expected to result in any direct or indirect adverse effects to historic properties. Under CEQA, project construction would result in one significant impact and 14 indirect impacts to historical resources. Implementation of mitigation measures would reduce impacts to a less than significant level. Under section 4(f), the Underground Emphasis LRT Alternative would require the acquisition of a subsurface easement situated on one NRHP-eligible property.

Under NEPA, for the Fully Underground LRT Alternative - Little Tokyo Variation 1 and the Fully Underground LRT Alternative – Little Tokyo Variation 2, the project is not expected to result in any direct or indirect adverse effects to historic properties. Under CEQA, there would be one direct significant impact and 14 indirect significant impacts to historical resources. With implementation of mitigation measures, these impacts would be reduced to a less than significant level. Under Section 4(f), the project would require the acquisition of a subsurface easement situated on one NRHP-eligible property, but there would be no adverse effects as a result of the easement.

Under NEPA, for the LPA, the project is not expected to result in any direct or indirect adverse effects to historic properties. Under CEQA, there would be one direct significant impact and 14 indirect significant impacts to historical resources. With implementation of mitigation measures, these impacts would be reduced to a less than significant level. Under Section 4(f), the project would require the acquisition of a subsurface easement situated on one NRHP-eligible property, but there would be no adverse effects as a result of the easement.

1.4 Summary of Findings

There are 55 resources listed in, determined eligible for listing in, or eligible for listing in the National Register and the California Register of Historical Resources (California Register) in the project APE. The Federal Transit Administration (FTA), in coordination with the Los Angeles County Metropolitan Transportation Authority (Metro) with concurrence from the SHPO, established the APE that limits the scope of study to those parcels expected to be affected by the proposed project alternatives. Of the 55 resources, 49 are historic properties that are either listed in, determined eligible for listing in, or recommended as eligible for listing in the National Register, while six are only historical resources listed in, determined eligible for listing in, or recommended as eligible for listing in the California Register (See Table 4-6 and Figure 4-4 in Section 4).

1.5 Potential Impacts

Under the No Build Alternative, there would be no cumulative or potential impacts to historical resources other than impacts resulting from continued escalated automobile traffic

due to the lack of additional mass transit options. Under the TSM Alternative, the project would result in no potential impacts on historical resources. Under the At-Grade Emphasis LRT Alternative, Underground Emphasis LRT Alternative, Fully Underground LRT Alternative Little Tokyo Variations 1 and 2, and the LPA, any potential direct or indirect impacts to historical resources would be reduced to a less than significant level through the implementation of mitigation measures. Project operations are not expected to cause any potential impacts.

1.6 Mitigation Recommendations

For Section 4(f) under the No Build and TSM Alternatives, there would be no mitigation measures to consider as there would be a lack of potential effects to historic properties or impacts to historical resources. Under the At-Grade Emphasis LRT Alternative, Underground Emphasis LRT Alternative, Fully Underground LRT Alternative Little Tokyo Variations 1 and 2, and the LPA, the implementation of mitigation measures MM-BE-1 through MM-BE-5 for CEQA would reduce any potential direct or indirect impacts to historical resources to a less than significant level. For NEPA, the implementation of MM-BE-1 and MM-BE-5 would be required to mitigate potential adverse effects to historic properties. The other alternatives would not require mitigation as there would be no adverse effects to historic properties. For Section 4(f), the implementation of mitigation measures MM-BE-2, MM-BE-3, and, when applicable, MM-BE-4, would greatly reduce the likelihood of a constructive use determination.

1.7 Disposition of Data

This report will be filed with the FTA, Metro, the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton, SWCA, and Entrix. All field notes and records related to the project will remain on file at the South Pasadena office of SWCA.

2.0 INTRODUCTION

NEPA guidelines include compliance with related federal laws that require identification of historic properties and consideration of project-related effects on those properties. This Technical Memorandum was prepared to comply with Section 106 of NHPA, as amended, and with regulations contained in 36 Code of Federal Regulations (CFR) Part 800. These regulations require federal agencies to consider the effects of proposed projects and undertakings on historic properties as part of the environmental assessment process and allow the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on those undertakings. Effects under Section 106 of the NHPA are defined in the “Criteria of Adverse Effect” (36 CFR Section 800.5(1)).

Properties that are identified as historical resources within the identified project APE were evaluated for eligibility for listing in the National Register according to criteria set forth in 36 CFR Part 60.4. The age criterion for inclusion in the National Register is 50 years and older, except in cases of exceptional significance (Criteria Consideration G).

This Technical Memorandum was also prepared to comply with requirements of CEQA and the CEQA Guidelines (CERES 2009) as they apply to cultural resources. Under CEQA, it is necessary for a lead agency to evaluate proposed projects for the potential to cause significant impacts on “historical resources.” A historical resource is defined as “a resource listed in, or determined eligible for listing in, the California Register of Historical Resources” in California Public Resources Code (PRC) Section 21084.1. A proposed project that may affect historical resources is submitted to the California State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the lead agency and before any project-related clearance, demolition, or construction activities are commenced.

If a proposed project could be expected to cause substantial adverse change to a historical resource, environmental clearance for the project would require evaluating alternatives and/or implementing mitigation measures to reduce or avoid potential impacts. If a project is expected to result in an impact on historical resources, CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most the basic objectives of the project and avoid or substantially lessen any significant potential impacts on the historical resource.

Properties were also considered for California Register of Historical Resources (California Register) eligibility; although there is no established age threshold for the California Register, the same 50-year cutoff was used for this project. Under PRC Section 5024.1, the California Register was established to serve as an authoritative guide to the state’s significant historical and archaeological resources.

If a proposed project and its related potential impacts would adversely affect the values of an archaeological or built environment site that is either listed in or determined eligible for inclusion in the National or California Register, such potential effects and/or impacts would be considered adverse.

2.1 Report Format

This report meets the Secretary of the Interior's Standards and Guidelines and follows contemporary professional standards for the preparation of historical resources reports.

2.2 Project Personnel

SWCA conducted the cultural resources inventory of the built environment for this project. The results of the inventory were included in a draft Technical Memorandum that was prepared by SWCA Senior Architectural Historian Francesca Smith, who meets the Secretary of the Interior's Professional Qualifications Standards in history and architectural history. SWCA architectural historians Jim Steely, Shannon Carmack, Kathy Corbett, Samantha Murray, and Sonnier Francisco provided technical input.

Cardno Entrix reviewed and revised the draft Technical Memorandum and prepared the submittal of the final Technical Memorandum. The Entrix project staff included Kimberly Demuth as Project Manager and Reviewer, Kirk Ranzetta as Senior Architectural Historian, David Harvey as Senior Project Historian and Reviewer, Jennifer Flathman as Project Architectural Historian, Don Craig as Project Historian, and Joe Rubin as Project Coordinator and Reviewer.

2.3 Project Description

The proposed project would extend approximately 1.9 miles through downtown Los Angeles (Figure 2-1) and provide enhanced Metro service throughout four distinct travel corridors that span over 50 miles across Los Angeles County. The proposed new dual-tracks would provide a direct link between the Metro Gold, Blue, and Expo Lines by bridging the gap in the regional light rail network between 7th Street/Metro Center Station at 7th and Flower Streets and the Little Tokyo/Arts District area near 1st and Alameda Streets. This would allow trains to travel directly from the Eastside to Santa Monica and from Long Beach to Claremont. The project also includes construction of new stations in downtown that would allow all passengers on the Metro Gold, Blue, and Expo Lines to reach multiple destinations in the central business district without transferring.

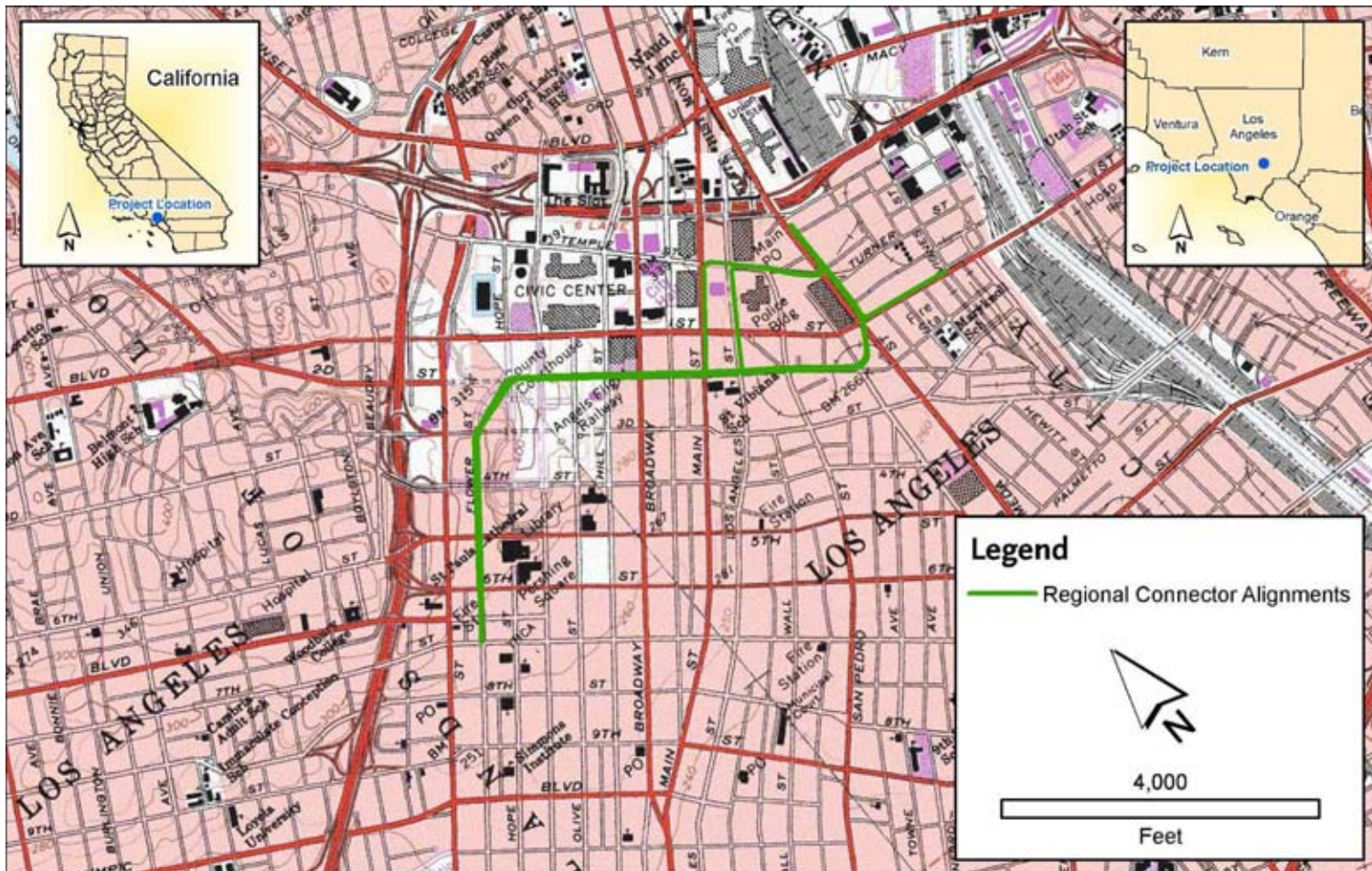


Figure 2-1. Project Location

The following alternatives are evaluated in this Technical Memorandum:

- No Build Alternative
- Transportation System Management (TSM) Alternative
- At-Grade Emphasis Light Rail Transit (LRT) Alternative
- Underground Emphasis LRT Alternative
- Fully Underground LRT Alternative- Little Tokyo Variation 1
- Fully Underground LRT Alternative- Little Tokyo Variation 2
- Locally Preferred Alternative (LPA)

2.3.1 No Build Alternative

Transit service under the No Build Alternative would be focused on preservation of existing services and projects. The No Build Alternative would not include any major service improvements or new transportation infrastructure beyond what is listed in Metro's 2009 Long Range Transportation Plan (LRTP).

By the projection year of 2035, the Metro Expo Line and the Metro Gold Line to the San Gabriel Valley would be open, and a number of bus routes may be reorganized and expanded to provide connections with these new rail lines. All bus and rail lines would operate using a fleet of vehicles similar to those currently in service or identified for purchase in the LRTP. The transit network within the project area should otherwise be largely the same as it is now.

2.3.2 Transportation System Management (TSM) Alternative

The TSM Alternative includes all of the provisions of the No Build Alternative, plus two new express shuttle bus lines linking the 7th Street/Metro Center and Union Stations. These buses would run frequently, perhaps just a few minutes apart, especially during peak hours. Enhanced bus stops would be located every two to three blocks to maximize coverage of the area surrounding the routes. Rail service would remain the same as described for the No Build Alternative.

The two routes are described below and illustrated on Figure 2-2.

- Upper Grand Route – From the 7th Street/Metro Center Station, buses would proceed east on 7th Street, north on Olive Street, west on 5th Street, north on Grand Avenue, east on Temple Street, and then north on Los Angeles Street to Union Station. As a variation, buses could use Alameda Street between Temple Street and Union Station

to allow a stop at Temple and Alameda Streets, near the Little Tokyo/Arts District Station. The alignment is assumed to follow the same route as part of the existing Los Angeles Department of Transportation (LADOT) DASH Route B service, proceeding from the 7th Street/Metro Center Station to Union Station using Grand Avenue, Temple Street, and Los Angeles Street. Shuttle buses would run less than eight minutes apart and provide coverage of the Bunker Hill and Civic Center areas.

- Lower Grand Route – This route would use the existing northbound bus-only lanes on Figueroa Street and mixed flow lanes on 2nd and 3rd Streets, which are lightly used by other bus lines. From the 7th Street/Metro Center Station, buses would proceed north on Figueroa Street, west on 2nd Street, and north on Alameda Street to Union Station. To return to 7th Street/Metro Center Station, buses would travel south on Alameda Street, west on 3rd Street, and south on Flower Street. The alignment passes by both the Little Tokyo/Arts District Station and Union Station, and would provide good coverage of Little Tokyo and the southern edge of the Civic Center.

2.3.2.1 Operating Characteristics

The shuttle routes would be operated by Metro, and could use vehicles ranging from 30-foot shuttle buses to standard 40-foot buses. Buses would run every few minutes during peak periods, and peak hour bus-only lanes would be created where possible by restricting parking on streets that do not already have dedicated all-day bus lanes. Similar to the Metro Rapid Bus lines, a transit priority system that allows longer green lights to oncoming transit vehicles would be used where possible to increase bus speed and efficiency.

2.3.3 At-Grade Emphasis LRT Alternative

2.3.3.1 Overview

The At-Grade Emphasis LRT Alternative would provide a direct connection from the existing underground 7th Street/Metro Center Station to the Metro Gold Line at Temple and Alameda Streets. Three new stations would be added, one would be a split station with single-direction platforms one block apart. This alignment includes a combination of underground and at-grade segments, with 46 percent of the route underground. New stations would serve the Civic Center, Grand Avenue, and the Financial District. Conversion of 2nd Street to a pedestrian-friendly transit mall is assumed.

To implement this alternative, the number of traffic lanes and on-street parking spaces on 2nd Street would be reduced. As a result, traffic is likely to divert to adjacent parallel streets such as 1st and 3rd Streets, but the roadway capacity along these streets would remain unchanged, as with the No Build Alternative. Traffic congestion along these streets would likely increase. Figure 2-3 illustrates the At-Grade Emphasis LRT Alternative.

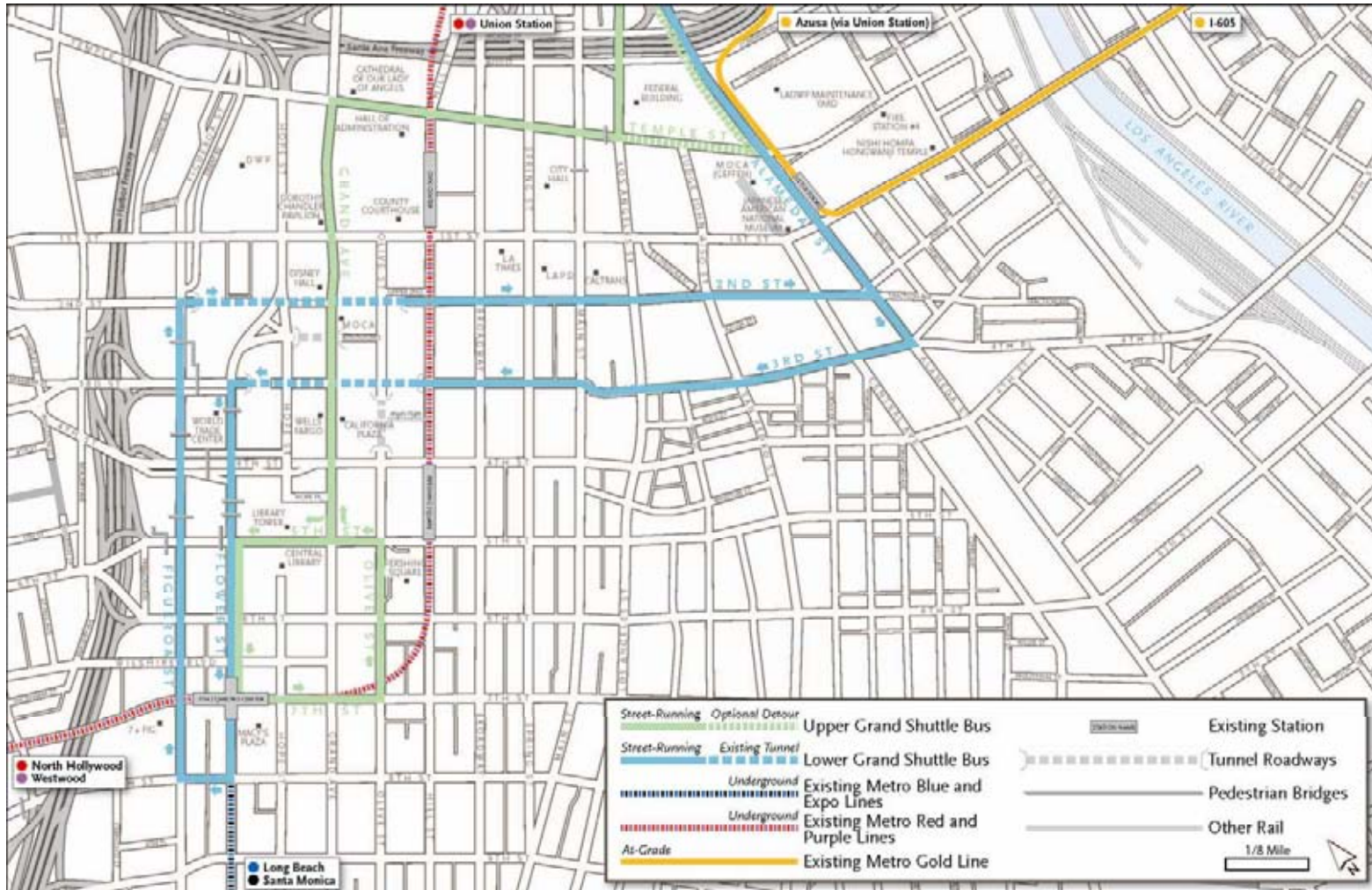


Figure 2-2. Transportation System Management (TSM) Alternative

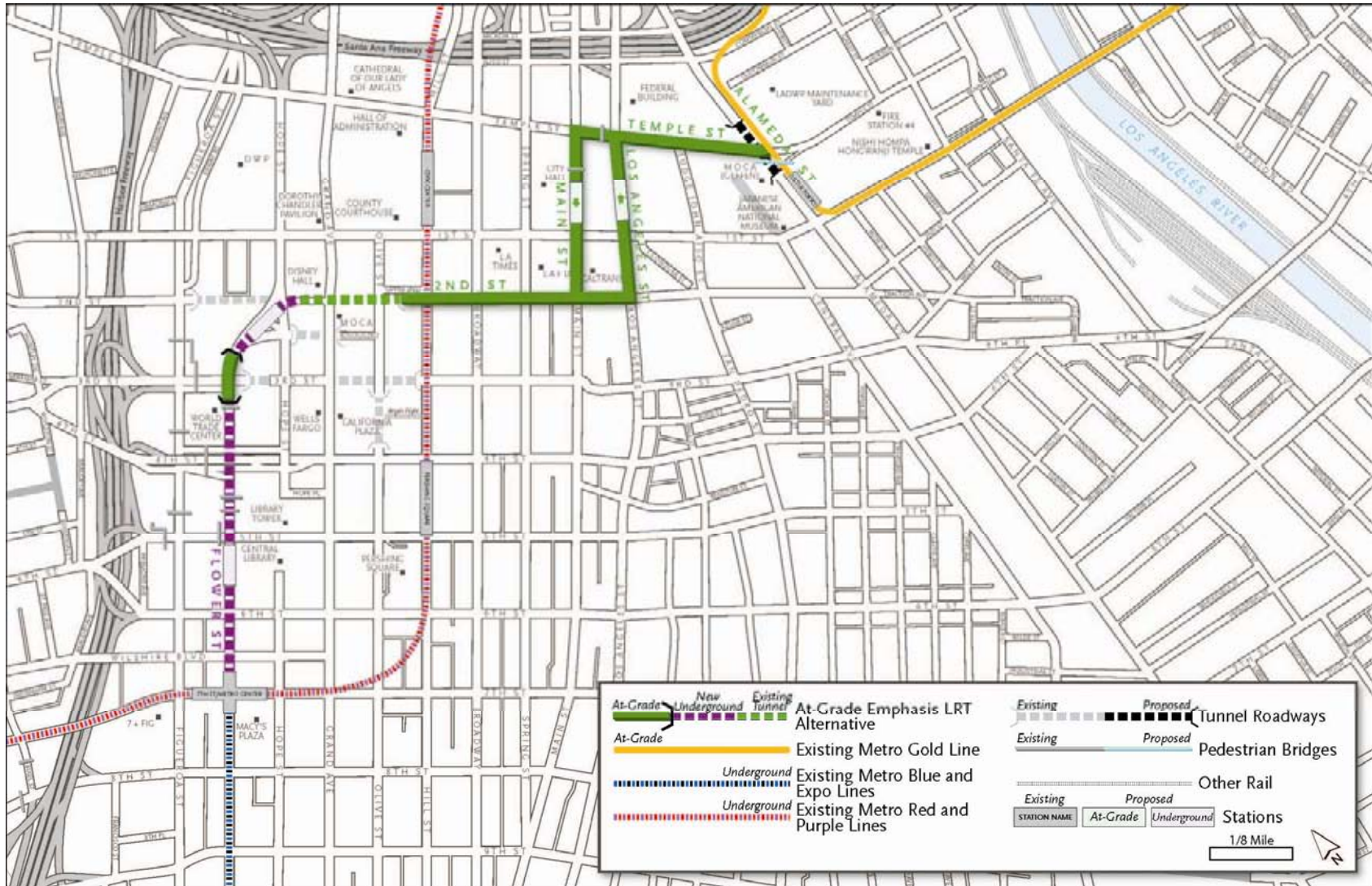


Figure 2-3. At-Grade Emphasis Light Rail Transit (LRT) Alternative

2.3.3.2 Route Configuration

From the existing platform at the 7th Street/Metro Center Station, the tracks would extend north underneath Flower Street to a new underground station just south of 5th Street. The tracks would then continue north, surface just south of 3rd Street, cross 3rd Street at-grade, and veer northeast through a portal in the hillside to an underground station at 2nd and Hope Streets. At this location, a new pedestrian bridge could be constructed to connect the station to Upper Grand Avenue. The tracks would continue northeast, “punch” through the wall of the existing 2nd Street Tunnel, and then travel east in the 2nd Street Tunnel toward Hill Street.

This alignment would reduce the 2nd Street Tunnel from four lanes to one (potentially two lanes, pending further detailed engineering). Trains would proceed east on 2nd Street to Main Street. Second (2nd) Street would be transit-dedicated, with its current two travel lanes and two parking lanes reduced to a single travel lane primarily for access to parking lots and loading zones. This type of configuration would extend from Hill Street to Los Angeles Street.

At Main Street, the alignment would split into two single-track alignments. One track (for northbound trains) would continue east to Los Angeles Street and then north to Temple Street. The other track (for southbound trains) would travel north on Main Street and then west on Temple Street. The at-grade station just north of 1st Street would be a split couplet with one-way stops at Main/1st Street and Los Angeles/1st Street.

At Temple and Los Angeles Streets, the two tracks would rejoin and proceed west on Temple Street to Alameda Street, where the tracks would join the Metro Gold Line to East Los Angeles in a three-way junction. Before reaching Alameda Street, the tracks would shift to the south side of Temple Street to provide an adequate turning radius for trains turning north onto the Metro Gold Line’s existing ramp leading to the bridge over the US 101 freeway to Union Station. The ramp would need to be reconfigured to a steeper slope to facilitate turning movements in the three-way junction area. The intersection of Temple and Alameda Streets would also have a vehicular underpass for through-traffic on Alameda Street and a proposed pedestrian bridge to reduce potential conflicts between pedestrians, trains, and automobiles. The pedestrian bridge could potentially have endpoints located on each of the intersection’s four corners.

At-grade crossovers could be located on 2nd Street between Hill Street and Broadway, and on 2nd Street between Broadway and Spring Street. Crossovers are mechanical track installations along the double-track alignment that allow trains traveling in either direction on either track to move to the other track and continue traveling in the same direction without stopping. Trains may also pass through a crossover without switching tracks. A wider right-of-way may be required in the vicinity of at-grade crossovers, thus potentially increasing the amount of roadway space needed for LRT facilities.

In summary, the At-Grade Emphasis LRT Alternative would connect the Metro Blue and Expo Line tracks at the 7th Street/Metro Center Station to the Metro Gold Line tracks at a new junction north of the Little Tokyo/Arts District Station. This would be accomplished using new light rail right-of-way and new stations, enabling Metro Gold, Blue, and Expo Line services to be consolidated into two routes.

This memorandum also analyzes maximum potential effects for each station. Therefore, the actual effects may be smaller in magnitude than the potential impacts discussed in this analysis. Tunnel construction would be constrained by basements of existing buildings. No encroachments upon existing basements would occur except potentially at underground stations.

2.3.3.3 Operating Characteristics

Two consolidated routes:

- East-West Route – Trains on the Metro Expo Line tracks from Santa Monica would use existing tracks to the 7th Street/Metro Center Station and then continue along the new Regional Connector tracks to the new three-way junction at Temple and Alameda Streets. The service would then continue east along the Metro Gold Line tracks to East Los Angeles.
- North-South Route – Trains on the Metro Blue Line tracks would travel from the 7th Street/Metro Center Station north along the new Regional Connector tracks to the new three-way junction at Temple and Alameda Streets. The service would then continue north along the existing Metro Gold Line tracks to Pasadena and the future Metro Gold Line extension to Azusa.

Vehicle and Pedestrian Circulation

For the at-grade segments of the At-Grade Emphasis LRT Alternative, the two LRT tracks would typically occupy a 26-foot-wide surface right-of-way bordered by mountable curbs. It is expected that this width would increase to 39 feet at center-platform station locations.

Vehicular and pedestrian crossings would be limited to traffic signal-controlled intersections, with the signal phasing modified to provide adequate green time for the LRT vehicles to safely cross. For safety reasons, no uncontrolled mid-block vehicular crossings of the tracks would be permitted.

Access to existing parking structures, parking lots, loading docks, and commercial frontage would be affected by the at-grade LRT facilities. Left-turn parking access and egress is presently allowed at many downtown sites. However, the at-grade LRT facilities would prohibit uncontrolled mid-block left turns, thus modifying existing approach and departure traffic patterns.

The proposed At-Grade Emphasis LRT Alternative alignment would travel at-grade along 2nd Street. It is assumed that this street would be dedicated as a transit-only roadway between the tunnel and Los Angeles Street. This segment of 2nd Street may be closed to through traffic and provide only emergency vehicle access and local access to adjacent properties. As a result of this proposed change in street circulation, through traffic currently using 2nd Street would be diverted to parallel roadways such as 1st and 3rd Streets. East of Los Angeles Street 2nd Street would maintain its current physical features and operating characteristics.

The one-way transit couplet near City Hall along Main and Los Angeles Streets between 2nd and Temple Streets would consist of a single LRT track along each roadway. Both Main and Los Angeles Streets are wide enough to accommodate a single track and maintain acceptable vehicular operations. The curb-to-curb width of Temple Street, between Main and Alameda Streets, is 62 to 71 feet, which would leave one lane of traffic in each direction with potentially mountable curbs for use by emergency vehicles. Traffic operations along this segment of Temple Street would be affected by the lane reduction.

To minimize potential conflicts between rail, vehicular, and pedestrian traffic and minimize delays at the intersection of Temple and Alameda Streets, a vehicular underpass and a proposed pedestrian overpass would be proposed along Alameda Street to route the through traffic beneath the rail tracks and Temple Street traffic. Temple Street and the rail tracks would remain at-grade and the existing at-grade segment of Alameda Street would be lowered to pass under Temple Street.

Through traffic traveling north and south on Alameda Street would operate unimpeded without being stopped or delayed at the intersection. Through traffic traveling east and west on Temple Street would continue to operate at-grade with a signal to control the movements between the vehicular and rail modes of transportation. In addition, a one-lane southbound at-grade frontage road would be provided along Alameda Street to maintain access to businesses and properties on the west side of the street.

2.3.4 Underground Emphasis LRT Alternative

2.3.4.1 Overview

The Underground Emphasis LRT Alternative would provide a direct connection from 7th Street/Metro Center Station to the Gold Line tracks at the Little Tokyo/Arts District Station, and would include three new station locations. The alignment would extend underground from the 7th Street/Metro Center Station under Flower Street to 2nd Street. The tracks would then proceed east underneath the 2nd Street Tunnel and 2nd Street to a new portal on the parcel bounded by 1st Street, Alameda Street, 2nd Street, and Central Avenue.

It is expected that a portion of this property would need to be acquired to construct the portal and stage construction of the tunnels beneath 2nd Street. The tracks would then connect to the Gold Line tracks across Alameda Street.

The Underground Emphasis LRT Alternative would be located entirely underground except for a single at-grade crossing at the intersection of 1st and Alameda Streets in the same type of three-way junction proposed for the At-Grade Emphasis LRT Alternative. Figure 2-4 illustrates this alternative.

2.3.4.2 Route Configuration

The Underground Emphasis LRT Alternative alignment would extend north from the existing platform at the 7th Street/Metro Center Station. Tracks would run underneath Flower Street to the next proposed station, just north of 5th Street. The tracks would then continue north underneath Flower Street and veer northeast near the intersection of 3rd and Flower Streets.

A new underground station would be located just southwest of the intersection of 2nd and Hope Streets. At this location, a new pedestrian bridge could be constructed to connect the station to Upper Grand Avenue.

The tracks would then head east underneath 2nd Street to the next proposed station. There are two options for a station on 2nd Street. The Broadway station option would place an underground station on 2nd Street between Broadway and Spring Street, and the Los Angeles Street station option would include an underground station between Main and Los Angeles Streets.

The tracks would then continue east underneath 2nd Street to Central Avenue, where they would veer northeast and surface in the lot bounded by 1st, Alameda, and 2nd Streets, and Central Avenue. The tracks would then enter an at-grade three-way junction in the intersection of 1st and Alameda Streets.

A new underpass would carry car and truck traffic along Alameda Street beneath 1st Street and the rail junction, and a proposed overhead pedestrian bridge structure would reduce most potential conflicts between pedestrians and trains. The pedestrian overpass could potentially have endpoints at each of the four corners of the intersection.

Crossovers could be located just north of the proposed station at 5th and Flower Streets and just east of the proposed station on 2nd Street (whether it is between Broadway and Spring Street or between Main and Los Angeles Streets). Crossovers may not be needed at all of these locations and may ultimately be placed in locations that are not adjacent to stations. Underground crossover locations require cut-and-cover construction; tunnel-boring machines cannot be used to construct underground crossovers.

In summary, the Underground Emphasis LRT Alternative would link the Metro Blue and Expo Lines at the 7th Street/Metro Center Station to the Metro Gold Line from a new junction just south of the Little Tokyo/Arts District Station at 1st and Alameda Streets. This would be accomplished using new light-rail right-of-way and new stations, enabling the consolidation of the Metro Gold, Blue, and Expo Line services into two routes.

This Memorandum analyzes maximum potential impacts for each station. Ultimate potential impacts may therefore be less in magnitude than the potential impacts disclosed. Tunnel construction would be constrained by basements of existing buildings. No encroachments upon existing basements would occur except potentially at underground stations.

2.3.4.3 Operating Characteristics

Two consolidated routes:

- East-West Route – Trains on the Metro Expo Line tracks from Santa Monica would run on tracks to the 7th Street/Metro Center Station and then continue north along the new Regional Connector tracks to the new three-way junction at the intersection of 1st and Alameda Streets. Trains would then turn east on 1st Street, bypassing the Little Tokyo/Arts District Station, and continue along the Metro Gold Line tracks to East Los Angeles.
- North-South Route – From the 7th Street/Metro Center Station, trains from Long Beach would continue north along the new Regional Connector tracks to the new three-way junction at 1st and Alameda Streets. The trains would then turn north on 1st Street and stop at the existing Little Tokyo/Arts District Station before continuing along the Metro Gold Line route to Pasadena and Azusa.

Vehicle and Pedestrian Circulation

The Underground Emphasis LRT Alternative alignment would not permanently affect surface traffic or pedestrian circulation except at the intersection of 1st and Alameda Streets, where the LRT alignment would operate in an at-grade configuration. Consequently, vehicular circulation patterns along downtown streets adjacent to most of the alignment would continue to operate under current traffic flow patterns.

The future roadway levels of service for this alternative would be similar to the No Build Alternative except at the intersection of 1st and Alameda Streets, where a vehicular underpass and pedestrian overpass are proposed to separate the heavy traffic volumes along Alameda Street from rail traffic to minimize delays. The proposed underpass would result in uninterrupted flow along Alameda Street in the north and south directions between 2nd and Temple Streets. Through traffic traveling east and west on 1st Street would continue to operate at-grade with a signal to control the movements between the vehicular and rail modes of transportation.

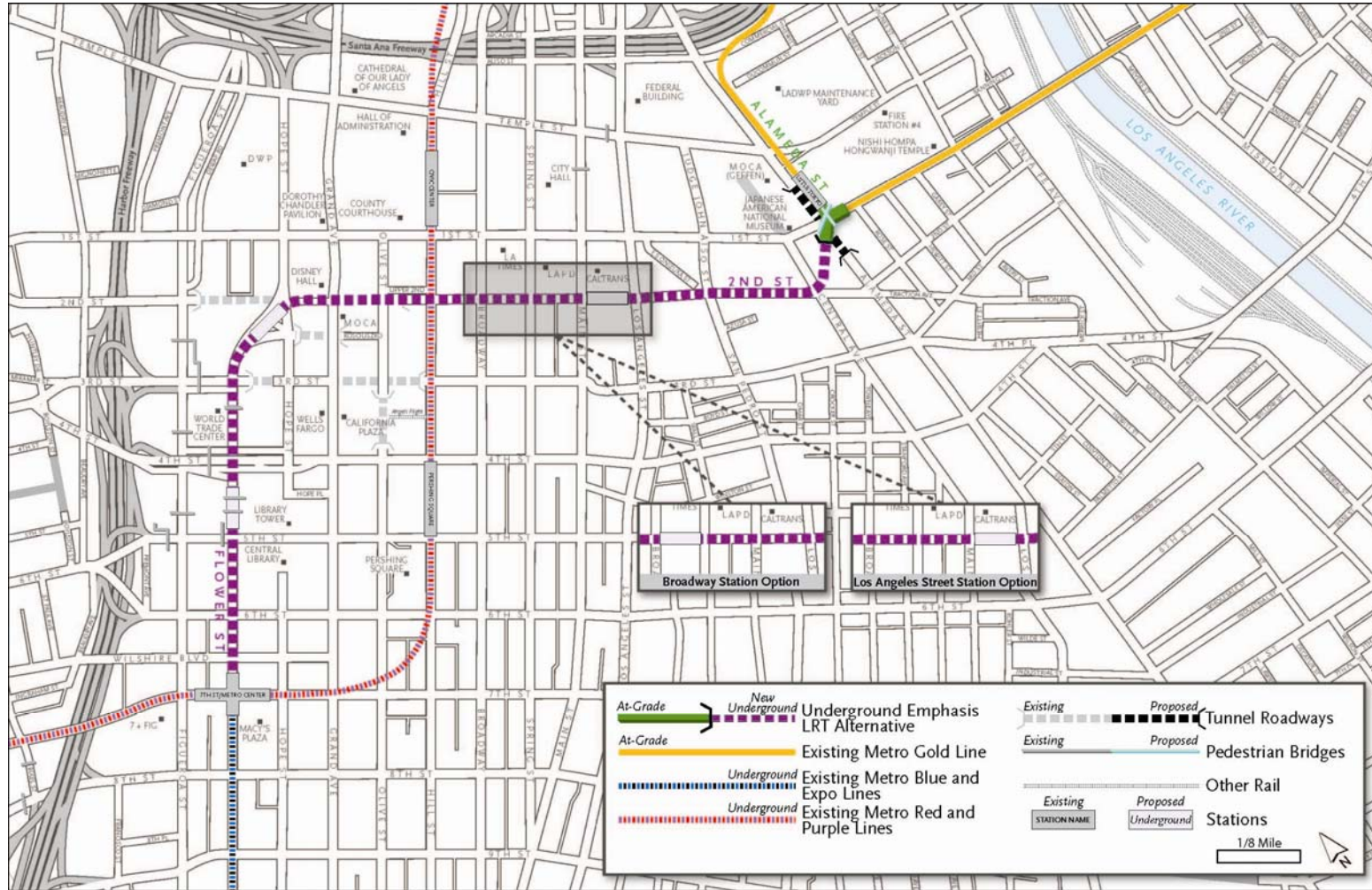


Figure 2-4. Underground Emphasis LRT Alternative

To maintain access to adjacent businesses and properties, at-grade frontage roads would be provided along both sides of Alameda Street south of the intersection and on the southbound side of the street north of the intersection. A full northbound frontage road crossing 1st Street is not feasible because of the location of the tracks and the Little Tokyo/Arts District Station on the east side of Alameda Street.

2.3.5 Fully Underground LRT Alternative – Little Tokyo Variation 1

2.3.5.1 Overview

The Fully Underground LRT Alternative - Little Tokyo Variation 1 would provide four new stations and a direct connection from 7th Street/Metro Center Station to the existing Metro Gold Line tracks to the north and east of 1st and Alameda Streets. The alignment would extend underground from the 7th Street/Metro Center Station under Flower Street to 2nd Street. The tracks would then proceed east underneath the 2nd Street Tunnel and 2nd Street to Central Avenue.

At 2nd and Central, the tracks would continue underground heading northeast under 1st and Alameda Streets. A three-way junction would be constructed underground beneath the 1st and Alameda intersection. To the north and east of the junction, trains would rise to the surface through two new portals to connect to the Metro Gold Line heading north to Azusa and east to the San Gabriel Valley. One portal would be located northeast of the Little Tokyo/Arts District Station and tracks. This portal would rise to the north within the City of Los Angeles Department of Water and Power (LADWP) Maintenance Yard and connect to the existing LRT Bridge over the US-101 freeway, allowing a connection to the Metro Gold Line to Azusa. The portal would be connected to the 1st and Alameda junction by a new tunnel crossing beneath Temple Street and the property proposed for the Nikkei Center (the parcel on the northeast corner of 1st and Alameda Streets), running immediately east of the Little Tokyo/Arts District Station and tracks.

The second portal would be located within 1st Street between Alameda and Vignes Streets. Tracks would rise to the east within this second portal and connect at-grade to the existing Metro Gold Line tracks toward I-605. To accommodate the portal, 1st Street would be widened to the north. Street widening would be initiated at Alameda and continue east, tapering down significantly as it crosses Hewitt Street to join the existing 1st Street LRT tracks about one and half blocks west of the 1st Street Bridge.

Additional property would need to be acquired to stage construction of both portals, connect to the Gold Line LRT bridge, and complete the tunnels beneath 2nd Street and the Nikkei Center property. The Fully Underground Alternative – Little Tokyo Variation 1 would be located entirely underground from the 7th Street/Metro Center Station to east of the intersection of 1st and Alameda Streets. Figure 2-5 illustrates this alternative.

2.3.5.2 Route Configuration

The Fully Underground LRT Alternative- Little Tokyo Variation 1 alignment would extend north from the existing LRT platform at 7th Street/Metro Center Station. Tracks would run underneath Flower Street to the next proposed station, just north of 5th Street. The tracks would then continue north underneath Flower Street and veer northeast near the intersection of 3rd and Flower Streets.

A new underground station would be located just southwest of the intersection of 2nd and Hope Streets. At this location, a new pedestrian bridge could be constructed to connect the station to Upper Grand Avenue. The bridge could begin at street level near the station entrance and cross above the intersection and along Kosciuszko Way to reach Upper Grand Avenue.

The tracks would then head east underneath 2nd Street to the next proposed station at Broadway. The 2nd Street/Broadway station would be located under 2nd Street approximately between Broadway and Spring Street. The tracks would then continue east underneath 2nd Street to Central Avenue, where they would veer northeast to a new underground station, which would potentially be located within the property currently occupied by Office Depot and other small commercial uses.

The tracks would continue from the station under the 1st and Alameda intersection into a new underground three-way junction. One set of tracks would separate from this junction, continuing underground beneath the proposed Nikkei Center parcel (the parcel on the northeast corner of 1st and Alameda Streets), along the eastern side of the existing Little Tokyo/Arts District Station. These tracks would travel under Temple Street before surfacing in the LADWP yard and rising to connect to the existing Metro Gold Line LRT bridge over the US-101 Freeway. This would allow trains to continue along the Metro Gold Line to Pasadena, which would eventually extend to Azusa per Metro's Long Range Transportation Plan. Traffic lanes on Alameda Street would be reconfigured temporarily during construction.

The other set of tracks leaving the three-way junction would rise to the east within 1st Street to accommodate a new portal as well as existing Metro Gold line tracks. To accommodate the portal, the north portion of 1st Street would be widened. Street widening would be initiated at Alameda and continue east, tapering down significantly as the alignment crosses Hewitt Street to join the existing 1st Street LRT tracks, about one and half blocks west of the 1st Street Bridge. This would allow trains to continue along the Metro Gold Line to East Los Angeles, which should eventually extend to I-605 per Metro's Long Range Transportation Plan.

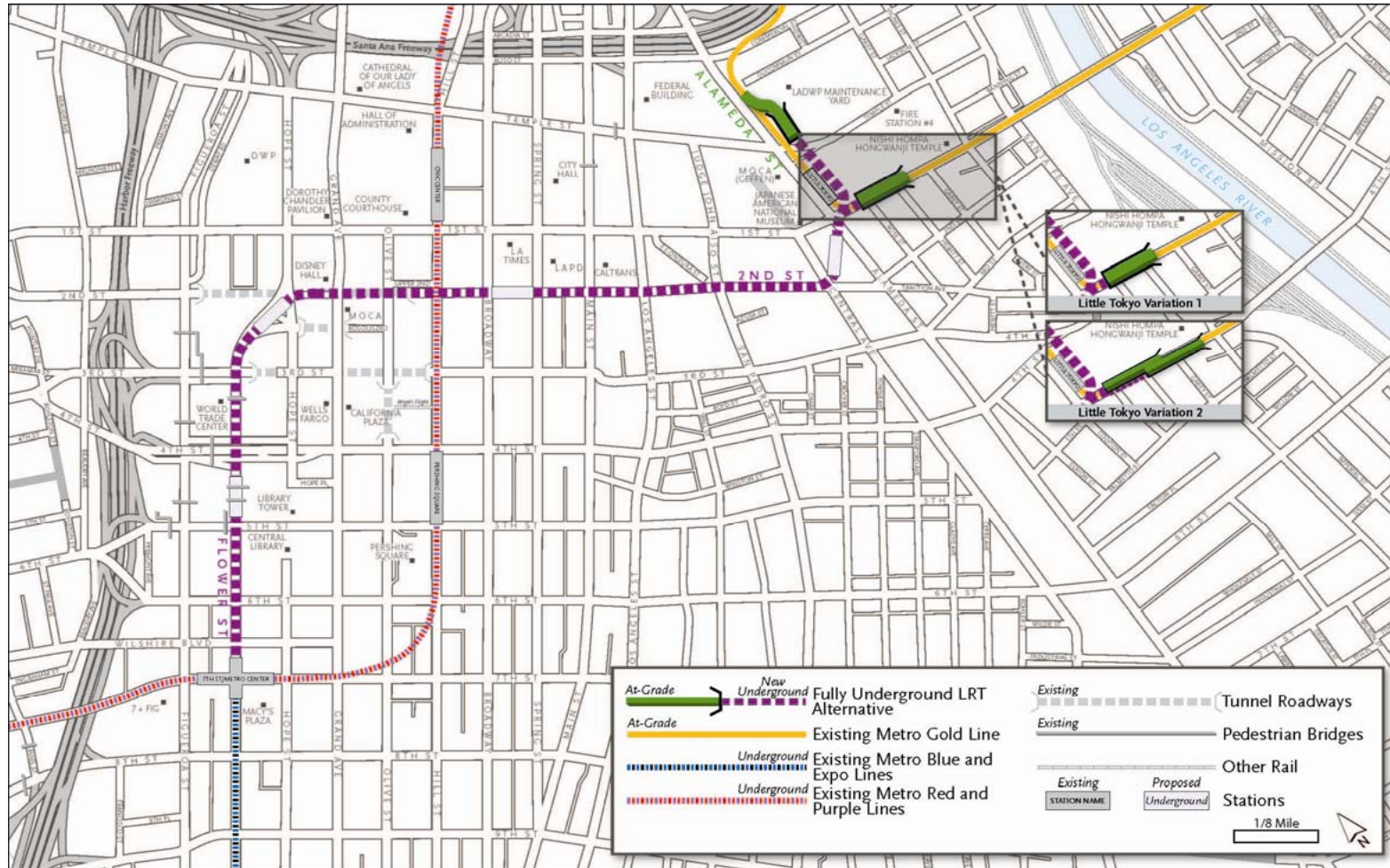


Figure 2-5. Fully Underground Emphasis LRT Alternative Alignment and Configuration, Little Tokyo Variations 1 and 2

The signalized intersection of 1st and Hewitt Streets would be removed. North-south traffic along Hewitt Street would no longer be able to cross 1st Street. All left turns at 1st and Hewitt would be prohibited. Right turns to and from Hewitt Street would continue to be permitted. Automobile access to the proposed Nikkei Center parcel would continue to be available from Temple and 1st Streets. However, access at any driveways into the parcel along 1st Street would be restricted to right turns only.

The existing Metro Gold Line and the Little Tokyo/Arts District Station surface tracks and station would be maintained for continued service during construction, with only intermittent disruptions related to construction activities. Once construction is complete, operation of the current Metro Gold Line between Pasadena and East Los Angeles would terminate. Metro would initiate operations on two routes: between Azusa and Long Beach, and between East Los Angeles and Santa Monica.

Crossovers could be located just north of the proposed station at 5th and Flower Streets and just east of the proposed station at 2nd Street and Broadway. Crossovers may not be needed at both of these locations, and may ultimately be placed in locations that are not adjacent to stations.

Underground crossover locations require cut-and-cover construction; tunnel boring machines cannot be used to construct underground crossovers. More information on these construction methods is provided in the Description of Construction.

In summary, the Fully Underground LRT Alternative – Little Tokyo Variation 1 would link the Metro Blue and Expo Lines at the 7th Street/Metro Center Station to the Metro Gold Line from a new junction under 1st and Alameda Streets. This would be accomplished using new light rail right-of-way and four new stations, enabling Metro Gold, Blue, and Expo Line services to be consolidated.

This technical memorandum analyzes maximum potential impacts for each station. Ultimate potential impacts may therefore be smaller in magnitude than the potential impacts disclosed. Tunnel construction would be constrained by basements of existing buildings. No encroachments upon existing basements would occur except potentially at underground stations.

2.3.5.3 Operating Characteristics

Two consolidated routes:

The Regional Connector would consolidate the Metro Gold Line, Metro Expo Line, and Metro Blue Line into the two following routes:

- East-West Route - Metro Expo Line trains from Santa Monica would continue north from the existing 7th Street/Metro Center Station along new Regional Connector tracks

to a new three-way junction beneath the intersection of 1st and Alameda Streets. Trains would then travel to the new portal on 1st Street, and continue along the Metro Gold Line tracks toward I-605.

- North-South Route - After stopping at 7th Street/Metro Center Station, trains from Long Beach would continue north along the new Regional Connector tracks to the new three-way junction beneath 1st and Alameda Streets. Trains would then travel to the new portal on the LADWP site, and continue along the existing Metro Gold Line alignment to Azusa.

The east-west and north-south routes would each operate with 5 minute headways during peak hours, combining to yield trains every 2 ½ minutes in each direction along the Regional Connector corridor.

Vehicle and Pedestrian Circulation

The Fully Underground LRT Alternative – Little Tokyo Variation 1 alignment would not permanently affect surface traffic or pedestrian circulation on 1st Street between Alameda Street and the 1st Street Bridge, where the LRT alignment would rise within a portal to an at-grade configuration. Street widening and sidewalk modifications would be required in this area.

Vehicular circulation patterns along downtown streets adjacent to most of the alignment would continue to operate under current traffic flow patterns except where a newly installed traffic signal at 1st and Hewitt Streets would be removed. Through traffic movements along Hewitt Street would no longer be permitted at 1st Street, and no left turns to or from Hewitt Street would be possible.

Permanent roadway and lane reconfigurations around the proposed 2nd/Hope Street and Flower/5th/4th Street stations would also be needed. At the proposed 2nd/Hope Street station, a short connector roadway would be removed, but all existing traffic movements would still be possible via the remaining connector roadways. At the proposed Flower/5th/4th Street station, one traffic lane would need to be removed from Flower Street to accommodate station entrances along the sidewalk.

2.3.6 Fully Underground LRT Alternative – Little Tokyo Variation 2

2.3.6.1 Overview

The Fully Underground LRT Alternative - Little Tokyo Variation 2 would provide four new stations and a direct connection from 7th Street/Metro Center Station to the existing Metro Gold Line tracks to the north and east of 1st and Alameda Streets. The alignment would be the same as the Fully Underground LRT Alternative – Little Tokyo Variation 1 from the 7th Street/Metro Center Station to 2nd Street and Central Avenue.

A new two-level underground junction would be constructed beneath the 1st and Alameda Streets intersection. Trains traveling north toward Azusa and east toward I-605 would use the lower level of the junction, and trains travelling south toward Long Beach and west toward Santa Monica would use the upper level. To the north and east of the junction, trains would rise to the surface through new portals to connect to the Metro Gold Line heading north to Azusa and east towards I-605.

One portal containing the northbound and southbound tracks would be located northeast of the Little Tokyo/Arts District Station and tracks. This portal would rise to the north within the LADWP Maintenance Yard and connect to the existing LRT bridge over the US-101 freeway, allowing a connection to the Metro Gold Line tracks.

This portal would be connected to the 1st and Alameda junction by a new cut-and-cover tunnel crossing beneath Temple Street and the property proposed for the Nikkei Center (the parcel on the northeast corner of 1st and Alameda Streets), and would run immediately east of the existing Little Tokyo/Arts District station and tracks. The new tunnel would feed southbound trains from the portal into the upper level of the junction, and carry northbound trains away from the lower level of the junction toward the portal.

Two portals, each containing one track, would rise to the east within the widened median of 1st Street to allow a connection to the Metro Gold Line towards I-605. The portal containing the westbound track would be located between Alameda and Garey Streets. The portal containing the eastbound track would be located adjacent to the westbound track between Hewitt and Vignes Streets.

The northern portion of 1st Street would be widened to accommodate the westbound portal. The widening would be initiated at Alameda and continue east, tapering down significantly as it crosses Hewitt Street. There, the new tracks would feed into the existing 1st Street LRT tracks, about a block west of the 1st Street Bridge. Also, 1st Street would be widened to the south between Hewitt and Vignes Streets to accommodate the eastbound track portal. The widening would taper down as it approaches Vignes Street. No modification to the 1st Street Bridge would be necessary.

Additional property would need to be acquired to stage construction of both portals, connect to the Gold Line LRT Bridge, and complete the tunnels beneath 2nd Street and the Nikkei Center property.

The Fully Underground Alternative – Little Tokyo Variation 2 would be located entirely underground from the 7th Street/Metro Center Station to east of the intersection of 1st and Alameda Streets. Figure 2-5 illustrates this alternative.

2.3.6.2 Route Configuration

The Fully Underground LRT Alternative – Little Tokyo Variation 2 alignment would extend north from the existing LRT platform at 7th Street/Metro Center Station. Tracks would run underneath Flower Street to the next proposed station, just north of 5th Street. The tracks would then continue north underneath Flower Street and veer northeast near the intersection of 3rd and Flower Streets.

A new underground station would be located just southwest of the intersection of 2nd and Hope Streets. At this location, a new pedestrian bridge could be constructed to connect the station to Upper Grand Avenue. The bridge could begin at street level near the station entrance and cross above the intersection and along Kosciuszko Way to reach Upper Grand Avenue.

From 2nd and Hope Streets, the tracks would head east underneath 2nd Street to the next proposed station at Broadway. The 2nd Street/Broadway station would be located under 2nd Street approximately between Broadway and Spring Street.

The tracks would then continue east underneath 2nd Street to Central Avenue, where they would veer northeast to a new underground station that would potentially be located within the property currently occupied by Office Depot and other small commercial uses.

As the tunnels turn northeast from 2nd Street, the northbound tunnel would descend and the southbound tunnel would rise so that the southbound tunnel would be stacked on top of the northbound tunnel. The new underground station near 2nd Street and Central Avenue would have two underground levels, each with a single-track platform. The northbound track with trains headed north and east would be on the lower level, and the southbound track with trains headed south and west would be on the upper level.

The tracks would continue from the station under the 1st and Alameda intersection into a new two-level underground junction. Separating from the junction, one track from the lower level (northbound) and one track from the upper level (southbound) would continue underground beneath the proposed Nikkei Center parcel (the parcel on the northeast corner of 1st and Alameda Streets), along the eastern side of the existing Little Tokyo/Arts District Station.

These tracks would travel under Temple Street before surfacing in the LADWP yard and rising to connect to the existing Metro Gold Line LRT Bridge over the US-101 Freeway. This would allow trains to continue along the Metro Gold Line to Pasadena, which should extend to Azusa per Metro's Long Range Transportation Plan. Traffic lanes on Alameda Street would be reconfigured temporarily during construction.

A second track (westbound) leaving the upper level of the junction would rise to the east within 1st Street between Alameda and Hewitt Streets and link to the existing Metro Gold Line

track. Another track (eastbound) leaving the lower level of the junction would rise to the east within 1st Street between Hewitt and Vignes Streets, adjacent to the westbound track, and link to the existing Metro Gold Line track.

To accommodate the portal and temporary tracks to maintain Metro Gold Line service during construction, 1st Street would be widened to the north and south. Widening would be initiated at Alameda and continue east, tapering down significantly as the alignment crosses Hewitt Street and again at Vignes Street, where tracks would join the existing 1st Street LRT tracks, just west of the 1st Street Bridge. This would allow trains to continue along the Metro Gold Line to East Los Angeles, which would eventually extend toward I-605 per Metro's Long Range Transportation Plan.

The signalized intersection of 1st and Hewitt Streets would be removed. North-south traffic along Hewitt Street would no longer be able to cross 1st Street. All left turns at 1st and Hewitt would be prohibited. Right turns to and from Hewitt Street would continue to be permitted.

Automobile access to the proposed Nikkei Center parcel would continue to be available from Temple and 1st Streets. However, access at any driveways into the parcel along 1st Street would be restricted to right turns only. The existing Metro Gold Line and Little Tokyo/Arts District Station and surface tracks would be maintained for continued service during construction, with intermittent disruptions related to construction activities.

One lane of 1st Street would need to be temporarily closed during construction between Alameda and Vignes Streets to maintain these surface tracks. The surface tracks would not remain in place beyond construction. Once construction is complete, operation of the current Metro Gold Line between Pasadena and East Los Angeles would terminate. Metro would initiate operations on two routes: between Azusa and Long Beach, and between East Los Angeles and Santa Monica.

Crossovers could be located just north of the proposed station at 5th and Flower Streets and just east of the proposed station at 2nd Street and Broadway. Crossovers may not be needed at both of these locations and may ultimately be placed in locations that are not adjacent to stations. Underground crossover locations require cut-and-cover construction; tunnel boring machines cannot be used to construct underground crossovers. More information on these construction methods is provided in the Description of Construction.

In summary, the Fully Underground LRT Alternative – Little Tokyo Variation 2 would link the Metro Blue and Expo Lines at the 7th Street/Metro Center Station to the Metro Gold Line tracks. The link would be provided by a new two-level junction under 1st and Alameda Streets using new light rail right-of-way and new stations, enabling Metro Gold, Blue, and Expo Line services to be consolidated.

This technical memorandum analyzes maximum potential impacts for each station. Ultimate potential impacts may therefore be smaller in magnitude than the potential impacts disclosed. Tunnel construction would be constrained by basements of existing buildings. No encroachments upon existing basements would occur except potentially at underground stations.

2.3.6.3 Operating Characteristics

Two consolidated routes:

- The Regional Connector would consolidate the Metro Gold Line, Metro Expo Line, and Metro Blue Line into the two following routes: East-West Route - Metro trains from Santa Monica would run on existing tracks from the 7th Street/Metro Center Station north along the new Regional Connector tracks to a new two-level junction beneath the intersection of 1st and Alameda Streets. Trains would then travel to the new portals on 1st Street, and continue along the Metro Gold Line tracks towards I-605.
- North-South Route - After stopping at 7th Street/Metro Center Station, trains from Long Beach would continue north along the new Regional Connector tracks to the new two-level junction beneath 1st and Alameda Streets. The trains would then travel to the new portal on the LADWP site, and continue along the Metro Gold Line tracks to Azusa.

The east-west and north-south routes would each operate with 5-minute headways during peak hours, combining to yield trains every 2 ½ minutes in each direction along the Regional Connector.

Vehicle and Pedestrian Circulation

The Fully Underground LRT Alternative – Little Tokyo Variation 2 alignment would not permanently affect surface traffic or pedestrian circulation on 1st Street between Alameda Street and the 1st Street Bridge, where the LRT alignment would rise within a portal to an at-grade configuration. Street widening and sidewalk modifications would be required in this area.

Vehicular circulation patterns along downtown streets adjacent to most of the alignment would continue to operate under current traffic flow patterns except where a newly installed traffic signal at 1st and Hewitt Streets would be removed. Through traffic movements along Hewitt Street would no longer be permitted at 1st Street, and no left turns to or from Hewitt Street would be possible.

Permanent roadway and lane reconfigurations around the proposed 2nd/Hope Street and Flower/5th/4th Street stations would also be needed. At the proposed 2nd/Hope Street station, a short connector roadway would be removed, but all existing traffic movements would still be

possible via the remaining connector roadways. At the proposed Flower/5th/4th Street station, one traffic lane would need to be removed from Flower Street to accommodate station entrances along the sidewalk.

2.3.7 Locally Preferred Alternative

On October 28th, 2010, the Metro Board of Directors concurred with staff's recommendation to designate the Fully Underground LRT Alternative as the LPA. The LPA is essentially the same configuration as the Fully Underground LRT Alternative – Little Tokyo Variation 1, except that this alternative does not include the Flower/5th/4th Street station. It travels under the Japanese Village Plaza in Little Tokyo instead of continuing underneath 2nd Street to Central Avenue, and it then connects to the Metro Gold Line within 1st Street and north of Temple Street.

The alignment would extend underground from the 7th Street/Metro Center Station under Flower Street to 2nd Street. Tracks would then proceed east underneath the 2nd Street tunnel and 2nd Street to just west of Central Avenue. At 2nd Street and the pedestrian signal to the JVP, the tracks would continue underground heading northeast under the JVP and 1st and Alameda Streets.

An underground junction would be constructed beneath the intersection of 1st Street and Alameda Street. Unlike the Underground Emphasis LRT Alternative, two portals would be needed to facilitate the connection between the underground Regional Connector and the at-grade Metro Gold Line branches to Pasadena/Claremont and the Eastside. The new portals would be located to the north and east of the junction, where trains would rise to the surface to connect to the Metro Gold Line heading north to Claremont and east to the Eastside.

One portal would be located north of Temple Street, northeast of the existing at-grade Little Tokyo/Arts District Station and Metro Gold Line tracks. This portal would rise to the north within the maintenance yard of the City of Los Angeles Department of Water and Power (LADWP) and connect to the existing LRT bridge over US 101, allowing a connection to the Metro Gold Line to Claremont. Tracks would run from the junction under 1st and Alameda Streets through a new tunnel crossing beneath Temple Street and the Mangrove property (the parcel on the northeast corner of 1st and Alameda Streets) to the new portal. This new tunnel would run immediately east of the existing Little Tokyo/Arts District Station and Metro Gold Line tracks.

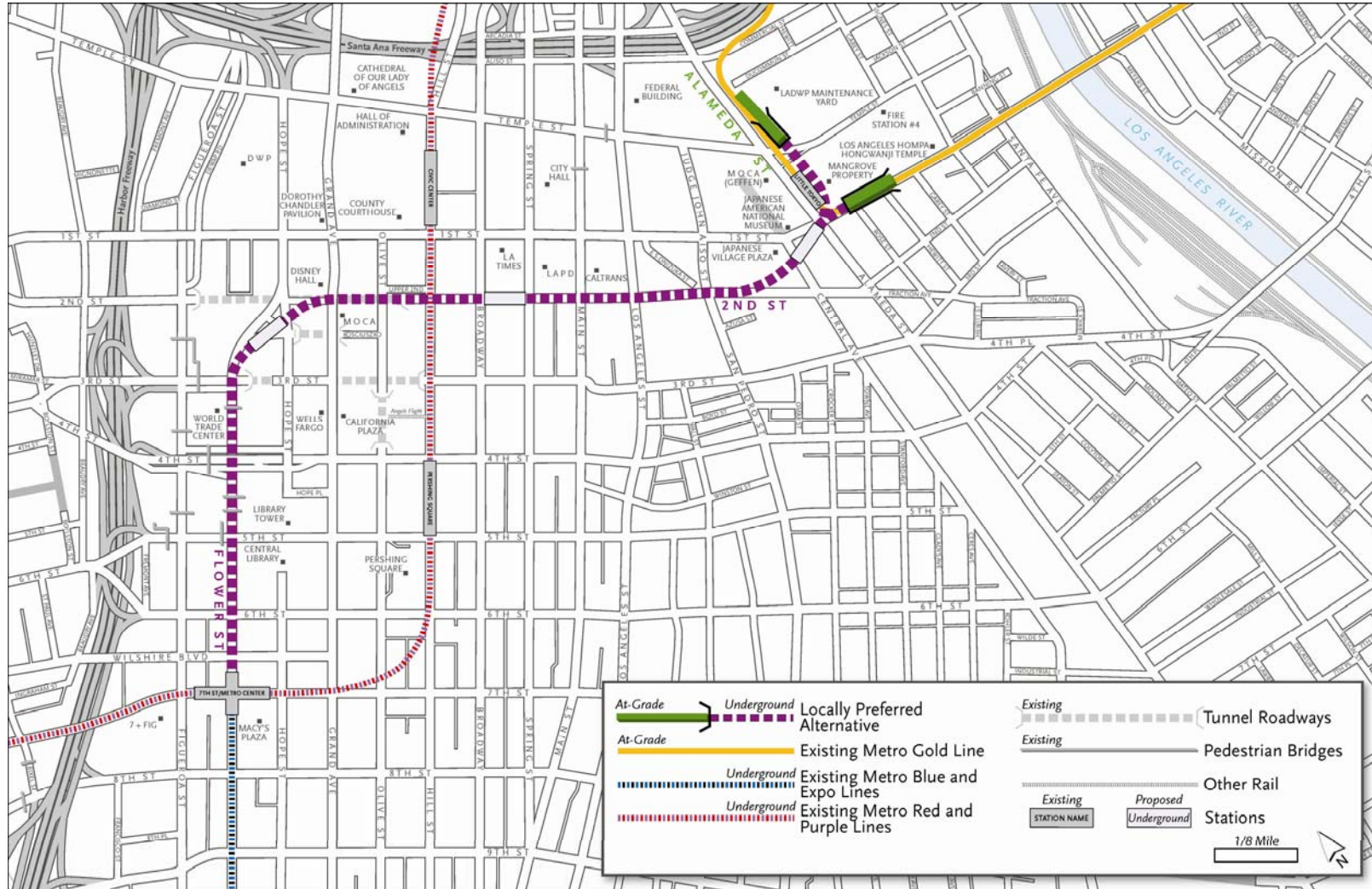


Figure 2-6 –Locally Preferred Alternative

The second portal would be located within 1st Street between Alameda and Garey Streets. Tracks would rise to the east within this second portal and connect at-grade to the existing Metro Gold Line tracks toward I-605. 1st Street would be widened to the north to accommodate this second portal and maintain the existing number of through lanes. The widening would start at Alameda Street and continue east, significantly tapering down as it crosses Hewitt Street, returning to the existing condition prior to the Los Angeles Homba Hongwanji Buddhist Temple, to join the existing 1st Street LRT tracks, just west of the 1st Street Bridge.

Property northeast of 1st and Alameda Streets, the Mangrove property, would need to be acquired for insertion of the TBM, to stage construction of both portals, to connect to the Metro Gold Line LRT bridge, and to construct the tunnels beneath Temple Street and the Mangrove property. During construction, tracks would be installed in this area at-grade to allow service to proceed on the Metro Gold Line while construction activities occur within the project area.

2.3.7.1 Route and Configuration

The LPA alignment would extend north from the existing LRT platform at 7th Street/Metro Center Station and would run underneath Flower Street. An enhanced pedestrian walkway would be provided along Flower Street from the 4th Street and Flower Street area to the existing 7th Street/Metro Center Station entrance at 7th and Flower Streets, which would improve the pedestrian connection between the Financial District and the 7th Street/Metro Center Station. The tracks would then continue north underneath Flower Street and veer northeast near the intersection of 3rd and Flower Streets. A new underground station would be located just southwest of the intersection of 2nd and Hope Streets.

At 2nd and Hope Streets, a pedestrian connection to Upper Grand Avenue would be provided. A pedestrian plaza above General Thaddeus Kosciuszko Way connecting to Upper Grand Avenue is planned as part of the Broad Collection museum. Metro would construct an elevator from the station entrance to the plaza if one is not already provided. If the plaza is not built, Metro would construct a pedestrian bridge from the elevator to Upper Grand Avenue. Tracks would then head east underneath 2nd Street to the next proposed underground station between Broadway and Spring Street (2nd Street/Broadway station).

The tracks would continue east underneath 2nd Street to just west of Central Avenue at approximately the pedestrian signal to the JVP, where the alignment would then veer northeast under privately held property and Central Avenue to a newly proposed Little Tokyo/Arts District underground station (1st/Central Avenue station). The proposed underground station would be partially located within Central Avenue and the northern half of the block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street. The Señor Fish, Weiland Brewery, the former Café Cuba (The Spice Table), and associated parking would

need to be acquired for construction of this station. However, the remaining businesses on that block would remain, including the Office Depot and associated parking.

The tracks would leave the station and cross under the intersection of 1st Street and Alameda Street into a new underground rail junction. Separating from the junction, one set of tracks would continue underground beneath the Mangrove property (located on the northeast corner of 1st and Alameda Streets), along the eastern side of the existing Little Tokyo/Arts District Station.

The tracks would then travel under Temple Street before surfacing through a portal in the southwest corner of the LADWP maintenance yard and rise to connect to the existing Metro Gold Line LRT bridge over US 101. This would allow trains to continue along the Metro Gold Line to Pasadena, which would be extended to Claremont. Traffic lanes on Alameda Street would be temporarily reconfigured during construction.

The other set of tracks leaving the underground junction would rise to the east within 1st Street to accommodate a new portal and the existing Metro Gold Line tracks. 1st Street would be widened on its northern side to accommodate the portal. The widening would initiate at Alameda Street and continue east, significantly tapering down as the alignment crosses Hewitt Street, returning to the existing condition prior to the Los Angeles Hampa Hongwanji Buddhist Temple, to join the existing 1st Street LRT tracks, just west of the 1st Street Bridge. This would allow trains to continue along the Metro Gold Line to East Los Angeles, which would be eventually extended to I-605 per Metro's LRTP. The signals would be removed at the intersection of 1st and Hewitt Streets. North-south traffic along Hewitt Street would no longer be able to cross 1st Street. All left turns would be prohibited at the intersection of 1st and Hewitt Streets. Right turns would continue to be permitted to and from Hewitt Street. Automobile access to the Mangrove property would continue to be available from Temple and 1st Streets. However, automobile access to the parcel along 1st Street would be restricted to right turns only.

The existing Metro Gold Line Eastside Extension and the Little Tokyo/Arts District Station surface tracks and station would be maintained for continued service during construction with intermittent disruptions related to construction activities. Once construction is complete, operation of the current Metro Gold Line between Pasadena and the Eastside and the existing, at-grade Little Tokyo/Arts District Station would terminate. In its place, Metro would initiate operations on two routes:

- Between Claremont and Long Beach
- Between the Eastside and Santa Monica

Crossovers could be located just east of the proposed station at 2nd and Broadway Streets, underground beneath 1st Street just east of the intersection of 1st and Alameda Streets, and

underground beneath the Mangrove property, north of the rail junction. In addition, a pocket track, which could also serve as a crossover, would be located beneath Flower Street between 5th and 6th Streets. The crossovers and pocket track may not be needed at these locations and may ultimately be placed in other locations. Tunnel boring machines cannot be used for construction of crossovers since underground crossover locations require cut and cover construction. More information on these construction methods is provided in the Description of Construction, Appendix K.

In summary, the LPA would link the Metro Blue Line and Metro Expo Line at the 7th Street/Metro Center Station to the Metro Gold Line at a new junction under 1st and Alameda Streets using new light rail rights-of-way and new stations. This would enable the Metro Gold Line, Metro Blue Line, and Metro Expo Line services to be consolidated. Key features of the LPA are described below.

Proposed LRT alignments that would be constructed as part of the LPA are:

Underground double track beneath Flower Street from the existing platform at the 7th Street/Metro Center Station to 3rd Street

- Underground double track curving northeast from the intersection of 3rd and Flower Streets toward 2nd and Hope Streets
- Underground double track beneath the 2nd Street tunnel and 2nd Street from Hope Street to just west of Central Avenue, at approximately the pedestrian signal to the JVP, then northeast to 1st and Alameda Streets
- Underground rail junction beneath the intersection of 1st and Alameda Streets
- Underground double track from the rail junction to the portal located within a widened 1st Street between Alameda and Garey Streets, prior to the Los Angeles Homba Hongwanji Buddhist Temple; then at-grade double track connecting to the existing Metro Gold Line Eastside Extension tracks toward I-605
- Underground double track from the rail junction running north beneath the Mangrove property and Temple Street, just east of the existing Little Tokyo/Arts District Station, to the new portal in the LADWP maintenance yard site; then at-grade double track rising from the portal on a new ramp structure to connect to the existing Metro Gold Line bridge over the US 101

Proposed stations that would be constructed as part of the LPA are:

- Underground station just southwest of the intersection of 2nd and Hope Streets (2nd/Hope Street station)
- Underground station on 2nd Street between Broadway and Spring Streets (2nd/Broadway station)
- Underground station just southeast of the intersection at 1st Street and Central Avenue (1st/Central Avenue station). This station may include a small building at ground level on the southwest corner of 1st and Alameda Streets to house ventilation fans. This shallow station may potentially be built without a roof or mezzanine, leaving the below-grade platform level exposed

The proposed crossovers and pocket track could be located at the following preliminary locations:

- Pocket track, which could also serve as a crossover, underground along Flower Street between 5th and 6th Streets, which would allow for a possible future station at this location constructed as a separate project
- Crossover underground just east of 2nd/Broadway station
- Crossover underground beneath 1st Street just east of the intersection of 1st and Alameda Streets
- Crossover underground beneath the Mangrove property, north of the rail junction

Proposed TPSS facilities would be placed at the following locations:

- Along Flower Street between 5th and 4th Streets
- Underground in the 2nd/Broadway station

2.4.7.2 Operating Characteristics

The LPA consolidates the Metro Gold Line, Metro Expo Line, and Metro Blue Line into the two following routes:

East-West Route (Santa Monica to the Eastside via the Metro Expo Line, Regional Connector, and Metro Gold Line Eastside Extension tracks): Metro Expo Line trains from Santa Monica would travel on existing Flower Street tracks north of the junction at Washington and Flower Streets. After stopping at the existing 7th Street/Metro Center Station, the trains would continue north along the new Regional Connector tracks to a new junction beneath the intersection of 1st and Alameda Streets. Trains would then travel to a new portal on 1st Street, and continue along the Metro Gold Line Eastside Extension tracks to the Eastside in

the vicinity of I-605. North-South Route (Claremont to Long Beach via the Metro Gold Line, Regional Connector, and Metro Blue Line tracks): After stopping at 7th Street/Metro Center Station, Metro Blue Line trains from Long Beach would continue north along the new Regional Connector tracks to a new junction beneath 1st and Alameda Streets. Trains would then travel to a new portal on the LADWP maintenance yard site, and continue along the Pasadena Metro Gold Line and the Foothill Extension to Claremont.

The east-west and north-south routes would each operate with five minute headways during peak hours, combining to yield trains every 2 ½ minutes in each direction along the Regional Connector.

Vehicle and Pedestrian Circulation

The Regional Connector alignment would not affect surface traffic or pedestrian circulation on 1st Street between Alameda Street and the 1st Street bridge, where the LRT alignment would rise within a portal to an at-grade configuration. Street widening and sidewalk modifications would be required in this area. Through traffic movements along Hewitt Street would no longer be permitted at 1st Street, and no left turns to or from Hewitt Street would be possible. Vehicular circulation patterns along downtown streets adjacent to most of the alignment would continue to operate under current traffic flow patterns with the exception of the removal of a newly installed traffic signal at 1st and Hewitt Streets and potentially reduce lane of traffic and parking lane between Wilshire and 5th Streets.

Compared to other alternatives, the LPA alignment would require relatively small changes to surface traffic and pedestrian circulation patterns. There would be some changes on 1st Street between Alameda Street and the 1st Street Bridge where the LRT alignment would rise within a portal to an at-grade configuration. Street widening and sidewalk modifications would be required in this area. Vehicular circulation patterns along downtown streets adjacent to most of the alignment would continue to operate under current traffic flow patterns with the exception of the removal of a newly installed traffic signal at 1st and Hewitt Streets. Through traffic movements would no longer be permitted along Hewitt Street at 1st Street, and left turns would no longer be possible to or from Hewitt Street.

An enhanced pedestrian walkway would be created along Flower Street from the 4th Street and Flower Street area to the existing 7th Street/Metro Center Station entrance at 7th and Flower Streets, which would improve the pedestrian connection between the Financial District and the 7th Street/Metro Center Station. Pedestrian enhancements would include an enhanced pedestrian walkway with landscaping, wayfinding signage, art features, and amenities aimed at improving pedestrian experience and safety.

Permanent roadway and lane reconfigurations would also be needed around the proposed 2nd/Hope Street station and the proposed pedestrian walkway enhancement along Flower

Street. At the 2nd/Hope Street station, a short connector roadway would be removed, but all existing traffic movements would still be possible via the remaining connector roadways. One traffic lane would need to be removed from Flower Street between 4th and 6th Streets to accommodate the enhanced pedestrian walkway from the 4th Street and Flower Street area to the existing 7th Street/Metro Center Station entrance at 7th and Flower Streets.

3.0 METHODOLOGY FOR IMPACT EVALUATION

3.1 Regulatory Framework and Standards of Significance

This section discusses the applicable federal, state, and local regulations that 1) define historic properties and historical resources and 2) provide thresholds for determining effects to historic properties under NHPA and impacts to historical resources under CEQA.

3.1.1 Federal

A number of federal laws address the protection of historic properties. Analysis of expected effects to built environment resources are primarily addressed through NEPA, the National Historic Preservation Act (NHPA), and Section 4(f) of The Department of Transportation Act of 1966.

3.1.1.1 National Environmental Policy Act (NEPA)

The intent of NEPA is to protect the natural and built environment, including historic properties, from adverse effects resulting from federal actions. Before a federal agency may proceed with a proposed action, an environmental evaluation must be made to determine whether the action may have a significant effect on the environment. Effects on historic properties are usually assessed in coordination with the process established under Section 106 of the NHPA.

NEPA requires that agencies evaluate the degree to which an action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for the National Register of Historic Places. Properties that are listed in or eligible for listing in the National Register are defined as “historic properties” (See 36 CFR 800.16(l)). NEPA requires federal agencies to evaluate the significance of potential project-related effects, including both direct and indirect effects upon historic properties.

3.1.1.2 National Historic Preservation Act (NHPA)

Any project, activity, or program that is permitted, licensed, approved, or funded in whole or in part by a federal agency must comply with Section 106 of the NHPA. Federal agencies are required to take into account the effect of their actions on historic properties listed in or eligible for the National Register. Under 36 CFR Part 800.8, federal agencies are specifically encouraged to coordinate compliance with Section 106 and the NEPA process.

The NRHP, created under the NHPA, is the federal list of historic, archaeological, and cultural resources worthy of preservation. Resources listed in the NRHP include districts, sites, buildings, structures, and objects that are significant in American history, prehistory, architecture, archaeology, engineering, and culture. The NRHP is maintained and expanded by the National Park Service on behalf of the Secretary of the Interior. The California Office of Historic Preservation (in Sacramento) administers the statewide NRHP program under the

direction of the SHPO. To guide the selection of properties included in the NRHP, the National Park Service has developed the NRHP Criteria for Evaluation. The criteria are standards by which every property that is nominated to the NRHP is judged. Significance in American history, architecture, archaeology, and culture is possible in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, material, workmanship, feeling and association, and meet one of the following Criteria (36 CFR 60.4):

- Criterion A: A property is associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: A property is associated with the lives of a person or persons significant in our past; or
- Criterion C: A property embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: A property has yielded, or may be likely to yield, information important in prehistory or history.

Buildings less than 50 years old do not meet the NRHP criteria unless they are of exceptional importance under Criteria Consideration G, as described in the NPS's Bulletin No. 22, "How to Evaluate and Nominate Potential National Register Properties That Have Achieved Significance Within the Last 50 Years." Other NRHP criteria considerations are used for religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, and commemorative properties.

Effects on historic properties under Section 106 of the NHPA are defined in the assessment of adverse effects in 36 CFR Part 800.5(a) (1). These standards of significance are used in the evaluation of potential project effects and are described further in Section 3.2.

Section 110(f) of the NHPA of 1966, as codified in 36 CFR 800.10, requires federal agencies to undertake planning and actions to minimize harm to designated National Historic Landmark (NHL) properties. If a proposed project is found to have the potential for an adverse effect on a NHL, the Secretary of the Interior (typically represented by a representative of the National Park Service) is invited to participate under Section 110(f) of the NHPA. For this project, the Little Tokyo Historic District NHL is situated within the APE and would not be adversely affected. Consultation with the National Park Service will be conducted.

3.1.1.3 U.S. Department of Transportation Act (USDOT), Section 4(f)

Section 4(f) (23 CFR Part 774) of the U.S Department of Transportation (USDOT) Act of 1966, as amended (49 USC 1653[f]), defines impacts of DOT agency projects to be the “use” of certain types of resources, including “historic sites.”

DOT agencies, including FTA, cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites that are listed in or eligible for listing in the National Register unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land; and
- The action includes all possible planning to minimize harm to the property resulting from use (FHWA 2009).

Under Section 4(f), a historic site is significant if it is a historic property (i.e. a property listed in or eligible for the NRHP). Historic properties are considered 4(f) resources that are subject to the provisions of 23 CFR Part 774.

3.1.2 State

The protection of historical resources in California is addressed through the regulatory compliance of the CEQA. The identification and designation of resources in California follow guidelines set in the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

3.1.2.1 California Environmental Quality Act (CEQA)

CEQA includes regulatory compliance in relation to historical resources. The CEQA guidelines define a significant historical resource as “a resource listed in or eligible for listing in the California Register of Historical Resources” (CRHR) (Public Resources Code Section 5024.1; 14 CCR 4852). The term historical resource is defined as any site that:

- Is listed in, or determined to be eligible by the State Historical Resources Commission for listing in the CRHR, or is determined to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and
- Meets any of the following criteria, denominated 1 through 4:
 1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 2. Is associated with the lives of persons important in California’s past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource included in a local register of historical resources, as defined by Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC is presumed to be historically or culturally significant.

3.1.2.2 California Register of Historical Resources (California Register)

Under California PRC Section 5024.1, the CRHR was established to serve as an authoritative guide to the State's significant historic and archaeological resources. A resource is considered historically significant if it meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR Section 4852). For a property to be considered eligible for listing in the CRHR, it must be found significant under at least one of four criteria by the State Historical Resources Commission. The four criteria include a finding that the resource:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to possessing one of the above-listed characteristics, to be eligible for listing in the CRHR, resources must retain "substantial" integrity to their period of significance. The seven aspects or qualities of integrity are the same as those applied to NRHP-eligible properties: location, design, setting, materials, workmanship, feeling, and association.

The CRHR also includes properties which:

- Have been determined eligible for listing in, or are listed in the National Register;
- Are registered State Historical Landmark Number 770 and all consecutively numbered landmarks above Number 770 (see Section 3.1.2.3);

- Are points of historical interest that have been reviewed and recommended to the State Historical Resources Commission for listing (see Section 3.1.2.4);
- Are city- and county-designated landmarks or districts (see Section 3.1.3., historic districts) are a concentration of historic buildings, structures, objects, or sites within precise boundaries that share a common historical, cultural or architectural background. Individual resources within a historic district may lack individual significance but be considered a contributor to the significance of the historic district (PRC Section 5024.1 (d) (1-3)).
- Are identified as significant in a historic resource survey if it meets the following criteria:
 1. The survey has been or will be included in the State Historical Resources Inventory;
 2. The survey and the survey documentation were prepared in accordance with Office of Historic Preservation (OHP) procedures and requirements;
 3. The resource is evaluated and determined by the office to have a significance rating of category “1–5” on California Department of Parks and Recreation (DPR) series 523 form; and
 4. If the survey is five or more years old, at the time of its nomination for inclusion in the California Register the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource (PRC Section 5024.1 (g)).

3.1.2.3 California Historical Landmarks

California Historical Landmarks (CHLs) are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value.

Designated CHLs are numbered sequentially as they are listed by the State Historical Resources Commission. CHLs numbered 770 and higher are automatically listed in the CRHR. According to PRC Section 5031 (a), to be eligible for California Historical Landmark designation, a property must be of “statewide historical importance” and must demonstrate its statewide significance by meeting one of the following three requirements:

- The property is the first, last, only, or most significant historical property of its type in the region. The regions are Southern California, Central California, and Northern California.
- The property is associated with an individual or group having a profound influence on the history of California. The primary emphasis should be the place or places of achievement of an individual. Birthplace, death place, or place of interment shall not be a consideration unless something of historical importance is connected with his or her birth or death.
- The property is a prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or it is one of the more notable works, or the best surviving work in a region of a pioneer architect, designer, or master builder.

3.1.2.4 California Points of Historical Interest

California Points of Historical Interest include “sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value.” Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. To be designated, a property must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (City or County).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer or master builder.

3.1.3 Local

The City of Los Angeles designates local landmarks (Historic-Cultural Monuments) and historic districts, through Ordinance Number 175891, Section 12.20.3, of the Los Angeles Municipal Code.

NEPA and CEQA guide lead agencies to incorporate local designations in the review and evaluation of project effects. Therefore, designated Historic-Cultural Monuments and Historic Preservation Overlay Zones are also considered in the affected environment and included in identified properties. Since Los Angeles is a Certified Local Government, locally designated properties have “presumptive significance” under CEQA. If project alternatives

are expected to affect locally designated historic properties, mitigation measures are recommended, as for CEQA, to avoid, minimize, and mitigate those effects. No Historic Preservation Overlay Zones are located in the APE for this project.

3.1.3.1 City of Los Angeles Designation

Local landmarks in Los Angeles are designated as “Historic-Cultural Monuments.” To be eligible for separate designation, properties must meet the criteria described in City of Los Angeles Administrative Code Section 22.130. Historic Cultural Monuments would include any site (including significant trees or other plant life located thereon), building, or structure which:

- Is of particular historic or cultural significance to the City of Los Angeles, such as historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or
- Is identified with historic personages or important events in the main currents of national, State or local history; or
- Embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period style or method of construction; or
- A notable work of a master builder, designer, or architect whose individual genius influenced his age.

Properties are usually submitted to City of Los Angeles Office of Historic Resources staff for review, and if considered are presented to the Cultural Heritage Commission. If approved, the Cultural Heritage Commission makes a recommendation to a preliminary committee for its review and later to the City Council for designation.

3.2 Standards of Significance

3.2.1 Federal (NHPA) Criteria of Adverse Effect – Section 106

Effects on historic properties under Section 106 of the NHPA are defined in the assessment of adverse effects in 36 CFR Part 800.5(a) (1):

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include

reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

If a project's effects do not diminish the integrity of a historic property, then a "no adverse effect" finding is appropriate (36 CFR 800.5(b)). An "adverse effect" finding is appropriate when any of the following project effects occur:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (36 CFR Part 800.5(a) (2)).

If an adverse effect is expected to occur as a result of a proposed project, the lead agency shall consult further to resolve the adverse effect, pursuant to 36 CFR Part 800.5(2) and develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties (36 CFR Part 800.6).

3.2.2 CEQA Standards of Significance for Potential Impacts

As noted in Section 3.1.2.1, under CEQA, proposed public projects must be evaluated for their probability to cause significant effects on "historical resources." Historical resources are defined as "a resource listed in, or determined eligible for listing in, the California Register of Historical Resources" in PRC Section 21084.1. CEQA equates a "substantial adverse change" in the significance of a historic property with a significant effect on the environment (PRC Section 21084. 1). Thresholds of substantial adverse change are established in PRC Section

5020.1, and include demolition, destruction, relocation, or “alteration activities that would impair the significance of the historic resource.”

Material impairment occurs when a project results in demolition, or materially alters in an adverse manner, the physical characteristics that convey a property’s historic significance, or that are the reason for that property’s inclusion in an official register of historic resources (PRC Section 15064. 5[b] (2)).

If a proposed project or alternative under consideration is expected to cause substantial adverse change to a historical resource, an evaluation of alternatives for the project or implementation of mitigation measures to reduce or avoid impacts is required. If the project is expected to result in an effect on historical resources, CEQA guidelines require an analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project and avoid, or substantially lessen, any significant effects on the historical resource.

3.2.3 Noise and Vibration

Noise generated by construction equipment can cause adverse effects to historic properties and significant impacts to historical resources when exposure exceeds the “severe level” as established by FTA (Hanson 2006). Noise that reaches a severe level which cannot be reduced through mitigation or other measures may cause a reduction in use or access to historic properties or historical resources, and thus cause an adverse effect to historic properties or a significant impact to historical resources. For properties or resources where the sense of quiet represents a characteristic of its historical significance, increases in noise may also cause adverse effects and/or significant impacts.

Ground borne vibration (GBV) generated by construction equipment can also cause adverse effects to historic properties and significant impacts to historical resources that are in close proximity construction activities. Construction-related vibration can cause damage ranging from minor cosmetic damage to interior plaster or woodwork damage to major structural damage. Thus, GBV can harm the characteristics that make historic properties eligible for the NRHP and historical resources eligible for the CRHR.

GBV is established by measuring the vibratory potential of construction equipment, the distance between the equipment and a sensitive receptor (i.e. historical resource or historic property), and the structural category of the historic property and/or historical resource. When assessing the potential for building damage, GBV is usually expressed in terms of the peak particle velocity (PPV) in units of inches per second. FTA vibration damage criteria for various structural categories are listed in Table 3-1.

Depending on the types of construction equipment and the category of buildings, potential “minimum safe distances” for GBV for this project have been calculated in Table 3-2. The

approximations in Table 3-2 are based on “typical” equipment and construction activities as well as the general classification of structures.

Building Category and Description	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: U.S. Federal Transit Administration's Transit Noise and Vibration Impact Assessment Manual, May 2006. FTA-VA-90-1003-06. Table 12-3.

Equipment		Building Categories and (FTA Guideline Damage Thresholds)			
		Cat I (0.5 PPV) Inch/sec	Cat II (0.3 PPV) Inch/sec	Cat III (0.2 PPV) Inch/sec	Cat IV (0.12 PPV) Inch/sec
Pile Driver (Impact)	Upper Range	53	74	97	136
	Typical	30	42	55	77
Pile Driver (Sonic)	Upper Range	33	46	60	84
	Typical	13	18	23	32
Large Vibratory Roller		15	20	26	37
Hoe Ram		8	12	15	21
Large Bulldozer		8	12	15	21
Caisson drilling		8	12	15	21

3.3 Area of Potential Effects

The project-specific Area of Potential Effects (APE) (See Figures 3-1 through 3-9) was established through consultation between the lead federal agency, FTA, the lead CEQA agency, Metro, SHPO, and other consulting parties, in accordance with 36 CFR 800. Consistent with 36 CFR 800.16(d), the APE is defined as:

The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The project APE was delineated to ensure identification of historic properties and historical resources that may be directly or indirectly affected by the project and that are listed in or eligible for inclusion in the NRHP and/or CRHR. The APE was established using methodology consistent with those of previous Metro projects. The 1.9-mile-long APE consists of 246 Los Angeles County Office of the Assessor parcels, some of which are subdivided into multi-property entities.

The SHPO concurred with the project APE on September 9, 2009. Subsequent to the September 2009 APE concurrence, two new alternatives were developed by MTA. As a result, the APE was revised and resubmitted to SHPO for review of the new areas on December 24, 2009. The SHPO concurred with the revised APE on February 10, 2010. Although the Fully Underground Alternative has been altered slightly due to project refinements the APE has not changed.

Correspondence between FTA and SHPO for this project is included in Appendix E.

3.4 Evaluation Methodology

3.4.1 Records Search

A California Historical Resources Information System (CHRIS) records search was conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton for the area within the APE. The SCCIC houses cultural resources records for Los Angeles County and the primary purpose of the CHRIS records search was to identify any previously recorded cultural resources known to exist within or adjacent to the project corridor. The records review included a review of listings for the National Register of Historic Places California Register of Historical Resources, State Historical Landmarks, and California Points of Historical Interest. In addition, complete listings for designated local landmarks were also reviewed.

3.4.2 Built Environment Survey Methods

SWCA architectural historians conducted reconnaissance-level built environment surveys of the 1.8-mile-long APE in April 2009. In December 2009 two new alternatives were added to the proposed project, requiring subsequent field surveys, bringing the total project length to approximately 1.9 miles. Each parcel in the direct and indirect APE containing improvements completed in or before 1968 was digitally photographed and researched, using data from the Los Angeles County Office of the Assessor and other sources. Since construction year records are not entirely reliable, all properties in the APE were field-checked to verify whether or not their construction may have occurred more than 50 years from the anticipated project construction date of 2018.

SWCA assumed that the historic status of properties listed in or determined eligible for the National and/or California Registers was unchanged, unless improvements were no longer extant or major alterations had recently been made as noted. One building that was determined eligible for listing in the National Register was field-checked and the determination, which is believed to have been made in error, was corrected in this document as a finding. DPR series 523 forms were prepared for properties that have been demolished since they were listed or eligibility determinations were made for National and/or California Registers.

In April and May 2009 and again in December 2009, SWCA conducted intensive-level surveys of properties containing improvements completed in or before 1968 in the APE that required evaluation or re-evaluation for historical significance. SWCA reviewed those properties in the field, photographed, and performed subsequent building permit and other research on properties that retained sufficient integrity to warrant evaluation for National Register and/or California Register eligibility. Those properties were studied to identify the architects, builders, owners, and tenants, as well as events that may have taken place, in order to make recommendations regarding their historic significance.

3.4.3 Consultation/Coordination

In addition to consultation with the SHPO (see Appendix E), Metro has coordinated with other interested parties regarding cultural resources as described in Section 3.4.3.1, Section 3.4.3.2, and the Cultural Resources – Archaeology Technical Memorandum. This early coordination is intended to assist in the identification of potential cultural resources and historic properties in support of the effects evaluation.

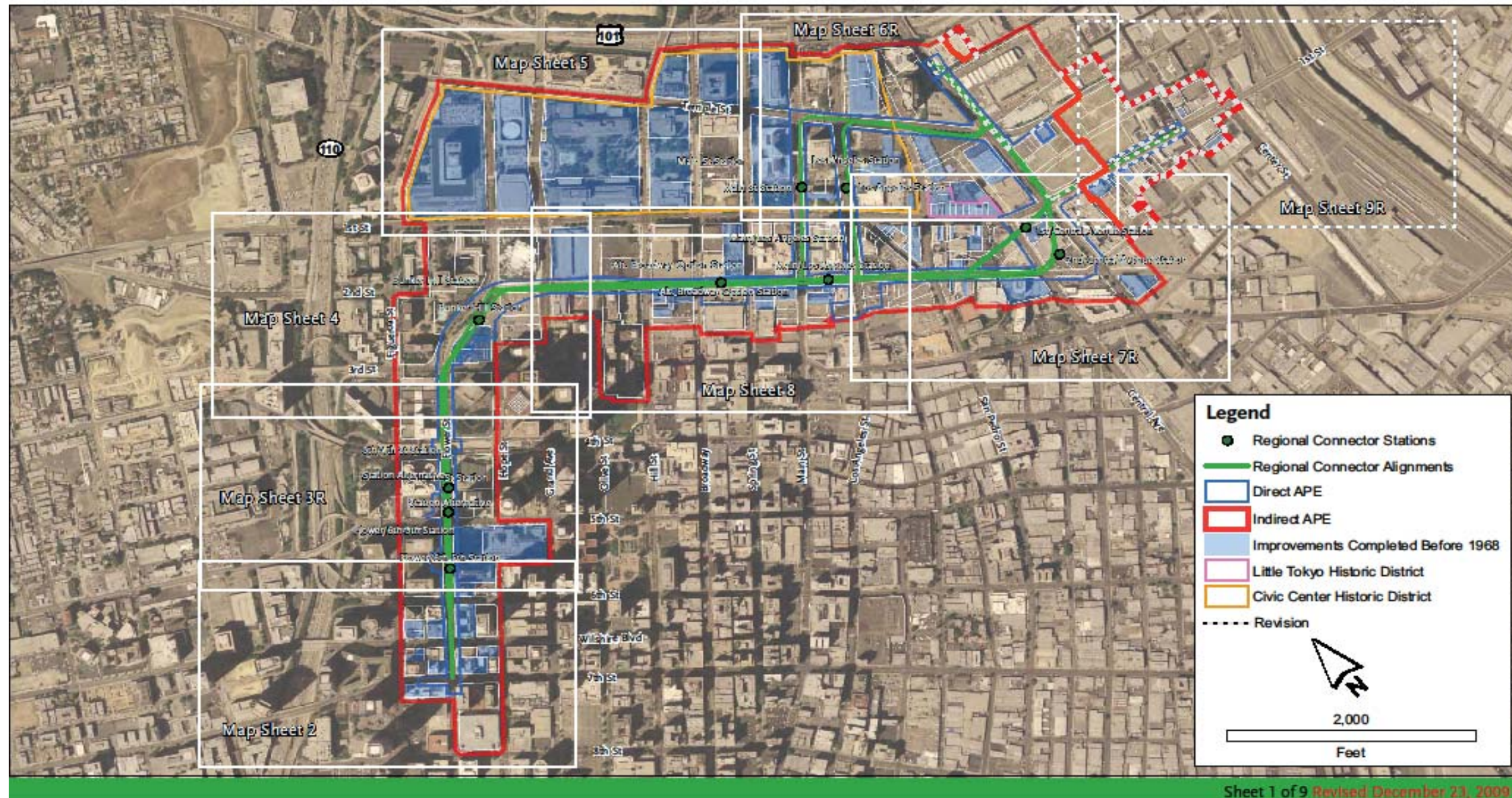
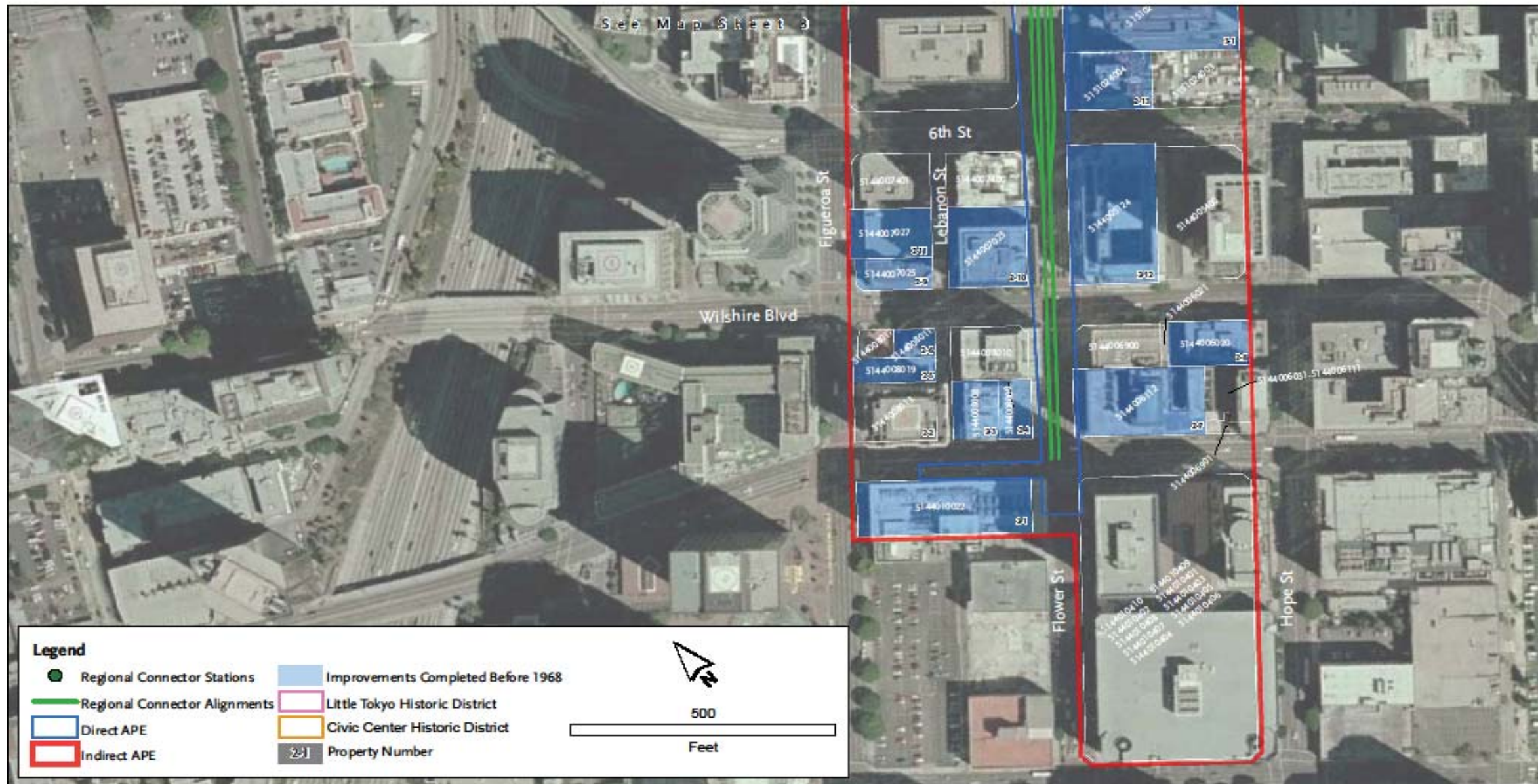
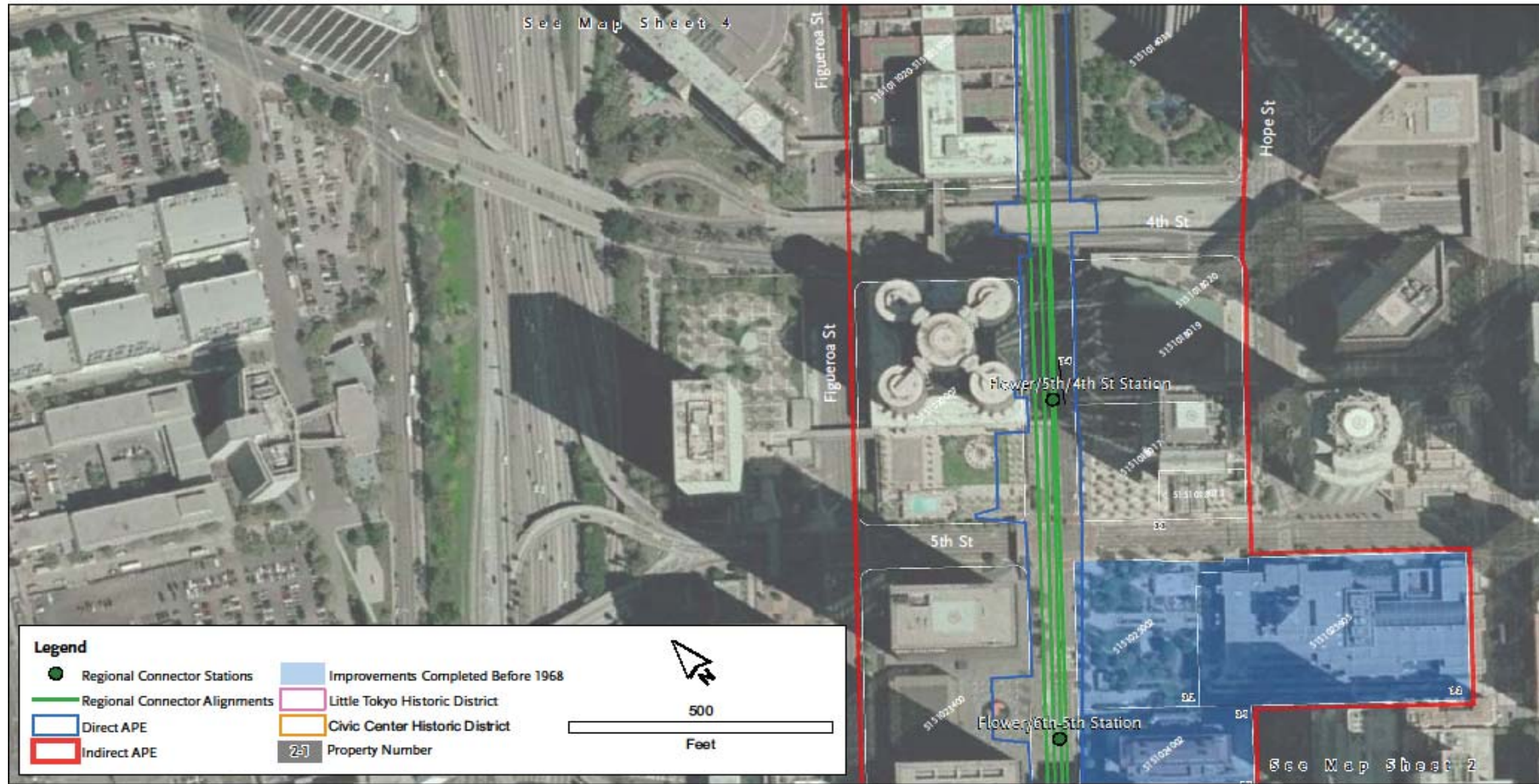


Figure 3-1. Area of Potential Effects Map, Sheet 1



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Figure 3-2. Area of Potential Effects Map, Sheet 2



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Figure 3-3. Area of Potential Effects Map, Sheet 3R

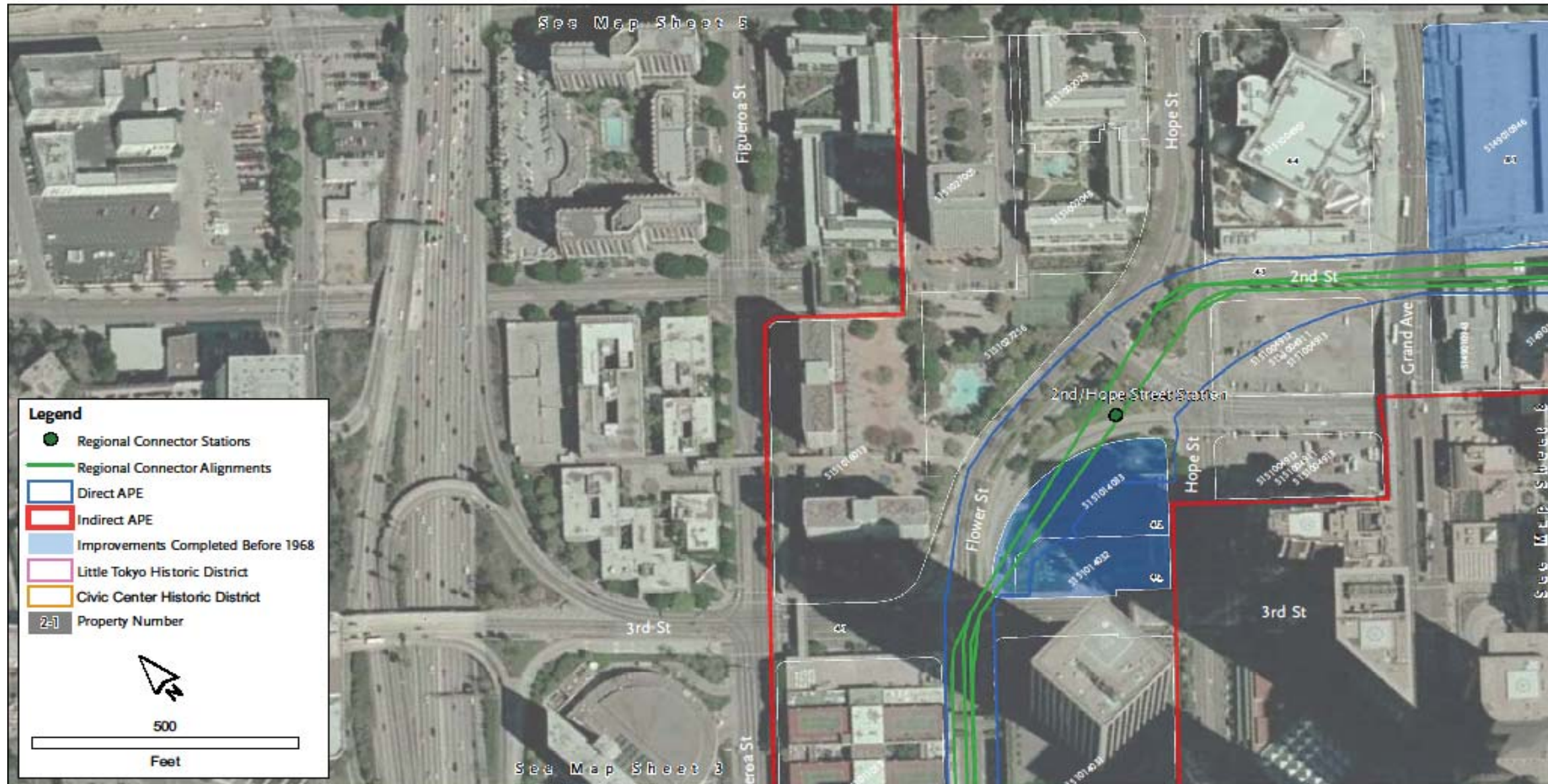


Figure 3-4. Area of Potential Effects Map, Sheet 4

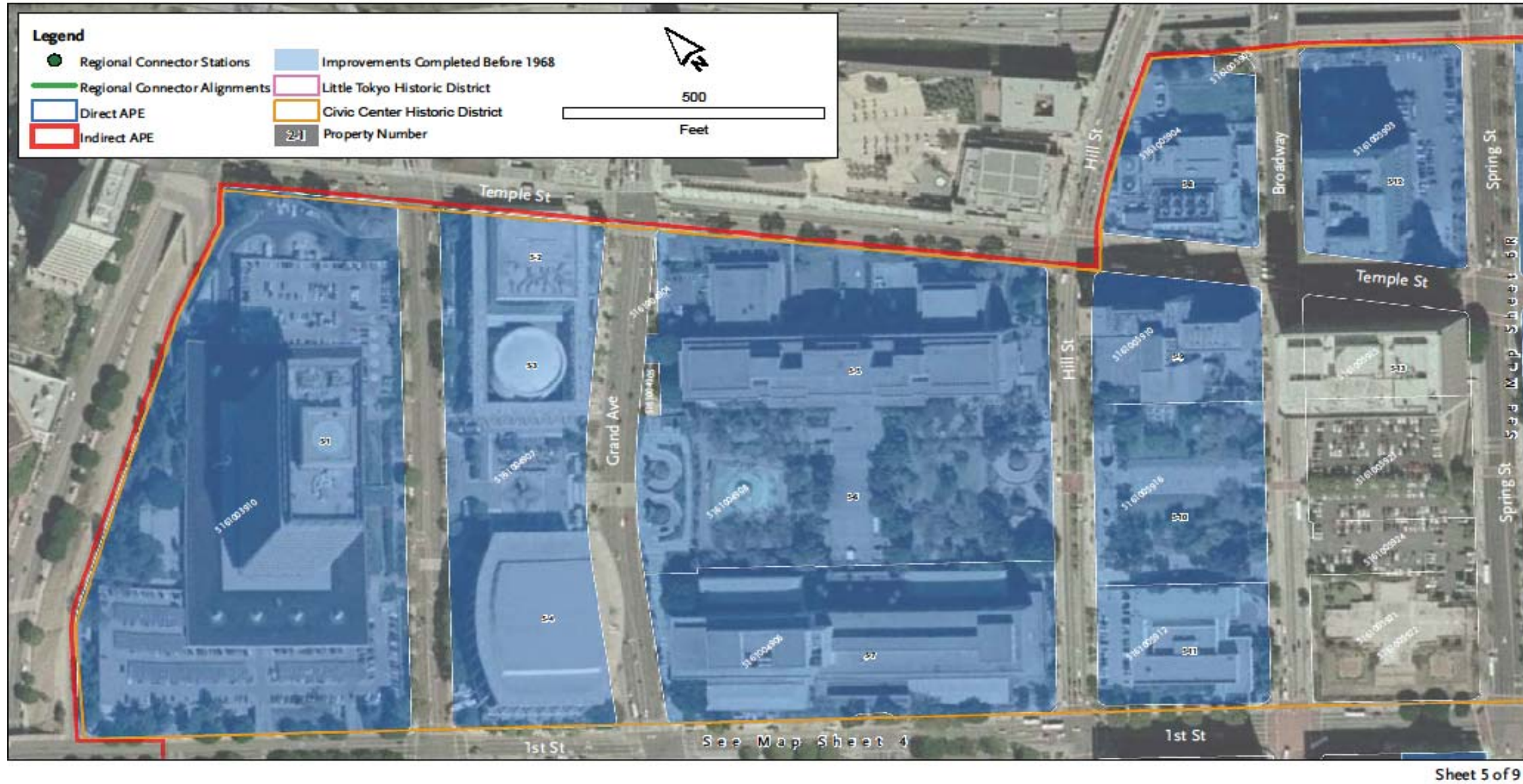
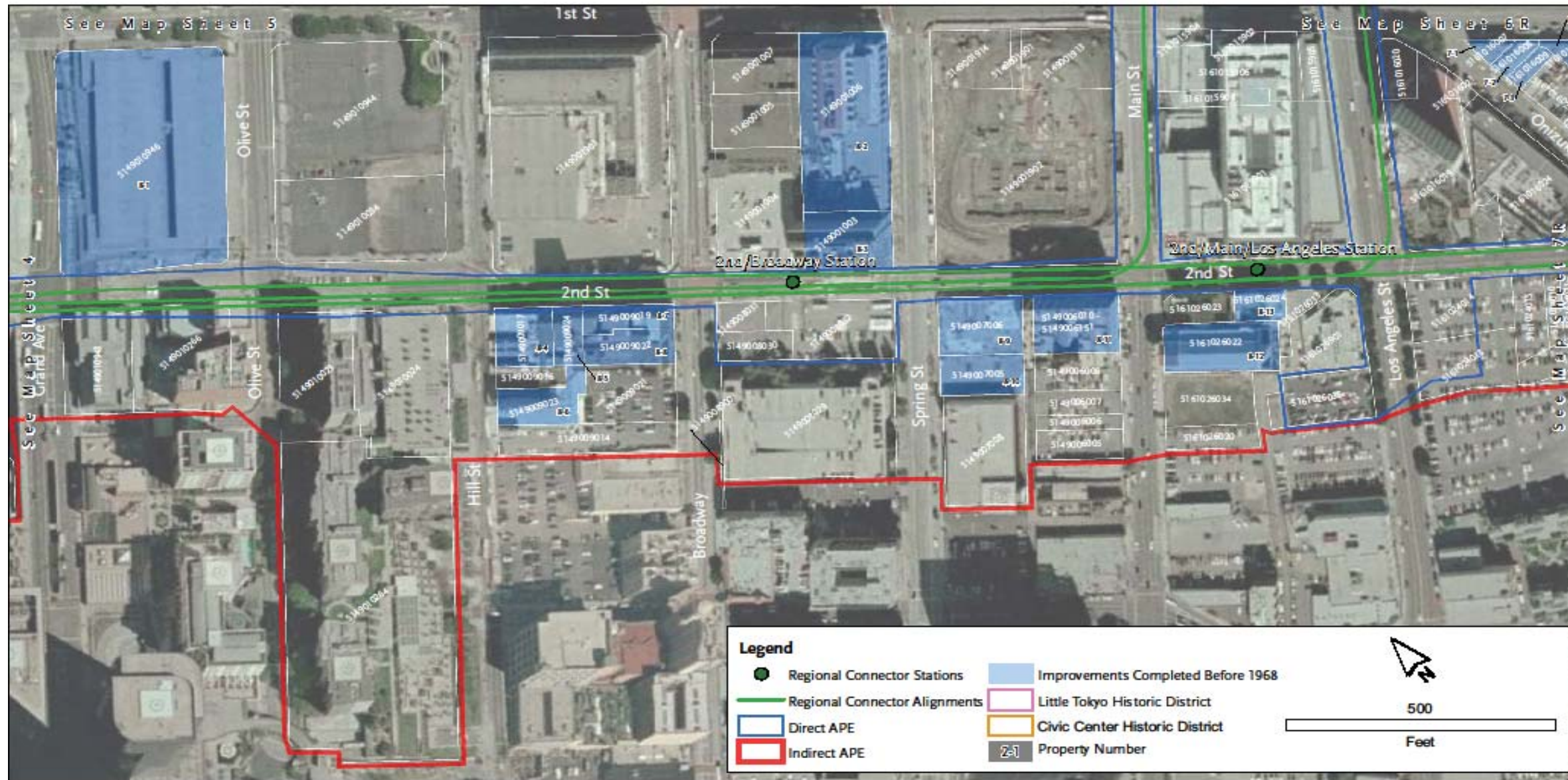


Figure 3-5. Area of Potential Effects Map, Sheet 5



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Figure 3-6. Area of Potential Effects Map, Sheet 6R



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Figure 3-8. Area of Potential Effects Map, Sheet 8



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Figure 3-9. Area of Potential Effects Map, Sheet 9

3.4.3.1 Native American Coordination

In compliance with Section 106 of the NHPA, FTA initiated the consultation process with Native American tribes with interests in the project area as consulting parties, pursuant 36 CFR Part 800.

Under the guidance of FTA, SWCA contacted the California Native American Heritage Commission (NAHC) by a letter dated February 10, 2009, requesting review of the Sacred Lands File and a list of appropriate Native American contacts for the project. The NAHC search of the Sacred Lands File indicated the presence of Native American cultural resources in the project area. The NAHC also provided a list of five Native American contacts.

SWCA sent letters via U.S. mail to the five Native American contacts on April 16, 2009, requesting information regarding potential cultural resources that may be located within the project APE. These letters included location maps and a description of the proposed project and its related APE. A follow-up contact with each group was made via telephone on May 11, 2009, and subsequent follow-ups via telephone and/or email were made as necessary. Not all of the contacts responded.

Details of SWCA's contacts with the tribes are provided in the Regional Connector Transit Corridor Cultural Resources – Archaeology Technical Memorandum.

3.4.3.2 Local Historical Group/Local Government Coordination

Metro's representative, SWCA, sent letters via U.S. mail to nine local government, local historic preservation advocacy, and history advocacy groups to request information regarding historic resources that may be located within the project APE. The letters were mailed on April 16, 2009, and described the proposed project and its related APE, and included location maps (Appendix C). SWCA followed up with each group via telephone and/or email between April 23 and May 14, 2009, and made subsequent follow-up efforts, as necessary. The Fully Underground LRT Alternative (Little Tokyo Variation 1 and 2) were added to the project in December 2009. These alternatives are in or immediately adjacent to the original study area; therefore, additional consultation was not undertaken.

Five groups did not provide responses. One asserted that it was too early in the project to discuss. One agency and one local historic preservation advocacy group reserved the right to consult regarding effects in the future. Subsequently, meetings were held with each of these groups and one meeting was jointly held with both groups. One group commented on general environmental issues, and another group provided additional research on the history of Little Tokyo and the Atomic Café. Results of the coordination are described in detail in Table 3-3. Coordination regarding identification, effects, and mitigation are ongoing as part of this project's Section 106 compliance efforts.

On March 16, 2011 METRO, FTA, Cardno ENTRIX and other project staff met with the Los Angeles Conservancy and the City of Los Angeles to discuss project refinements and proposed mitigation for the project.

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
<p>City of Los Angeles Office of Historic Resources, Department of City Planning 200 N. Spring Street, Room 620 Los Angeles, CA 90012</p> <p>Contact: Ken Bernstein, Director</p>	<p>4/16/09, via U.S. Priority Mail</p>	<p>4/27/09, telephone call from Mr. Bernstein</p>	<ul style="list-style-type: none"> 4/23/09, telephone message by Francesca Smith (FS), SWCA 4/27/09, Mr. Bernstein returned the call to FS3/7/11 An invitation was sent by email to invite the City to participate in a meeting to discuss project refinements 	<p>Mr. Bernstein stated on 4/27/09: “No comments, really.” He asserted that when Survey LA is “up and running” they will be able to provide more information. He recommended that SWCA contact the Los Angeles Conservancy, which recently teamed with the Downtown Los Angeles Council to create a street map that identified historic resources. Map was obtained for reference. He also said that once effects were identified, their agency would likely want to consult on the project.</p> <p>In a brief telephone call and subsequent e-mail message sent on 8/4/09, Mr. Bernstein said that his office was “starting to hear concerns from the downtown community about potential historic resources impacts, including impacts on historic Little Tokyo. He requested “a briefing/consultation meeting for Office of Historic Resources staff. We would be happy to include other interested parties in the historic preservation community, including the Los Angeles Conservancy,” suggesting potential meeting dates.</p> <p>A joint meeting was held with Los Angeles Conservancy staff on 9/2/09. The project was presented, identification efforts were described, and very general ideas about effects and mitigation were discussed. Consultation is expected to be ongoing.</p> <p>A joint meeting was held with Los Angeles Conservancy</p>

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
				<p>staff on 03/16/2011. The project was presented, identification efforts were described, and very general ideas about effects and mitigation were discussed. Consultation is expected to be ongoing.</p>
Conference of California	4/16/09, via U.S. Priority		<ul style="list-style-type: none"> 4/23/09, sent e-mail message sent to 	No response.

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
Historical Societies University of the Pacific Stockton, CA 95211 Contact: Richard S. Kimball, President	Mail		Margarita Noyola, Administration and Membership Services <ul style="list-style-type: none"> 5/8/09, sent additional e-mail message to Ms. Noyola 	No further action necessary.
Historical Society of Southern California P.O. Box 93487 Pasadena, CA 91109 Contact: Patricia Adler-Ingram, Ph.D., Executive Director	4/16/09, via U.S. Priority Mail		<ul style="list-style-type: none"> 5/8/09, telephone messages by FS 5/11/09, second telephone message by FS 	No response. No further action necessary.
Los Angeles City Historical Society P.O. Box 41046 Los Angeles, CA	4/16/09, via U.S. Priority Mail		<ul style="list-style-type: none"> 5/8/09, telephone call by FS, Number on website was disconnected 5/12/09, 	No response. No further action necessary.

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
90041 Contact: Ann Shea, President			sent e-mail message on 5/12/09. <ul style="list-style-type: none"> • 5/12/09, sent additional e-mail message 	
Little Tokyo Community Council, Inc. 369 East 1 st Street Los Angeles, CA 90012 Contact: June Aochi Berk	4/16/09, via U.S. Priority Mail	5/11/09, June Burk called FS	<ul style="list-style-type: none"> • 5/8/09, telephone message by FS • 5/11/09 call was returned and FS returned Ms. Berk's call 	Ms. Burk said that LTCC sent comments to Dolores Roybal Saltarelli at MTA. She asked that we re-send the letter and attachments by email. It was re-sent on 5/11/09. No further action necessary.

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
<p>Los Angeles Conservancy 523 West 6th Street, Suite 826 Los Angeles, CA 90014</p> <p>Contact: Mike Buhler, Director of Advocacy</p>	<p>4/16/09, via U.S. Priority Mail</p>	<p>4/20/09, Mr. Buhler called K. Harper (KH), SWCA</p>	<ul style="list-style-type: none"> 4/30/09, Mr. Buhler called KH to discuss late in work day. KH asked if we could discuss on the following day, he agreed. FS called Mr. Buhler back and left voicemail messages on 5/1/09 and 5/9/09. Mr. Buhler spoke with FS via telephone on 5/28/09. 02/23/11 Ms. Flathman (Cardno ENTRIX) spoke with Flora Chou to invite LA Conservancy staff to attend the meeting to discuss project refinements 	<p>On 5/28/09, Mr. Buhler spoke with FS. Mr. Buhler followed up after the phone call via email and stated “As we discussed, the Los Angeles Conservancy would like to request a meeting with SWCA and MTA to discuss the Regional Connector Project and its potential impacts on historic resources located on or near the proposed alternatives under consideration.”</p> <p>A meeting was held on 7/22/09, the project was presented and very general ideas about effects and mitigation were discussed. Mr. Buhler provided a copy of the poster prepared by the Conservancy with the Downtown Los Angeles Council for use.</p> <p>Consultation is expected to continue.</p> <p>A joint meeting was held with the City of Los Angeles Office of Historic Resources staff on 9/2/09. In that meeting, the project was presented again and much of the discussion was focused on expected effects and proposed mitigation. Consultation is expected to be ongoing.</p> <p>A joint meeting was held with the City of Los Angeles Office of Historic Resources staff on 03/16/2011 In that meeting, the project was presented again and much of the discussion was focused on expected effects and proposed mitigation. Consultation is expected to be ongoing.</p>

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
<p>Japanese American Cultural & Community Center 244 South San Pedro Street Los Angeles, CA 90012</p> <p>Contact: Sandra Sakamoto, Esq., Chair</p>	<p>4/16/09, via U.S. Priority Mail</p>	<p>5/11/09, Sandra Sakamoto left telephone message</p> <p>5/13/09, received letter from Chris Aihara</p>	<ul style="list-style-type: none"> • 5/809, telephone message by FS with Mika, receptionist • 5/11/09, Sent re-formatted letter to Christine Aihara at Ms. Sakamoto's request • 5/13/09, received letter from Chris Aihara 	<p>Ms. Sakamoto called on 5/11/2009 and left a telephone message that she did not see the letter (because she is a volunteer board member) but suggested that we contact Chris Aihara, President of the Little Tokyo Community Council. Sent re-formatted letter to Ms. Aihara on 5/11/09.</p> <p>Ms. Aihara responded via e-mail on 5/13/09 and in her letter discussed effects of construction on small businesses. She noted that "traffic congestion and elimination of parking will inhibit visitors and patrons to shop, attend community events, and attend cultural classes. Noise due to construction will hinder the visitor experience. The short-term impact could be so great that the important aspects of the community will not survive."</p> <p>No further action necessary.</p>

Table 3-3. Coordination with Local Groups: Government, Historical Society, Historic Preservation, and History Advocacy

Local Group	Letter Sent	Reply Date	Follow-up	Results
Little Tokyo Service Center 231 East 3 rd Street, Suite G-106 Los Angeles, CA 90013 Contact: Bill Watanabe Executive Director	4/16/09, via U.S. Priority Mail	4/20/09, via telephone	<ul style="list-style-type: none"> 4/21/09, via telephone and via email. 5/11/09, telephone message by FS 5/14/09, telephone message by FS 	On 4/20/09, Mr. Takao Suzuki called to request a copy of the APE map. KH forwarded the map via email. No response to telephone messages. No further action necessary.
Little Tokyo Historical Society 231 East 3 rd Street, Suite G-106 Los Angeles, CA 90013 Contact: Deanna Matsumoto	4/16/09, via U.S. Priority Mail	5/18/09, telephone call from Ms. Matsumoto	<ul style="list-style-type: none"> 5/18/09, Resent letter via e-mail to Craig Ishii at LTSC 	Ms. Matsumoto informally provided additional information on the Aoyama Tree, Little Tokyo history and Atomic Café history.

4.0 AFFECTED ENVIRONMENT

4.1 Historic Overview

The project is located within the City of Los Angeles in Los Angeles County, California. Generally, the APE extends in a northeasterly direction from south of the intersection of Flower and 7th streets to the Gold Line at Alameda Street between 2nd and Temple streets in downtown Los Angeles. The project crosses several community areas in downtown Los Angeles, including the Civic Center and Little Tokyo communities. This area is highly urbanized with development ranging from commercial, public, and institutional uses to high density residential. The following historic context statement was prepared to present an overview of development of the overall community and project area and provides the framework used to evaluate historic significance of properties within the project APE.

4.1.1 Spanish Period (1769–1822)

Los Angeles was established in 1781 as a Spanish pueblo near the Los Angeles River. The Spanish governor of California, Felipe de Neve, led a procession of soldiers, laypeople, and priests from nearby Mission San Gabriel Arcángel and founded the pueblo near the Porciúncula, now Los Angeles River. The objective of the settlement was to supplement the agricultural goods produced at the Mission San Gabriel. The mission and Los Angeles were designed according to the Laws of the Indies, the town planning guidelines codified by the Spanish in the mid-sixteenth century for colonial towns (Fogelson 1993). Due to seasonal river flooding, the settlement was relocated three times before its final location was established. All three iterations of the pueblo had similar plans: houses and buildings faced a central square, oriented to the cardinal points. The pueblo lands were divided and distributed among the 44 original settlers, or pobladores, each of whom received two suertes, or fields, of irrigable land, two fields of dry land, and a house lot, facing the central square (Ríos-Bustamante and Castillo 1986). The third site chosen by the Spanish for the new pueblo was located in what is now known as the Plaza, to the north of the project APE. Selected in 1825, the final pueblo site was originally named El Pueblo de la Reina de Los Angeles (Ríos-Bustamante and Castillo 1986).

4.1.2 Mexican Period (1822–1848)

Mexico gained independence from Spain in 1821; the subsequent secularization of the mission system and distribution of its holdings dramatically shifted the character of land ownership in Los Angeles and much of California. Mission secularization in 1833 marked the beginning of highly profitable private trade in cattle hide and tallow exports, which eventually resulted in larger, commercially driven farms. During Mexican rule of California, between 1821 and 1848, land owned by the Spanish crown and clergy was distributed in more than 800 land grants, passing mostly to Mexican settlers born in California, or Californios. This shift marked the beginning of the rancho system that would “dominate California life for nearly half

a century...” (Poole 2002) but the rural character of the pueblo of Los Angeles and its surroundings remained (Fogleson 1993).

Many ranchers maintained second homes near the pueblo area, which was managed by the ayuntamiento or common council. The ayuntamiento was responsible for an informal system of zanjas or irrigation ditches that conveyed water for both agricultural and domestic use. By the 1830s, the population of the settlement had grown from the original 44 to approximately 1,000 persons, making Los Angeles the most populous of the original three pueblos, as well as the center of economic and political life, in Alta (or upper) California (Fogleson 1993).

4.1.3 American Period (1848–Present)

With the signing of the Treaty of Guadalupe Hidalgo in 1848, the U.S.-Mexican War formally ended. California was annexed to the United States and subsequently gained statehood in 1850. That same year, the City of Los Angeles was incorporated. During the city’s transition from a Mexican pueblo to an American town, public authority rather than private enterprise became the influence behind development.

In 1849, the first survey of Los Angeles was made when Lieutenant Edward O. C. Ord produced the city’s first map. Ord made his plat according to the same grid plan (albeit using the pueblo’s original orientation to the cardinal points) that had become the standard for American cities by this time (O’Flaherty 1978). The survey had a northeast-southwest street alignment, which was influenced by natural landforms, colonial irrigation patterns, and the concept that no side of the street be entirely in shade or shadow during the most important business hours. The city’s oldest areas, just east of Main Street, still exhibit the characteristics of the imperfect platting that dates from before 1848. The 33-degree “skewed” grid orientation of downtown Los Angeles characterizes the north-south streets east of Hoover Avenue and west of Indiana Street.

With the 1849 Gold Rush, and growing influx of European-Americans to Southern California, the population of Los Angeles expanded substantially. During the American period, from 1850 to 1860, the population grew nearly 300 percent from approximately 1,600 to 4,300 persons (Hill 1929). Many of the new residents were farmers who came to Southern California to take advantage the abundance of inexpensive land and water. As settlement continued to expand outward of the central city, the core of Los Angeles, its Plaza area, continued to serve as the center of social and religious life in the town. Harris Newmark came from West Prussia (now Germany) to settle in Los Angeles in 1853. He learned Spanish before mastering English and subsequently published his recollections of early Los Angeles. Newmark described the Plaza area as the “nucleus” of town, around which were “clustered the homes of many of those who were uppermost in the social scale” (Newmark and Newmark 1970).

The three major railroads, Southern Pacific Railroad, Atchison Topeka & Santa Fe Railway, and Union Pacific Railroad, came to Los Angeles in 1876, 1872 and 1905, respectively. Their presence, coupled with an agricultural boom, helped to fuel the community's then-unparalleled growth. As one of the first cities to significantly benefit from the presence of railroads, the citrus industry expanded enormously after the advent of the refrigerated freight car. Artificially cooled freight cars allowed produce to be shipped to other markets that previously only had access to such goods during colder months.

Once the railroads came to Los Angeles, development of the city was tremendously influenced by transit and transportation patterns, which expanded as the community matured. Growth of the community and enhancements in transportation modes each influenced the other more compellingly than in more established cities, where principal transit corridors had already been identified before rail transit became a factor.

Its strategic location on the Pacific Ocean made Los Angeles a regional business center during the early American Period, but was still viewed as a small town with rough edges. In *Inventing the Dream*, the pronounced effect of railroads on the region was summarized:

[t]he railroads settled Southern California: first the Southern Pacific, blasting its way through the San Fernando Mountains in 1876 to link Los Angeles with San Francisco and the east, and then, in 1885, the Atchison Topeka and Santa Fe Railway arriving overland through the deserts and gorges of the southwest (Starr 1985).

The consequences of rail traffic were further illustrated in the community's sudden progress:

[i]n the...1870s... [Los Angeles] became an American city. Adobe gave way to brick and wood, candles and kerosene to gas. The streets were paved and tracks laid for horse-drawn streetcars. Police and fire departments were organized on a permanent basis and a lending library was established. A city hall was built, together with a train station a county hospital, an opera house, and a [large] theater... (Starr 1985).

4.1.4 City of Los Angeles

Between 1880 and 1900, Los Angeles grew from a town of 11,000 to a bustling city of 100,000 residents, prompting the development and expansion of city roads, buildings, and services. A dramatic real estate rush in Los Angeles between roughly 1886 and 1888, coupled with price wars between the three transcontinental railways serving the region, led to further increases; the population peaked in 1888 at 80,000. In the downtown area, development was particularly dense as government and commercial buildings were constructed throughout the area that now comprises the Civic Center (Roseman et al. 2004).

The plaza and community matured as daily newspapers, public and private schools and universities, and a racetrack were established. Expansion of railroads, as well as the growth of

port facilities, contributed substantially to the celebrated economic boom that occurred in the region in the 1880s (Caughy and Caughy 1977; Dumke 1944). Although the real estate boom exponentially affected surrounding areas, Los Angeles, as the commercial center, also reaped substantial benefits from the unprecedented growth. That growth was spurred by efforts of community boosters, who assisted in propelling the small town into a major city. Los Angeles was the subject of “the longest, loudest, [and] most persistent promotional campaign” to promote an American city between the 1870s and the Depression (Zimmerman 2008). Due to their obvious role in moving goods and transporting the populace, local, regional, and national railroad companies helped shape the development and growth of present-day Los Angeles as well as the surrounding region.

The first Sanborn Fire Insurance Company maps prepared for Los Angeles portrayed north-south streets in 1888. The west-to-east sequence was: Pearl Street (currently Figueroa Street), Flower Street, Hope Street, Bunker Hill Avenue (not applicable to current street name), Grand Avenue, Olive Avenue, Hill Street, Fort Street (now Broadway), Spring Street, Main Street, Los Angeles Street, San Pedro Street (currently Judge John Aiso Street north of 1st Street), and Vine Street (currently Central Avenue). Figure 4-1 shows an excerpted image of 1888 Sanborn Fire Insurance map with proposed project alternatives overlaid to show how the essential arrangement of streets has not substantially changed since that time. By 1888, the rise in real estate values had finally deflated; causing the population to slide down to 50,900. The subsequent economic depression lasted through the mid-1890s (O’Flaherty 1978).

4.1.4.1 The Metropolis Develops

By the turn of the twentieth century, downtown Los Angeles was growing quickly in size and stature. Although affected by the real estate downturn of the late 1880s, industrial and commercial activity remained high throughout downtown, as well as in the rest of the city. The 1890 discovery of oil prompted the development of new technologies and sparked a wave of manufacturing activities, including furniture, sportswear, and homes. By 1900, the city’s first central business district emerged, centered around 2nd and Spring Streets, consisting of some 20 city blocks (Longstreth 1998; Fogelson 1993).

As the city grew, the need for interurban transportation significantly increased. A number of small, short rail lines were established throughout the city to provide residents with local transportation. Many of these rail lines operated for brief periods of time, lasting only a few years before being bought out by larger firms or forced out of business by competing lines. One of the unique smaller lines that managed to succeed was Angel’s Flight, established in 1901 by Colonel J. W. Eddy to serve the residents of Bunker Hill in the northwest area of present-day downtown. The steep climb up 3rd Street between Hill and Olive Streets proved difficult for the affluent residents. The short funicular rail line only traveled a block or two, but the route was up a steep grade and it proved invaluable to residents. Angel’s Flight closed in 1969 and was dismantled. It was briefly reopened one-half block south of its original location

at 3rd and Hill streets and is currently situated mid-block between 3rd and 4th streets, just south of the project APE.

Henry Huntington was a nephew of Collis P. Huntington, one the notorious “big four” who built the Central Pacific Railroad, the western portion of the first transcontinental railroad in the United States. The younger Huntington completed his first streetcar line, the Pacific Electric Railway Company (PE), in 1902. The line connected Los Angeles to Long Beach. In part because of the PE interurban rail lines, Broadway evolved as a main retail thoroughfare. Many of the PE’s routes terminated at 4th Street and Broadway. Public use of the PE peaked in 1924, and it made that intersection and corridor valuable commercial property. Broadway was developed with commercial uses, specifically retail and theater buildings. Beginning in the early 1910s and extending to the 1940s it was the center of retail commerce in the growing city of Los Angeles.

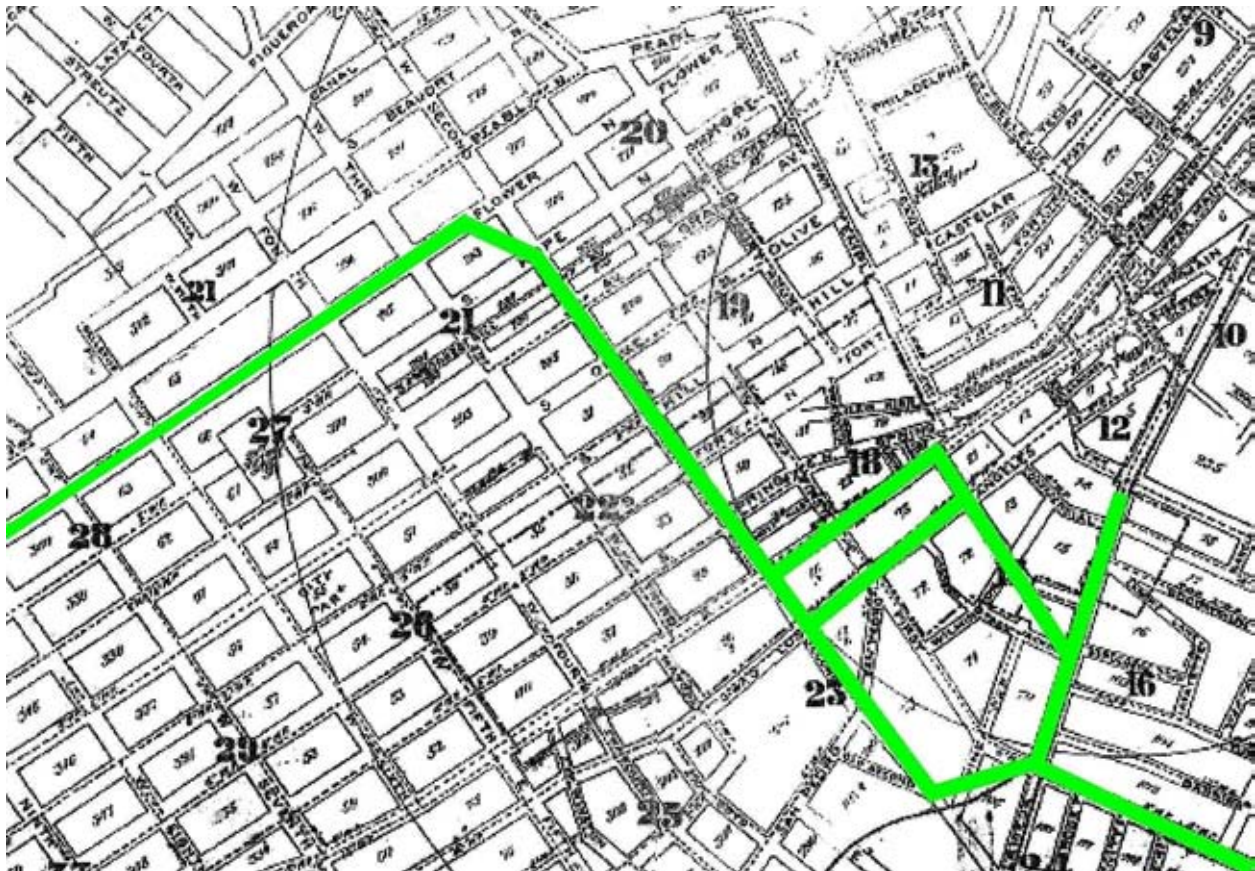


Figure 4-1. Excerpted Sanborn Fire Insurance Company maps of Los Angeles, California dated 1888.

Notes: Index sheets combined and annotated, graphically depicting all proposed project alternatives in green. Note that the arrangement of streets is essentially the same in 2010 as they were in 1888.

Along with early city growth the first demand for organized urban planning was made. Until planning and zoning rules were implemented, single-family homes (some belonging to city fathers) were dwarfed by tall, commercial buildings. City officials and residents became vigilant regarding fast-paced changes occurring in downtown, which were largely fueled by private commercial development. When the 12-story Braly (now Continental) Building (400 South Spring Street; John D. Parkinson) was completed in 1902, the city adopted its first of two height limit ordinances, establishing what became the uniform height of 150 feet or less for all buildings.

By the 1910s, city planners were calling for more parks, fewer saloons, and improved streets. To implement these goals, planners turned to the “City Beautiful” trend for direction. The City Beautiful movement was a progressive concept that had great influence on American civic design and planning from the late 1800s to the early twentieth century (Bluestone 1988). Espousing precepts that monumental formal design, beautification, and grandeur would improve cities, it was expected that those noble efforts would counteract the increasing moral and physical decay of poverty. Originally associated with the cities of Chicago, Detroit, and Washington, D.C., this influential planning style did not promote beauty for the sake of aesthetics, but was intended to be a subtle social control device for creating moral and civic virtue in urban populations. Advocates of the movement believed that such beautification could thus provide a harmonious social order that would improve the lives of the inner-city poor. The City Beautiful movement resulted, in part, in gracious long vistas in civic plazas; usually light-colored, formal buildings and other structures; the inclusion of diagonal streets rather than simple grids; and gracious public gardens and parks.

In an unintended move that foretold the city’s future as a major metropolis, the City of Los Angeles Municipal Arts Commission engaged “city architect” Charles Mulford Robinson to bring the City Beautiful concept to the community. The City Beautiful principal was adopted in 1908, the same year that Los Angeles adopted a zoning code. Its realization in Los Angeles was complicated and ultimately compromised by the demise of the PE and the concurrent rise in use of the private automobile. It did, however, provide the first dialogue for development of a civic center, a plan that would not finally be realized until after World War II (Starr 1990).

The Los Angeles River Bridges are an ensemble of 12 City Beautiful-inspired bridges, built near downtown between 1911 and 1933. It is the largest and most architecturally significant grouping of concrete bridges in the state according to some experts (Mikesell 1986). Each of the 12 is a reinforced concrete structure, built in concrete strengthened by interior reinforcing steel bars. The steel was notably included in the concrete curing process.

Reinforced concrete technology began in Europe in the 1840s and continues to evolve and improve. California engineers are credited with introducing reinforced concrete use to the rest of the nation, in part because of the ready availability of raw concrete ingredients such as

sand. The state became a proving ground for reinforced concrete, and the Los Angeles River Bridges are considered by many to be the finest examples of its use.

The 1st Street Viaduct (property 9R-7) was completed in 1929 as the eighth of the 12 bridges. The first was North Buena Vista Viaduct/North Broadway Bridge in 1911, and the final bridge in the series was 6th Street Viaduct/Whittier Boulevard Viaduct in 1933. The resulting remarkable series of concrete bridges and viaducts cross the river with surprising grace. Each of the bridges (nine of the 12 are technically viaducts) adapted the unique qualities of reinforced concrete and used state of the art engineering and design concepts.

By the 1920s, the economic core of downtown had expanded to 50 square blocks. The Central Business District, the center of which was once the Plaza, had “migrated southwesterly since the boom the 1880s, so that Broadway and 7th [were] its main shopping arteries” during most of the twentieth century (Lantis et al. 1973). This economic expansion prompted a period of unprecedented growth in Los Angeles, both in population and in physical development. Strides in manufacturing, oil development, tourism, land development, and the film industry prompted a period of rapid construction and invigorated downtown, which became home to about three-quarters of the city’s commercial and professional activity (Fogleson 1993). As described in *Material Dreams: Southern California Through the 1920s*, “the financing of Los Angeles’s exfoliating real-estate, construction, oil, port, manufacturing, entertainment and aviation industries remained largely in local hands, and so Los Angeles emerged as a banking center as well” (Starr 1990). So many of these financial institutions were located along Spring Street, the street was known as the “Wall Street of the West.”

Retail expansion was focused along Broadway and Hill Street, crowded with department stores that sold everything from shoes to pianos. Barker Brothers Furniture Store (Property 2-1, 818 West 7th Street, Curlett & Beelman), completed in 1925 in the Classical Revival style, was a striking example of a multi-story retail complex constructed during the period. At the time, it was one of the largest furniture stores in the United States; its facilities were separated into interior spaces that reflected the organization and spaces found in the average household (Hatheway 1978).

In addition to commercial expansion that occurred in the 1920s, many of the civic improvements drafted earlier in the century finally came to fruition, including the early beginnings of a civic center district. At the center of this achievement was Los Angeles City Hall (Property 6-2, 200 North Spring Street, Austin, Parkinson & Parkinson and Martin), which was completed in 1926 on the former site of the Temple Block. When it was built, City Hall was the tallest building downtown; at 454 feet, it was substantially taller than the allowable 150-foot building height limitation in place at the time. The Los Angeles Central Library (Property 3-2, 630 West 5th Street, Bertram Goodhue with Carlton Winslow), completed in 1926 was another ambitious 1920s civic building project that announced Los Angeles as a

major city. The “light of learning” theme was a remarkable architectural collaboration at the time and remains one of the largest library systems in the nation.

By 1924, downtown was thriving; a reported 1.2 million people (a figure greater than the city’s total population) traveled each day to the area, which by that time had expanded to encompass Temple Avenue, Los Angeles Street, Pico Boulevard, and Figueroa Street. Although downtown retained an intricate network of rail lines and trolley cars that connected the big city to outlying communities, the automobile had begun to guide development throughout Los Angeles. Inter-urban streetcar use began to wane as the automobile gained relevance. Adding to the difficulty were the thousands of at-grade streetcar-automobile intersections, which greatly impeded streetcar service. By 1921, some of the urban railways offered bus service. The Roosevelt Building (Property 2-7, 727 West 7th Street, Curlett & Beelman), completed in 1925, was one of the many downtown buildings that incorporated automobile parking into its design, offering subterranean space for 350 vehicles, when comparable competitors offered only 120 spaces (Longstreth 1998).

Improvements to roads were also necessary to accommodate the influx of automobiles. The 2nd Street Tunnel (APE Map # 4-3), completed in 1924, was the fourth in a sequence of significant tunnels to be built by the City of Los Angeles to ease traffic congestion in the early twentieth century (Los Angeles Times 1924). The first was Broadway Tunnel (opened 1901, demolished 1969), followed by the 3rd Street Tunnel (1907, significantly altered 1967), and the Hill Street Tunnel (1909, demolished 1948). The sleek, tile-lined 2nd Street Tunnel is noteworthy for its construction methods and as a masonry arch structure, supported by eight rings of brick in the upper section of the arch.

Figueroa Street was one of a handful of great boulevards of Los Angeles that were expanded in the 1920s. An early alignment of Figueroa Street was part of the famed US Route 66, and is currently a component of the Pasadena Freeway (Interstate 110). The notable Figueroa Street Tunnels, near present-day Chinatown, were once a part of Figueroa Street as well. Figueroa Street is credited with being one of the longest avenues in the United States, with a length of more than 30 miles, stretching between Eagle Rock to the Los Angeles Harbor.

Downtown continued to thrive throughout the 1920s. The commercial and civic core of the city continued to shift farther south, toward a new center at 7th and Hill Streets (Fogleson, 1993). Throughout the twentieth century, businesses and retail services crept south, with major businesses eventually abandoning the Broadway and Spring Street areas for 7th Street, and later Figueroa and Flower Streets (Starr 1997).

Along the eastern end of downtown, the Japanese-American community of Little Tokyo was also thriving. The first Japanese American resident had arrived in Los Angeles in 1886 and started a restaurant on East 1st Street. By the end of the nineteenth century, Japantown (as it was then known) was home to more than 2,000 Japanese Americans, and a prosperous