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## 5.0 ALTERNATIVES

### 5.1 Introduction

The *California Environmental Quality Act (CEQA) Guidelines* require that an Environmental Impact Report (EIR) include a discussion of a reasonable range of project alternatives that would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the proposed Project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). Within that context, this Chapter discusses alternatives to the proposed Project.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6(b) through (f)) are excerpted below to explain the foundation and legal requirements for the alternatives analysis in this EIR.

- “...the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the proposed objectives, or would be more costly (15126.6(b)).
- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6(e)(1)). "The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, 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. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (15126.6(e)(2)).
- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making" (15126.6(f)).
- "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 (or the site is already owned by the proponent)" (15126.6(f)(1)).
- For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (15126.6(f)(2)(A)).
- "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example,

## 5. Alternatives

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in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location" (15126.6(f)(2)(B)).

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6(f)(3)).

### 5.2 Significant Impacts of the Proposed Project

As addressed in this Draft EIR, the proposed Project would create unavoidable temporary significant impacts during construction related to the following environmental topics:

- Air Quality – Construction
- Human Health Risk – Acute non-cancer health hazard index for acrolein during construction

Other potentially significant impacts have been identified; however, all of these impacts would be reduced to less-than-significant levels with implementation of project design features, BMPs, and applicable LAX Master Plan EIS/EIR Commitments identified in their respective environmental topic chapters of this EIR.

### 5.3 Project Objectives

As called for by the CEQA Guidelines, the achievement of project objectives must be balanced by the ability of an alternative to reduce the significant impacts of the proposed Project. The proposed Project's objectives include:

#### RSA Improvements Objectives

- Satisfy P.L. 109-115, which requires all 14 CFR Part 139 certificated airports to bring their RSAs into compliance with FAA airport design standards no later than December 31, 2015;
- Satisfy 14 CFR Part 139 certification requirements; and
- Minimize effects on the existing airfield and aircraft operations.

#### Pavement Reconstruction Objectives

- The primary objective of the Pavement Reconstruction component of the proposed Project is to address poor pavement conditions and extend the life of Runway 6L-24R and associated taxiways to maintain its usage as the primary arrivals runway for the North Airfield.

Any evaluated alternative should meet as many of these proposed Project objectives as possible. In addition, while not specifically required under CEQA, other parameters may be used to further establish criteria for selecting alternatives such as adjustments to project phasing, conformance to all existing zoning requirements, and other "fine-tuning" that could shape feasible alternatives in a manner that may result in reducing identified environmental impacts. In some instances, when the proposed Project results in environmental impacts that

are reduced to less-than-significant levels with mitigation, an alternative may reduce these less-than-significant impacts even further.

### 5.4 Alternatives to the Proposed Project

As described at the beginning of this chapter, the significant impacts associated with the proposed Project pertain to construction activities only. Alternatives presented in this section include: (1) potential alternatives that were initially considered but were screened-out from further consideration due to their infeasibility or readily apparent inability to avoid or substantially reduce the significant impacts of the Project; and (2) design alternatives/variations that are fully evaluated. Also, as required by CEQA, the "no project" alternative is addressed in this section. Alternatives that are considered remote or speculative, or whose effects cannot be reasonably predicted do not require consideration. Therefore, feasibility, the potential to mitigate significant project-related impacts, and reasonably inform decision-makers are the primary considerations in the selection and evaluation of alternatives.

#### 5.4.1 Potential Alternatives Screened-Out from Further Consideration

##### 5.4.1.1 Alternative Sites and Operational Alternatives

Alternative sites were not analyzed because the proposed Project is designed specifically to bring the Runway 6L-24R and Runway 6R-24L RSAs in compliance with FAA RSA design standards and to replace the pavement at the specified locations. RSA Improvements and pavement reconstruction at alternative sites would not address the compliance issues and deteriorating Runway 6L-24R pavement. For this reason, alternative sites for the proposed Project were not considered as feasible alternatives.

##### 5.4.1.1.1 Use of Alternative Modes of Transportation Alternative

The primary objective of the proposed Project is to enhance RSAs for Runway 6L-24R and Runway 6R-24L consistent with FAA AC 150/5300-13A, *Airport Design*, as required by P.L. 109-115. The use of alternative modes of transportation to replace some or all of the air transportation activity at LAX does not meet this objective because the Runway 6L-24R and Runway 6R-24L RSAs would still fail to meet FAA airport design standards, and safety would not be enhanced as required by P.L. 109-115. In addition, FAA and LAWA do not have the authority to compel LAX airport users to use other modes of transportation. The Use of Alternative Modes of Transportation Alternative was, therefore, eliminated from further consideration in this EIR.

##### 5.4.1.1.2 Use of Other Public Airports Alternative

The primary objective of the proposed Project is to enhance RSAs for Runway 6L-24R and Runway 6R-24L consistent with FAA airport design standards. The use of other area public airports to replace some or all of the air transportation activity at LAX does not meet this objective because the RSAs for Runway 6L-24R and Runway 6R-24L at LAX would still fail to meet applicable FAA airport design standards, and safety would not be enhanced as required

## **5. Alternatives**

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by P.L. 109-115. In addition, FAA and LAWA do not have the authority to divert air transportation activity from LAX to other area airports. The Use of Other Public Airports Alternative was, therefore, eliminated from further consideration in this EIR.

### **5.4.1.1.3 Use of Alternative Aircraft Alternative**

The primary objective of the proposed Project is to enhance RSAs for Runway 6L-24R and Runway 6R-24L consistent with FAA airport design standards. The use of alternative aircraft to replace some or all of the transportation activity at LAX does not meet the objectives of the proposed Project because the RSAs for Runway 6L-24R and Runway 6R-24L would still fail to meet the applicable FAA airport design standards, and safety would not be enhanced, as required by P.L. 109-115. In addition, FAA and LAWA do not have the authority to compel airlines to use alternative aircraft. The Use of Alternative Aircraft Alternative was, therefore, eliminated from further consideration in this EIR.

Off-site and operational alternatives such as alternative modes of transportation, use of other public airports, or the use of alternative aircraft would not meet the objectives of the proposed Project. The implementation of off-site or operational alternatives would fail to enhance the RSAs for Runway 6L-24R and Runway 6R-24L at LAX, which would still fail to meet applicable FAA airport design standards, as required by P.L. 109-115. Off-site and operational alternatives have therefore been eliminated from further consideration in this Draft EIR.

### **5.4.1.2 On-Site Alternatives**

#### **5.4.1.2.1 Construct Standard RSA Alternative**

This alternative proposes the construction of standard RSAs on both runways. It removes all objects located within the standard RSA dimensions (500 feet wide centered on the runway centerline extending 1,000 feet beyond the ends of the runway).

#### **Runway 6L-24R**

At the east end, the Runway 6L localizer, an access road, and a perimeter fence would be relocated outside of the RSA. Additionally, the commercial vehicle holding lots located east of the runway would require reconfiguration to accommodate the relocation of the Runway 6L localizer and service road. Along the northern edge of the RSA, portions of a service road would be relocated and a portion of the Argo Ditch would be covered. Lincoln Boulevard would be realigned to allow for the relocated service road and to remain clear of the runway object free area (OFA). This alternative would maintain all current take-off and landing distances.

#### **Runway 6R-24L**

All objects that are in the current RSAs or that would fall within the extended RSAs would be relocated. At the east end, the Runway 6R localizer, a service road, a perimeter fence and parking facilities would be relocated outside the RSA. At the west end, a section of Pershing Drive would be tunneled under the RSA, and portions of the service road and perimeter fence would be relocated outside the RSA. An extensive amount of earthwork would be necessary in the dunes to comply with RSA grading standards. This alternative maintains all existing take-off and landing distances for Runways 6R and 24L.

### Evaluation

Because this alternative would provide standard RSAs, it addresses the Project objectives associated with complying with FAA airport design standards. In addition, Runway 6L and Runway 24R would maintain current take-off and landing distances. However, this alternative would not be practical to implement and would not meet the required implementation schedule. At the east end of Runway 6L-24R, this alternative would require a portion of Lincoln Boulevard to be realigned to accommodate the standard RSA as well as realignment of a service road. At the west end of Runway 6R-24L this alternative would require tunneling of Pershing Drive to accommodate the standard RSA. Due to the high cost associated with relocation of Lincoln Boulevard and the tunneling of Pershing Drive, and the inability to implement these improvements before December 31, 2015, this alternative was eliminated from further consideration in this EIR.

#### **5.4.1.2.2 Reduce Runway Length Alternative**

##### Runway 6L-24R

This alternative would meet all RSA requirements by reducing the runway length from 8,925 feet to 7,532 feet. At the east end, the Runway 24R threshold would be relocated 1,393 feet west to provide for 1,000 feet of RSA and allow Lincoln Boulevard to remain outside the OFA. The runway pavement east of the Runway 24R threshold would be demolished, portions of two service roads would be relocated, and a new connecting taxiway would be constructed.

##### Runway 6R-24L

This alternative would meet all RSA requirements by reducing the length of the runway from 10,285 feet to 9,335 feet. At the east end, the Runway 24L threshold is relocated west 115 feet to provide 1,000 feet of RSA beyond the east end of the runway. At the west end, the Runway 6R threshold would be relocated east 835 feet to provide 1,000 feet of RSA beyond the west end of the runway. The 835 feet of runway west of the relocated threshold would be demolished and graded to RSA standards. The Runway 6R and 24L approach lights would require relocation.

### Evaluation

This alternative would address the Project objectives to meet FAA airport design standards. This alternative would also satisfy Project criteria regarding practicality and implementation schedule. However, this alternative would not minimize the impacts on airfield and aircraft operations. This alternative had the largest adverse impact on usable runway length among all alternatives considered. Because the existing runway pavement beyond the relocated thresholds would not be available for any aircraft operations, this alternative would impose operational restrictions on certain large aircraft that currently use the runway. For Runway 6L-24R, the available takeoff and landing lengths of the runway for both 6L and 24R departures, would be reduced by 1,393 feet. For Runway 6R-24L, the available takeoff and landing lengths of the runway for both 6R and 24L departures, would be reduced by 950 feet.

LAX accommodates a substantial amount of long-haul and international air carrier arrivals and departures, including passenger and all-cargo flights. A reduction in runway length would

## 5. Alternatives

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impose operational restrictions on these aircraft, which would include, but not be limited to, reduced fuel loads, reduced number of passengers, and/or reduced cargo to meet weight restrictions and performance requirements of a reduced runway. Because the reduced runway length resulting from this alternative would reduce the utility of Runways 6L-24R and 6R-24L and have a negative impact on aircraft operations at LAX, this alternative was eliminated from further consideration in this EIR.

### 5.4.1.2.3 Implement Declared Distances Alternative

#### Runway 6L-24R

This alternative proposes the covering of a portion of the Argo Ditch and the relocation of a service road along Lincoln Boulevard. The relocated service road would become the limiting object, providing for a 641-foot RSA beyond the Runway 24R end. In order to provide a 1,000-foot standard RSA on that end, declared distances would be implemented, reducing the Runway 6L ASDA and LDA by 359 feet, from 8,925 feet to 8,566 feet. This alternative would also provide the required minimum 600 feet of RSA prior to the Runway 24R landing threshold. A portion of Lincoln Boulevard would remain within the OFA. No improvements would be required on the Runway 6L end.

#### Runway 6R-24L

The declared distances alternative for Runway 6R-24L would include a 1,000-foot RSA from the Runway 6R localizer on the east side, which reduces the Runway 6R ASDA by 115 feet from 10,285 feet to 10,170 feet, and the Runway 6R LDA by 115 feet from 9,954 feet to 9,839. A service road would also be relocated around the east end of the RSA. A 1,000-foot RSA from the blast fence on the west side reduces the Runway 24L ASDA and LDA by 835 feet from 10,285 feet to 9,450 feet.

#### Evaluation

This alternative would address the Project objectives to meet FAA airport design standards. Because no substantial construction, practicality, or schedule issues are associated with this alternative, it would also be practicable to implement. Declared distances would reduce ASDA and LDA on Runway 6L by 359 feet. However, total arrivals and departures on Runway 6L occur less than 1 percent on an annual basis.<sup>1</sup> The ASDA and LDA for Runway 6R would be reduced by 115 feet; arrivals on Runway 6R occur approximately 2 percent annually and departures occur less than 1 percent on an annual basis. The Runway 24L ASDA and LDA would be reduced by 835 feet; while only about 2 percent of arrivals occur on Runway 24L on an annual basis, approximately 37 percent of departures occur from Runway 24L annually. The impacts associated with implementation of declared distances on Runway 6L-24R and Runway 6R were determined to be minimal. However, the implementation of declared distances on Runway 24L would reduce the utility of Runway 6R-24L, which the RSA Technical Team determined would have a negative impact on airport operations at LAX.

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<sup>1</sup> Runway use percentages based on LAWA's Aircraft Noise and Operations Monitoring System (ANOMS) radar data.

Implementation of declared distances on Runway 6L-24R met the Project objectives and was retained for further consideration in this EIR as described below with Refinements #1 and #2. Implementation of declared distances on Runway 6R-24L did not meet all purpose and need criteria for Runway 6R-24L and was eliminated from consideration.

### **5.4.1.2.4 Relocate, Shift or Realign the Runway Alternative(s)**

#### **Runway 6L-24R**

This alternative proposes the shift of the runway to the west to ensure all objects at the east end remain clear of the RSA. The service road around the west end of the runway would need to be relocated outside the RSA. The existing service road just east of Pershing Drive would become the limiting object and allow for a runway shift of 615 feet to the west. This would require 615 feet of new runway pavement at the west end and the demolition of 615 feet of runway pavement on the east end. New connector taxiways would be required at both ends of the shifted runway. At the east end, a portion of two service roads would be relocated outside the RSA and a portion of the Argo Ditch along Lincoln Boulevard would be covered. However, a section of Lincoln Boulevard would remain inside the OFA. This alternative would maintain all current take-off and landing distances.

#### **Runway 6R-24L**

Currently, the existing blast fence at the west end is the limiting object and requires a runway shift 835 feet east to obtain a 1,000-foot standard RSA at the west end. The 835 feet of runway pavement west of the new Runway 6R threshold and Taxiways E-16 and E-17 would be demolished and the Runway 6R approach lights relocated. The equivalent 835-foot shift of the east runway end would require the tunneling of Sepulveda Boulevard and the relocation of the Runway 6R localizer, as well as relocation or closure of numerous commercial parking/staging lots, a service road, and the perimeter fence. This alternative would increase the Runway 6R LDA to 10,285 feet and maintain all other take-off and landing distances.

#### **Evaluation**

Shifting the runway would meet the Project objectives by providing standard RSA distances and maintaining take-off and landing distances. However, this alternative would not address practicality and implementation schedule criteria. Staggering the runway thresholds causes operational impacts to the airport by increasing the time aircraft must wait to takeoff in order to avoid aircraft wake turbulence. Additionally, it is highly unlikely that this alternative could be constructed by the required completion date and it was considered to be too expensive when compared to other alternatives. Because of the length of time and cost associated with implementation of this alternative, it was not retained for detailed study in this EIR.

## **5. Alternatives**

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### **5.4.1.2.5 Install Standard Engineered Materials Arresting System (EMAS) Alternative**

#### **Runway 6L-24R**

A standard 550-foot EMAS bed would be installed behind the Runway 24R end under this alternative. This EMAS bed assumed a 50-foot setback from the Runway 24R threshold. Although the EMAS bed length is shown to be 550 feet, the ultimate length would be determined during the design phase and could be different than assumed. Installation of a standard EMAS bed would require a 600-foot RSA on the east end, necessitating the covering of a portion of the Argo Ditch along Lincoln Boulevard and relocation of the service road. A portion of Lincoln Boulevard would remain inside the OFA. This alternative would maintain all current take-off and landing distances.

#### **Runway 6R-24L**

Standard EMAS beds would be installed at both runway ends. Although the EMAS bed length is shown to be 550 feet, the ultimate length would be determined during the design phase and could be different than what is assumed for this study. These beds assume a 50-foot setback from the runway ends, requiring a total length of 600 feet for the RSA. The existing blast fence is the limiting object on the west end, requiring the Runway 6R threshold to be relocated east 455 feet to provide a 600-foot long area for the installation of the EMAS bed. The 455 feet of runway pavement west of the new Runway 6R threshold and Taxiways E-16 and E-17 would be demolished and the Runway 6R approach lights relocated. The existing Runway 6R localizer is the limiting object on the east end, allowing for a Runway 24R end shift of 265 feet to the east. A service road would be relocated to the east around the RSA. The Standard EMAS configuration for Runway 6R-24L results in a net runway length reduction of 190 feet from 10,285 feet to 10,095 feet.

#### **Evaluation**

Installation of standard EMAS beds would address Project objectives to meet FAA airport design standards. While the required standard RSA distances would not be obtained, a standard EMAS in accordance with Section 4 of FAA AC 150/5220-22B provides a level of safety that is generally equivalent to a full RSA built to the dimensional standards. However, it is highly unlikely that this alternative could be constructed by the required completion date. Additionally, installation of an EMAS on three runway ends would be cost prohibitive. Because of the substantial complexities and cost associated with this alternative, it was not retained for detailed study in this EIR.

### **5.4.1.2.6 Refinement #1 Alternative**

#### **Runway 6L-24R**

The Runway 6L-24R Refinement #1 Alternative is a combination of the Declared Distances and the Shift Runway Alternatives. The RSA improvements to the east end would be identical to the Declared Distances alternative as described in Section 5.3.1.2.3. The improvements to the west end are similar to the Shift Runway alternative in Section 5.3.1.2.4, but would require a runway extension of 359 feet rather than 615 feet. A section of Taxiway BB would also be

demolished. This refined alternative increases the runway length by 359 feet to 9,284 feet. The Runway 6L ASDA would be retained, whereas the Runway 6L LDA would be reduced to 8,566 feet.

### Runway 6R-24L

The Runway 6R-24L Refinement #1 Alternative is a combination of the Declared Distances and the Shift Runway Alternatives. The RSA improvements to the east end would include an 835-foot extension but the Runway 24L threshold would remain in its existing location. The improvements to the west end would include implementation of declared distances, which would reduce the Runway 24L LDA to 9,450 feet and increase the Runway 6R TORA and TODA to 11,120 feet; all other runway distances would be maintained.

### Evaluation

The Refinement #1 Alternative would meet the Project objectives by providing standard RSA distances that would satisfy P.L. 109-115 and 14 CFR Part 139. However, this alternative would not satisfy Project practicality and implementation schedule criteria. It is highly unlikely that this alternative could be constructed by the required completion date and it was considered to be too expensive when compared to other alternatives. Because of the length of time and cost associated with implementation of this alternative, it was not retained for detailed study in this Draft EIR.

## **5.4.2 Alternatives Carried Forward**

### **5.4.2.1 No Project Alternative**

The No Project Alternative is required by Section 15126.6 (e)(2) of the CEQA Guidelines to be considered and assumes that the proposed Project would not be implemented. The No Project Alternative allows decision-makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project. However, “no project” does not mean that development on the Project site would be prohibited. Instead, the No Project Alternative includes “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.”<sup>2</sup>

Under the No Project Alternative, the RSA improvements as described in Section 2.4 would not occur and LAWA would be in non-compliance with Public Law 109-115, which requires all 14 CFR Part 139 certificated airports to comply with FAA RSA design guidelines by December 31, 2015. Regarding pavement reconstruction, it is reasonably foreseeable that under the No Project Alternative, typical, as-needed maintenance repair of poor quality pavement would potentially still be required on Runway 6L-24R and Taxiway AA to maintain safe airport operations.

Although the No Action alternative does not meet the objectives for the proposed Project, it was retained for further consideration as required by CEQA Guidelines, § 15126.6.

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<sup>2</sup> CEQA Guidelines, §15126.6 [e][2]

## 5. Alternatives

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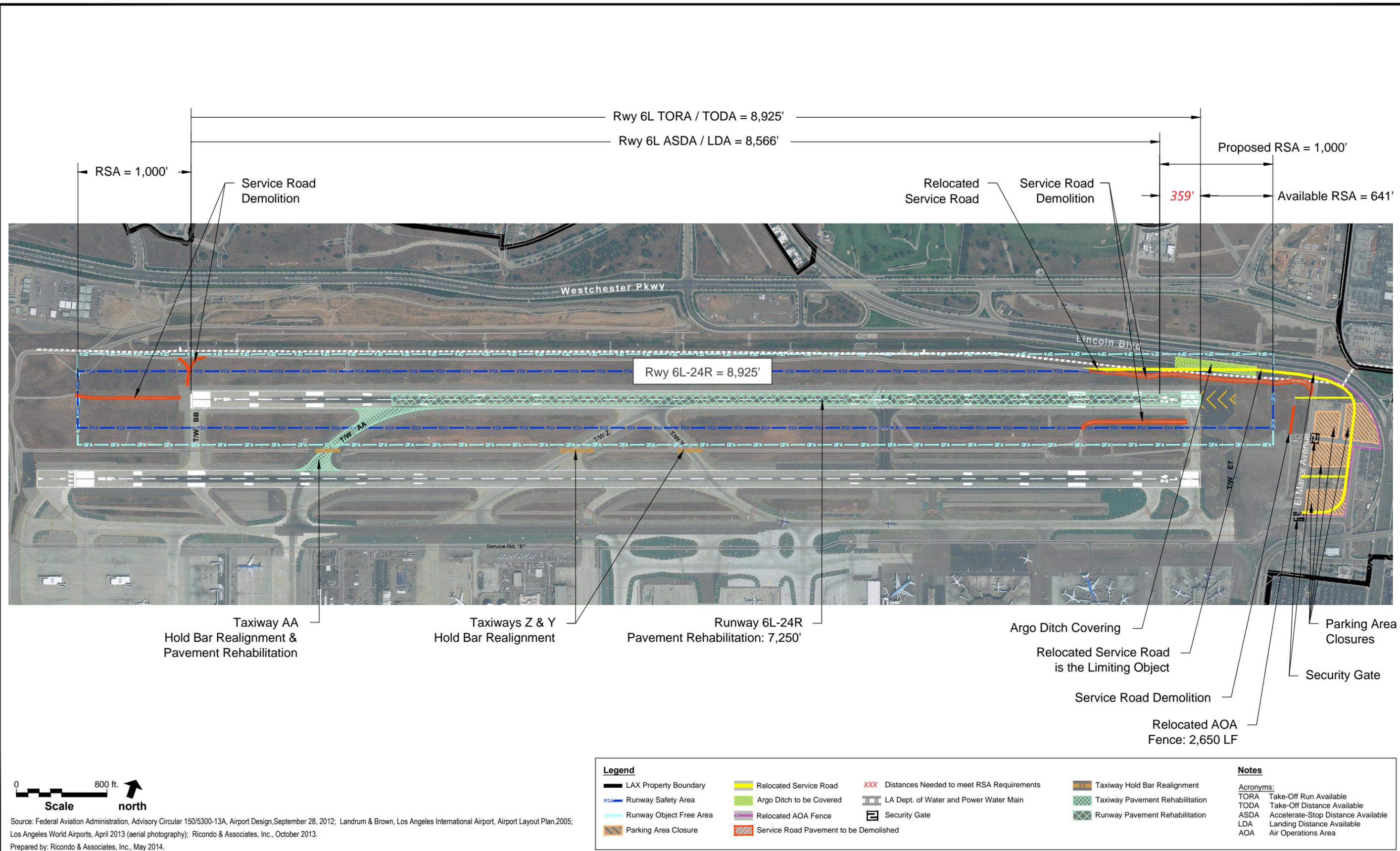
### 5.4.2.2 Proposed Project (Refinement #2 Alternative)

The proposed Project (Refinement #2 Alternative) for Runway 6L-24R would be a variation of the Declared Distances alternative. This would involve the covering of portions of the Argo Ditch, the relocation of a portion of a service road along Lincoln Boulevard, and closure of a portion of a service road located within the Runway 6L-24R RSA south of the runway. The relocated service road along Lincoln Boulevard would become the limiting object, providing for a 641-foot RSA beyond the Runway 24R end. In order to provide a 1,000-foot standard RSA on that end, declared distances would be implemented, reducing the Runway 6L Accelerate-Stop Distance Available and Landing Distance Available by 359 feet, from 8,925 feet to 8,566 feet. This alternative would also provide the required minimum 600 feet of RSA prior to the Runway 24R landing threshold. No improvements are required on the Runway 6L end. The Proposed Project for Runway 6L-24R is depicted in **Figure 5-1**.

The Proposed Project (Refinement #2 Alternative) for Runway 6R-24L includes relocation of a portion of a service road within the Runway 6R-24L RSA north of the runway, and closure of parking areas located within the Runway 6R-24L RSA. Declared distances would also be implemented on Runway 6R-24L. The Runway 6R ASDA and LDA would be reduced by 115 feet to provide a 1,000-foot RSA from the Runway 6R localizer. The proposed improvements would not correct the 104-foot deficiency for the Runway 6R arrival RSA, the 835-foot deficiency for Runway 24L arrivals and departures, or the portion of the service road located within the RSA south of the runway. LAWA is considering alternatives to address these RSA issues but due to complexities with interactions for aircraft operating on the two runways, additional analysis and coordination with FAA needs to occur before LAWA can identify an alternative that will address all RSA deficiencies for Runway 6R-24L. The Proposed Project for Runway 6R-24L is depicted in **Figure 5-2**.

The primary components of the Proposed Project include:

- Implementation of declared distances on Runway 6L and Runway 6R
- Service roads in the eastern portion of the 6L-24R RSA would be relocated or realigned outside the RSA
- Service road segments would be constructed between the Runway 6L-24R RSA and the Runway 6R-24L RSA
- Two segments of service roads would be constructed for access to navigational aids (navaids) east of the runways
- Pavement rehabilitation of eastern 7,250 feet of runway
  - Runway centerline and touchdown lighting replacement
  - Runway pavement markings
- Cover a segment of the Argo Ditch
- Relocate security gate(s)
- Relocate portions of Air Operations Area (AOA) Fence
- Closure of LAWA construction equipment parking areas east of Runway ends 24L and 24R
- Protect-in-place Los Angeles Department of Water and Power water line
- Construction Staging Areas



Runway 6L-24R and Runway 6R-24L Runway Safety Area and Associated Improvements Draft EIR

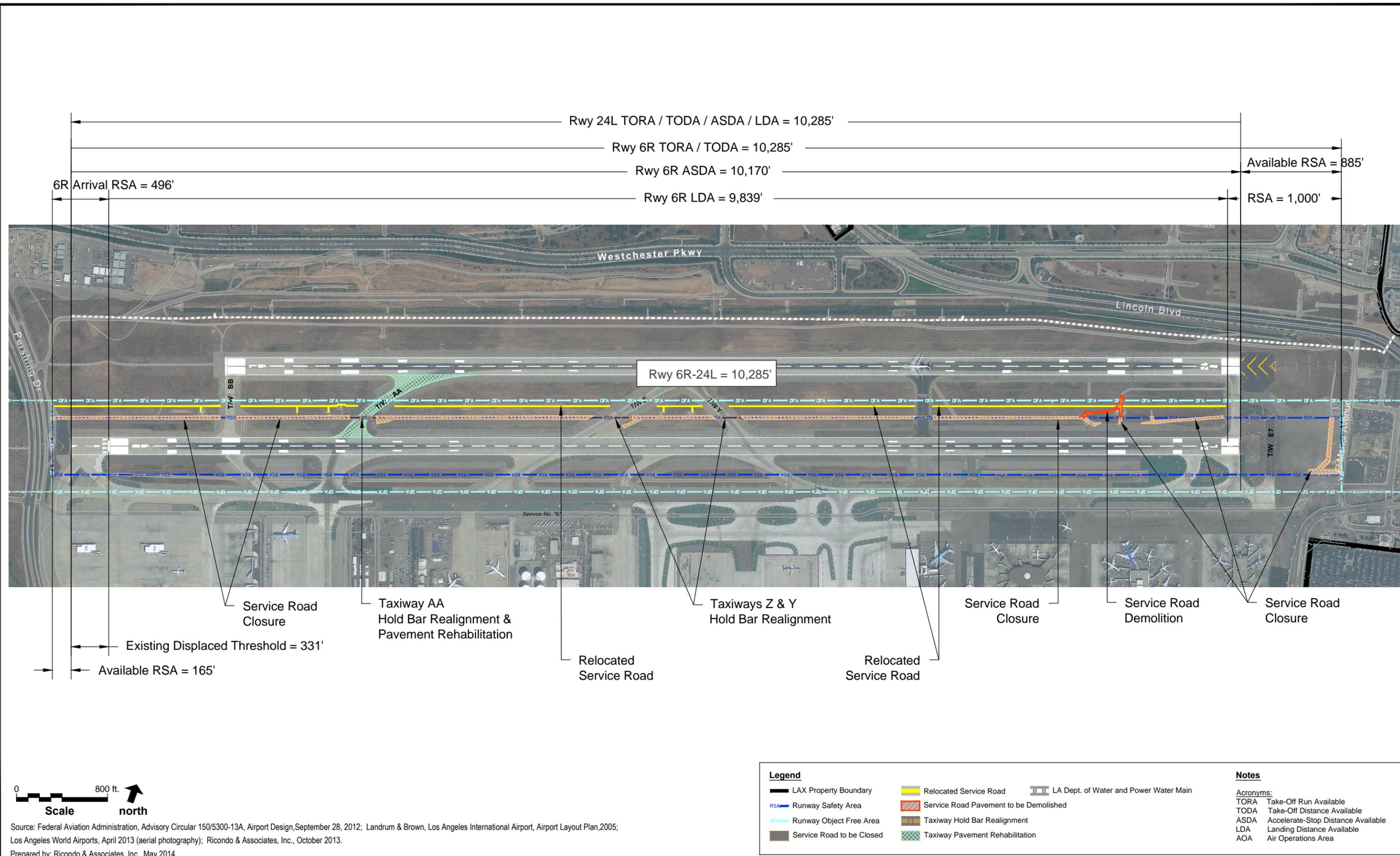
Runway 6L-24R Proposed Project

Figure 5-1

## 5. Alternatives

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Runway 6L-24R and Runway 6R-24L Runway Safety Area and Associated Improvements Draft EIR

Runway 6R-24L Proposed Project

Figure 5-2

## 5. Alternatives

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- Taxiway AA Pavement Rehabilitation (116,000 sf)
  - Realignment of centerline lights
  - New striping
- Realignment of hold bars – Taxiways Y, Z, and AA
  - Relocation of associated lighting (in-pavement hold bar lights and elevated guard lights)
  - Relocation of centerline lights
  - Removal of striping; new striping
  - Relocation of status lights
  - Relocation of hold position airfield signage

### 5.4.2.3 Summary of Alternatives Carried Forward

Table 5-1 presents a summary of the improvements of the proposed Project that would be implemented in its entirety or in part under the proposed alternatives.

Table 5-1

Summary of Improvements by Alternative

Improvement	Proposed Project	No Project Alternative
<b>RSA Improvements</b>		
Implementation of declared distances on Runway 6L and Runway 6R	✓	☒
Service roads in the eastern portion of the 6L-24R RSA relocated or realigned outside the RSA	✓	☒
Service road segments constructed between the Runway 6L-24R RSA and the Runway 6R-24L RSA	✓	☒
Two segments of service roads constructed for access to navigational aids (navaids) east of the runways	✓	☒
Cover a segment of the Argo Ditch	✓	☒
Relocate security gate(s)	✓	☒
Relocate Air Operations Area (AOA) Fence	✓	☒
Closure of LAWA construction equipment parking areas east of Runway 24L/24R	✓	☒
Protect-in-place Los Angeles Department of Water and Power water line	✓	As-Needed Maintenance Repairs Only
Construction Staging Areas	✓	☒
<b>Pavement Reconstruction and Associated Improvements</b>		
Runway 6L-24R pavement rehabilitation of eastern 7,250 feet of runway (including associated lighting replacement and pavement markings)	✓	As-Needed Maintenance Repairs Only
Taxiway AA pavement rehabilitation (including associated lighting replacement and pavement markings)	✓	As-Needed Maintenance Repairs Only
Taxiway AA hold bar realignment (including associated lighting replacement and pavement markings)	✓	As-Needed Maintenance Repairs Only
Taxiway Y and Z hold bar realignment (including associated lighting replacement and pavement markings)	✓	As-Needed Maintenance Repairs Only

Notes:

✓ Alternative satisfies specified improvement.

☒ Alternative does not satisfy specified improvement.

Source: Ricondo & Associates, Inc., April 2014..

## 5. Alternatives

# 5.5 Alternatives Analysis

## 5.5.1 Draft EIR Environmental Topics

Table 5-2 presents a comparison of the impacts associated with the No Project Alternative compared to the proposed Project for the environmental topics evaluated in this Draft EIR.

Table 5-2

Summary of Analysis of Draft EIR Environmental Topics,  
No Project Alternative and Proposed Project

Environmental Topic	Chapter/ Section	Level of Significance	
		Proposed Project	No Project Alternative
<b>Air Quality</b>	4.1		
Regional Construction Impacts	4.1.6.1	Significant and Unavoidable	<i>Less Than Significant</i> for as-needed maintenance repairs. However, if runway repairs are needed, potential significant and unavoidable impacts would occur if operations are shifted to other runways during construction
Localized Construction Impacts	4.1.6.2	Significant and Unavoidable	<i>Less Than Significant</i> for as-needed maintenance repairs. However, if runway repairs are needed, potential <b>significant and unavoidable</b> impacts would occur if operations are shifted to other runways during construction
Cumulative Impacts	4.1.7	Significant and Unavoidable	<i>Less Than Significant</i> for as-needed maintenance repairs. However, if runway repairs are needed, potential <b>significant and unavoidable</b> impacts would occur if operations are shifted to other runways during construction
<b>Biological Resources</b>	4.2		
Construction Impacts	4.2.6.1	Less Than Significant	Less Than Significant
Operational Impacts	4.2.6.2	Less Than Significant	Less Than Significant
Cumulative Impacts	4.2.7	Not Cumulatively Considerable	Not Cumulatively Considerable
<b>Greenhouse Gas Emissions</b>	4.3		
Construction Impacts	4.3.7.1	Less Than Significant	Less Than Significant
Operational Impacts	4.3.7.2	Less Than Significant	Less Than Significant
Cumulative Impacts	4.3.7.3	Not Cumulatively Considerable	Not Cumulatively Considerable
<b>Human Health Risk Assessment</b>	4.4		

Table 5-2

Summary of Analysis of Draft EIR Environmental Topics,  
No Project Alternative and Proposed Project

Environmental Topic	Chapter/ Section	Level of Significance	
		Proposed Project	No Project Alternative
Construction Impacts	4.4.7.1	Significant and Unavoidable	<i>Less Than Significant</i> for as-needed maintenance repairs. However, if runway repairs are needed, potential <b>significant and unavoidable impacts</b> would occur if operations are shifted to other runways during construction
Cumulative Impacts	4.4.7.2	Significant and Unavoidable	<i>Less Than Significant</i> for as-needed maintenance repairs. However, if runway repairs are needed, potential <b>significant and unavoidable impacts</b> would occur if operations are shifted to other runways during construction
<b>Hydrology and Water Quality</b>	4.5		
Construction Impacts	4.5.7.1	Less Than Significant	Less Than Significant
Operational Impacts	4.5.7.2	Less Than Significant	Less Than Significant
Cumulative Impacts	4.5.7.3	Not Cumulatively Considerable	Not Cumulatively Considerable
<b>Noise</b>	4.6		
Construction Impacts	4.6.7.1	Less Than Significant	Less Than Significant
Operational Impacts	4.6.7.2	Less Than Significant	Less Than Significant
Cumulative Impacts	4.6.7.3	Less Than Significant	Less Than Significant
<b>Construction Traffic</b>	4.7		
Construction Impacts	4.7.7.1	Less Than Significant	Less Than Significant
Cumulative Impacts	4.7.7.2	Not Cumulatively Considerable	Not Cumulatively Considerable

Source: Ricondo & Associates, Inc., April 2014.

As shown in **Table 5-2**, most impacts related to the environmental topics evaluated in this Draft EIR under the No Project Alternative would be similar to the impacts under the proposed Project. However, air quality and human health risk assessment impacts would be different under the No Project Alternative compared to the proposed Project.

## **5. Alternatives**

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### **5.5.1.1.1 Air Quality**

#### **Regional Construction**

For the proposed Project, the significant and unavoidable impact related to regional air quality is associated with the closure of the runway, shortened runway period, and the shift in operations to other runways. Improvements associated with bringing the Runway 6L-24R and Runway 6R-24L RSAs in compliance with FAA airport design standards under the proposed Project require closure of Runway 6L-24R for 4 months. During the runway closure period, construction-related daily (short-term) emissions of CO, VOC, and NO<sub>x</sub> would exceed SCAQMD significance thresholds.

Implementation of the No Project Alternative would not require closure of the runway for 4 months and would not result in a temporary shift in airport operations. Therefore, impacts related to air quality during construction would be less than significant under the No Project Alternative. However, as stated in Section 5.3.2.1, under the No Project Alternative, pavement reconstruction on Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways, impacts could be similar to the proposed Project and could be significant and unavoidable.

#### **Localized Construction**

For the proposed Project, the significant and unavoidable impact related to localized air quality is associated with the closure of the runway, shortened runway period, and the shift in operations to other runways. Improvements associated with bringing the Runway 6L-24R and Runway 6R-24L RSAs in compliance with FAA airport design standards under the proposed Project require closure of Runway 6L-24R for 4 months. The 1-hour concentrations of NO<sub>2</sub> during this runway closure period were found to exceed the CAAQS thresholds at two of the 327 LAX fence line locations that were evaluated under the proposed Project.

Implementation of the No Project Alternative would not require closure of the runway for 4 months and would not result in a temporary shift in airport operations. Therefore, impacts related to air quality during construction would be less than significant under the No Project Alternative. However, as stated in Section 5.3.2.1, under the No Project Alternative, pavement reconstruction on Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, impacts could be similar to the proposed Project and could be significant and unavoidable.

#### **Cumulative**

As discussed above and in greater detail within Section 4.1.7, construction of the proposed Project would exceed the Project-specific significance thresholds for regional emissions of CO, VOC, and NO<sub>x</sub>. Additionally, construction of the proposed Project would exceed the Project-specific significance thresholds for localized emissions of NO<sub>2</sub>. Per SCAQMD guidance, projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. As a result, the proposed Project would have a cumulatively

considerable contribution for construction emissions and would result in a cumulatively significant construction impact.

The No Project Alternative would not contribute cumulatively to air quality impacts if as-needed maintenance pavement repairs do not require a shift in operations to other runways during construction. In this case, cumulative impacts would be less than significant. However, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, cumulative impacts could be significant and unavoidable.

### 5.5.1.1.2 Biological Resources

#### Construction

Construction of the proposed Project would result in excavation, grading, and paving of approximately 6.0 undeveloped acres. The areas proposed to be converted to impervious surfaces currently consist of disturbed/annual brome grassland, disturbed vegetation, and ornamental vegetation. The proposed Project would also involve excavation, grading, and covering a portion of the Argo Ditch approximately 720 feet in length with a concrete box-channel. This would result in removal of 0.09-acre of wetland vegetation within the area previously cleared for channel clearing. In addition, a portion of the 126.1 acres of undeveloped land and 57.7 acres of developed land located within the DSA would be used as staging areas. Although construction of the proposed Project would require ground disturbance and wetland removal described above, it is anticipated that construction of the proposed Project would have a less than significant impact on biological resources. Wetland removal would occur in conjunction with USACE coordination and mitigation measure MM-BC-2 would apply to ensure a less than significant impact from construction of the proposed Project.

Under the No Action Alternative, none of the aforementioned grading, ground disturbance or wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would primarily occur on existing paved surfaces. Thus, less than significant impacts to biological resources from the No Action Alternative would be anticipated.

#### Operations

Implementation of the proposed Project would not cause a change in aircraft operations or routes, or any other operations at LAX. As a result, it is anticipated that operations of the proposed Project would have less than significant impacts to biological resources. Similarly, less than significant impacts to biological resources from the No Action Alternative would be anticipated.

#### Cumulative

The proposed Project includes project design features, BMPs, and LAX Master Plan EIS/EIR Commitments specifically designed to reduce biological resource impacts to less than significant. Therefore, impacts related to biological resources under the proposed Project are not cumulatively considerable, and cumulative impacts would be less than significant. The No Project Alternative would not result in any ground or wetland disturbance, and minimal construction activities would occur. Therefore cumulative impacts from the No Action Alternative would also be less than significant.

## **5. Alternatives**

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### **5.5.1.1.3 Greenhouse Gasses**

#### **Construction**

SCAQMD recommends that construction emissions be amortized over the lifetime of a proposed project, which is assumed to be 30 years. Under the proposed Project, construction-related significance is not determined on an individual basis for GHG emissions; rather, it is evaluated based on significance of the combined construction- and operations-related GHG emissions for the proposed Project. The Operations analysis below evaluates the significance of the combined construction- and operations-related GHG emissions for the proposed Project.

Under the No Action Alternative, none of the aforementioned grading, ground disturbance, or wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would mostly occur on existing paved surfaces. Minimal Greenhouse Gas impacts from the No Action Alternative would be anticipated.

#### **Operations**

Operation of the proposed Project would not result in changes to air traffic patterns, an increase in airport operations, aircraft taxi routes, or supporting functions (GSE, busing operations, etc). Therefore, no operational GHG impacts would occur. Construction-related GHG emissions for the proposed Project are associated with construction equipment, vehicle exhaust, and the shift in operations during the Runway 6L-24R closure and shortened runway period. The total CO<sub>2</sub>e emissions amortized over the life of the proposed Project is equal to 100 MTCO<sub>2</sub>e per year. Under the proposed Project, GHG emissions resulting from the proposed Project construction and operations would not have a significant impact on climate change over the 2012 existing conditions, or 2015 Without Project scenario based on a significance threshold of 10,000 MTCO<sub>2</sub>e per year.

Under the No Action Alternative, no change to LAX operations would occur. If as-needed maintenance activities are undertaken, these activities would occur on existing paved surfaces. Minimal Greenhouse Gas impacts from the No Action Alternative would be anticipated.

#### **Cumulative**

As discussed in Section 4.3.6, *Impact Analysis*, the proposed Project's amortized construction GHG emissions would be substantially lower than the significance threshold of 10,000 MTCO<sub>2</sub>e per year. Therefore, in accordance with the discussion above, the proposed Project would not cause cumulatively considerable impacts with respect to GHG emissions.

Under the No Action Alternative, no change to LAX operations would occur and minimal as-needed maintenance activities would occur. No cumulatively considerable Greenhouse Gas impacts from the No Action Alternative would be anticipated.

### **5.5.1.1.4 Human Health Risk**

#### **Construction**

For the proposed Project, the significant and unavoidable impact related to human health risk is associated with the closure of Runway 6L-24R, shortened runway period, and the shift in operations to other runways. The estimated maximum 8-hour average TAC concentrations for

on-airport locations for construction of the proposed Project are several orders of magnitude below the PEL-TWA and, thus would not exceed those considered acceptable by CalOSHA standards. Therefore, impacts related to health risks to on-airport workers would be less than significant for the proposed Project. Project-related cancer risks for adults and for young children would be below the threshold of significance of 10 in one million for proposed Project construction. Proposed Project estimates indicate that construction-related chronic non-cancer hazards would be less than the hazard index threshold of 1. The acute hazard quotients for acrolein for receptors representing residents and off-site adult workers are above the threshold of significance of 1, therefore acute non-cancer health hazard impacts during construction of the proposed Project would be significant.

Activities associated with the No Project Alternative would not require closure of the runway for 4 months and would not require a shift in aircraft operations. Therefore, impacts related to human health risk during construction would be less than significant under the No Project Alternative. However, as stated in Section 5.3.2.1, under the No Project Alternative, pavement reconstruction on Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, acute hazard quotients for acrolein at receptors representing residents and off-site adult workers could be similar to the proposed Project, and they could be significant and unavoidable.

### Cumulative

Based on SCAQMD policy, the relatively small chronic non-cancer hazard indices associated with emissions under the proposed Project would not be cumulatively considerable. However, acute non-cancer hazard indices related to construction of the proposed Project in combination with USEPA annual average estimates for the affected census tracts would be greater than the cumulative threshold of 3.0, and therefore, would be cumulatively considerable.

The No Project Alternative would not contribute cumulatively to human health risk impacts if as-needed maintenance pavement repairs do not require a shift in operations to other runways during construction. In this case, cumulative impacts would be less than significant. However, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction; cumulative impacts could be significant and unavoidable.

### **5.5.1.1.5 Hydrology and Water Quality**

#### Construction

For construction of the proposed Project, maximum excavation associated with the proposed Project would be substantially above the historic high groundwater elevation of 40 feet bgs, thus, no construction impacts to hydrology from RSA Improvements would occur under the proposed Project. The proposed Project would create additional runoff water but would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff due to compliance with the regulatory requirements and implementation of construction treatment BMPs and LAX Master Plan Commitments, as required. There are no permeable areas that would be made impermeable as part of the

## 5. Alternatives

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pavement rehabilitation of the proposed Project. No substantial alteration to hydrology, floodwater, or stormwater retention would occur due to the reduction of 0.09 acres of wetlands as a result of the proposed Project. Nor would the proposed Project significantly affect the wetland's ability to protect water quality or quantity of municipal water supplies. Usage of the construction staging areas would not change the permeable surface area or the topography of these areas and, thus would not increase the amount of runoff generated. Therefore, construction impacts related to hydrology due to increased runoff would be less than significant. As impacts would be minimal or mitigated by BMPs and LAX Master Plan commitments, construction impacts related to hydrology and water quality would be less than significant.

Under the No Action Alternative, none of the aforementioned grading, ground disturbance, or wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would mostly occur on existing paved surfaces. Hydrology and water quality impacts from the No Action Alternative would be anticipated to be less than significant.

### Operations

Implementation of the proposed Project would not cause a change in aircraft operations or routes, or any other operations at LAX. Components of the proposed Project would add a minimal amount of new impermeable airfield pavement; however, as discussed, drainage patterns would not be substantially altered. Furthermore, the proposed Project would not introduce uses that do not already exist at LAX or increase uses that would increase the potential for pollutant release. Therefore, less than significant impacts related to hydrology and water quality are anticipated from the operations of the proposed Project.

Under the No Action Alternative, none of the aforementioned undeveloped areas would be converted to impervious surfaces and no wetland removal would occur. If as-needed maintenance activities are undertaken, these activities would mostly occur on existing paved surfaces. Hydrology and water quality impacts from the No Action Alternative would be anticipated to be less than significant.

### Cumulative

Although under the proposed Project a net increase of 2.0 acres of permeable area would become impermeable, this would not result in significant impacts. Additionally, as discussed above, the proposed Project would not substantially modify existing drainage patterns, and the DSA would continue to flow to the Argo Sub-Basin, as under existing conditions. Taken all together, if other projects also have increased runoffs, there is the potential to all contribute cumulatively to impacts related to runoff. The proposed Project includes project design features, LAX Master Plan EIS/EIR Commitments and Treatment BMPs specifically designed to reduce hydrology and water quality impacts to less than significant. Therefore, impacts related to increased runoff under the proposed Project are not cumulatively considerable, and cumulative impacts would be less than significant.

The No Project Alternative would not result in any ground or wetland disturbance. If as-needed maintenance activities are undertaken, these activities would occur on existing paved surfaces. Therefore cumulative impacts from the No Action Alternative would be less than significant.

### 5.5.1.1.6 Noise

#### Construction

Impacts related to noise from construction activities and equipment would not exceed existing ambient exterior noise levels by 5 dBA or more and impacts would be less than significant. This anticipated noise level is well below the ambient noise exposure from aircraft in surrounding communities. Additionally, construction staging areas would have no significant impact on noise. However, noise impacts would occur due to the closure of Runway 6L-24R, shortened runway period, and the shift in operations to other runways as needed for construction of the proposed Project. Construction of the proposed Project would require closure of Runway 6L-24R for approximately 4 months and implementation of a displaced threshold on the same runway for an additional period of 2 months. During this construction period, a 1.5 dB CNEL and higher increase is observable when compared to (2015) Without Project conditions. This increase would impact 95 residential dwellings (resulting in a population affected of 364). All properties zoned residential located within the 1.5 dB CNEL or greater increase noise contour that would result from closure of Runway 6L-24R for 4 months and a reduced runway length of 7,000 feet for 2 months during construction, have either been mitigated, are in the process of being mitigated, or have been invited to participate in the City of Inglewood's RSIP. For those seven properties that are eligible to participate in the RSIP and that have not responded or previously declined to participate in the City of Inglewood's RSIP, LAWA will invite them again to participate in the RSIP; if the affected property owners agree to participate in the RSIP, sound insulation will be completed prior to July 2015 when construction of the proposed Project and the temporary closure of Runway 6L-24R would begin. Thus, noise impacts during construction resulting from the proposed Project would be less than significant.

Implementation of the No Project Alternative would not require closure of the runway for 4 months, a shortened runway period, or result in a temporary shift in airport operations. Therefore, impacts related to noise during construction would be less than significant under the No Project Alternative. However, as stated in Section 5.3.2.1, under the No Project Alternative, pavement reconstruction of Runway 6L-24R would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe. If pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, noise impacts could be similar to the proposed Project, and they would be significant and unavoidable, if mitigation measures are not incorporated.

#### Cumulative

Construction-related increases in existing CNEL levels, estimated at nearby noise-sensitive receptors, resulting from implementation of the proposed Project would include a maximum 4.90 dBA increase due to potential use of the Northeast Construction Staging/Parking Area (Construction Staging Area B) for construction worker parking, construction trailers/portable offices, and/or outdoor storage laydown areas. Other related projects, such as the Northside Plan, identified in Section 3.3, have the potential to result in construction-related changes to existing CNEL levels at the nearest sensitive noise-receptors also affected by the proposed Project. LAWA will implement a mitigation measure that will restrict construction activities in the Northeast Construction Staging/Parking Area (Construction Staging Area B) to construction worker parking, construction trailers/portable offices, and/or outdoor storage laydown areas

## 5. Alternatives

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during construction of the proposed Project. Thus, cumulative noise impacts during construction resulting from the proposed Project would be less than significant.

The No Project Alternative would not contribute cumulatively to noise impacts if as-needed maintenance pavement repairs do not require a shift in operations to other runways during construction. In this case, cumulative impacts would be less than significant. However, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, cumulative impacts could be significant and unavoidable if mitigation measures are not incorporated.

### 5.5.1.1.7 Construction Traffic

#### Construction

The peak construction period for the proposed Project is anticipated to occur during July 2015. Peak construction traffic during construction of the proposed Project would not significantly affect existing levels of service for surface traffic as compared with the baseline conditions. Therefore, during construction of the proposed Project it is anticipated that no significant traffic impacts would occur.

The No Project Alternative would not result in any change in LAX operations or capacity. If as-needed maintenance activities are undertaken, these activities would result in less traffic than assumed under the proposed Project. Therefore traffic impacts from the No Action Alternative would be less than significant.

#### Cumulative

It is anticipated that implementation of the proposed Project would result in cumulative impacts to traffic when assessed in conjunction with other related projects. However, the proposed Project would not result in a cumulatively considerable impact that would be considered a significant impact under the LADOT thresholds.

The No Project Alternative would not result in any change in LAX operations or capacity. If as-needed maintenance activities are undertaken, these activities would result in less traffic than assumed under the proposed Project. Therefore cumulative traffic impacts from the No Action Alternative would be less than significant.

## 5.5.2 Evaluation of Other Environmental Topics

**Table 5-4** presents the comparison of the impacts associated with the No Project Alternative compared to the proposed Project for the environmental topics that were screened out in the Initial Study (see Appendix A).

Table 5-4

Summary of Alternatives Analysis for Other CEQA Environmental Topics

Environmental Topic	Level of Significance Under Proposed Project	Level of Significance of No Project Alternative Compared to Proposed Project
Aesthetics	Less Than Significant	Similar
Agricultural & Forestry Resources	No Impact	Similar
Cultural Resources	Less Than Significant	Similar for Historic Resources <b>Less</b> for Archaeological and Paleontological Resources due to less excavation
Geology and Soils	Less Than Significant	Similar
Hazards and Hazardous Materials (Other than Hazardous Sites)	Less Than Significant	Similar
Land Use and Planning	No Impact	Similar
Mineral Resources	No Impact	Similar
Population and Housing	No Impact	Similar
Public Services	No impact	Similar
Recreation	No Impact	Similar
Utilities and Service Systems	Less Than Significant	Similar

Source: Ricondo & Associates, Inc., April 2014.

## 5.6 Environmentally Superior Alternative

Section 15126.6 of the State CEQA Guidelines requires that an “environmentally superior” alternative be selected among the alternatives that are evaluated in the EIR. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest adverse impacts. If the No Project Alternative is identified as environmentally superior, then another environmentally superior alternative shall be identified among the other alternatives.

### 5.6.1 Comparison of Environmental Impacts

**Table 5-5** summarizes the impacts of the alternatives relative to the proposed Project by category of greater, similar, or less.

## 5. Alternatives

Table 5-5

Summary of Lesser/Greater Alternative Impacts Relative to Proposed Project Impacts

Level of Significance Relative to Proposed Project Impacts	Alternative
	No Project Alternative
Less	Construction Related for All topics (for Air Quality, Human Health Risk and Noise only if as-needed pavement repairs do not require closure of runway)
Greater	None

Source: Ricondo & Associates, Inc., April 2014.

As shown in **Table 5-5**, the No Project Alternative would result in lesser impacts compared to the proposed Project in all topics during construction due to the reduced intensity of the type of construction that would occur under the No Project Alternative. However, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, impacts related to air quality and human health risk during construction could be similar to those under the proposed Project (significant and unavoidable). Additionally, if pavement repairs of Runway 6L-24R under the No Project Alternative require closure of the runway and the shifting of operations to other runways during construction, impacts related to noise during construction could be significant and unavoidable, if mitigation measures are not incorporated. The No Project Alternative would not result in greater impacts compared to the proposed Project.

No other alternative was identified that would lessen the temporary significant impacts associated with the proposed Project.

### 5.6.2 Project Objectives Evaluation

**Table 5-6** presents how the proposed Project and No Project alternatives meet the objectives of the proposed Project.

**Table 5-6**  
**Comparison of Project Objectives Met By the Proposed Project Alternatives**

Proposed Project Objective	Does Alternative Meet Objective?	
	No Project Alternative	Proposed Project
<b>RSA Improvements</b>		
Satisfy 14 CFR Part 139 certification requirements	NO	YES
Satisfy P.L. 109-115, which requires all 14 CFR Part 139 certified airports to bring their RSAs into compliance with FAA airport design standards no later than December 31, 2015	NO	YES
Minimize impacts to the existing airfield and aircraft operations	YES	YES
<b>Pavement Reconstruction Objectives</b>		
Address poor pavement conditions and extend the life of Runway 6L-24R and associated taxiways to maintain its usage as the primary arrivals runway for the North Airfield through pavement reconstruction	YES <sup>1</sup>	YES

Notes:

- 1 Under the No Project Alternative, pavement reconstruction on Runway 6L-24R and Taxiway AA would potentially occur as needed and be part of typical maintenance at LAX to keep aircraft operations safe.

Source: Ricondo & Associates, Inc., April 2014.

As shown in **Table 5-6**, the No Project Alternative would potentially meet only two of the four objectives of the proposed Project. The No Project Alternative would not bring Runway 6L-24R and 6R-24L RSAs into compliance with airport design standards, nor the requirements of Public Law 109-115.

### 5.6.3 Conclusion

The No Project Alternative would have, in general, less environmental impacts compared to the proposed Project. However, as shown in **Table 5-6**, the No Project Alternative would not meet the proposed Project objectives, nor would it meet the requirements of Public Law 109-115. Based on the evaluation of environmental impacts and the Project objectives, no environmentally superior alternative exists for the proposed Project.

## **5. Alternatives**

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