

7.0 Alternatives to the Proposed Project



7.0 ALTERNATIVES TO THE PROPOSED PROJECT

Under CEQA, the identification and analysis of alternatives to a project is a fundamental part of the environmental review process. Public Resources Code (PRC) § 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is ... to identify alternatives to the project."

Direction regarding the definition of project alternatives is provided in *CEQA Guidelines* § 15126.6(a), as follows:

An EIR shall describe 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 but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The *CEQA Guidelines* emphasize that the selection of project alternatives be based primarily on the ability to reduce impacts relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."¹ The *CEQA Guidelines* further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.²

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. *CEQA Guidelines* § 15126.6(f)(1) states that:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. . .

Beyond these factors, *CEQA Guidelines* require the analysis of a "no project" alternative and an evaluation of alternative location(s) for the project, if feasible. Based on the alternatives analysis, the City must identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, then the EIR must identify an environmentally superior alternative among the other alternatives.³ In addition, *CEQA Guidelines* § 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss the reasons for their rejection.

¹ *CEQA Guidelines* § 15126.6(b).

² *CEQA Guidelines* § 15126.6(f).

³ *CEQA Guidelines* § 15126.6(e)(2).



The range of feasible alternatives must be selected and discussed in a manner to foster meaningful public participation and informed decision making. The range of potential alternatives to the proposed Project also includes those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. An alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered.

ALTERNATIVES CONSIDERED BUT REJECTED

In accordance with CEQA Guidelines § 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, among the factors that may be used to eliminate alternatives from detailed consideration are the alternative's failures to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. There are no alternatives that were considered and rejected.

PROJECT OBJECTIVES

The proposed Project objectives, as stated in the Draft El Segundo South Campus Specific Plan (ESSCSP), are:

1. To serve the mission of economic development in the City by contributing to the creation, maintenance, and implementation of a business climate that fosters a strong economic community, results in business retention and attraction, provides an effective level of City services to all elements of the community, and maintains the quality of life that has characterized El Segundo for more than nine decades.
2. To identify a range of permitted commercial and industrial uses within the ESSCSP area that will contribute to job creation opportunities and seek balance between growth, local resources, and infrastructure capacity. Additionally, the growth allowed by the ESSCSP is intended to create a synergy with other uses in the area and help those businesses grow as well.
3. To provide a positive contribution to the maintenance and expansion of El Segundo's economic base as development typically increases the City's: business license taxes; utility user taxes; property taxes; and sales taxes. An increased economic base will provide the City with resources to provide high-quality services to its residents and daytime population.
4. To provide multimodal improvements to the City's transportation circulation system, including enhancements to the City's roadway network (El Segundo Boulevard, and Continental Boulevard and Nash Street extensions), and bicycle and pedestrian networks, and increased office and commercial density in close proximity to an existing light rail station.

PROJECT SIGNIFICANT AND UNAVOIDABLE IMPACTS

Per CEQA Guidelines, only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the proposed Project. As discussed throughout [Section 5.0, *Environmental Analysis*](#), Project



impacts involving the following environmental issue areas would be less than significant impact following compliance with the established regulatory framework and recommended mitigation:

- Noise;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Population and Housing;
- Public Services and Recreation; and
- Utilities and Service Systems.

However, despite compliance with the established regulatory framework and implementation of all feasible mitigation measures, Project impacts involving the following environmental issue areas would remain significant and unavoidable:

- Land Use and Planning (see Section 5.1): The Project conflicts with Policies C1-1.2, C1-1.5, and C1-1.10.
- Transportation and Traffic (see Section 5.2):

Near-Term With Phase 1 Project Conditions Study Area Intersection

- Intersection 48 (Aviation Boulevard/El Segundo Boulevard).

Forecast Long-Range With Project Buildout Conditions Study Area Intersections

- Intersection 29 (Nash Street/Maple Avenue);
- Intersection 32 (Nash Street/El Segundo Boulevard);
- Intersection 38 (Douglas Street/El Segundo Boulevard);
- Intersection 48 (Aviation Boulevard/El Segundo Boulevard);
- Intersection 50 (Aviation Boulevard/Alaska Avenue);
- Intersection 51 (Aviation Boulevard/Rosecrans Avenue);
- Intersection 53 (Aviation Boulevard/Marine Avenue);
- Intersection 55 (Aviation Boulevard/Manhattan Beach Boulevard); and
- Intersection 62 (La Cienega Boulevard/El Segundo Boulevard);
- Intersection 69 (Sepulveda Boulevard/Manchester Avenue).

Forecast Long-Range With Project Buildout Conditions State Highway Study Intersections

- Intersection 7 (Sepulveda Boulevard (SR-1)/Lincoln Avenue); and
- Intersection 13 (Sepulveda Boulevard (SR-1)/Mariposa Avenue).

Forecast Long-Range With Project Buildout Conditions CMP Study Intersections

- Intersection 7 (Sepulveda Boulevard (SR-1)/Lincoln Avenue);
- Intersection 15 (Sepulveda Boulevard (SR-1)/El Segundo Boulevard);
- Intersection 18 (Sepulveda Boulevard (SR-1)/Rosecrans Avenue);
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- Intersection 69 (Sepulveda Blvd/Manchester Ave);
- Intersection 70 (Pacific Coast Hwy (SR-1)/Artesia Boulevard);
- Intersection 71 (Pacific Coast Hwy (SR-1)/Torrance Boulevard).

- Air Quality (see Section 5.3):
 - Project-Related Operational Emissions – The operational mitigated emissions would remain above SCAQMD thresholds for ROG, NOX, and CO.



- AQMP Consistency - Although, the Project's long-term influence would be consistent with the AQMP and SCAG goals and policies, the Project's exceedance of operational ROG, NOX, and CO thresholds would potentially result in a long-term impact on the region's ability to meet State and Federal air quality standards. Therefore, Project impacts associated with AQMP compliance would be significant and unavoidable.
 - Cumulative Emissions - Operational activities would create a significant unavoidable impact due to exceedances of SCAQMD thresholds for ROG, NOX, and CO.
- Greenhouse Gas (GHG) Emissions (see Section 5.4):
 - GHG Emissions - The Project-related GHG emissions of 5.9 MTCO₂eq per capita per year would exceed the per capita per year Project level GHG thresholds.
 - Cumulative GHG Emissions – Because the Project-related GHG emissions would be significant and unavoidable, the Project's cumulative GHG emissions would be significant and unavoidable.

PROJECT ALTERNATIVES

Potential environmental impacts associated with the following alternatives are compared to impacts from the proposed Project:

- No Project Alternative;
 - "No Project/No Development" Alternative; and
 - "No Project/Existing Entitlement" Alternative;
- "Alternative Site" Alternative;
- "Raytheon Only" Alternative; and
- "Conceptual Plan With Coral Circle Connection" Alternative.

Throughout the following analysis, the alternatives' impacts are analyzed for each environmental issue area, as examined in Sections 5.1 through 5.11. In this manner, each alternative can be compared to the proposed Project on an issue-by-issue basis. Table 7-15, Comparison of Alternatives, which is included at the end of this Section, provides an overview of the alternatives analyzed and a comparison of each alternative's impacts in relation to the proposed Project. This Section also identifies alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. Among the factors used to eliminate alternatives from detailed consideration are: failure to meet most of the basic project objectives; infeasibility; or inability to avoid significant environmental impacts. Section 7.5, Environmentally Superior Alternative, references the "environmentally superior" alternative, as required by the *CEQA Guidelines*.

7.1 "NO PROJECT" ALTERNATIVE

In accordance with the *CEQA Guidelines*, "the no project analysis shall discuss the existing conditions ..., as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available



infrastructure and community services.”⁴ The *CEQA Guidelines* continue to state that “in certain instances, the no project alternative means ‘no build’ wherein the existing environmental setting is maintained.”⁵ The “No Project/No Development” Alternative includes a discussion and analysis of the existing baseline conditions at the time the Notice of Preparation was published on October 29, 2012. The “No Project/Existing Entitlement” Alternative, which is the reasonably foreseeable development alternative, includes a discussion and analysis of what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on the property’s current entitlement. The No Project scenarios are described and analyzed in order to enable the decision-makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project.

7.1.1 “NO PROJECT/NO DEVELOPMENT” ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The 142-acre site is generally triangular shaped and level (encompasses Assessor Parcel Numbers 4138-014-013 and -047). Excluding the El Segundo Boulevard right-of-way (ROW), the Project site totals approximately 137 acres. The property is currently developed with the Raytheon Company’s Space and Airborne Systems (SAS) facility. Exhibit 3-4, Local Aerial View, depicts the Project site in the context of its environmental setting. The existing SAS facility is locally referred to as the “South Campus.” Eleven (11) buildings are located at the central core of the Campus, with vast surface parking lots (20 lots containing 6,873 parking spaces) located around their perimeter. These existing buildings are constructed in a modern architectural style, at a maximum height of approximately 37 feet.

The No Project/No Development Alternative would retain the Project site in its current condition. With this Alternative, the site would remain developed with the existing SAS facility and related 11 buildings and surface parking lots. Under the No Project/No Build Alternative, the ESSCSP would not be adopted and an increased density beyond what exists on the property would not occur. Two new land use types (i.e., commercial and light industrial) would not be introduced, as are proposed by the Project. None of the proposed amendments to the El Segundo General Plan (General Plan) or General Plan Map, or Zoning Map/El Segundo Municipal Code (ESMC) would be implemented. None of the improvements proposed as part of Tentative Map No. 71551 would be constructed and the property would not be subdivided into 26 separate parcels. Proposed improvements to the City’s transportation circulation system, including enhancements to the City’s roadway network (El Segundo Boulevard, and Continental Boulevard and Nash Street extensions), and bicycle and pedestrian networks, would not be constructed. The existing surface parking lots would remain.

The No Project/No Development Alternative would maintain the existing land uses, as identified in Table 5.1-2, Existing Land Uses, and illustrated on Exhibit 3-3, Existing Land Uses. No structures would be demolished. As indicated on Table 5.1-2, office, laboratory, manufacturing, and warehouse land uses are located on the South Campus totaling approximately 2,089,090 gross square feet and a floor area ratio (FAR) of 0.29. Office uses would continue to predominate among the site’s existing land uses, comprising approximately 1.2 million gross square feet, or one-half of the Campus’ floor area. The South Campus would continue to

⁴ *CEQA Guidelines* § 15126.6(e)(2).

⁵ *CEQA Guidelines* § 15126.6(e)(3)(B).



provide the existing private outdoor recreational uses that include tennis and basketball courts, and baseball fields at the northwest corner of the property.

The following discussion evaluates the potential environmental impacts associated with the No Project/No Development Alternative, as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Planning

2012 Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS). This Alternative would maintain existing land uses without additional development. It would not be required to demonstrate consistency with the RTP/SCS Goals and growth forecasts and no impacts would occur in this regard. As with the proposed Project, this Alternative would not conflict with the 2012 RTP/SCS Goals and growth forecasts.

El Segundo General Plan. With the No Project/No Development Alternative, amendments to the General Plan and General Plan Map would not be required. The existing Light Industrial, Open Space, and Public Facilities land use designations would remain and not change to ESSCSP.

The proposed Project is concluded to be consistent with the relevant General Plan Policies, excluding Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10; see Table 5.1-1, General Plan Policy Consistency Analysis. The No Project/No Development Alternative would not generate new vehicle trips or improve the local roadway network, as would occur with the proposed Project. Accordingly, the significant unavoidable impact (conflict with Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10) that is anticipated with the proposed Project would be avoided with this Alternative.

El Segundo Municipal Code. This Alternative would not result in a Zone Change or Zone Text Amendment, as would occur with the proposed Project. Consequently, the site's existing Light Industrial (M-1), Open Space (OS), and Public Facilities (P-F) Zones would not be changed to ESSCSP. A Vesting Tentative Map subdividing the property into separate parcels, would also not be required. Given that this Alternative would maintain the site in its current developed condition, this Alternative is similarly anticipated to be consistent with the ESMC. The Project site is developed at significantly less intensity than the maximum FAR allowed in the M-1 Zone, which is 0.6, or the maximum FARs allowed in the surrounding CO and MU-N Zones, which are 0.8 and 1.3, respectively. With this Alternative, the existing low intensity development would continue, as compared to the Project's proposed maximum FAR of 0.60.

Transportation and Traffic

The No Project/No Development Alternative would not generate additional vehicular trips beyond existing conditions and no improvements to the local roadway network would be constructed.

Study Intersections. As concluded in Section 5.2, the following study intersections are operating at a deficient level of service (LOS) according to agency performance criteria for existing conditions: 38; 48; 53; 55; 66; and 69.



As also concluded in Section 5.2, with the addition of Project buildout-generated trips, the following study intersections are forecast to operate at a deficient LOS according to agency performance criteria for forecast existing with Project buildout conditions: 32; 38; 48; 49; 53; 55; 62; 66; and 69.

Thus, study Intersections 38, 48, 49, 53, 55, 66, and 69, which would operate deficiently under forecast existing with Project buildout conditions, are already operating deficiently under existing conditions. However, study Intersections 32, 49, and 62, which would operate deficiently under forecast existing with Project buildout conditions, are operating at an acceptable LOS under existing conditions (with the No Project/No Development Alternative).

State Highway Study Intersections. As concluded in Section 5.2, the following State Highway study intersections are operating at a deficient LOS according to Caltrans performance criteria for existing conditions: 9; 10; 14; 15; 19; 22; 63; and 70.

As also concluded in Section 5.2, with the addition of Project buildout-generated trips, the following State Highway study intersections are forecast to operate at a deficient LOS according to Caltrans performance criteria for forecast existing with Project buildout conditions: 9; 10; 14; 15; 18; 19; 20; 22; 57; 63; and 70.

Thus, State highway study Intersections 9, 10, 14, 15, 18, 19, 22, 63, and 70, which would operate deficiently under forecast existing with Project buildout conditions, are already operating deficiently under existing conditions. However, State highway study Intersections 18, 15, and 57, which would operate deficiently under forecast existing with Project buildout conditions, are operating at an acceptable LOS under existing conditions (with the No Project/No Development Alternative).

CMP Study Intersections. As concluded in Section 5.2, all CMP study intersections are currently operating at an acceptable level of service according to CMP performance criteria for existing conditions .

As also concluded in Section 5.2, with the addition of Project buildout-generated trips, the following CMP study intersections are forecast to operate at a deficient LOS according to CMP performance criteria for forecast existing with Project buildout conditions: 15; 18; and 70.

Thus, CMP study Intersections 15, 18, and 70, which would operate deficiently under forecast existing with Project buildout conditions, are operating at an acceptable LOS under existing conditions (with the No Project/No Development Alternative).

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding transportation/traffic impacts, as no increase in traffic volumes would occur and fewer intersections would operate deficiently.

Air Quality

Short-Term Impacts. Short-term air quality impacts from demolition, grading, and construction activities associated with the proposed Project would not occur with the No Project/No Development Alternative, as new development would not occur. The Project's construction-related emissions would be less than significant with mitigation incorporated.



Long-Term Impacts. Long-term air quality impacts from area and mobile source pollutant emissions associated with the proposed Project would not occur with the No Project/No Development Alternative, as new emissions would not be generated. The Project's long-term combined mobile and area source pollutant emissions would exceed South Coast Air Quality Management District (SCAQMD) reactive organic compounds (ROG), nitrogen oxides (NO_x), and carbon monoxide (CO) thresholds resulting in a significant unavoidable impact. These significant unavoidable impacts would be avoided with the No Project/No Development Alternative, as new long-term emissions would not be generated.

Air Quality Management Plan (AQMP) Consistency. The Project's long-term influence would be consistent with the AQMP and Southern California Association of Governments (SCAG) goals and policies. However, the Project's exceedance of operational ROG, NO_x, and CO thresholds would potentially result in a long-term impact on the region's ability to meet State and Federal air quality standards. Therefore, Project impacts associated with AQMP compliance would be significant and unavoidable. As concluded above, the No Project/No Development Alternative would avoid the significant unavoidable long-term air quality impacts associated with the proposed Project. As new emissions would not be generated, this Alternative would also be compliant with the AQMP; thus, avoiding the Project's significant unavoidable impact associated with AQMP compliance.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding air quality impacts, as no increase in mobile and area source emissions would occur. This Alternative would avoid the Project's significant unavoidable impacts from operational ROG, NO_x and CO emissions and AQMP conflicts.

Greenhouse Gas Emissions (GHG)

As indicated in Table 5.4-2, *Mitigated Greenhouse Gas Emissions*, Project-related GHG emissions would be 5.9 MTCO₂eq per capita per year, exceeding the per capita per year Project level GHG threshold, and resulting in a significant and unavoidable impact. Since the No Project/No Development Alternative would not result in short- or long-term GHG emissions beyond existing levels, this Alternative would avoid the Project's significant unavoidable impact associated with GHG emissions.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding GHG emissions, since no increase in GHG emissions would occur and the Project's significant unavoidable impact from GHG emissions would be avoided.

Noise

Short-Term. Construction noise associated with the proposed Project would result in less than significant impacts, with mitigation incorporated, regarding exposure to surrounding sensitive receptors to noise levels in excess of the established standards. Construction activities would cause less than significant mobile noise along access routes to and from the site due to movement of equipment and workers. The Project's construction-related vibration impacts are also anticipated to be less than significant. Construction-related short-term noise impacts from stationary and mobile sources, and vibration impacts would not occur with the No Project/No Development Alternative. Therefore, the short-term construction-related noise and vibration impacts that would occur with the proposed Project would be avoided with this Alternative.



Long-Term. Existing modeled noise levels from mobile sources are outlined in Table 5.5-6, Existing Traffic Noise Levels, and range from 52.0 dBA to 70.9 dBA at 100 feet from the centerline. These existing conditions would continue with the No Project/No Development Alternative, although, adjacent noise-sensitive receptors may be impacted by additional growth in the area. Project implementation would result in less than significant impacts from mobile noise sources. The increase in average daily trips (ADT) projected to occur with the proposed Project would not occur with this Alternative, because new land uses would not be developed. Therefore, although less than significant, the Project's long-term noise impacts from mobile sources would be avoided.

The existing ambient noise levels in the Project area are outlined in Table 5.5-5, Noise Measurements. These existing conditions would continue with the No Project/No Development Alternative. Project implementation would result in less than significant impacts from stationary noise sources. The increases in stationary noise levels that would occur with the Project would not occur with this Alternative, because new land uses would not be developed. Therefore, although less than significant, the Project's long-term noise impacts from stationary sources would be avoided.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding noise, since no increases in short-term construction-related, or long-term operational mobile or stationary noise would occur.

Geology and Soils

The soil erosion or loss of topsoil from grading and excavation operations that would occur with the proposed Project would not occur with this Alternative, since no development would occur.

The Project site is susceptible to seismic, geologic, and soils related hazards. Implementation of the No Project/No Development Alternative would not expose additional people or structures to potential adverse effects associated with seismic, geologic, or soil hazards, since new land uses would not be developed and the Project's anticipated employment increase would not occur. Comparatively, a less than significant impact (with mitigation incorporated) would occur with the proposed Project, while no impacts beyond existing conditions would occur with this Alternative.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding seismicity, geology, and soils, given it would not expose additional people or structures to potential hazards.

Hazards and Hazardous Materials

Short-term construction-related impacts involving the potential for accidental release of hazardous materials (e.g., ACMs, LBPs, USTs) would not occur with the No Project/No Development Alternative, since buildings/improvements would not be demolished/removed and ground-disturbing activities would not occur. Less than significant potential impacts (with mitigation incorporated) involving accidental release of hazardous materials from construction activities would occur with the Project. This impact would not occur with this Alternative, as new development would not occur.



Raytheon's current operations, which involve both hazardous materials storage and hazardous waste generation, would continue with the No Project/No Development Alternative. Unlike the proposed Project, this Alternative would not involve closure and onsite relocation of the existing hazardous materials storage facility and closure of the existing RCRA-permitted hazardous waste storage facility. These facilities would continue to operate, consistent with current conditions. Since new development would not occur, additional long-term impacts involving the potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and accident conditions involving the release of hazardous materials, would not occur with this Alternative. For the proposed Project, less than significant impacts relating to hazards and hazardous materials would occur following compliance with the established regulatory framework and recommended mitigation.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding impacts due to potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and conditions involving the release of hazardous materials, since new development and increased employment would not occur.

Hydrology and Water Quality

The No Project/No Development Alternative would result in no short-term impacts to water quality since grading, excavation, and construction activities would not occur. Comparatively, less than significant potential impacts (with mitigation incorporated) involving water quality impacts from construction activities would occur with the Project, while none would occur with this Alternative.

The No Project/No Development Alternative would avoid the Project's long-term operational impacts to storm water quality and quantity associated with new land uses, since they would not be developed and increased traffic activities would not occur. However, the long-term operational impacts to water quality and quantity associated with the existing land uses, which includes large areas of impermeable surface parking lots, would continue, since the post-construction Best Management Practices (BMPs) to address pollutants in storm water runoff and new drainage improvements that would be constructed with the proposed Project would not be constructed with this Alternative. The Project would result in less than significant operational impacts involving storm water quality and quantity. In comparison, the No Project/No Development Alternative would maintain existing site conditions, including large surface parking lots with impermeable surfaces. These existing parking lots are legal non-conforming improvements and do not comply with current storm water quality regulations. Therefore, Project implementation would result in a long-term improvement to storm water quality and quantity, since there would be less impermeable surface and the Project would achieve compliance with current storm water quality and onsite retention requirements.

The No Project/No Development Alternative would be neither environmentally superior nor inferior to the proposed Project regarding hydrology and water quality impacts. No construction activities would occur and no new land uses would be developed with this Alternative. However, physical improvements to the site that would increase storm water retention and on-site treatment would also not occur with this Alternative.



Population and Housing

As indicated in Table 5.9-9, Project implementation would increase the City's employment by approximately 9.5 percent (4,598 jobs) over existing conditions (48,533 jobs). This employment growth could result in population growth within the City, as the potential exists that future employees (and their families) would choose to relocate to the City. As concluded in Section 5.9, the Project's potential population growth is considered less than significant given: there are only 325 vacant units in the City at present (potential maximum population growth is 763 persons, although 100 percent occupancy is not likely); numerous alternative housing opportunities are available to the future employees in surrounding cities; and new jobs could be filled in part by the unemployed persons who already reside locally. As the No Project/No Development Alternative would maintain the existing number of onsite employees, it would not impact existing population or employment. It should be noted, however, that this Alternative would not provide additional jobs in the City, as would the proposed Project. Whereas, the proposed Project would result in a less than significant impact involving potential population growth, this Alternative would result in no population growth.

The No Project/No Development Alternative would be neither environmentally superior nor inferior to the proposed Project regarding population growth, since the Project's potential population growth is considered unlikely. Additionally, the job creation (4,598 jobs) that would occur with the proposed Project would not occur with this Alternative.

Public Services and Utilities

The Project proposes to establish a maximum allowable development within the ESSCSP area of 4,231,547 gross square feet, or an additional 2,142,457 gross square feet over existing conditions, which would include office, warehousing, light industrial, and commercial (retail/restaurant) uses. The No Project/No Development Alternative would avoid the Project's increased demands for fire and police protection, and school and recreational facilities, since approximately 2.1 million gross square feet of new land uses would not be developed and increased calls for service would not occur. Similarly, increased demands for wastewater treatment and sewers, water supplies and conveyance facilities, solid waste disposal, and dry utilities would not occur, since new development would not occur with this Alternative. Additionally, none of the infrastructure improvements proposed by the Project would occur with this Alternative; therefore, the environmental impacts associated with their development would be avoided. The Project's impacts to public services and utilities would be less than significant with mitigation incorporated. Given that additional uses would not be constructed with this Alternative, impacts to public services and utilities would be avoided.

The No Project/No Development Alternative would be environmentally superior to the proposed Project regarding impacts to public services and utilities, since new land uses would not be developed and increased demands for services and utilities would not occur.

ABILITY TO MEET PROJECT OBJECTIVES

The No Project/Development Alternative would not attain most of the Project's basic objectives. It would not contribute to the Project's objective to create job opportunities or increase the City's economic base. This Alternative would only partially meet two of the Project objectives, since Raytheon's existing business operations would continue to contribute to the business climate that fosters a strong economic community and provides a positive contribution to the



maintenance and expansion of the City's economic base. However, new employment would not be generated. It would not meet the Project objectives of providing a range of commercial and industrial uses that would contribute to job creation opportunities or to provide multimodal improvements to the City's transportation circulation system, including enhancements to the City's roadway network, bicycle and pedestrian networks, and increase office and commercial density in close proximity to an existing light rail station.

7.1.2 "NO PROJECT/EXISTING ENTITLEMENT" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The "No Project/Existing Entitlement" Alternative proposes development of what would be reasonably expected to occur in the foreseeable future, if the Project were not approved, based on the property's current adopted entitlement. As discussed in detail in Section 3.2, Background and History, the Hughes Corporation received approval from the City in 1978 for a Precise Plan that originally approved a maximum of 2,575,000 gross square feet of development on the property, which resulted in a FAR of 0.42. Over the course of site development, various changes to the originally approved Precise Plan, including additional restrictions on the maximum allowable development on the site, were made at the request of Hughes Corporation. Development on the property is currently restricted to what is allowed under the existing amended entitlement (Precise Plan 3-78 Amendment #3 (approved as Resolution 2166 Amended August 13, 1987), which is 2,017,903 net square feet, allowing an additional 215,459 net square feet over the existing 1,802,444 net square feet. In accordance with the existing amended entitlement and assuming approximately 14 percent of the floor area would be exempt, the No Project/Existing Entitlement Alternative limits development on the property to the total identified in Precise Plan 3-78 Amendment #3 of 2,338,814 gross square feet, allowing an additional 249,724 gross square feet over existing 2,089,090 gross square feet.

Under the No Project/Existing Entitlement Alternative, no existing land uses would be demolished and the new development would follow the Campus' existing land use pattern, which involves office, laboratory, manufacturing, and warehouse uses. With this Alternative, the ESSCSP would not be adopted and the onsite development intensity would be limited to what is allowed by the Precise Plan. None of the proposed amendments to the El Segundo General Plan (General Plan) or General Plan Map, or Zoning Map/ESMC would be implemented, rather the new development would proceed in accordance with the Project site's existing land use designations and zoning. None of the improvements proposed as part of Tentative Map No. 71551 would be constructed and the property would not be subdivided into 26 separate parcels. Proposed improvements to the City's transportation circulation system, including enhancements to the City's roadway network (El Segundo Boulevard, and Continental Boulevard and Nash Street extensions), and bicycle and pedestrian networks, would not be constructed.

Table 7-1, Comparison of Proposed Project and No Project/Existing Entitlement Alternative, outlines the land uses that are assumed under the No Project/Existing Entitlement Alternative and compares them to the proposed Project. As shown in Table 7-1, this Alternative involves development of approximately 141,169 gross square feet of office, 42,092 gross square feet of laboratory, 51,764 gross square feet of manufacturing, and 14,699 gross square feet of warehouse uses. As also shown in Table 7-1, the No Project/Existing Entitlement Alternative would include laboratory and manufacturing uses, which are not proposed by the Project, and



exclude the Project's light industrial and commercial uses. This Alternative also proposes significantly less office and warehouse uses than the Project. Overall, this Alternative proposes approximately 88 percent less development than the Project.

**Table 7-1
Comparison of Proposed Project and No Project/Existing Entitlement Alternative
(Gross Square Feet Beyond Existing Conditions)**

Building	Office	Laboratory	Manufacturing	Warehouse	Light Industrial	Commercial	Total
No Project/Existing Entitlement Alternative							
Net	121,795	36,318	44,663	12,682	0	0	215,459
Exempt	19,374	5,774	7,101	2,016	0	0	34,265
Existing Entitlement Alt. Gross¹	141,169	42,092	51,764	14,699	0	0	249,724
Proposed Project	1,751,921	0	0	73,577	168,000	148,960	2,142,458
<i>Difference</i>	-1,610,752	+42,092	+51,764	-58,878	-168,000	-148,960	-1,892,734
<i>% Difference</i>	-91.9%			-80.0%	-100.0%	-100.0%	-88.3%
Notes:							
1. Derived based upon existing Campus' net and gross square foot proportions (see Table 3-1, <i>Existing Development</i>) and existing Precise Plan development restrictions, which permit an additional 215,459 net square feet of development beyond existing conditions.							

The following discussion evaluates the potential environmental impacts associated with the No Project/Existing Entitlement Alternative, as compared to impacts from the proposed Project.

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Planning

2012 RTP/SCS. The No Project/Existing Entitlement Alternative would not be considered regionally significant thus, would not be required to demonstrate consistency with the 2012 RTP/SCS. The proposed Project is anticipated to be consistent with the 2012 RTP/SCS Goals and growth forecasts.

El Segundo General Plan. The No Project/Existing Entitlement Alternative varies from the proposed Project in that an amendment to the General Plan and General Plan Land Use Element Map would not be required. This Alternative would permit development of additional office, laboratory, manufacturing, and warehouse uses, but would exclude the Project's proposed commercial and light industrial uses.

The proposed Project is concluded to be consistent with the relevant General Plan Policies, excluding Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10; see Table 5.1-1. It is likely that the significant unavoidable impact (conflict with Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10) that is anticipated with the proposed Project could be avoided with the No Project/Existing Entitlement Alternative, given this Alternative would generate approximately 94 percent fewer ADT; see Transportation and Traffic Section and Table 7-2 below.

El Segundo Municipal Code. With this Alternative, the Project's proposed Zone Change and Zone Text Amendment would not be required. Instead, the site's current Precise Plan (PP 3-78) and the applicable development standards of the Light Industrial (M-1), Open Space (OS), and Public Facilities (P-F) Zones would remain. Therefore, the new development would proceed in accordance with the existing entitlement and respective zones' requirements. Additionally, this



Alternative does not include the Project's proposed Vesting Tentative Map, subdividing the property into separate parcels. This Alternative would be consistent with the ESMC, as would the proposed Project.

Transportation and Traffic

Table 7-2, Comparison of Proposed Project and No Project/Existing Entitlement Alternative Daily Trip Generation, forecasts the No Project/Existing Entitlement Alternative trip generation and compares it to the proposed Project. As indicated in Table 7-2, this Alternative is forecast to generate approximately 1,676 ADT, assuming continuation of the Applicant's existing TDM program. Comparatively, this Alternative would generate approximately 94 percent fewer ADT than the proposed Project.

**Table 7-2
Comparison of Proposed Project and
No Project/Existing Entitlement Alternative Daily Trips
(Beyond Existing Conditions)**

Building	Office	Laboratory	Manufacturing	Warehouse	Light Industrial	Commercial	Total
No Project/Existing Entitlement Alternative							
Gross Square Feet	141,169	42,092	51,764	14,699	0	0	249,724
Daily Trip Generation Rate ¹	11.03	8.11	3.82	3.56			
Daily Trip Generation	1,557	341	198	52	0	0	2,149
TDM Program Reduction (22%)	-343	-75	-44	-12	0	0	-473
Daily Trip Generation	1,215	266	154	41	0	0	1,676
Daily Trip Generation Project							26,585
<i>Difference</i>							-24,909
<i>% Difference</i>							-94%

Source: 2012 Institute of Transportation Engineer's Trip Generation Manual, 9th Edition.

As concluded in Section 5.2, the addition of Phase 1 Project-generated trips is forecast to result in a significant unavoidable impact at study Intersection 48 under forecast near-term with Phase 1 Project conditions. As also concluded in Section 5.2, the addition of Project buildout-generated trips is forecast to result in significant unavoidable impacts at the following intersections (with feasible mitigation incorporated) for forecast long-range with Project buildout conditions:

- Study Intersections 29, 32, 38, 48, 50, 51, 53, 55, 62, and 69;
- State Highway study Intersections 7 and 13; and
- CMP study Intersections 7, 15, 18, 69, 70, and 71.

It is likely that some of the significant unavoidable impacts at these intersections that are anticipated with the proposed Project could be avoided with this Alternative, given this Alternative would generate approximately 94 percent fewer ADT; see Table 7-2. However, verification of any avoidance could be obtained only through further quantification of traffic impacts, which is beyond the scope of this analysis.



Therefore, regarding transportation and traffic, the No Project/Existing Entitlement Alternative is environmentally superior to the proposed Project, since it would generate significantly less traffic; this Alternative is likely to avoid the Project’s significant unavoidable impacts at various intersections.

Air Quality

Short-Term Impacts. Short-term air quality impacts from demolition, grading, and construction activities would occur with the No Project/Existing Entitlement Alternative due to development of the 249,724 square feet of additional land uses. The Project’s construction-related emissions would be less than significant with mitigation incorporated. Comparatively, this Alternative’s construction-related air quality impacts would be significantly less than the proposed Project, given this Alternative involves approximately 88 percent less development.

Long-Term Impacts. Long-term air quality impacts from area and mobile source pollutant emissions would occur with the No Project/Existing Entitlement Alternative, although to a lesser degree than with the proposed Project. Emissions associated with this Alternative’s area sources would be less than the proposed Project, given this Alternative proposes approximately 88 percent less development than the proposed Project; see Table 7-3, No Project/Existing Entitlement Alternative Operational Emissions. Additionally, as this Alternative’s ADT are forecast to be approximately 94 percent less than the Project’s, the resultant mobile source emissions would be proportionately reduced.

**Table 7-3
No Project/Existing Entitlement Alternative Operational Emissions**

Emissions Source	ROG	NO _x	CO
Project Area/Energy Source Emissions ¹	56.58	4.90	4.33
Alternative’s Area/Energy Emissions Reduction (88%)	-49.96	-4.33	-3.82
Project Mobile Source Emissions ¹	64.30	118.30	551.39
Alternative’s Mobile Source Emissions Reduction (94%)	-60.44	-111.32	-518.31
<i>Existing Entitlement Alternative’s Total Mitigated Emissions</i>	10	8	34
SCAQMD Threshold ¹	55	55	550
Significant Impact?	No - Avoided	No - Avoided	No - Avoided
Note: 1. Table 5.3-6, <u>Long-Term Operational Air Emissions</u> .			

The Project’s long-term combined mobile and area source pollutant emissions would exceed SCAQMD ROG, NO_x, and CO thresholds resulting in a significant unavoidable impact. The ROG, NO_x and CO significance thresholds would not be exceeded under this Alternative, thus, the Project’s significant unavoidable impacts would be avoided.

AQMP Consistency. The Project’s long-term influence would be consistent with the AQMP and SCAG goals and policies. However, the Project’s exceedance of operational ROG, NO_x, and CO thresholds would potentially result in a long-term impact on the region’s ability to meet State and Federal air quality standards. Therefore, Project impacts associated with AQMP compliance would be significant and unavoidable. As concluded above, the area and mobile source pollutant emissions reductions that would be achieved by this Alternative would be



sufficient such that the ROG, NO_x and CO thresholds would not be exceeded. Therefore, this Alternative would avoid the Project's significant unavoidable impacts associated with AQMP compliance.

Cumulative Conditions. The Project's long-term combined mobile and area source pollutant emissions would exceed SCAQMD ROG, NO_x, and CO thresholds resulting in a significant and unavoidable impact. The area and mobile source pollutant emissions reductions that would be achieved by this Alternative would be sufficient such that the ROG, NO_x and CO thresholds would not be exceeded. Therefore, this Alternative would avoid the significant and unavoidable Project impact involving long-term cumulative emissions.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding air quality impacts due to significantly fewer area and mobile source emissions. This Alternative would avoid all of the Project's significant unavoidable impacts (i.e., operational ROG, NO_x and CO, AQMP conflict, and cumulative emissions).

Greenhouse Gas Emissions

Compared to the proposed Project, the No Project/Existing Entitlement Alternative would generate significantly less GHG emissions from construction, area, and indirect sources, given this Alternative's total development would be approximately 88 percent less. Similarly, this Alternative would generate significantly less GHG emissions from mobile sources, given this Alternative's daily traffic would be approximately 94 percent less. As indicated in Table 5.4-2, Mitigated Greenhouse Gas Emissions, Project-related GHG emissions would be 5.9 MTCO₂eq per capita per year, exceeding the 4.8 MTCO₂eq per capita per year Project level GHG threshold. Therefore, Project GHG emissions impacts would be significant and unavoidable. Since the No Project/Existing Entitlement Alternative would generate significantly less GHG emissions, this Alternative would avoid the Project's significant unavoidable impact associated with GHG emissions.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding GHG emissions due to significantly less GHG emissions from construction, area, indirect, and mobile sources.

Noise

Short-term noise impacts from grading and construction activities would occur with the No Project/Existing Entitlement Alternative due to construction of the proposed buildings and improvements. The Project's construction-related noise impacts would not exceed the established noise standards, thus, resulting in a less than significant impact. The Project's construction-related vibration impacts are also anticipated to be less than significant. Comparatively, construction-related short-term noise impacts from stationary and mobile sources, and vibration impacts would still occur but be substantially less than with the proposed Project, given this Alternative involves significantly less development. Therefore, the short-term construction-related noise and vibration impacts that would occur with the proposed Project would be reduced with this Alternative.

Project implementation would result in less than significant impacts from mobile noise sources on the surrounding roadway network. The long-term noise impacts from additional vehicular travel on the surrounding roadway network that would occur with the No Project/Existing



Entitlement Alternative would be significantly less than with the proposed Project, given this Alternative would generate approximately 94 percent less traffic. Therefore, although less than significant, the Project's long-term noise impacts from mobile sources would be reduced when compared to this Alternative.

Project implementation would result in less than significant impacts from stationary (e.g., mechanical equipment, slow-moving trucks, parking areas) noise sources. The No Project/Existing Entitlement Alternative would generate significantly less noise from stationary sources than the proposed Project, since this Alternative involves approximately 88 percent less development.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding noise, since it would result in significantly less short-term construction-related, and long-term operational mobile or stationary source noise impacts than the Project.

Geology and Soils

Less than significant impacts (with mitigation incorporated) involving soil erosion or the loss of topsoil from grading and excavation operations would occur with the proposed Project. Comparatively, this Alternative's impacts involving soil erosion would be significantly less than the proposed Project, since this Alternative involves approximately 88 percent less development.

The proposed Project would result in less than significant impacts involving seismicity, geology, and soils with mitigation incorporated. Comparatively, this Alternative's impacts involving seismicity, geology, and soils would be significantly less than the proposed Project, given this Alternative would expose significantly fewer persons (employees, see [Table 7-4](#) below) and structures to potential hazards.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding seismicity, geology, and soils, given it would expose fewer persons and structures to potential hazards.

Hazards and Hazardous Materials

Similar to the proposed Project, short-term construction-related impacts involving the potential for accidental release of hazardous materials (e.g., ACMs, LBPs, USTs) would occur with the No Project/Existing Entitlement Alternative, since ground-disturbing activities would still occur, but to a significantly lesser degree. Less than significant potential impacts (with mitigation incorporated) involving the accidental release of hazardous materials from construction activities would occur with the Project. Comparatively, this Alternative involves approximately 88 percent less development than the proposed Project. Thus, the potential for hazards would occur but would be significantly reduced.

Raytheon's current operations, which involve both hazardous materials storage and hazardous waste generation, would also continue with the No Project/Existing Entitlement Alternative. This Alternative would not involve closure and onsite relocation of the existing hazardous materials storage facility and closure of the existing RCRA-permitted hazardous waste storage facility as is currently proposed by the Project. Future development under this Alternative would consist of



office, laboratory, manufacturing and warehouse uses. It is anticipated that hazardous materials would be routinely used, stored, and/or handled onsite during operations associated with these future uses. The primary land uses that could involve hazardous waste accumulation and storage would be laboratory and manufacturing uses, which are proposed by this Alternative. Similar to the proposed Project, the long-term impacts involving the potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and accident conditions involving the release of hazardous materials would occur with this Alternative but to a significantly lesser degree than with the Project. For both this Alternative and the Project, less than significant impacts would occur following compliance with the established regulatory framework and recommended mitigation.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding impacts due to potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and conditions involving the release of hazardous materials, given it involves significantly less development.

Hydrology and Water Quality

The No Project/Existing Entitlement Alternative would result in short-term impacts to water quality associated with grading, excavation, and construction activities. With the proposed Project, less than significant potential impacts (with mitigation incorporated) would occur related to water quality impacts from construction activities. Given this Alternative involves approximately 88 percent less development, the short-term impacts would be significantly less than those anticipated from the proposed Project, although construction of BMPs to address storm water runoff recommended for the proposed Project would also be required.

The No Project/Existing Entitlement Alternative would result in long-term operational impacts to water quality and quantity, because permeable surfaces would be replaced with impermeable surfaces, new land uses would operate on the Project site, and an increase in traffic activities would occur. The post-construction BMPs that would be constructed with the proposed Project would also be constructed with this Alternative; thus, pollutants in storm water runoff would be addressed within the development areas. Additionally, drainage improvements would be provided to accommodate the anticipated uses under this Alternative. The Project's operational impacts involving long-term drainage and water quality would be less than significant with mitigation. Comparatively, within newly developed areas, this Alternative would result in significantly less impacts involving drainage and water quality than the Project, since it involves significantly less development. The existing condition includes large amounts of legal non-conforming impermeable surface that are not compliant with current storm water quality requirements. Thus, the long-term operational impacts to water quality and quantity associated with the existing conditions that would be retained under this Alternative would continue, since the post-construction BMPs to address pollutants in storm water runoff and new drainage improvements that would be constructed with the proposed Project in those areas would not be constructed with this Alternative. Therefore, Project implementation would result in a long-term improvement to storm water quality and quantity, since there would be less impermeable surface and the Project would achieve compliance with current storm water quality and onsite retention requirements in areas that would not be developed under this Alternative.

The No Project/Existing Entitlement Alternative would be neither environmentally superior nor inferior to the proposed Project regarding hydrology and water quality impacts. Although construction activities would not occur and new land uses would not be developed with this



Alternative, neither would physical improvements that would result in storm water quality improvements and off-site storm water quantity reductions.

The No Project/Existing Entitlement Alternative would be neither environmentally superior nor inferior to the proposed Project regarding hydrology and water quality impacts. Although, this Alternative proposes substantially less development, it also proposes less long-term improvements to storm water quality and quantity.

Population and Housing

As indicated in Table 5.9-9, Project implementation would increase the City's employment by approximately 9.5 percent (4,598 jobs) over existing conditions (48,533 jobs). This employment growth could result in population growth within the City, as the potential exists that future employees (and their families) would choose to relocate to the City. As concluded in Section 5.9, the Project's potential population growth is considered less than significant given: there are only 325 vacant units in the City at present (potential maximum population growth is 763 persons, although 100 percent occupancy is not likely); numerous alternative housing opportunities are available to the future employees in surrounding cities; and new jobs could be filled in part by the unemployed persons who already reside locally. As shown in Table 7-4, Comparison of Proposed Project and No Project/Existing Entitlement Alternative Employment Generation, the employment growth associated with this Alternative would be significantly less (approximately 91 percent or 4,182 fewer employees) than the Project. Therefore, the less than significant impact involving potential population growth that would occur with the proposed Project would occur also with this Alternative.

**Table 7-4
Comparison of Proposed Project and No Project/Existing
Entitlement Alternative Employment Generation**

Building	Office	Laboratory	Manufacturing	Warehouse	Total
No Project/Existing Entitlement Alternative					
Square Feet (SF)	141,169	42,092	51,764	14,699	249,724
Employment Factor (SF per employee) ¹	440	1,796	829	1,518	
Employment Existing Entitlement Alternative	321	23	62	10	416
Employment Proposed Project					4,598
<i>Difference</i>					-4,182
<i>% Difference</i>					-91%
1. Southern California Association of Governments Website, Employment Density Study Summary Report, October 31, 2001, Page 4, http://www.scag.ca.gov/pdfs/Employment_Density_Study.pdf , Accessed March 25, 2013.					

The No Project/Existing Entitlement Alternative would be neither environmentally superior nor inferior to the proposed Project regarding population growth. Additionally, significantly less job creation (4,182 fewer jobs) would occur with this Alternative, than with the proposed Project.

Public Services and Utilities

The No Project/Existing Entitlement Alternative would result in increased demands for fire and police protection, and school and recreational facilities, and increased wastewater generation and demand for water supplies, because new land uses would be developed and increased calls for service would occur. The Project's impacts to public services and utilities would be less



than significant. Comparatively, this Alternative's impacts to public services and utilities would be significantly less than the proposed Project, given this Alternative involves significantly less development. Therefore, the less than significant (with mitigation incorporated) impacts to public services and utilities that would occur with the proposed Project would occur also with this Alternative.

The No Project/Existing Entitlement Alternative would be environmentally superior to the proposed Project regarding impacts to public services and utilities, since it involves significantly less development.

ABILITY TO MEET PROJECT OBJECTIVES

The No Project/Existing Entitlement Alternative would allow onsite development in accordance with the existing amended Precise Plan (Resolution 2166, as amended on August 13, 1987), for an additional 249,724 gross square feet of land uses above existing conditions. Although to a significantly lesser degree than the proposed Project, this Alternative would meet two of the Project objectives by contributing to the business climate that fosters a strong economic community and providing a positive contribution to the maintenance and expansion of the City's economic base. It would not meet the Project objectives of providing a range of commercial and industrial uses that would contribute to job creation opportunities or to provide multimodal improvements to the City's transportation circulation system, including enhancements to the City's roadway network, bicycle and pedestrian networks, and increase office and commercial density in close proximity to an existing light rail station.

7.2 "ALTERNATIVE SITE" ALTERNATIVE

As previously noted, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). Only locations that would avoid or substantially lessen any of the Project's significant effects need be considered for inclusion.

The Applicant does not retain any ownership rights to other properties within the City limits and there are no other infill sites available that are adequately sized and environmentally compatible. The largest undeveloped land area available in the City is approximately 54 acres located east of Sepulveda Boulevard on Rosecrans Avenue, adjacent to the existing Plaza El Segundo Shopping Center and "The Point" Shopping Center, which is the currently under construction. This site is crossed by various rail lines complicating development of the site. The site also has limited street access and limited means to create access across the site or to create multiple access points to major roadways. Therefore, no potentially feasible alternative site alternatives were identified as available for analysis.

7.3 "RAYTHEON ONLY" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Raytheon Only Alternative would be generally the same as the proposed Project in that it would involve approval of a Specific Plan that would establish a maximum allowable development within the ESSCSP area of 4,231,547 gross square feet, or an additional



2,142,457 gross square feet over existing conditions. However, the Project's proposed commercial (retail/restaurant) uses would be excluded with this Alternative and replaced by additional office, warehousing, and light industrial uses. As with the proposed Project, this Alternative involves the following entitlements: a Specific Plan; General Plan and General Plan Land Use Element Map Amendments; Zone Change and Zone Text Amendment; and a Vesting Tentative Map subdividing the property into separate parcels. Additionally, the Raytheon Only Alternative assumes the Applicant's current Transportation Demand Management (TDM) program, which achieves an average daily trip (ADT) reduction of approximately 22 percent,⁶ is implemented also for the proposed office, warehousing, and light industrial uses.

Table 7-5, Comparison of Proposed Project and Raytheon Only Alternative, outlines the land uses that are assumed under the Raytheon Only Alternative and compares them to the proposed Project. As indicated in Table 7-5, this Alternative assumes the following land uses: approximately 1,882,830 square feet of office; 79,075 square feet of warehouse; and 180,553 square feet of light industrial. Similar to the proposed Project, this Alternative would enable development with any combination of permitted land uses, provided that the FAR does not exceed the specified development square footage (at a maximum FAR of 0.6) and that the resultant peak hour vehicle trips do not exceed the specified peak hour trip ceiling. As compared to the proposed Project, the Raytheon Only Alternative would exclude commercial uses (148,960 square feet) and include approximately 7.5 percent more office, warehouse, and light industrial uses (approximately 130,909 square feet, 5,498 square feet, and 12,553 square feet, respectively); see Table 7-5.

**Table 7-5
Comparison of Proposed Project and Raytheon Only Alternative
(Gross Square Feet)**

Building	Office	Warehouse	Light Industrial	Commercial	Total
<i>Raytheon Only Alternative¹</i>	1,882,830	79,075	180,553	0	2,142,458
Proposed Project	1,751,921	73,577	168,000	148,960	2,142,458
<i>Difference</i>	+130,909	+5,498	+12,553	-148,960	0
<i>% Difference</i>	+7.5%	+7.5%	+7.5%	-100.0%	0
Notes:					
1. Derived based upon proposed Project gross square foot proportions (see <u>Table 3-4, Land Use Summary</u>).					

IMPACT COMPARISON TO THE PROPOSED PROJECT

Land Use and Planning

2012 RTP/SCS. Similar to the proposed Project, the Raytheon Only Alternative would be considered regionally significant. It must therefore demonstrate consistency with the 2012 RTP/SCS. Given that this Alternative would be generally the same as the proposed Project regarding development capacity and transportation infrastructure improvements, this Alternative is anticipated to be consistent with the 2012 RTP/SCS Goals and growth forecasts.

⁶ Based on a survey of existing employees, which showed the following alternative modes of transportation: 0% walk; 1% bicycle; 9% car pool; 6% van pool; 12% light rail.



El Segundo General Plan. This Alternative assumes General Plan and General Plan Land Use Element Map Amendments changing the land use designations from Light Industrial, Open Space, and Public Facilities, to Specific Plan would be required, similar to the proposed Project. As with the proposed Project, this Alternative would require approval of a Specific Plan that establishes a maximum allowable development within the Specific Plan area of 4,231,547 gross square feet, or an additional 2,142,457 gross square feet over existing conditions. However, as discussed above, the Raytheon Only Alternative would exclude commercial uses and increase office, warehouse, and light industrial uses by approximately 7.5 percent. The Project's proposed Commercial/Office Mixed Use (CMU) land use designation would be excluded under this Alternative.

The proposed Project is concluded to be consistent with the relevant General Plan Policies, excluding Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10; see Table 5.1-1, General Plan Policy Consistency Analysis. Given that this Alternative would be the same as the proposed Project in most regards (i.e., proposed land uses, development capacities, infrastructure improvements), this Alternative is similarly anticipated to be mostly consistent with the relevant General Plan Policies. Although this Alternative would generate approximately 35 percent fewer ADT, it is not likely that the significant unavoidable impact (conflict with Circulation Element Policies C1-1.2, C1-1.5, and C1-1.10) that is anticipated with the proposed Project could be avoided with the Raytheon Only Alternative, since one or more intersection would operate deficiently under this Alternative; see *Transportation and Traffic* Section and Table 7-6 below.

El Segundo Municipal Code. This Alternative assumes a Zone Change and Zone Text Amendment changing the site's zoning from Light Industrial (M-1), Open Space (OS), and Public Facilities (P-F) Zones, to Specific Plan, and a Vesting Tentative Map subdividing the property into separate parcels, would be required, similar to the proposed Project. Given that this Alternative would be the same as the proposed Project in most regards, this Alternative is similarly anticipated to be consistent with the ESMC.

Transportation and Traffic

Table 7-6, Comparison of Proposed Project and Raytheon Only Alternative Daily Trip Generation, forecasts the Raytheon Only Alternative trip generation and compares it to the proposed Project.

**Table 7-6
Comparison of Proposed Project and Raytheon Only Alternative Daily Trip Generation**

Building	Office	Warehouse	Light Industrial	Total
Raytheon Only Alternative				
Thousand Square Feet (TSF)	1,882.83	79.07	180.55	
Daily Trip Generation Rate ¹	11.03	3.56	6.97	
Daily Trip Generation	20,768	282	1,258	22,308
TDM Program Reduction (22%)	-4,569	-62	-277	-4,908
Daily Trip Generation Raytheon Only Alternative	16,199	220	982	17,400
Daily Trip Generation Proposed Project				26,585
<i>Difference</i>				-9,185
<i>% Difference</i>				-35%
Note:				
1. 2012 Institute of Transportation Engineer's Trip Generation Manual, 9 th Edition.				



As indicated in [Table 7-6](#), this Alternative is forecast to generate approximately 17,400 ADT, assuming continuation of the Applicant's existing TDM program. Comparatively, this Alternative would generate approximately 35 percent fewer ADT than the proposed Project.

As concluded in [Section 5.2](#), the addition of Phase 1 Project-generated trips is forecast to result in a significant unavoidable impact at study Intersection 48 under forecast near-term with Phase 1 Project conditions. As also concluded in [Section 5.2](#), the addition of Project buildout-generated trips is forecast to result in significant unavoidable impacts at the following intersections (with feasible mitigation incorporated) for forecast long-range with Project buildout conditions:

- Study Intersections 29, 32, 38, 48, 50, 51, 53, 55, 62, and 69;
- State Highway study Intersections 7 and 13; and
- CMP study Intersections 7, 15, 18, 69, 70, and 71.

It is likely that some of the significant unavoidable impacts at these intersections that are anticipated with the proposed Project could be avoided with the Raytheon Only Alternative, since this Alternative would generate approximately 35 percent fewer ADT; see [Table 7-6](#). As previously noted, verification of any avoidance, however, could be obtained only through further quantification of traffic impacts, which is beyond the scope of this analysis. Notwithstanding, traffic impacts at these intersections would occur to a lesser degree than with the proposed Project, given this Alternative would generate approximately 35 percent fewer ADT.

Therefore, regarding transportation and traffic, the Raytheon Only Alternative is environmentally superior to the proposed Project; this Alternative is likely to avoid the Project's significant unavoidable impact at various intersections for forecast long-range with Project buildout conditions, since it would generate less traffic.

Air Quality

Short-Term Impacts. Short-term air quality impacts from demolition, grading, and construction activities would occur with the Raytheon Only Alternative due to construction of the proposed buildings and improvements. The Project's construction-related emissions would be less than significant with mitigation incorporated. Comparatively, this Alternative's construction-related air quality impacts would be similar to the proposed Project, given this Alternative involves similar overall development (i.e., 2,142,458 square feet).

Long-Term Impacts. Long-term air quality impacts from area and mobile source pollutant emissions would occur with the Raytheon Only Alternative, although to a lesser degree than with the proposed Project. Emissions associated with this Alternative's area sources would be similar to the proposed Project, given the development would be the same. However, as this Alternative's ADT are forecast to be approximately 35 percent less than the Project's, the resultant mobile source emissions are similarly anticipated to be approximately 35 percent less; see [Table 7-7, *Raytheon Only Alternative Operational Emissions*](#).

The Project's long-term combined mobile and area source pollutant emissions would exceed SCAQMD ROG, NO_x, and CO thresholds resulting in a significant and unavoidable impact. The mobile source pollutant emissions reduction that would be achieved by this Alternative would not be sufficient such that the ROG and NO_x thresholds would not be exceeded. However, the



CO threshold would not be exceeded under this Alternative, thus, this significant unavoidable Project impact would be avoided.

Table 7-7
Raytheon Only Alternative Operational Emissions

Emissions Source	ROG	NO _x	CO
Project Area/Energy Source Emissions ¹	56.58	4.90	4.33
Alternative's Area/Energy Emissions Reduction (0%)	-0.00	-0.00	-0.00
Project Mobile Source Emissions ¹	64.30	118.30	551.39
Alternative's Mobile Source Emissions Reduction (35%)	-22.51	-41.41	-192.99
Existing Entitlement Alternative's Total Mitigated Emissions	98	82	363
SCAQMD Threshold ¹	55	55	550
Significant Impact?	Yes	Yes	No - Avoided
Note: 1. Table 5.3-6, <i>Long-Term Operational Air Emissions</i> .			

AQMP Consistency. The Project's long-term influence would be consistent with the AQMP and SCAG goals and policies, however, the Project's exceedance of operational ROG, NO_x, and CO thresholds would potentially result in a long-term impact on the region's ability to meet State and Federal air quality standards. Therefore, Project impacts associated with AQMP compliance would be significant and unavoidable. As concluded above, the mobile source pollutant emissions reduction that would be achieved by this Alternative would not be sufficient such that the ROG and NO_x thresholds would not be exceeded. Therefore, as with the proposed Project, this Alternative's impacts associated with AQMP compliance would be significant and unavoidable.

Cumulative Conditions. The Project's long-term combined mobile and area source pollutant emissions would exceed SCAQMD ROG, NO_x, and CO thresholds resulting in a significant unavoidable impact. The mobile source pollutant emissions reduction that would be achieved by this Alternative would not be sufficient such that the ROG and NO_x thresholds would not be exceeded. However, the CO threshold would not be exceeded with this Alternative. Consequently, this significant unavoidable Project impact would be avoided.

The Raytheon Only Alternative would be environmentally superior to the proposed Project regarding air quality impacts, as it would generate less mobile source emissions. This Alternative would avoid the Project's significant unavoidable operational ROG and NO_x impacts. However, it would not avoid the significant unavoidable CO emissions and AQMP consistency impacts.

Greenhouse Gas Emissions

Greenhouse gas emissions (GHG) associated with this Alternative's construction, area, and indirect sources would be similar to the proposed Project, given the development would be the same. However, as this Alternative's ADT are forecast to be approximately 35 percent less than the Project's, the resultant mobile source GHG emissions are similarly anticipated to be approximately 35 percent less. The Project's total mitigated GHG emissions would exceed the per capita threshold, resulting in a significant unavoidable impact. The mobile source GHG



emissions reduction that would be achieved by this Alternative would not be sufficient such that the per capita threshold would not be exceeded. Therefore, the Project's significant unavoidable impact would not be avoided.

The Raytheon Only Alternative would be environmentally superior to the proposed Project regarding GHG emissions due to fewer mobile source GHG emissions.

Noise

Short-term noise impacts from demolition, grading, and construction activities would occur with the Raytheon Only Alternative due to construction of the proposed buildings and improvements. The Project's construction-related noise impacts would not exceed the established noise standards, thus, resulting in a less than significant impact. Comparatively, this Alternative's construction-related noise impacts would be similar to the proposed Project, given this Alternative would have the same development. Therefore, the less than significant (with mitigation incorporated) short-term noise impacts that would occur with the proposed Project would occur also with this Alternative.

Long-term noise impacts from additional vehicular travel on the surrounding roadway network would occur with the Raytheon Only Alternative. The Project's long-term noise impacts would be less than significant. Comparatively, this Alternative's mobile source noise impacts would be less than with the proposed Project, since this Alternative would generate approximately 35 percent fewer ADT. Therefore, the less than significant (with mitigation incorporated) mobile source noise impacts that would occur with the proposed Project would occur also with this Alternative.

With this Alternative, similar new land uses as the Project would operate on the Project site. Therefore, the less than significant stationary source noise impacts from mechanical equipment, slow-moving trucks, parking areas, etc. that would occur with the proposed Project would occur also with this Alternative.

The Raytheon Only Alternative would be environmentally superior to the proposed Project given less mobile source noise would be generated.

Geology and Soils

Soil erosion or the loss of topsoil from grading and excavation operations would occur with this Alternative. Comparatively, less than significant impacts (with mitigation incorporated) involving soil erosion would occur with the proposed Project, as would occur with this Alternative, due to similar construction activities.

Implementation of this Alternative would expose additional people and structures to potential adverse effects associated with seismic, geologic, and soils related hazards, since new land uses would be developed on the Project site, with resultant increased employment of persons. Comparatively, this Alternative's impacts involving seismicity, geology, and soils would be similar to the proposed Project, given this Alternative would expose a similar number of persons (employees) to potential hazards (i.e., only one percent fewer employees; see [Table 7-8](#) below). Therefore, the less than significant (with mitigation incorporated) impacts to geology and soils that would occur with the proposed Project would occur also with this Alternative.



The Raytheon Only Alternative would be neither environmentally superior nor inferior to the proposed Project regarding seismicity, geology, and soils, given it would involve similar development and employment.

Hazards and Hazardous Materials

Short-term construction-related impacts involving the potential for accidental release of hazardous materials (e.g., ACMs, LBPs, USTs) would occur with the Raytheon Only Alternative, similar to the proposed Project, since buildings/improvements would be demolished/ removed and ground-disturbing activities would occur. Comparatively, less than significant potential impacts (with mitigation incorporated) involving accidental release of hazardous materials from construction activities would occur with this Alternative, as with the Project, due to similar development types and areas.

Raytheon's current operations, which involve both hazardous materials storage and hazardous waste generation, would also continue with the Raytheon Only Alternative. Additionally, similar to the proposed Project, this Alternative involves closure and onsite relocation of the existing hazardous materials storage facility and closure of the existing RCRA-permitted hazardous waste storage facility. Future development under this Alternative would consist of office, warehouse, and light industrial uses. It is anticipated that hazardous materials would be routinely used, stored, and/or handled onsite during operations associated with these future uses. The primary land uses that could involve hazardous waste accumulation and storage are light industrial uses. The long-term impacts involving the potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and accident conditions involving the release of hazardous materials, would occur with this Alternative, similar to the proposed Project. Less than significant impacts would occur following compliance with the established regulatory framework and recommended mitigation.

The Raytheon Only Alternative would be neither environmentally superior nor inferior to the proposed Project regarding impacts due to potential for hazards to the public or environment through the handling, storage, and/or use of hazardous materials, and conditions involving the release of hazardous materials, given similar land uses.

Hydrology and Water Quality

The Raytheon Only Alternative would result in short-term impacts to water quality associated with grading, excavation, and construction activities. Comparatively, less than significant potential impacts (with mitigation incorporated) involving water quality impacts from construction activities would occur with this Alternative, as would occur with the Project, due to similar development types and locations. The construction BMPs that would be used with the proposed Project would also be used with this Alternative; thus, pollutants in storm water runoff would be addressed.

The Raytheon Only Alternative would result in long-term operational impacts to water quality and quantity, because permeable surfaces would be replaced with impermeable surfaces, new land uses would operate on the Project site, and an increase in traffic activities would occur. The post-construction BMPs that would be constructed with the proposed Project would also be constructed with this Alternative; thus, pollutants in storm water runoff would be addressed. Additionally, the Project's proposed drainage improvements would be similarly implemented with this Alternative. Comparatively, less than significant operational impacts (with mitigation



incorporated) to water quality and quantity would occur with this Alternative, as with the proposed Project.

The Raytheon Only Alternative would be neither environmentally superior nor inferior to the proposed Project regarding hydrology and water quality impacts, given it would involve similar construction activities and land use operations, requiring similar BMPs and drainage improvements.

Population and Housing

As indicated in Table 5.9-9, Project implementation would increase the City's employment by approximately 9.5 percent (4,598 jobs) over existing conditions (48,533 jobs). This employment growth could result in population growth within the City, as the potential exists that future employees (and their families) would choose to relocate to the City. As concluded in Section 5.9, the Project's potential population growth is considered less than significant given: there are only 325 vacant units in the City at present (potential maximum population growth is 763 persons, although 100 percent occupancy is not likely); numerous alternative housing opportunities are available to the future employees in surrounding cities; and new jobs could be filled in part by the unemployed persons who already reside locally. As shown in Table 7-8, Comparison of Proposed Project and Raytheon Only Alternative Employment Generation, the employment growth associated with the Raytheon Only Alternative would be only slightly less (approximately 1.0 percent or 49 fewer employees) than the Project. Therefore, the less than significant impact involving potential population growth that would occur with the proposed Project would occur also with this Alternative.

**Table 7-8
Comparison of Proposed Project and
Raytheon Only Alternative Employment Generation**

Building	Office	Warehouse	Light Industrial	Total
Raytheon Only Alternative				
Square Feet (SF)	1,882,830	79,075	180,553	2,142,458
Employment Factor (SF per employee) ¹	440	1,518	829	
Employment Raytheon Only Alternative	4,279	52	218	4,549
Employment Proposed Project				4,598
<i>Difference</i>				-49
<i>% Difference</i>				-1%
Note:				
1. Southern California Association of Governments Website, Employment Density Study Summary Report, October 31, 2001, Page 4, http://www.scag.ca.gov/pdfs/Employment_Density_Study.pdf , Accessed March 25, 2013.				

The Raytheon Only Alternative would be neither environmentally superior nor inferior to the proposed Project regarding population and employment, given that the difference in employment is nominal.

Public Services and Utilities

The Raytheon Only Alternative would result in increased demands for fire and police protection, school and library facilities, and increased wastewater generation and demand for water



supplies, because new land uses would be developed and increased calls for service would occur. The Project's impacts to public services and utilities would be less than significant with mitigation incorporated. Comparatively, this Alternative's impacts to public services and utilities would be similar to the proposed Project, given this Alternative involves similar development. Therefore, the less than significant (with mitigation incorporated) impacts to public services and utilities that would occur with the proposed Project would occur also with this Alternative.

The Raytheon Only Alternative would be neither environmentally superior nor inferior to the proposed Project regarding impacts to public services and utilities due to a similar development.

ABILITY TO MEET PROJECT OBJECTIVES

The Raytheon Only Alternative would be generally the same as the proposed Project (except for exclusion of commercial uses) in that it would involve approval of a Specific Plan that would allow an additional 2,142,457 gross square feet over existing conditions. Additionally, it would result in only nominally less employment (approximately one percent). However, this Alternative would meet Project Objectives 2 and 3 to a lesser degree. Regarding Objective 2, this Alternative would provide a more limited range of uses and limitation to the existing employer. Regarding Objective 3, the economic base expansion under this Alternative would be limited to one employer, causing sales tax instability.

7.4 "CONCEPTUAL PLAN WITH CORAL CIRCLE CONNECTION" ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The Conceptual Plan With Coral Circle Connection Alternative (Coral Circle Alternative) would be the same as the proposed Project (see [Section 3.0, Project Description](#)) in every respect, except one: this Alternative also involves a connection to Coral Circle, between and including portions of Lots 20 and 22, near the southeast corner of the Project site; see [Exhibit 3-8, Conceptual Site Plan](#). Specifically, the Coral Circle Alternative involves constructing a connection between the proposed Nash Street extension and Coral Circle's existing southern leg, near the Project site's southeast corner. A 60-foot ROW would be dedicated, consistent with Coral Circle's classification as a Local Street. Construction of the Coral Circle connection would occur before the City issued any certificate of occupancy for the Phase II development. This Alternative involves providing the Coral Circle ROW improvements, including curb/gutter, parkway trees, and roadway paving among others, pursuant to ESMC Chapter 15-24A, which outlines the standards/requirements for ROW dedications and improvements.

IMPACT COMPARISON TO THE PROPOSED PROJECT

The Coral Circle Alternative would result in similar impacts as the proposed Project regarding all environmental issue areas (as listed below), excluding Transportation and Traffic.

- Land Use and Planning;
- Air Quality;
- Greenhouse Gas Emissions;
- Noise;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Population and Housing;
- Public Services and Recreation; and
- Utilities and Service Systems.



Therefore, regarding these environmental issue areas, the Coral Circle Alternative is neither environmentally inferior nor superior to the proposed Project. This Alternative would not avoid the Project's significant unavoidable impacts involving Land Use and Planning, Air Quality, and Greenhouse Gas Emissions.

The following analysis compares the Coral Circle Alternative to the proposed Project regarding Transportation and Traffic.

Transportation and Traffic

EXISTING CONDITIONS

Coral Circle is a two-lane undivided loop road intersecting Douglas Street at two locations (i.e., north and south). There is no speed limit posted and on-street parking is permitted. According to Circulation Element Exhibit C-10, Coral Circle is classified as a "Local Street." The function of this roadway category is to "principally provide vehicular, pedestrian, and bicycle access to property abutting the public right-of-way (ROW) with movement of traffic acting only as a secondary function."⁷ Circulation Element Exhibit C-8 specifies the geometrics (minimum standards) for each roadway classification and indicates local streets (in commercial areas) have ROWs ranging from 60 to 64 feet. When new roadways are constructed or existing roadways are improved, the standards shown on Circulation Element Exhibit C-8 should be used to establish minimum and maximum right-of-way improvements.⁸

PROJECT TRIP DISTRIBUTION

Exhibit 7-1, Proposed Project With Coral Circle Connection Alternative Percent Trip Distribution (Retail Component), shows forecast trip percent distribution of the trips generated by the Project's retail component for the Coral Circle Alternative. Exhibit 7-2, Proposed Project With Coral Circle Connection Alternative Percent Trip Distribution (Non-Retail Component), shows forecast trip percent distribution of the trips generated by the Project's non-retail components for the Coral Circle Alternative.

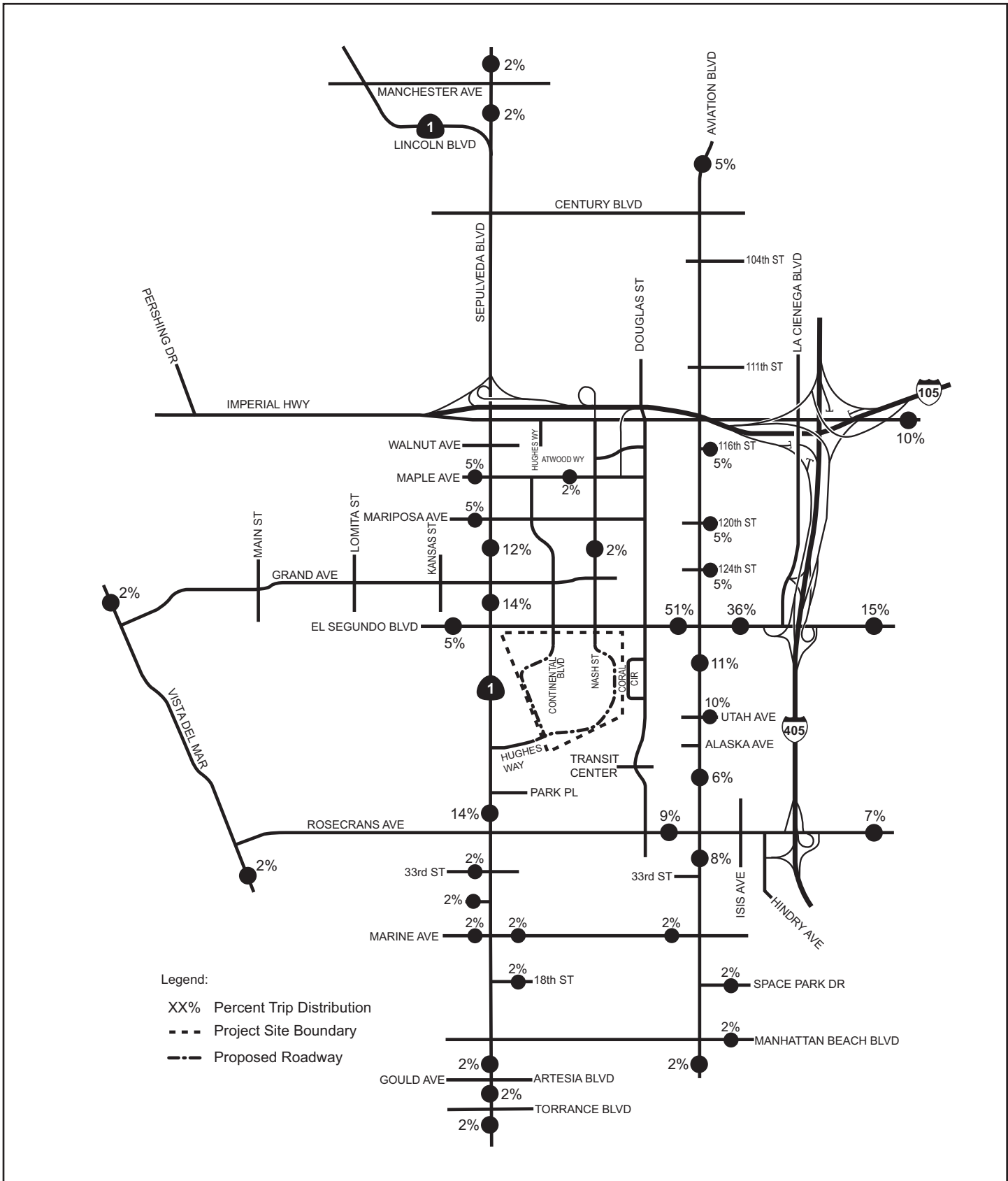
Exhibits 7-3 through Exhibit 7-6, Forecast AM/PM Peak Hour Trip Assignment of Project Buildout With Coral Circle Connection Alternative, show the corresponding a.m. and p.m. peak hour assignment of Project buildout with the Coral Circle Alternative Project-generated peak hour trips, assuming the trip percent distributions shown in Exhibit 7-1 and Exhibit 7-2.

FORECAST NEAR-TERM PHASE 1 PROJECT CONDITIONS

As concluded in Section 5.2, the addition of Phase 1 Project-generated trips is forecast to result in significant and unavoidable impacts at study Intersection 48 under forecast near-term with Phase 1 Project conditions. This significant unavoidable Phase 1 Project impact at this intersection could potentially be avoided with this Alternative, given the redistribution of traffic that would occur with the Coral Circle connection. However, verification of any avoidance could be obtained only through further quantification of traffic impacts, which is beyond the scope of this analysis. Given this Alternative would generate the same traffic, as the proposed Project, the Coral Circle Alternative would be neither environmentally superior nor inferior to the proposed Project regarding forecast near-term with Phase 1 Project conditions.

⁷ City of El Segundo, *City of El Segundo General Plan Circulation Element*, Page 4-10.

⁸ *Ibid.*, Page 4-12.

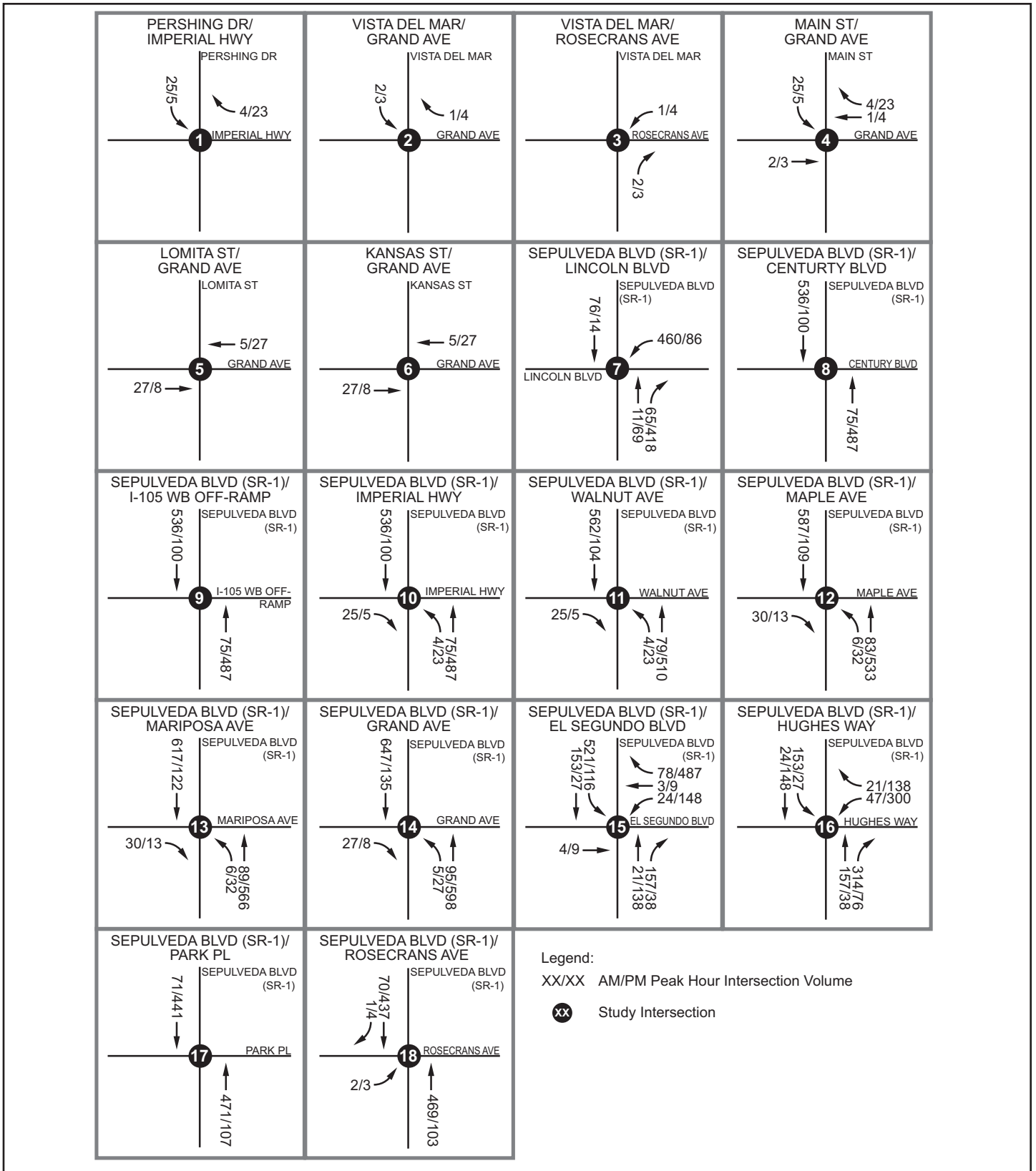


Proposed Project With Coral Circle Connection Alternative Percent Trip Distribution (Retail Component)

NOT TO SCALE



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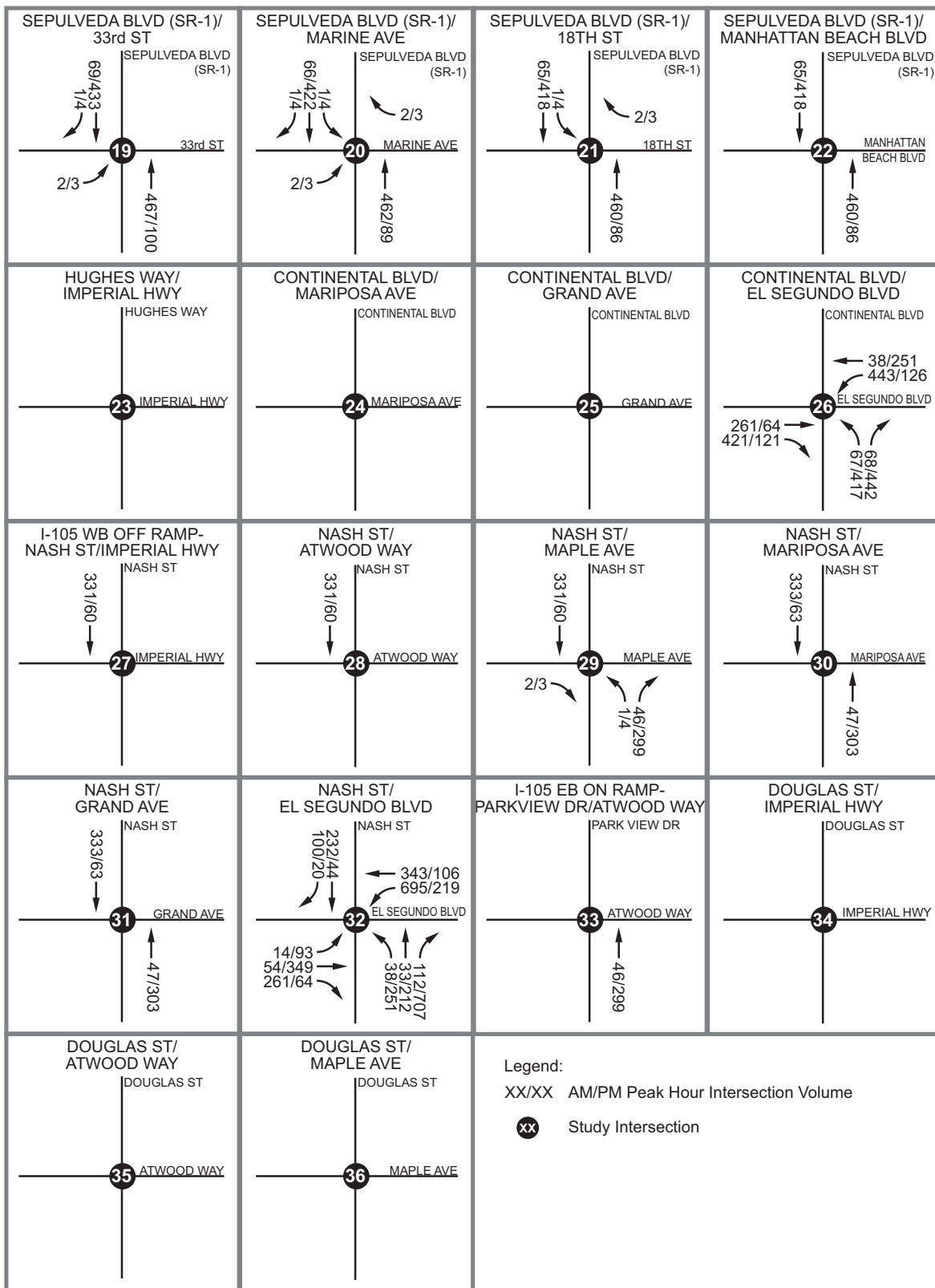


Forecast AM/PM Peak Hour Trip Assignment of Project Buildout With Coral Circle Connection Alternative (Intersections 1 – 18)

NOT TO SCALE



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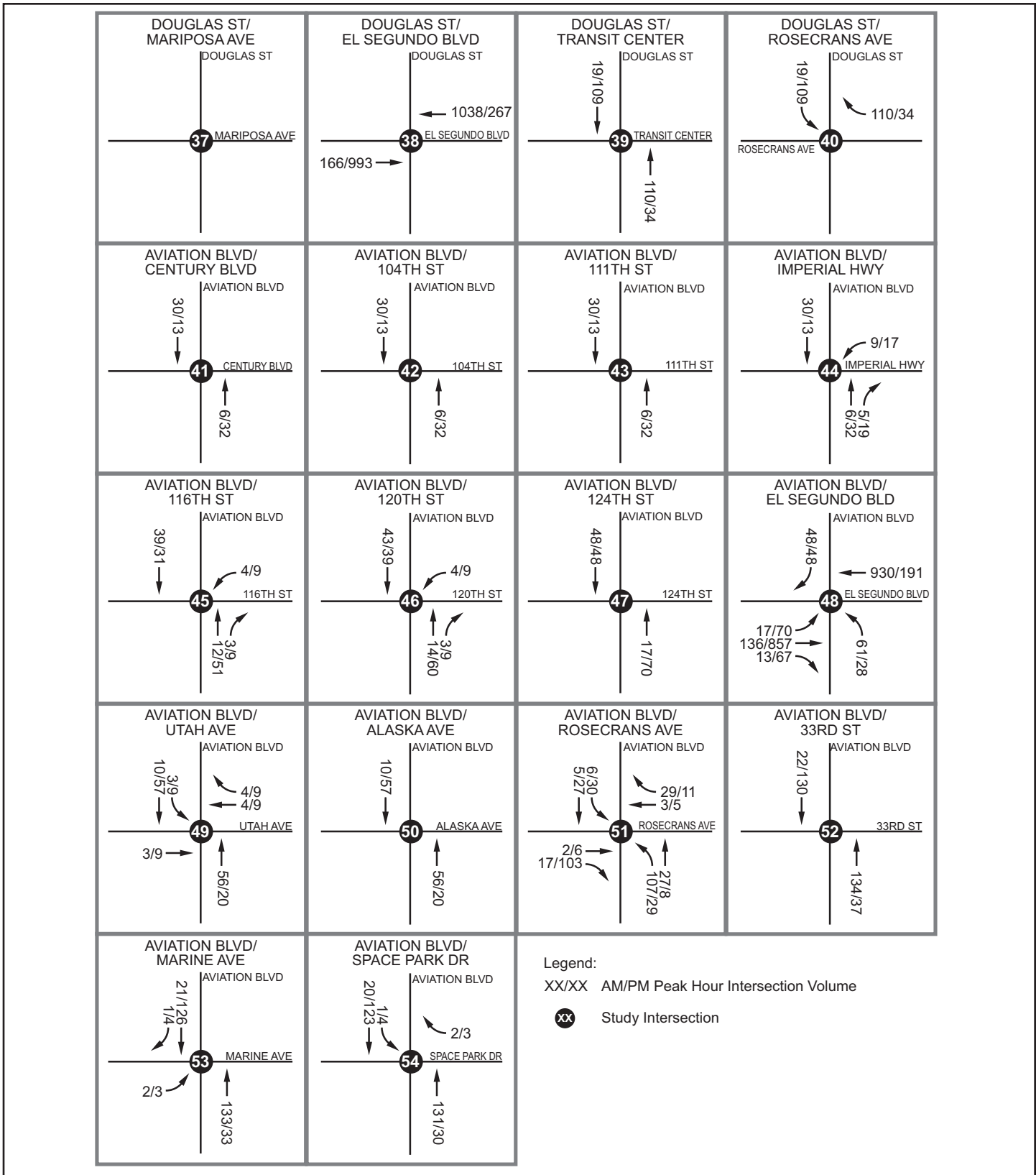
ENVIRONMENTAL IMPACT REPORT
 EL SEGUNDO SOUTH CAMPUS SPECIFIC PLAN (EA 905)

Forecast AM/PM Peak Hour Trip Assignment of Project Buildout With Coral Circle Connection Alternative (Intersections 19 – 36)

NOT TO SCALE



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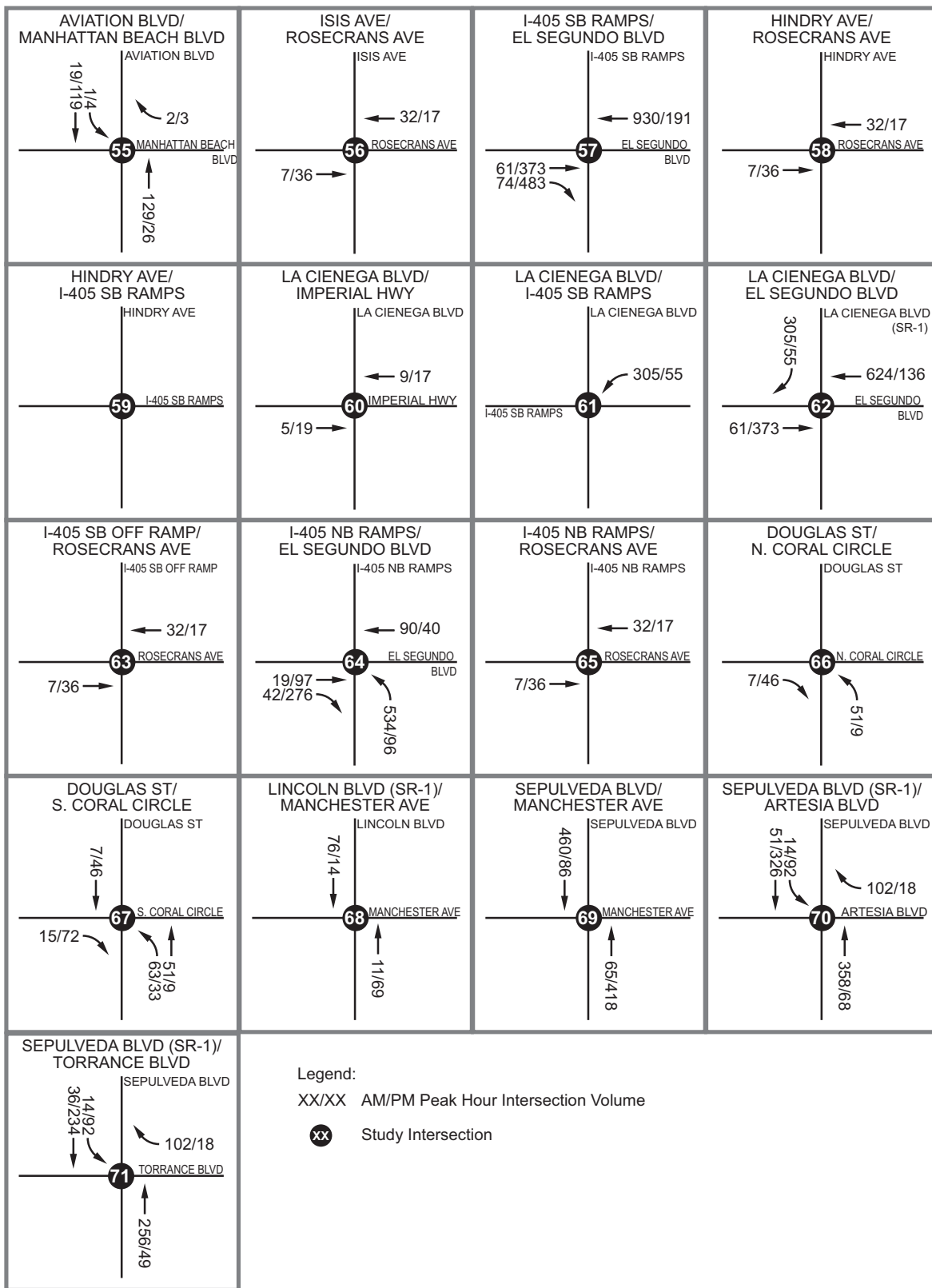
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ENVIRONMENTAL IMPACT REPORT
 EL SEGUNDO SOUTH CAMPUS SPECIFIC PLAN (EA 905)

Forecast AM/PM Peak Hour Trip Assignment of Project Buildout With Coral Circle Connection Alternative (Intersections 37 – 54)



NOT TO SCALE



07/14 • JN 10-107917 (130148)

ENVIRONMENTAL IMPACT REPORT
 EL SEGUNDO SOUTH CAMPUS SPECIFIC PLAN (EA 905)

Forecast AM/PM Peak Hour Trip Assignment of Project Buildout With Coral Circle Connection Alternative (Intersections 55 – 71)



FORECAST LONG-RANGE WITH PROJECT BUILDOUT UNDER CORAL CIRCLE ALTERNATIVE CONDITIONS

This section analyzes the potential impacts associated with the addition of trips forecast to be generated by Project buildout to forecast long-range without Project conditions assuming the Coral Circle Alternative. This Alternative also assumes the Continental Boulevard and Nash Street extensions, as with the proposed Project.

Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Traffic Volumes

Forecast long-range with Project buildout under Coral Circle Alternative conditions a.m. and p.m. peak hour volumes were derived by adding forecast Project buildout-generated trips with Coral Circle Alternative to forecast long-range without Project conditions traffic volumes. Exhibits 7-7 through 7-10, Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions AM/PM Peak Hour Study Intersection Volumes, show forecast long-range with Project buildout under Coral Circle Alternative conditions a.m. and p.m. peak hour volumes at the study intersections.

Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Study Intersection Peak Hour LOS

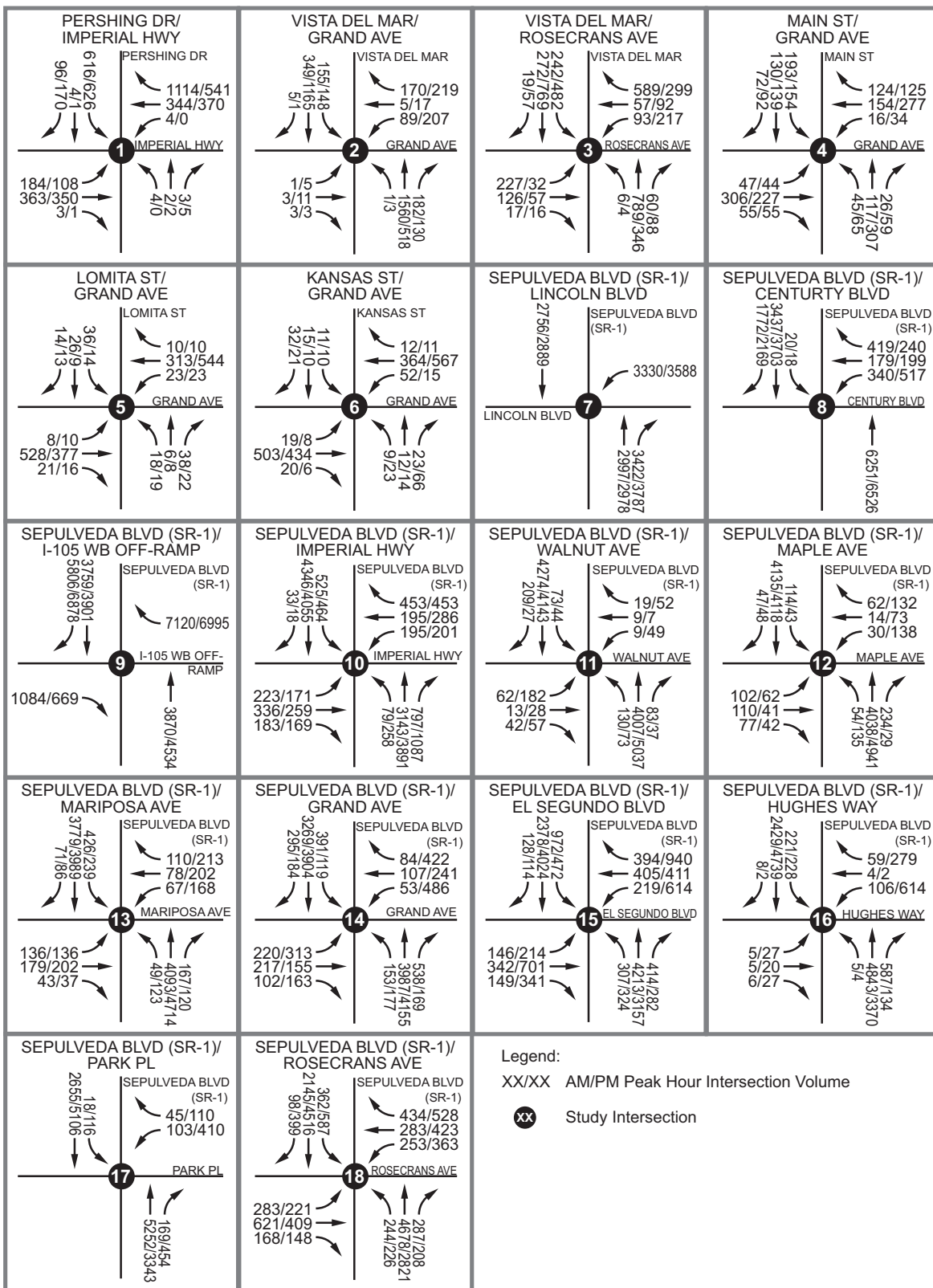
Table 7-9, Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions AM/PM Peak Hour Study Intersection LOS, summarizes forecast long-range with Project buildout under Coral Circle Alternative conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix C of Appendix 10.3.

As shown in Table 7-9, with the addition of Project buildout-generated trips, the same study intersections (Intersections 29, 32, 38, 48, 49, 51, 53, 55, and 62) would be significantly impacted for forecast long-range conditions with this Alternative, as with the proposed Project, with one exception:

- Intersection 50 (Aviation Boulevard/Alaska Avenue) – The Project's significant impact at this intersection would be avoided with this Alternative.

Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Mitigation Measures

Project Mitigation Measures TRA-1, TRA-2, TRA-3, TRA-6, and TRA-7, as identified for the proposed Project are recommended, in addition to the following mitigation, to lessen the traffic impacts at the impacted study intersections for forecast long-range with Project buildout under Coral Circle Alternative conditions.

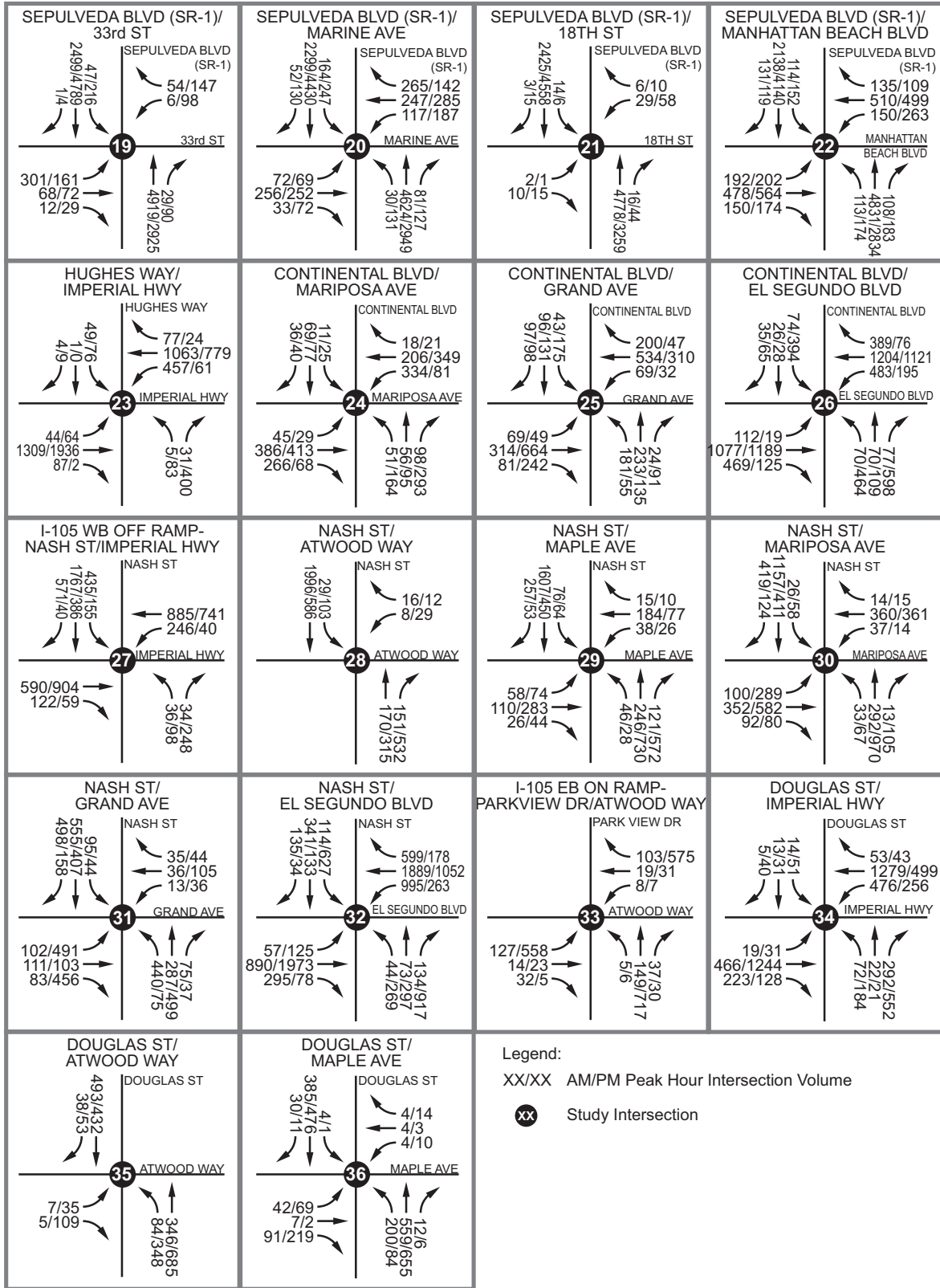


Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions AM/PM Peak Hour Study Intersection Volumes (Intersections 1 – 18)

NOT TO SCALE



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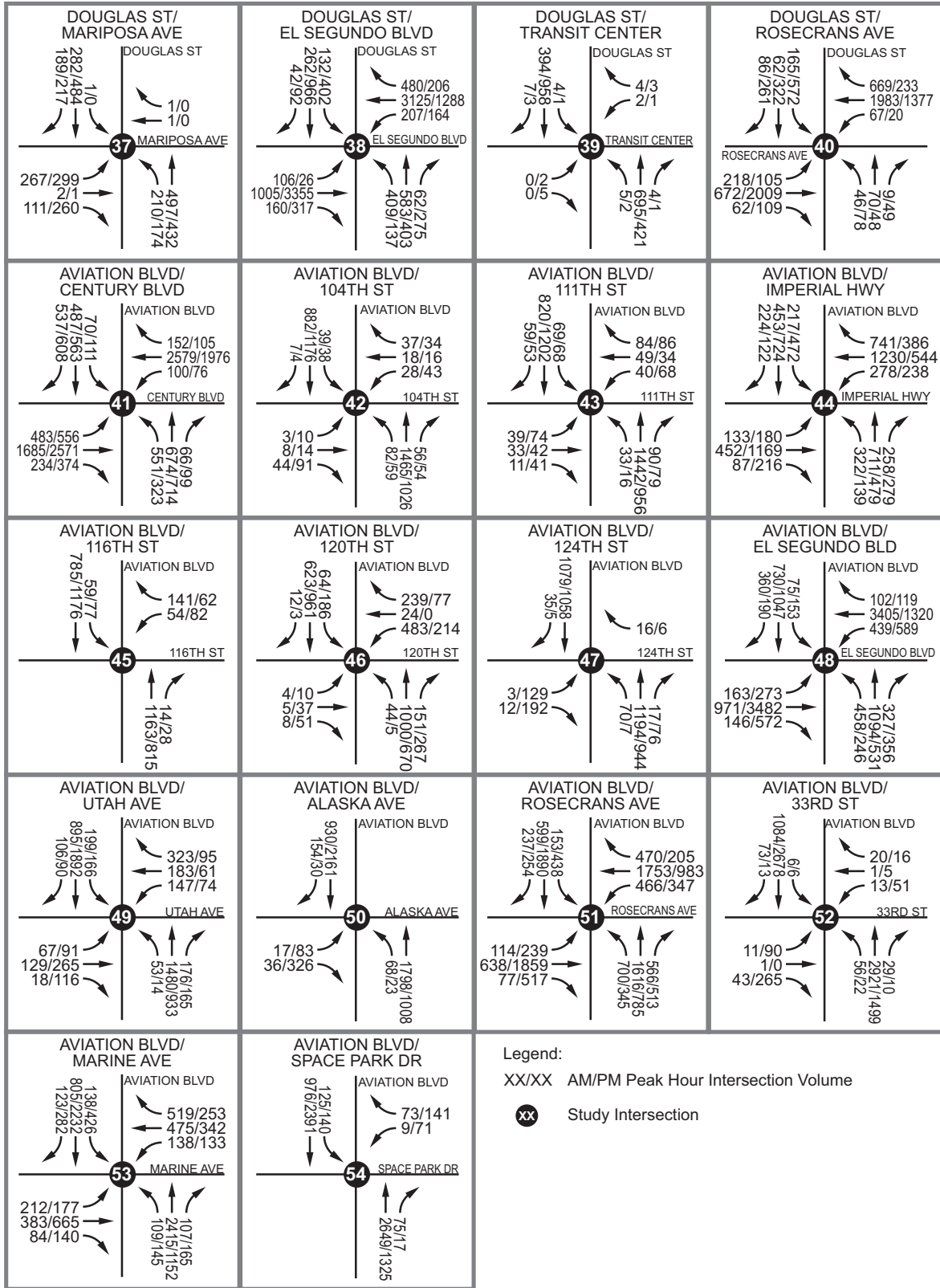


Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions AM/PM Peak Hour Study Intersection Volumes (Intersections 19 – 36)

NOT TO SCALE



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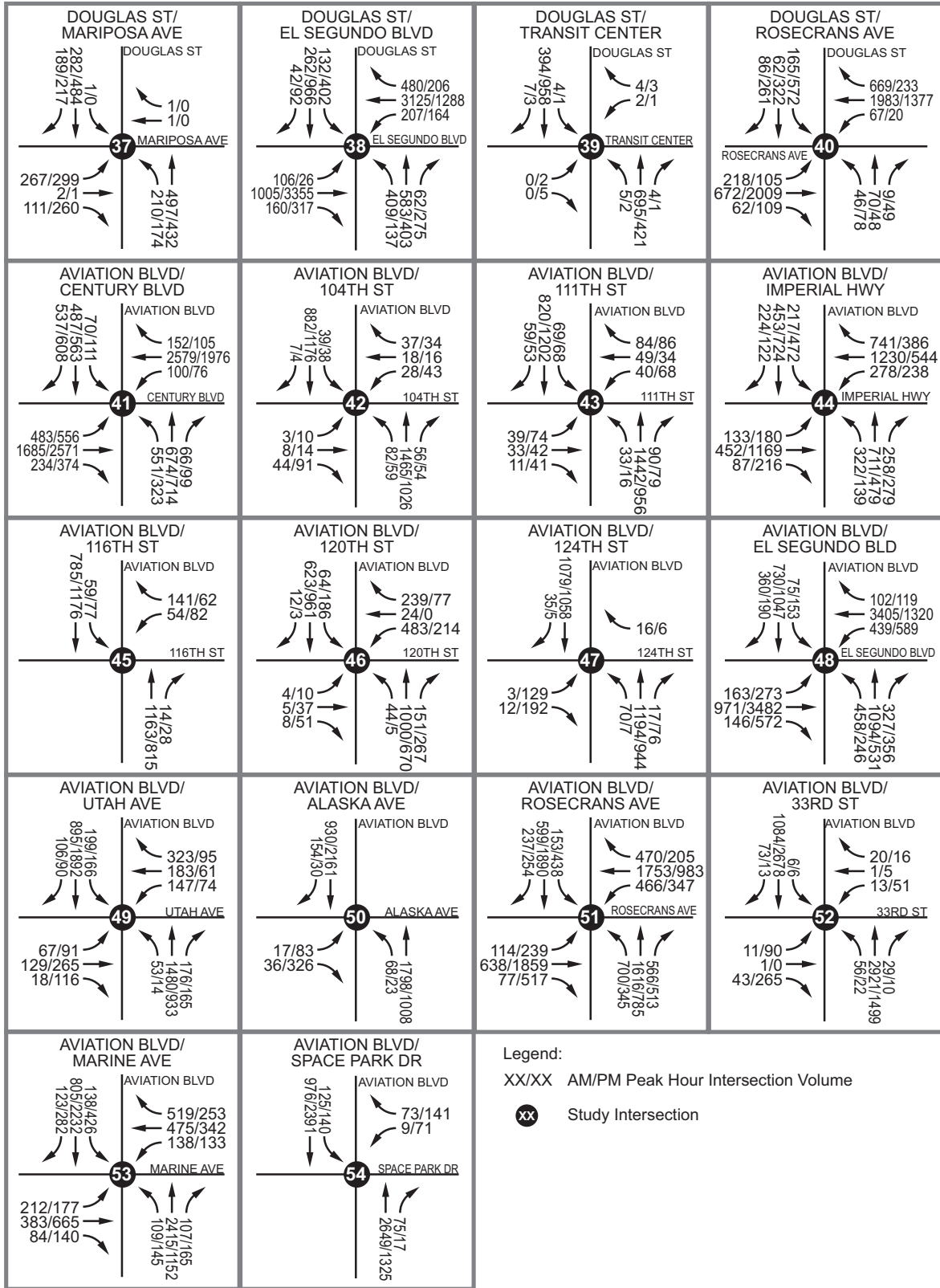


Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions AM/PM Peak Hour Study Intersection Volumes (Intersections 37 – 54)

NOT TO SCALE



07/14 • JN 10-107917 (130148)



Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions AM/PM Peak Hour Study Intersection Volumes (Intersections 55 – 71)

NOT TO SCALE



07/14 • JN 10-107917 (130148)



Mitigation Measures:

- TRA-11 Intersection 49 (Aviation Boulevard/Utah Avenue) – This intersection’s jurisdiction is shared between the Cities of El Segundo and Hawthorne. Before the City of El Segundo issues a Certificate of Occupancy for any building located in Phase II of the Project, the Project Applicant must: 1) Coordinate with and obtain concurrence from the Cities of El Segundo and Hawthorne for the improvements outlined below; 2) Payment of applicable fair share mitigation fees to fund the following improvements:
- a. Widen the eastbound approach from one shared left-turn/through lane and one shared through/right-turn lane to consist of one shared left-turn/through lane, one through lane, and one right-turn lane.
 - b. Modify the westbound signal phasing to include a right-turn overlap, which will preclude U-turn movements from southbound to northbound Aviation Boulevard.

This mitigation measure is a variation of Project Mitigation Measure TRA-4. Additionally, since the Coral Circle Alternative is forecast to avoid the significant traffic impact at study intersection 50, Project Mitigation Measure TRA-5 would not be necessary.

Similar to the proposed Project, mitigation measures at study Intersections 38, 51, 55, 62, and 69 are considered infeasible due to right-of-way limitations and existing structures.

**Table 7-9
Forecast Long-Range With Project Buildout With Coral Circle Connection
Alternative Conditions AM/PM Peak Hour Study Intersection LOS**

Study Intersection	Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Connection Alt Conditions		Delta V/C ¹		Significant Impact?	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²				
SIGNALIZED								
1	Pershing Drive/ Imperial Highway	0.517 – A	0.452 – A	0.518 – A	0.453 – A	0.001	0.001	No
2	Vista Del Mar/ Grand Avenue	0.850 – D	0.613 – B	0.852 – D	0.615 – B	0.002	0.002	No
3	Highland Avenue/ Rosecrans Avenue	0.875 – D	0.772 – C	0.875 – D	0.774 – C	0.000	0.002	No
4	Main Street/ Grand Avenue	0.400 – A	0.483 – A	0.417 – A	0.495 – A	0.017	0.012	No
5	Lomita Street/ Grand Avenue	0.339 – A	0.317 – A	0.347 – A	0.326 – A	0.008	0.009	No
6	Kansas Street/ Grand Avenue	0.335 – A	0.352 – A	0.344 – A	0.361 – A	0.009	0.009	No
23	Hughes Way/ Imperial Highway	0.654 – B	0.738 – C	0.654 – B	0.738 – C	0.000	0.000	No
24	Continental Boulevard/ Mariposa Boulevard	0.573 – A	0.426 – A	0.573 – A	0.426 – A	0.000	0.000	No
25	Continental Boulevard/ Grand Avenue	0.470 – A	0.477 – A	0.470 – A	0.477 – A	0.000	0.000	No



**Environmental Impact Report
El Segundo South Campus Specific Plan (EA 905)**

Study Intersection	Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Connection Alt Conditions		Delta V/C ¹		Significant Impact?	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²	Hour	Hour		
26	Continental Boulevard/ El Segundo Boulevard	0.518 – A	0.552 – A	0.618 – B	0.739 – C	0.100	0.187	No
28	Nash Street/ Atwood Way	0.631 – B	0.515 – A	0.734 – C	0.515 – A	0.103	0.000	No
29	Nash Street/ Maple Avenue	0.878 – D	0.773 – C	0.996 – E	0.886 – D	0.118	0.113	Yes
30	Nash Street/ Mariposa Avenue	0.688 – B	0.676 – B	0.792 – C	0.770 – C	0.104	0.094	No
31	Nash Street/ Grand Avenue	0.800 – C	0.704 – C	0.818 – D	0.723 – C	0.018	0.019	No
32	Nash Street/ El Segundo Boulevard	0.632 – B	0.751 – C	0.802 – D	1.199 – F	0.170	0.448	Yes
34	Douglas Street/ Imperial Highway	0.461 – A	0.589 – A	0.461 – A	0.589 – A	0.000	0.000	No
35	Douglas Street/ Atwood Way	0.260 – A	0.476 – A	0.260 – A	0.476 – A	0.000	0.000	No
36	Douglas Street/ Maple Avenue	0.369 – A	0.399 – A	0.369 – A	0.399 – A	0.000	0.000	No
37	Douglas Street/ Mariposa Avenue	0.434 – A	0.517 – A	0.434 – A	0.517 – A	0.000	0.000	No
38	Douglas Street/ El Segundo Boulevard	0.829 – D	1.065 – F	1.045 – F	1.271 – F	0.216	0.206	Yes
39	Douglas Street/ Transit Center	0.289 – A	0.373 – A	0.323 – A	0.407 – A	0.034	0.034	No
40	Douglas Street/ Rosecrans Avenue	0.683 – B	0.775 – C	0.690 – B	0.775 – C	0.007	0.000	No
41	Aviation Boulevard/ Century Boulevard	1.163 – F	1.057 – F	1.172 – F	1.061 – F	0.009	0.004	No
42	Aviation Boulevard/ 104th Street	0.625 – B	0.603 – B	0.627 – B	0.608 – B	0.002	0.005	No
43	Aviation Boulevard/ 111th Street	0.657 – B	0.604 – B	0.659 – B	0.608 – B	0.002	0.004	No
44	Aviation Boulevard/ Imperial Highway	0.830 – D	0.769 – C	0.831 – D	0.785 – C	0.001	0.016	No
45	Aviation Boulevard/ 116th Street	0.551 – A	0.504 – A	0.556 – A	0.519 – A	0.005	0.015	No
46	Aviation Boulevard/ 120th Street	0.753 – C	0.564 – A	0.760 – C	0.588 – A	0.007	0.024	No
47	Aviation Boulevard/ 124th Street	0.489 – A	0.542 – A	0.504 – A	0.557 – A	0.015	0.015	No
48	Aviation Boulevard/ El Segundo Boulevard	1.117 – F	1.254 – F	1.320 – F	1.443 – F	0.203	0.189	Yes
49	Aviation Boulevard/ Utah Avenue	0.963 – E	0.901 – E	0.986 – E	0.922 – E	0.023	0.021	Yes
50	Aviation Boulevard/ Alaska Avenue	0.655 – B	0.869 – D	0.673 – B	0.887 – D	0.018	0.018	No
51	Aviation Boulevard/ Rosecrans Avenue	0.795 – C	0.911 – E	0.803 – D	0.926 – E	0.008	0.015	Yes
52	Aviation Boulevard/ 33rd Street	0.712 – C	0.759 – C	0.740 – C	0.786 – C	0.028	0.027	No
53	Aviation Boulevard/ Marine Avenue	1.140 – F	0.928 – E	1.169 – F	0.952 – E	0.029	0.024	Yes



Study Intersection	Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Connection Alt Conditions		Delta V/C ¹		Significant Impact?	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²				
54	Aviation Boulevard/ Space Park Drive	0.743 – C	0.638 – B	0.771 – C	0.664 – B	0.028	0.026	No
55	Aviation Boulevard/ Manhattan Beach Boulevard	0.984 – E	1.004 – F	1.013 – F	1.041 – F	0.029	0.037	Yes
56	Isis Avenue/ Rosecrans Avenue	0.760 – C	0.766 – C	0.765 – C	0.772 – C	0.005	0.006	No
58	Hindry Avenue/ Rosecrans Avenue	0.670 – B	0.804 – D	0.675 – B	0.804 – D	0.005	0.000	No
60	La Cienega Boulevard/ Imperial Highway	0.569 – A	0.678 – B	0.571 – A	0.682 – B	0.002	0.004	No
62	La Cienega Boulevard/ El Segundo Boulevard	0.906 – E	0.945 – E	1.132 – F	1.022 – F	0.226	0.077	Yes
69	Sepulveda Boulevard/ Manchester Avenue	1.222 – F	1.139 – F	1.236 – F	1.227 – F	0.014	0.088	Yes
UN SIGNALIZED								
Study Intersection	Delay ³ – LOS	Delay ³ – LOS	Delay ³ – LOS	Delay ³ – LOS	Delta Delay ³		Significant Impact?	
66	Douglas Street/ Coral Circle North	20.4 – C	68.6 – F	20.3 – C	43.1 – E	-0.1	-25.500	No
67	Douglas Street/ Coral Circle South	17.2 – C	27.5 – D	16.2 – C	27.0 – D	-1.0	-0.500	No
Notes:								
1. V/C = volume to capacity ratio.								
2. Deficient intersection operation shown in bold .								
3. Delay shown in seconds per vehicle.								

Mitigated Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Intersection Peak Hour LOS

Table 7-10, Mitigated Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions AM/PM Peak Hour Intersection LOS, summarizes forecast long-range with Project buildout under Coral Circle Alternative conditions assuming implementation of the identified feasible mitigation measures. Exhibits 7-11 and Exhibit 7-12, Mitigated Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions Study Intersection Geometry, show feasible mitigated forecast long-range with Project buildout under Coral Circle Alternative conditions study intersection geometry.

As shown in Table 7-10, assuming implementation of the identified feasible mitigation measure, the traffic impacts at study Intersection 49 would be reduced to less than significant, with this Alternative, as with the Project. As also shown in Table 7-10, despite implementation of the identified feasible mitigation measures, the traffic impacts at study Intersections 29, 32, 48, and 53 would remain significant and unavoidable for forecast long-range with Project buildout under Coral Circle Alternative conditions. Overall, the traffic impacts at study Intersections 29, 32, 38, 48, 51, 53, 55, 62, and 69 would remain significant and unavoidable for forecast long-range with Project buildout under Coral Circle Alternative conditions. Comparatively, the significant unavoidable impacts at study intersections with the Coral Circle Alternative are the same as with the proposed Project, with one exception:



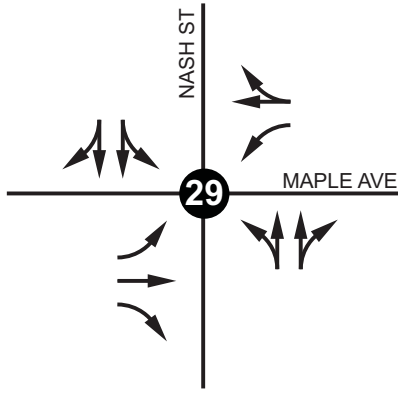
- Intersection 50 (Aviation Boulevard/Alaska Avenue) – The Project’s significant unavoidable impact at this intersection would be avoided with this Alternative.

**Table 7-10
Mitigated Forecast Long-Range With Project Buildout With Coral Circle
Connection Alternative Conditions AM/PM Peak Hour Intersection LOS**

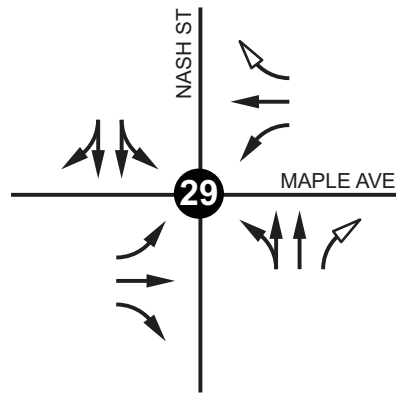
Study Intersection		Forecast Long-Range Without Project Conditions		Mitigated Forecast Long-Range Without Project Buildout With Coral Circle Connection Alt Conditions		Delta V/C ¹		Significant Impact?
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
		V/C – LOS ²	V/C – LOS ²	V/C – LOS ²	V/C – LOS ²			
29	Nash Street/ Maple Avenue	0.878 – D	0.773 – C	0.949 – E	0.828 – D	0.071	0.055	Yes
32	Nash Street/ El Segundo Boulevard	0.632 – B	0.751 – C	0.783 – C	1.015 – F	0.151	0.264	Yes
48	Aviation Boulevard/ El Segundo Boulevard	1.117 – F	1.254 – F	1.298 – F	1.443 – F	0.181	0.189	Yes
49	Aviation Boulevard/ Utah Avenue	0.963 – E	0.901 – E	0.895 – D	0.886 – D	-0.068	-0.015	No
53	Aviation Boulevard/ Marine Avenue	1.140 – F	0.928 – E	1.082 – F	0.947 – E	-0.058	0.019	Yes

Notes:
 1. V/C = volume to capacity ratio.
 2. Deficient intersection operation shown in **bold**.

NASH ST/MAPLE AVE

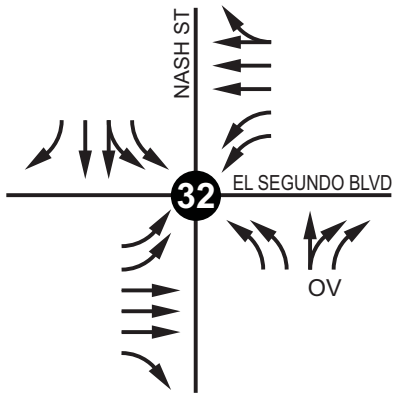


EXISTING

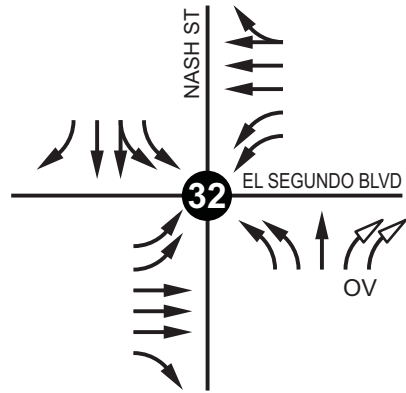


AM & PM: MITIGATED - IMPACT REMAINS SIGNIFICANT

NASH ST/EL SEGUNDO BLVD

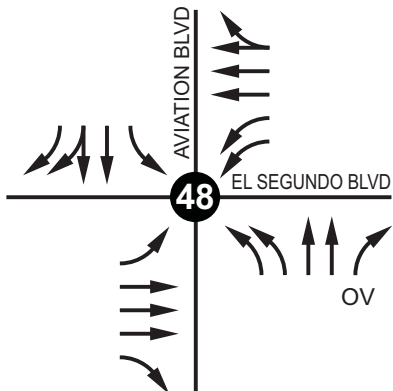


EXISTING

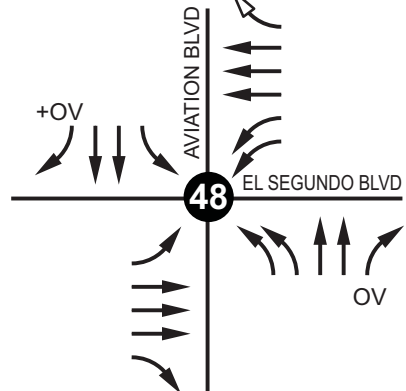


AM & PM: MITIGATED - IMPACT REMAINS SIGNIFICANT

AVIATION BLVD/EL SEGUNDO BLVD



EXISTING



AM & PM: MITIGATED - IMPACT REMAINS SIGNIFICANT

Legend:

- ← Existing Lane
- ↔ Modified Lane
- ↪ ov Right-Turn Overlap
- +OV Add Right-Turn Overlap

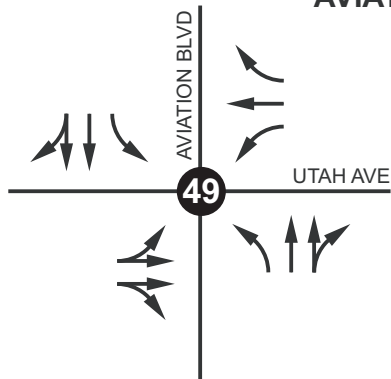
**Mitigated Forecast Long-Range With Project Buildout
With Coral Circle Alternative Conditions
Study Intersection Geometry (Intersections 29, 32 & 48)**

NOT TO SCALE

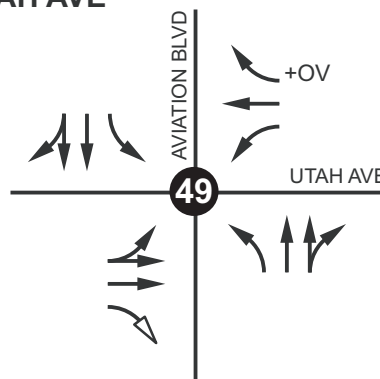


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AVIATION BLVD/UTAH AVE

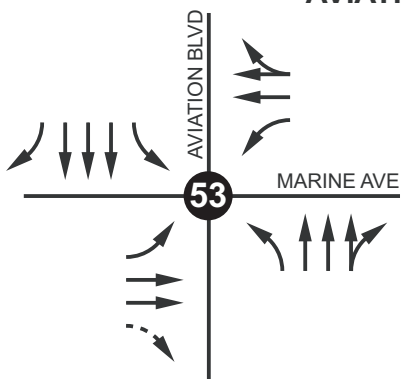


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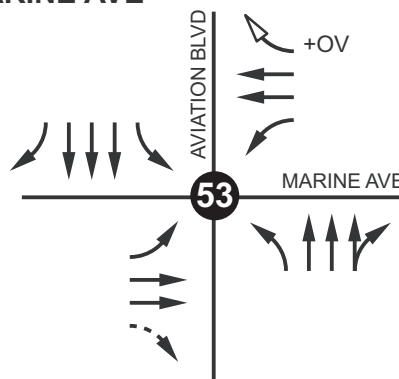


AM & PM: MITIGATED TO LEVEL LESS THAN SIGNIFICANT

AVIATION BLVD/MARINE AVE

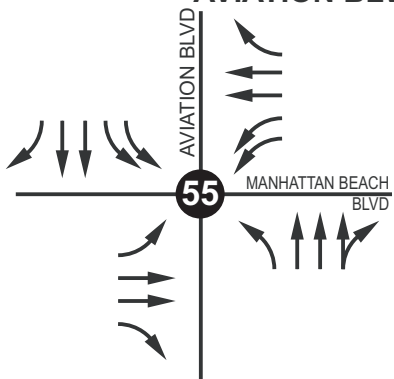


EXISTING

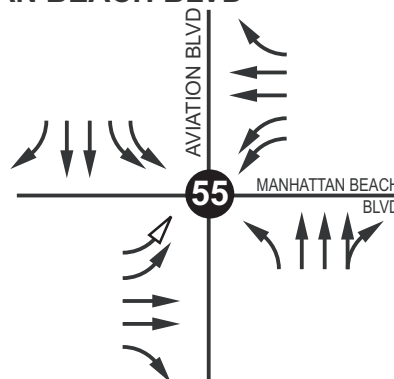


AM: MITIGATED TO LEVEL LESS THAN SIGNIFICANT
PM: IMPACT REMAINS SIGNIFICANT

AVIATION BLVD/MANHATTAN BEACH BLVD



EXISTING



AM: MITIGATED TO LEVEL LESS THAN SIGNIFICANT
PM: IMPACT REMAINS SIGNIFICANT

Legend:

- ← Existing Lane
- ↔ Modified Lane
- ↔ Defacto Right-Turn Lane
- ↔^{ov} Right-Turn Overlap
- +OV Add Right-Turn Overlap

Mitigated Forecast Long-Range With Project Buildout
With Coral Circle Alternative Conditions

Study Intersection Geometry (Intersections 49, 53 & 55)





**Forecast Long-Range With Project Buildout Under Coral Circle
Alternative Conditions State Highway Study Intersection Peak Hour LOS**

Table 7-11, *Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions AM/PM Peak Hour State Highway Intersection LOS*, summarizes forecast long-range with Project buildout under Coral Circle Alternative conditions a.m. and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix C of Appendix 10.3.

**Table 7-11
Forecast Long-Range With Project Buildout With Coral Circle Connection
Alternative Conditions AM/PM Peak Hour State Highway Intersection LOS**

Study Intersection	Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Connection Alt Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Delay ¹ - LOS ²	Delay ¹ - LOS ²	Delay ¹ - LOS ²	Delay ¹ - LOS ²	
7 Sepulveda Boulevard (SR-1)/Lincoln Boulevard	32.9 – C	57.5 – E	48.1 – D	64.5 – E	Yes
8 Sepulveda Boulevard (SR-1)/Century Boulevard	74.5 – E	103.8 – F	74.6 – E	120.2 – F	No
9 Sepulveda Boulevard (SR-1)/I-105 WB Off-Ramp	999.9 – F	999.9 – F	999.9 – F	999.9 – F	No
10 Sepulveda Boulevard (SR-1)/Imperial Highway	56.5 – E	86.6 – F	65.8 – E	110.9 – F	No
11 Sepulveda Boulevard (SR-1)/Walnut Avenue	11.2 – B	21.6 – C	12.7 – B	34.2 – C	No
12 Sepulveda Boulevard (SR-1)/Maple Avenue	14.0 – B	15.9 – B	16.7 – B	20.6 – C	No
13 Sepulveda Boulevard (SR-1)/Mariposa Avenue	20.8 – C	34.3 – C	23.0 – C	58.6 – E	Yes
14 Sepulveda Boulevard (SR-1)/Grand Avenue	57.4 – E	109.5 – F	61.4 – E	142.2 – F	No
15 Sepulveda Boulevard (SR-1)/El Segundo Boulevard	103.5 – F	126.9 – F	177.4 – F	259.3 – F	No
16 Sepulveda Boulevard (SR-1)/Hughes Way	8.1 – A	16.3 – B	16.0 – B	32.0 – C	No
17 Sepulveda Boulevard (SR-1)/Park Place	5.9 – A	13.6 – B	7.6 – A	17.4 – B	No
18 Sepulveda Boulevard (SR-1)/Rosecrans Avenue	56.7 – E	93.5 – F	78.2 – E	120.2 – F	No
19 Sepulveda Boulevard (SR-1)/33 rd Street	69.7 – E	188.4 – F	102.1 – F	230.4 – F	No
20 Sepulveda Boulevard (SR-1)/Marine Avenue	95.7 – F	95.2 – F	129.1 – F	121.7 – F	No
21 Sepulveda Boulevard (SR-1)/18 th Street	11.8 – B	9.7 – A	33.6 – C	23.2 – C	No
22 Sepulveda Boulevard (SR-1)/Manhattan Beach Boulevard	139.2 – F	133.2 – F	172.9 – F	160.8 – F	No
27 Nash Street – I-105 WB ³ Off-Ramp/Imperial Highway	27.3 – C	25.7 – C	29.7 – C	26.4 – C	No
33 I-105 EB On-Ramp/Atwood Way	21.1 – C	24.8 – C	20.9 – C	32.2 – C	No
57 I-405 SB Ramps/El Segundo Boulevard	12.7 – B	24.1 – C	30.7 – C	63.4 – E	Yes
59 Hindry Avenue/I-405 SB Ramps	27.1 – C	26.9 – C	27.1 – C	26.9 – C	No
61 La Cienega Boulevard/I-405 SB Ramps	26.3 – C	27.0 – C	25.6 – C	27.1 – C	No
63 I-405 SB Off-Ramp/Rosecrans Avenue	465.3 – F	50.8 – F	479.7 – F	52.5 – F	No
64 I-405 NB Ramps/El Segundo Boulevard	22.6 – C	11.9 – B	30.7 – C	13.8 – B	No
65 I-405 NB Ramps/Rosecrans Avenue	16.4 – B	12.0 – B	16.4 – B	12.0 – B	No

Notes:

1. Delay shown in seconds per vehicle
2. Deficient intersection operation shown in **bold**.
3. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound.



As shown in Table 7-11, with the addition of Project buildout-generated trips, the same State Highway study intersections (Intersections 7, 13, and 57) would be significantly impacted with this Alternative, as with the proposed Project.

Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Mitigation Measures

Project Mitigation Measures TRA-8 and TRA-9, as identified for the proposed Project, are recommended to lessen the traffic impacts at State Highway impacted study intersections for forecast long-range with Project buildout under Coral Circle Alternative conditions. Similar to the proposed Project, mitigation at State Highway study Intersection 7 is considered infeasible due to right-of-way limitations and existing structures.

Mitigated Forecast Long-Range With Project Under Coral Circle Alternative Conditions State Highway Intersection Peak Hour LOS

Table 7-12, Mitigated Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions AM/PM Peak Hour State Highway Study Intersection LOS, summarizes forecast long-range with Project buildout under Coral Circle Alternative conditions assuming implementation of the identified feasible mitigation measures.

**Table 7-12
Mitigated Forecast Long-Range With Project Buildout With Coral Circle Connection
Alternative Conditions AM/PM Peak Hour State Highway Study Intersection LOS**

Study Intersection	Forecast Long-Range Without Project Conditions		Mitigated Forecast Long-Range With Project Buildout With Coral Circle Alt Connection Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Delay ¹ LOS ²	Delay ¹ - LOS ²	Delay ¹ - LOS ²	Delay ¹ - LOS ²	
13 Sepulveda Boulevard (SR-1)/Mariposa Avenue	20.8 – C	34.3 – C	22.5 – C	41.4 – D	Yes
57 I-405 SB ³ Ramps/El Segundo Boulevard	12.7 – B	24.1 – C	30.4 – C	31.7 – C	No

Notes:

1. Delay shown in seconds per vehicle.
2. Deficient intersection operation shown in **bold**.
3. SB = Southbound.

As shown in Table 7-12, assuming implementation of the identified feasible mitigation measure, the traffic impacts at State Highway study Intersection 57 would be reduced to less than significant, with this Alternative, as with the Project. As also shown in Table 7-12, despite implementation of the identified feasible mitigation measure, the traffic impacts at State Highway study Intersection 13 would remain significant and unavoidable for forecast long-range with Project buildout under Coral Circle Alternative conditions. Overall, the traffic impacts at State Highway study Intersections 7 and 13, would remain significant and unavoidable for forecast long-range with Project buildout under Coral Circle Alternative conditions. Comparatively, the significant unavoidable impacts at State Highway study intersections with the Coral Circle Alternative are the same as with the proposed Project.



Table 7-13, *Forecast Long-Range Without Project and Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions Off-Ramp Queue Analysis*, summarizes the results for the off-ramp movement queue analysis at the study off-ramps for forecast long-range with Project buildout under Coral Circle Alternative conditions; detailed queue analysis sheets are contained in Appendix C of Appendix 10.3.

**Table 7-13
Forecast Long-Range Without Project and Forecast Long-Range With Project Buildout
With Coral Circle Connection Alternative Conditions Off-Ramp Queue Analysis**

Location	Freeway Off-Ramp Queue Storage Provided (feet)	Forecast Off-Ramp Queue				Adequate Off-Ramp Storage Provided?
		Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Connection Alternative Conditions		
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
I-105 WB Off-Ramp at NB Sepulveda Boulevard (SR-1)	4,460	7,325	7,325	7,475	7,350	No
I-105 WB Off-Ramp at Imperial Highway	2,660	200	225	250	250	Yes
I-405 SB Off-Ramp at El Segundo Boulevard	2,450	300	500	125	700	Yes
I-405 SB Off-Ramp at Hindry Avenue	1,300	450	100	450	100	Yes
I-405 SB Off-Ramp at La Cienega Boulevard	1,410	300	350	400	350	Yes
I-405 SB Off-Ramp at Rosecrans Avenue	1,160	835	218	845	223	Yes
I-405 NB Off-Ramp at El Segundo Boulevard	2,715	425	225	750	275	Yes
I-405 NB Off-Ramp at Rosecrans Avenue	1,710	325	225	325	225	Yes
Notes: Queue shown in feet; NB = Northbound; SB = Southbound; WB = Westbound.						

As shown in Table 7-13, similar to the proposed Project, adequate queue storage is forecast to be provided at the study off-ramp locations for forecast long-range with Project buildout under Coral Circle Alternative conditions with one exception:

- I-405 Westbound off-ramp at northbound Sepulveda Boulevard (SR-1).

Because there is no City-adopted threshold of significance for a queuing analysis, the queue analysis is provided for informational purposes only. Therefore, no impact would occur involving queue storage.

**Forecast Long-Range With Project Buildout Conditions
With Coral Circle Alternative CMP Study Intersection Peak Hour LOS**

Table 7-14, Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions CMP Study Intersection Peak Hour LOS, summarizes forecast long-range with Project buildout



under Coral Circle Alternative conditions a.m. and p.m. peak hour LOS of the CMP study intersections; detailed LOS analysis sheets are contained in Appendix C of Appendix 10.3.

**Table 7-14
Forecast Long-Range With Project Buildout With Coral Circle Alternative
Conditions CMP Study Intersection Peak Hour LOS**

CMP Study Intersection	Forecast Long-Range Without Project Conditions		Forecast Long-Range With Project Buildout With Coral Circle Alternative Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	V/C ¹ – LOS ²	V/C ¹ – LOS ²	V/C ¹ – LOS ²	V/C ¹ – LOS ²	
7 Sepulveda Boulevard (SR-1)/ Lincoln Boulevard	1.065 – F	1.157 – F	1.146 – F	1.188 – F	Yes
15 Sepulveda Boulevard (SR-1)/ El Segundo Boulevard	1.250 – F	1.255 – F	1.498 – F	1.563 – F	Yes
18 Sepulveda Boulevard (SR-1)/ Rosecrans Avenue	1.101 – F	1.240 – F	1.174 – F	1.331 – F	Yes
68 Lincoln Boulevard (SR-1)/ Manchester Avenue	1.483 – F	1.490 – F	1.485 – F	1.500 – F	No
69 Sepulveda Blvd/ Manchester Avenue	1.222 – F	1.139 – F	1.236 – F	1.227 – F	Yes
70 Pacific Coast Highway (SR-1)/Artesia Boulevard	1.261 – F	1.113 – F	1.400 – F	1.181 – F	Yes
71 Pacific Coast Highway (SR-1)/Torrance Boulevard	1.244 – F	1.253 – F	1.333 – F	1.326 – F	Yes
Notes:					
1. V/C = volume to capacity ratio.					
2. Deficient intersection operation shown in bold .					

As shown in Table 7-14, with the addition of Project buildout-generated trips, the same CMP study intersections (Intersections 7, 15, 18, 69, 70, and 71) would be significantly impacted with this Alternative, as with the proposed Project.

Forecast Long-Range With Project Buildout Under Coral Circle Alternative Conditions Mitigation Measures

Similar to the proposed Project, Mitigation Measures at CMP study Intersections 7, 15, 18, 69, 70, and 71 are considered infeasible due to right-of-way limitations and existing structures.

Overall, the traffic impacts at CMP study Intersections 7, 15, 18, 69, 70, and 71 would remain significant and unavoidable for forecast long-range with Project buildout under Coral Circle Alternative conditions. Comparatively, the significant unavoidable impacts at CMP study intersections with the Coral Circle Alternative are the same as with the proposed Project.

Therefore, regarding transportation and traffic, the Coral Circle Alternative is slightly environmentally superior to the proposed Project; this Alternative would avoid the Project's



significant unavoidable impact at study Intersection 50 for forecast long-range with Project buildout conditions.

ABILITY TO MEET PROJECT OBJECTIVES

The Conceptual Plan With Coral Circle Connection Alternative (Coral Circle Alternative) would be the same as the proposed Project in every respect, except the Coral Circle connection. Therefore, this Alternative would meet all of the Project objectives, as outlined above.

7.5 “ENVIRONMENTALLY SUPERIOR” ALTERNATIVE

According to CEQA Guidelines § 15126.6(e), “No Project” Alternative, “if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” Table 7-15, Comparison of Alternatives, summarizes the comparative analyses presented above (i.e., the Alternatives compared to the proposed Project).

**Table 7-15
Comparison of Alternatives**

Sections	No Project/No Development	No Project/ Existing Entitlement	Raytheon Only	Coral Circle Connection
Land Use and Planning*	▼	▼	=*	=*
Transportation and Traffic*	▼	▼	▼*	▼*
Air Quality*	▼	▼	▼*	=*
Greenhouse Gas Emissions*	▼	▼	▼*	=*
Noise	▼	▼	▼	=
Geology and Soils	▼	▼	=	=
Hazards and Hazardous Materials	▼	▼	▼	=
Hydrology and Water Quality	=	=	=	=
Population and Housing	▼	▼	=	=
Public Services and Utilities	▼	▼	=	=
▲ Indicates an impact that is greater than the proposed Project (environmentally inferior). ▼ Indicates an impact that is less than the proposed Project (environmentally superior). = Indicates an impact that is equal to the proposed Project (neither environmentally superior nor inferior). * Indicates a significant unavoidable impact.				

The Project proposes to establish a maximum allowable development within the ESSCSP area of 4,231,547 gross square feet, or an additional 2,142,457 gross square feet over existing conditions, which would include office, warehousing, light industrial, and commercial (retail/restaurant) uses. Therefore, as shown in Table 7-5, the No Project/No Development Alternative is the environmentally superior alternative, because it would avoid most impacts associated with development of the proposed Project. Therefore, in compliance with CEQA requirements, an environmentally superior alternative among the other alternatives is identified below.



Among the other alternatives, the environmentally superior alternative is the No Project/Existing Entitlement Alternative, given it would achieve the greatest impact reductions in various environmental issue areas. However, because this Alternative would generate 91 percent less employment than the Project, it would only nominally achieve the Project objectives.

As concluded in the analysis above, the Raytheon Only Alternative would generally lessen the impacts associated with development of the proposed Project, because it would involve different land uses and approximately 35 percent less traffic. These variations would result in corresponding and proportionately fewer impacts in the following issue areas:

- Transportation and Traffic – 35 percent less traffic volumes
- Air Quality – 35 percent less mobile source emissions;
- Greenhouse Gas Emissions - 35 percent less mobile source GHG emissions; and
- Noise – 35 percent less mobile source noise.

Additionally, because the Raytheon Only Alternative would be generally the same as the proposed Project, and would result in nominally less employment (approximately one percent less), the Alternative would meet all of the Project objectives (although, Objectives 2 and 3 to a lesser degree than the Project). Therefore, the Raytheon Only Alternative is considered the environmentally superior alternative.