

4.9 CUMULATIVE IMPACTS

This section summarizes potential cumulative impacts that would result from the Regional Connector Transit Corridor project in combination with identified past, present and reasonably foreseeable projects. The information presented in this SEIS provides an update to prior reports developed as part of Final EIS including the Cumulative Impacts Technical Memorandum prepared for the project contained in Appendix GG, Cumulative Impacts Technical Memorandum.

Updated information in this section includes new renovation, construction, institutional/public facility, and transportation projects. Since completion of the Final EIS, eight new renovation, construction, and institutional/public facility projects are now anticipated to be completed by 2014, and 13 new projects will be under construction during 2014 to 2020. While all of these projects are located in the Project Area, only two projects will impact the Flower Street and Little Tokyo areas affected by the two tunneling methods alternatives: renovation of the former mixed-use Macy's Plaza, now known as the Bloc, located at 7th Street and Flower Street; and the new Wilshire Grand Hotel under construction at 7th Street and Figueroa Street.

Both projects will increase pedestrian activity and contribute to higher Metro Rail ridership in the Flower Street portion of the Project. From a transportation project perspective, there have been significant changes to rail transit project implementation schedules since completion of the Final EIS. In addition, with the anticipated operation of the Regional Connector project, Metro has identified future operational changes such that Gold Line service will provide a one-seat ride for travel from East Los Angeles to Santa Monica, and the Blue Line from Azusa to Long Beach. Reflecting this future operational change, information on other rail lines to be served by the Regional Connector Transit Corridor project has been added to this cumulative section. These lines include the Gold Line Foothill Extension, Crenshaw/LAX, and Purple Line Extension projects.

4.9.1 Affected Environment

The cumulative context includes the geographic area, timeframe, and/or type of projects that would contribute to the potential cumulative effect. This context differs for each discipline. Each discipline identifies a relevant geographic area for evaluation of direct, indirect, and cumulative impacts. The geographic range considered for the cumulative analysis can vary based on the resource area. For example, the geographic range over which air quality impacts would occur would not necessarily be the same as the geographic range considered for traffic impacts.

In addition, for some disciplines the scope of analysis for cumulative impacts is based on a list of reasonably foreseeable related projects while for others it is based on general trends in demographics or other regional forecasts. The forecast approach was used in the analysis of cumulative operational impacts for the transportation and air quality disciplines. This approach was also used in the analysis of cumulative impacts for the climate change discipline, which combined construction and operational emissions per the South Coast Air Quality Management District's recommendation. The general geographic range used to forecast cumulative conditions for these three

disciplines was the Southern California Association of Government (SCAG) region, which also assumed operation of the rail projects identified in Figure 4.9-2. All other disciplines used the list of reasonably foreseeable related projects as the scope of analysis for cumulative impacts, including the cumulative construction impacts analysis for the transportation and air quality disciplines for the Final EIS.

The purpose of this SEIS is to study the potential environmental consequences associated with construction and operation of the tunneling method alternatives as compared to the Project. Therefore, the evaluation of cumulative impacts is focused on specific disciplines identified as potentially being impacted by proposed construction method changes to the Flower Street segment of the Regional Connector project. For these disciplines, the general geographic range considered for the cumulative analysis are shown in Figure 4.9-1, along with the rail projects identified in Figure 4.9-2.

4.9.1.1 Project Time Frames

The following project-related time frames were used to identify project-related cumulative impacts.

Construction Period: 2014 – 2020

The project construction period has been identified as extending from initiation of construction to 2020. A worst-case (i.e., maximum potential impact) scenario was assumed for each resource area. For example, it is assumed that all other related projects for which there is no current construction schedule will be under construction during the project construction period. Related projects within the general project area that may be under construction during this project's proposed construction period of 2014 to 2020, which were not previously analyzed as part of the Final EIS are listed in Tables 4.9-3 through 4.9-6.

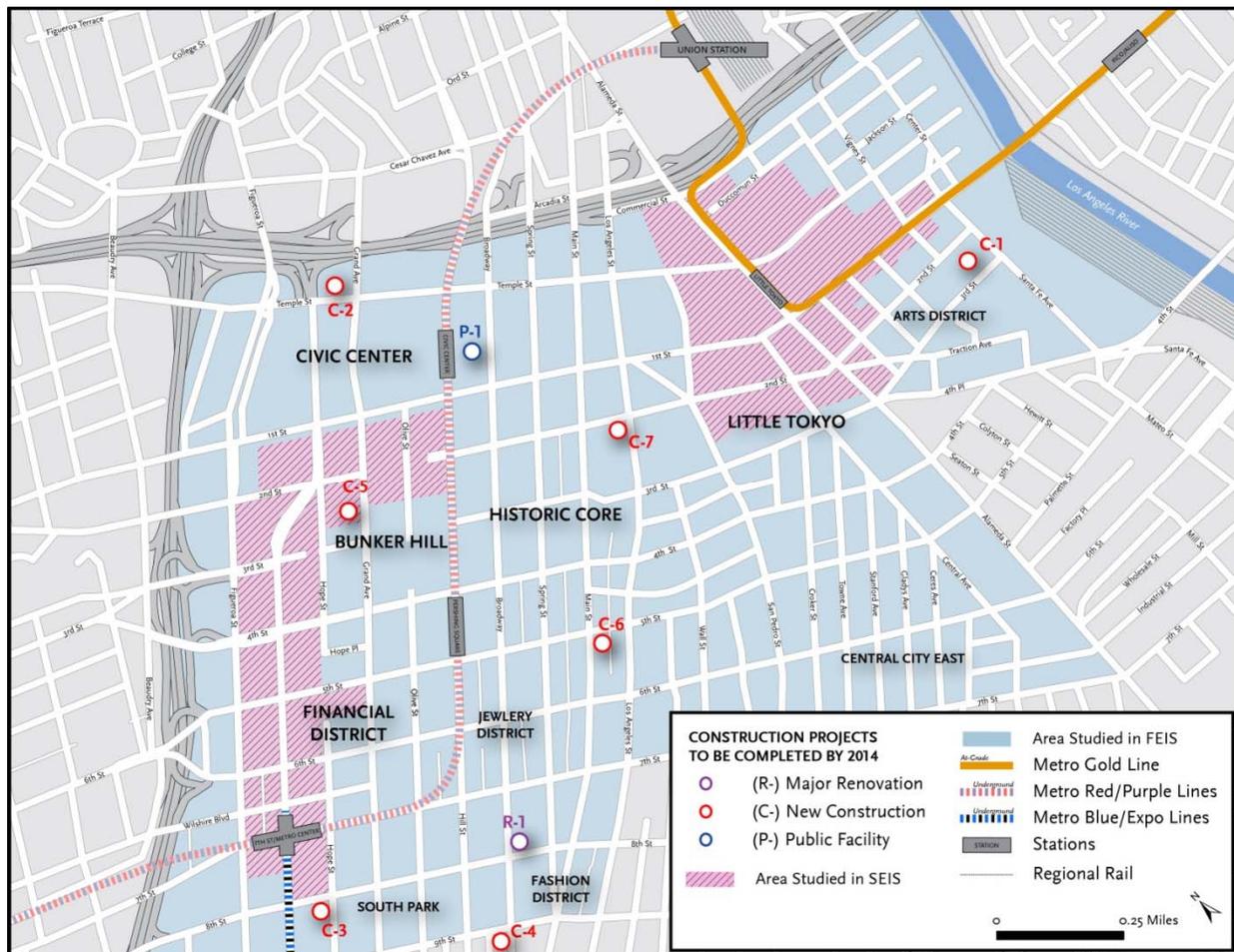
Year of Opening: 2020

With initiation of Project revenue operations anticipated in 2020, potential effects from operation of the Project would begin to be seen. The planning horizon identified for the project is 2035, reflective of the planning horizon used in the two documents that guide Los Angeles County transportation investment decisions – Metro's adopted 2009 Long Range Transportation Plan (LRTP) and SCAG's adopted 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

4.9.1.2 Current and Reasonably Foreseeable Related Actions

There are two ways to address the question of what is reasonably foreseeable within the Project Area. The first is to evaluate the project effects in combination with a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. The second method is to generally review a list of past, present, and probable future projects within the Project Area that are expected to be under construction or in operation during the same time frames as the Project. The most appropriate method may vary by discipline.

Figure 4.9-1: Projects Anticipated to be Completed Prior to 2014



Source: SCAG, 2012 Regional Transportation Plan

Forecasts for elements such as population, employment, land use, air quality, and transportation from regional plans were used in the analysis. Regional plans prepared by SCAG and general plans prepared by the City and County of Los Angeles and other nearby cities provided information on trends and forecasts relevant to the impact analysis for specific disciplines.

The following tables identify projects within the general Project Area that are either anticipated to be completed prior to start of construction in 2014, or which may be under construction during this project’s proposed construction period of 2014 to 2020. The projects identified in this section include additional projects not previously analyzed as part of the Draft and Final EIS. There are several subcategories identified, including major renovations, new construction, transportation, and utility projects. The locations of the new additional construction projects are also identified in Figure 4.9-3.

The project lists were developed from information available from the Los Angeles Downtown Center Business Improvement District’s (DCBID) fourth quarter 2014 project database and the City of Los Angeles’ utility district Capital Improvements Program (CIP). The Community Redevelopment Agency (CRA) of the City of Los Angeles was dissolved per Assembly Bill 1x-26 which took effect in February

2012. Therefore, updated lists of potential projects in the Downtown Los Angeles and Little Tokyo CRA study areas are no longer available. However, it would appear that the projects listed in the DCBID database better meet the definition of “reasonably foreseeable”. Many of these potential projects are only in the conceptual planning stages and the timing of construction or operations are unknown. Projects that do not have reported completion dates have been compiled in the tables of projects assumed to be under construction or completed between 2014 and 2020 as a worst-case scenario.

4.9.1.3 Projects Anticipated to be Completed Prior to 2014

Many of the projects identified in Tables 4.9-1, 4.9-2, and 4.9-3 are currently under construction and have identified completion dates prior to 2014. These lists may also include some projects which have recently been completed. The locations of related projects anticipated to be completed prior to 2014 are illustrated in Figure 4.9-1. The following projects listed below include capital improvements which were not previously included or have been modified since the release of the Final EIS.

Transportation

The following transportation capital improvements within the Project Area are currently identified as funded under Metro’s 2009 LRTP and SCAG’s 2012 RTP/SCS. The transit projects listed in this section have been or are anticipated to be completed prior to 2014, and are shown in Figure 4.9-2. The project listed below was included in the Final EIS, but its construction and operational schedule has been modified since the release of the document.

- Metro Exposition Transit Corridor, Phase 1 to Culver City. The first phase of this project, a nine mile light rail transit (LRT) line extending from the 7th Street/Metro Center Station to downtown Culver City, opened in 2012. In addition, Phase 2 extending service to Santa Monica started construction in 2012.

Major Renovations

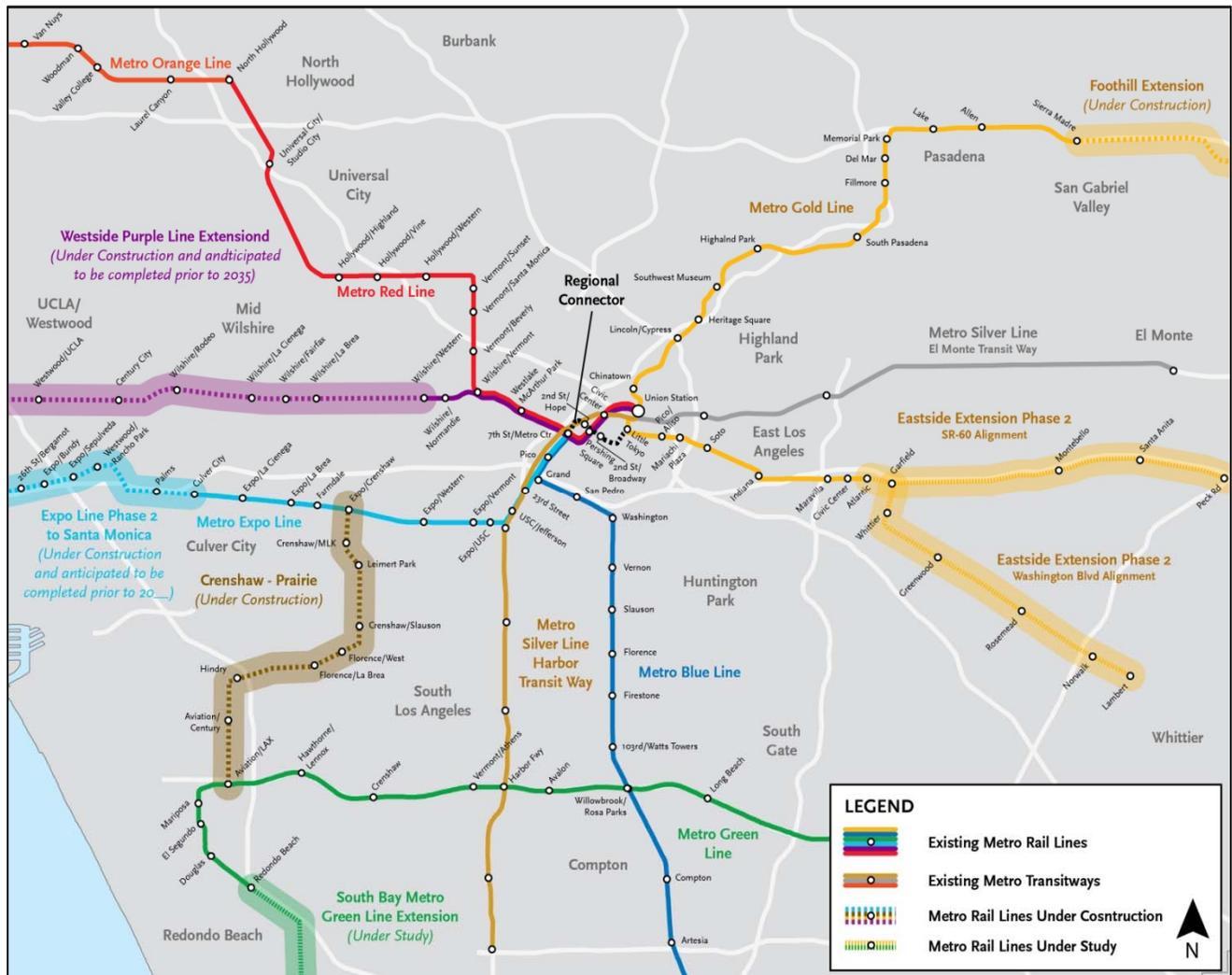
As listed in Table 4.9-1, there is one project located within the Project Area that proposes to convert offices to residential housing and/or which involve a major renovation of an existing structure.

Table 4.9-1: Major Renovation Project Anticipated to be Completed Prior to 2014

Number	Project Name	Address	Land Use	Units	Completion
R-1	Singer Sewing Building	806 S. Broadway	Mixed Use	9	Late 2014

Note: All projects are located within the City of Los Angeles
Source: DCBID project list, 4th quarter 2014

Figure 4.9-2: Year 2035 Rail Transit Projects



Source: Metro, 2014

New Construction

Table 4.9-2 lists new potential construction projects in the Project Area. New construction encompasses building new structures on vacant lots, as well as any demolition of older structures needed to clear the lots for construction. None of these projects are located along Flower Street or in Little Tokyo.

Table 4.9-2: New Construction Estimated to be Completed Prior to 2014

Number	Project Name	Address	Land Use	Units	Completion
C-1	One Santa Fe	1 N. Santa Fe Ave	Mixed Use	4	Completed
C-2	Da Vinci	909 W. Temple St	Mixed Use	630	Late 2014
C-3	8th & Hope	801 S. Hope St	Mixed Use	290	Late 2014
C-4	Olympic & Hill	915 W. Hill St	Mixed Use	281	Late 2014
C-5	The Emerson	225 S. Grand Ave	Mixed Use	271	Completed
C-6	Pershing Apartments	502 S. Main Street	Mixed Use	69	Late 2014
C-7	Ava Phase 2	210 E. 2nd St	Mixed Use	280	Late 2014

Note: All projects are located within the City of Los Angeles
Source: DCBID project list, 4th quarter 2014

Utility Projects

The City of Los Angeles maintains an extensive project list of public works projects. No additional major utility projects have been identified for completion by 2014, and there do not appear to be any planned within the Project Area. Most of the planned projects within the City are related to ongoing maintenance or replacement in-kind of existing infrastructure.

Institutional and Public Facility

Institutional and public facility projects located within the project area are listed in Table 4.9-3. This project is not located in the study areas covered by this SEIS.

Table 4.9-3: Institutional and Public Facility Projects to be Completed Prior to 2014

Number	Project Name	Address	Land Use	Completion
P-1	1st & Broadway Civic Center Park	1st & Broadway	Public	Fall 2014

Note: All projects are located within the City of Los Angeles
Source: DCBID project list, 4th quarter 2014

4.9.1.4 Projects Potentially Under Construction 2014 to 2020

Tables 4.9-4, 4.9-5, and 4.9-6 list projects which are currently in some stage of conceptual planning, but which do not have a defined schedule. Given the uncertainties of project development, the probability that these projects will occur is unknown. It may be reasonable to assume that this compilation of projects represents a worst-case condition for the construction period. The locations of these related projects are shown in Figure 4.9-3. The listed and illustrated projects include capital improvements which were not previously included, or have been modified since the release of the Final EIS.

Transportation

The following transportation capital improvements, while not located within the Project Area, will have significant impacts to the Regional Connector Transit Corridor Project. They are all currently identified as funded under Metro's 2009 LRTP and SCAG's 2012 RTP/SCS. The projects listed below were either not previously included in the Final EIS, or their construction schedule has been modified since the release of the document. In addition, as mentioned above, Metro's future LRT system operational plans call for Gold Line service to provide one-seat travel from East Los Angeles to Santa Monica, and the Blue Line from Azusa to Long Beach.

- Exposition Transit Corridor, Phase 2 to Santa Monica. The second phase of this project, extending service from the Culver City station to downtown Santa Monica, initiated construction in 2012 and is scheduled for completion by 2015.
- Crenshaw/LAX Transit Project. This line, extending LRT service from the Exposition Line at Crenshaw and Exposition Boulevards to the existing Green Line Aviation/LAX station, started construction in 2014 and has a planned completion date of 2018.
- Gold Line Foothill Extension, Phase 2A Pasadena to Azusa. This project will extend existing Gold Line service east from its current Pasadena terminus to Montclair in two phases. The first phase (Phase 2A), extending service to Azusa, began construction in 2011 and is projected to open for service in 2016. Engineering design and environmental clearance for the second phase (Phase 2B) is underway and a construction schedule will be established.
- Purple Line Westside, Section 1 to Wilshire/La Cienega. Extension of the Purple Line to the Westside from the existing Wilshire/Western Station is scheduled to be built in three phases. Section 1 to Wilshire/La Cienega started construction in 2014 with revenue service operations anticipated for 2023. Pre-construction activities for Section 2, continuing the Line further west to Century City, are planned to start in 2017 and be completed in 2026.

Institutional and Public Facility

The single institutional and public facility project located in the Project Area is listed in Table 4.9-3.

Table 4.9-4: Institutional and Public Facility Projects Potentially Under Construction 2014-2020

Number	Project Name	Address	Land Use	Completion
P-1	110 Freeway Overcrossing Art Phase II	Los Angeles & Main St. between Arcadia and Aliso St.	Public	N/A

Note: Project located within the City of Los Angeles
Source: DCBID project list, 4th quarter 2014

Major Renovations

The project located within the Project Area, The Bloc (former Macy's Plaza), involves a major renovation of an existing retail, hotel, and office structure, including an underground pedestrian linkage to the 7th Street Metro Station.

Table 4.9-5: Major Renovation Projects Anticipated Potentially Under Construction 2014-2020

Number	Project Name	Address	Land Use	Completion
R-1	The Bloc	7 th & Flower	Retail, Hotel, Office, Underground Pedestrian Linkage	Late 2015

Note: All projects are located within the City of Los Angeles

Source: DCBID project list, 4th quarter 2014

New Construction

Figure 4.9-3 provides a map of the location of new potential construction projects in the project area. New construction encompasses building new structures on vacant lots, as well as any demolition of older structures needed to clear the lots for construction. Table 4.9-6 includes a list of additional new projects which are identified to be in construction from 2014-2020. The list only includes those projects with identified construction schedules or in the entitlement process which were not previously included in the Final EIS, or where modifications to the project have been made. The list does not include projects in early conceptual planning phases where construction schedules are not identified.

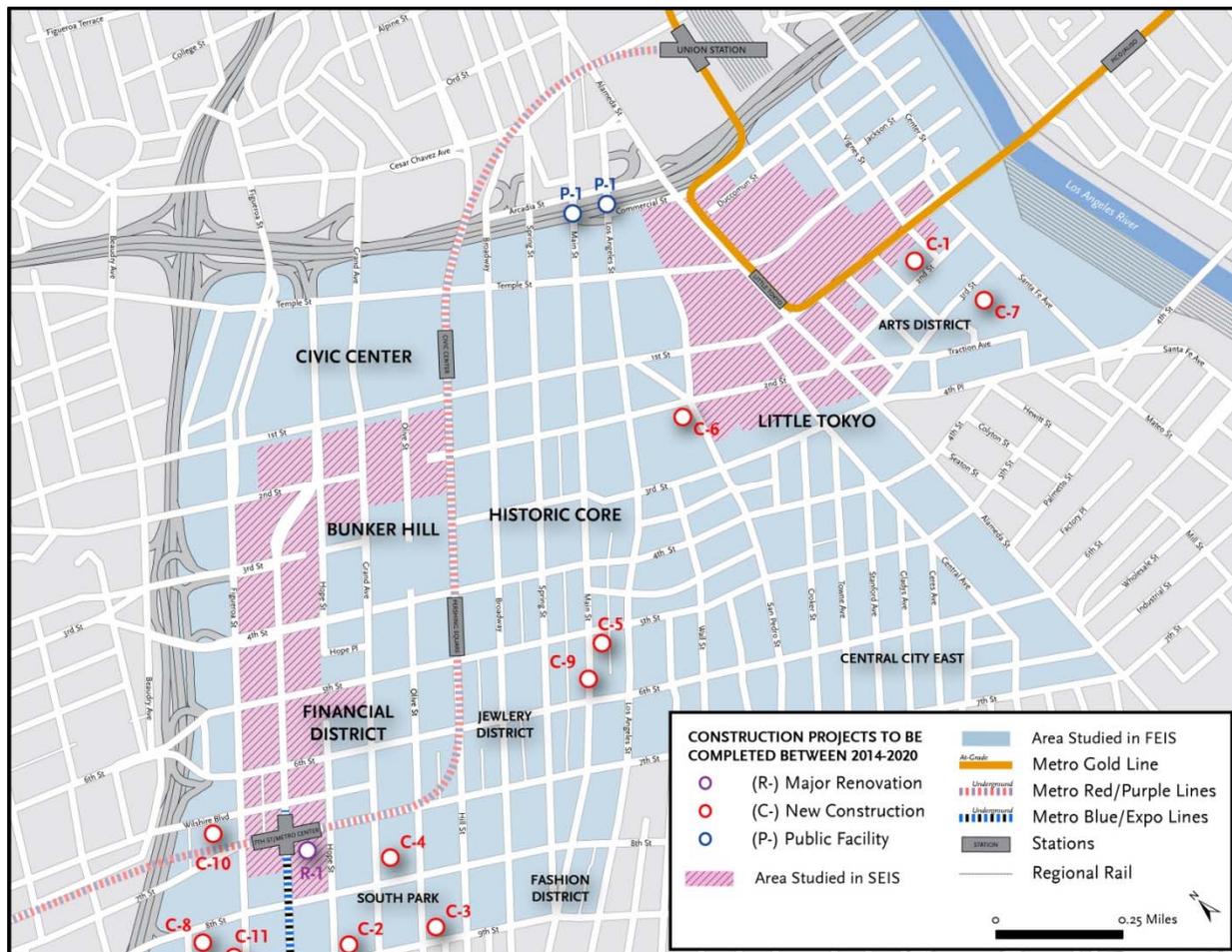
Table 4.9-6: New Construction Projects Potentially Under Construction 2014-2020

Number	Project Name	Address	Land Use	Units	Completion
C-1	Megatoys/Garey Building	905 E. 2 nd St	Mixed Use	320	Fall 2015
C-2	Valencia/888 Hope	888 Hope St	Mixed Use	218	2016
C-3	Onni Tower	888 Olive St	Mixed Use	283	Q1 2015
C-4	8 th & Grand	770 S. Grand Ave	Mixed Use	700	Fall 2015
C-5	Metropolis Phase I	502 S. Main Street	Mixed Use	69	Fall 2016
C-6	Sares-Regis Little Tokyo/Block 8-D	2 nd & San Pedro St	Mixed Use	240	Fall 2015
C-7	950 E Third St	950 E Third St	Residential	472	N/A
C-8	Metropolis Phase 2	8 th & Francisco	Mixed Use	1020	N/A
C-9	Topaz	550 S. Main	Mixed Use	159	N/A
C-10	Wilshire Grand Hotel	930 Wilshire Blvd	Hotel, Retail, Office	900	2017
C-11	Metropolis Hotel	9 th and Francisco	Hotel, Retail, Office	350	2016

Note: All projects are located within the City of Los Angeles

Source: DCBID project list, 4th quarter 2014

Figure 4.9-3: Projects Potentially Under Construction 2014 to 2020



Source: SCAG, 2012 Regional Transportation Plan

Utility Projects

The City of Los Angeles maintains an extensive list of public works projects. No major utility projects have been identified within the Project Area during the construction period of 2014 to 2020. However, there do not appear to be many projects planned after 2014 within the City and there do not appear to be any planned within the project area. Most of the planned projects within the City are related to ongoing maintenance or replacement of in-kind of existing infrastructure.

4.9.1.5 Projects Potentially Under Construction Post-2020

Transportation

The following transportation capital improvements within the Project Area and/or interfacing with the Project are funded under Metro’s 2009 LRTP and SCAG’s 2012 RTP/SCS project list. The projects listed below were: not previously included in the Final EIS, the construction schedule has been modified since the release of the document, or have increased importance to the Regional Connector Transit Corridor project due to Metro’s future LRT system operational plans.

- Gold Line Eastside Transit Corridor Phase 2 – Extension of Gold Line Eastside service from its current terminus in East Los Angeles to communities farther east is being studied through preparation of a Draft EIS report planned for completion in 2014. The study evaluates two LRT alternatives along two service alignments, along SR-60 to Peck Road in South El Monte, and Washington Boulevard to Lambert Road in Whittier. The selected alternative is anticipated to be operational by 2035. The SCAG 2012 RTP/SCS includes implementation of one branch alternative in the Financially-Constrained RTP project list, and construction of the second alternative in the Strategic Plan, which represents projects for which the region would pursue additional funding.
- Gold Line Foothill Extension, Phase 2B to Montclair. Construction of the second phase from Azusa to Montclair is anticipated to be completed and in operation post-2020.
- Purple Line Westside, Section 1, service to Wilshire/La Cienega is planned to start operation in 2023. Section 2 to Century City is planned for revenue service in 2026. Building Section 3, west to a future Westwood/VA Hospital Station, will commence with pre-construction activities in 2025 and revenue service operation slated for 2035.

4.9.2 Environmental Consequences

Impact conclusions for all of the alternatives are based on the thresholds identified in Appendix B (Regulatory Framework) of this SEIS. Appendix GG, Cumulative Impacts Technical Memorandum of the Final EIS, summarizes the potential cumulative impacts that could result from the Regional Connector Transit Corridor project in combination with the identified past, present and reasonably foreseeable projects. The cumulative impacts analysis includes positive impacts as well as adverse effects, particularly with respect to the enhancements in regional mobility.

Additional analysis conducted for this SEIS includes analysis of the following resource areas:

- Transit, Traffic, Circulation, Parking, Pedestrian, and Other Modes
- Visual Quality
- Air Quality Impacts
- Climate Change
- Noise and Vibration
- Geotechnical
- Energy
- Historic Resources
- Environmental Justice

Cumulative impacts were analyzed in more detail for each of the resource areas within the Study Area for the SEIS. Alternatives A and B would have increased truck activity, reduction in lane capacities, transit rerouting, increased construction duration and intensity compared to the Project. Cumulatively, these adverse effects would be unavoidable under traffic, transit, and environmental justice communities.

Although construction activities are temporary, under cumulative conditions, Alternatives A and B would affect vehicle travel times and traffic operations. The impacts would also cumulatively effect

construction of development projects from 2014 to 2020 though none are located on Flower Street. Mitigation measures were identified; however the impacts would be unavoidable.

During operation with Alternatives A and B, the Project would have reduced operating speeds and increased travel times. Cumulative impacts from Alternatives A and B would result in decreased benefits of improved access and connectivity when compared to the Project.

Cumulative impacts and mitigation for the Project are provided in the Final EIS. Technical Memoranda prepared for the Final EIS provides additional analysis detail on Project cumulative effects. Cumulative impacts and related mitigation measures for each of the resource areas identified above that would occur with implementation of the alternatives are described in Chapter 2, Alternatives Considered of this SEIS. The following provides a summary of the cumulative adverse effects/impacts for the Project with Alternatives A and B.

4.9.2.1 Alternative A - EPBM/Open Face Shield/SEM Project Profile

As presented in Chapter 2, Alternatives Considered, Alternative A would be constructed with a combination of EPBM and SEM construction methods, and with a similar vertical alignment profile to that of the Project.

With implementation of mitigation, construction of Alternative A would contribute to cumulative effects associated with bus transit, traffic circulation, and environmental justice communities based on the increase truck activity, reduction in lane capacities, transit rerouting, and increased construction duration and intensity compared to the Project. All other cumulative effects would not be adverse, or not adverse after mitigation.

4.9.2.2 Alternative B – EPBM/SEM Low Alignment

Alternative B would be built with a combination of EPBM and SEM construction methods with a lower vertical alignment profile than the Project. Chapter 2 provides detailed information on Alternatives Considered for this SEIS.

With implementation of mitigation, construction of Alternative B would contribute to cumulative effects associated with bus transit, traffic circulation, and environmental justice communities based on the increase truck activity, reduction in lane capacities, transit rerouting, and increased construction duration and intensity compared to the Project. All other cumulative effects would not be adverse, or not adverse after mitigation.

4.9.3 Mitigation Measures

Mitigation measures listed for the Project contained within the specific Final EIS section for each environmental resource have been carried forward and included in the MMRP for the Project. They are the final committed mitigation measures for the Project and apply to results of this SEIS.