
4.1 AESTHETICS

This section discusses GAIP-related impacts to aesthetics and visual quality at John Wayne Airport (“JWA” or “the Airport”). The term “aesthetics” is used to denote visual character of Airport facilities and associated regulations that affect public views of the Airport, including potential sources of light and glare.

The General Aviation Improvement Program (“GAIP”) would not directly affect scenic vistas or views along a scenic highway, since no designated or eligible State or local scenic highways are near the site. The site is not located near a designated landscape corridor or viewscape corridor, as shown in the Scenic Highway Plan of the County’s General Plan. Also, no historic buildings or scenic resources are on or adjacent to the site. Therefore, no impacts to a scenic vista or scenic highway would occur with the GAIP and these topics are not discussed in this section (refer to the Notice of Preparation [“NOP”]/Initial Study in Appendix A).

4.1.1 REGULATORY SETTING

Federal

Federal Aviation Regulations Part 77

The Federal Aviation Regulations (“FAR”) Part 77 (GPO 2017) sets standards and notification requirements for new construction or alteration that may affect airport operations, as implemented by the Federal Aviation Administration (“FAA”). The regulations prohibit the construction or placement of objects that may affect navigable airspace in order to prevent hazards to aircraft operations and promote safe and efficient air travel. These regulations address the locations and heights of objects that would be located in and near airports (including runways; approach zones; and horizontal, conical, and transitional surfaces), such as buildings, chimneys, aboveground infrastructure (light poles, utility lines, guy wires), antenna structures, cooling towers, storage tanks, vegetation, markings, lighting, and other similar structures. The regulations also require studies to determine if objects would affect aeronautical operations, procedures, and the safety of flight (including the protection of air traffic control radars, direction finders, and control tower line-of-sight visibility; and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems).

To promote the visibility of aboveground structures, as well as to prevent glare impacts from objects in and near airports, the FAA has set standards for marking and lighting associated with the colors of objects, dimensions and patterns of color bands and rectangles, colors and types of lights, basic signals and intensity of lighting, night/day lighting combinations, and flash rates.

State/Regional

State Aeronautics Act

Part 1 of Division 9 of the California Public Utilities Code is the State Aeronautics Act and contains the State’s regulations for airports and air navigation facilities. Section 21670 of the Code requires the establishment of an airport land use commission (“ALUC”) by every county in which

there is located an airport which is served by a scheduled airline. The ALUC is responsible for preparing, adopting, and amending an airport land use compatibility plan for each airport “that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.”

ALUCs review land use proposals near civilian and military airports and other land use issues that may have a potential impact on airport operations to the extent that these areas are not already devoted to incompatible uses.

Airport Environs Land Use Plan for John Wayne Airport

The Airport Environs Land Use Plan (“AELUP”) for JWA is the comprehensive land use compatibility plan adopted by the ALUC for Orange County that establishes land use guidelines based on noise and safety impacts for areas surrounding the Airport. The purpose of the AELUP is to “protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable air space.” These guidelines include building height restrictions that reflect the FAR Part 77 regulations.

4.1.2 METHODOLOGY

The aesthetic effects of the GAIP were assessed by comparing the visual quality of the existing facilities with those of the Proposed Project and Alternative 1. Visual impacts are determined by defining the visual quality of the area, the expected change as a result of the GAIP, and the sensitivity of the users to those changes. The sensitivity of users is associated with the length of exposure to the changed views and the context of the views. For example, residential viewers would be more sensitive to changes in the visual quality than workers in nearby offices because residents have a greater connection with the visual character of their neighborhood than people who are passing through or employed in an area.

The CEQA thresholds of significance require an evaluation of whether the GAIP would substantially degrade the existing visual character or quality of the Airport and its surroundings. The determination of whether the changes in the visual quality of a site would degrade an area or its surroundings, to result in a significant impact, can be highly subjective and dependent on the viewer’s perspective. In determining whether the Proposed Project and Alternative 1 would degrade the visual character, factors such as the viewer groups of the site, the extent to which the Proposed Project and Alternative 1 would disrupt natural visual resources, and the extent to which the Proposed Project and Alternative 1 would create a visually cohesive environment were evaluated.

This was done by first establishing the existing conditions baseline for visual quality at the Airport, then characterizing the potential changes associated with the proposed demolition, redesign, and reconstruction of existing general aviation facilities (i.e., changes in locations and sizes of buildings and improvements) due to implementation of the Proposed Project and Alternative 1; this change was assessed in light of the concept plans and regulations that control building use, heights, and lighting at the Airport. It is important to recognize the GAIP site is located in a larger urban context surrounded by light industrial and commercial development.

4.1.3 EXISTING CONDITIONS

The general aviation facilities at JWA include buildings occupied by fixed-based operators (“FBOs”), other lease holders, tie-downs, and hangars. Outdoor aircraft parking occurs on tie-down and aprons. The Lyon Air Museum, located at 19300 Ike Jones Road, is located on the west side of the Airport on the premises of one of the limited-service FBOs (Martin Aviation). The Lyon Air Museum is open to the public and therefore, considered a public view.

The terminal building and parking structures are the most dominant visual features at the Airport. These facilities are located at the northeastern portion of the Airport and service the commercial air carriers. JWA’s general aviation facilities are located south of the terminal building. On the east side of the Airport, the general aviation facilities are located south of the intersection of Campus Drive and Airport Way. On the west side of the Airport, general aviation is located south of Paularino Avenue. General aviation aircraft run the gamut from vintage biplanes and helicopters to corporate jets. These aircraft contribute to the visual character of the general aviation portion of the Airport.

Existing Structures

Exhibit 1-3 provides an aerial perspective of the Airport and surrounding off-Airport uses. General aviation on-site uses include hangars, office buildings, storage sheds, and shade structures. Most of the structures are painted or have exterior colors of gray or off-white. The structures do not feature any distinctive architecture but are largely utilitarian in form. The fuel farm, located in the southeastern portion of the Airport, includes small, scattered fueling equipment and outdoor storage. The aprons and tie-down areas are outdoor paved areas where general aviation aircraft are parked. The vehicle parking areas are also paved areas used by visitors and employees.

Views internal to the site, as seen by employees, visitors, and passengers, consist of large, paved apron areas and tie-down aprons with parked aircraft and hangar buildings with large doors to accommodate aircraft, along with various equipment and infrastructure.

Public Views

The GAIP site is visible from various public vantage points, which consist mainly of roads located near the Airport. However, due to the size and linear nature of the site, Airport facilities are seldom in any one public vantage point. Rather, public views are limited to the nearest structures, vehicles, and aircraft within a limited viewshed. For all the viewpoints, the Airport is in an urban context surrounded by development.

Views from West of the Airport

On the west of the Airport, the general aviation uses are located south of Paularino Avenue. As noted in Section 4.7, Land Use and Planning, the surrounding uses on the west side predominately comprise low-rise office buildings and industrial buildings. These uses are not considered view-sensitive uses because their length of exposure to the views is brief, and the nature of the businesses does not connect them to the visual character of the site. Additionally, the visual orientation of these uses is not focused on the Airport, although the Airport is a visible

feature from the parking lots and from some building locations. Viewer groups would include motorists, pedestrians, and bicyclists on adjacent public roadways and occupants of the nearby businesses. Visitors to the Lyon Air Museum would have views of the airfield.



Airway Avenue is a north-south public roadway that runs parallel to the Airport. Portions of the western boundary of the Airport abut Airway Avenue; however, even at these locations views of the Airport are limited. Due to the uneven boundary of the Airport on the west side (see Exhibit 1-3), in some locations the Airport is approximately 400 to 600 feet east of Airway Avenue. Office buildings intervene between the roadway and the Airport, limiting most direct views. Several east-west roadways terminate at the Airport's western boundary where views of the Airport are visible. Exhibit 4.1-1a provides a key map depicting the location where photographs were taken on the west side of the Airport. Exhibit 4.1-1b through 4.1-1e provides Photographs A through H taken views from various vantage points along the west side of the Airport. The views from these locations are discussed below.

Photograph A depicts views east of Airway Avenue at Paularino Avenue. This portion of the roadway is part of John Wayne Airport; however, public access is allowed up to the security gate, located approximately 560 feet east of Airway Avenue. Views include the building walls of hangars to the south and office buildings and the air traffic control tower on the north. An entrance gate with a guardhouse and a portable toilet mark the end of the street, with the runways, taxiways, and antenna tower behind the gate and the passenger terminal across the runways. Views of the airfield are fairly obscure from this vantage point because buildings block views.

Photograph B shows the views from Airway Avenue between Paularino Avenue and Baker Street. At this location, the Airport extends to Airway Avenue; however, as shown in the photograph, the public view is of the top of aircraft shade structures and buildings. These are separated from Airway Avenue by a block wall with landscaping. Other than seeing the top of aircraft shade structures, the visual character for the public on Airway Avenue is not substantially different than the portions of the roadway adjacent to office development.

Views from Airway Avenue at Baker Street include box hangars and shade structures to the north, similar to the view shown in Photograph B. East of Airway Avenue, Baker Street becomes Ike Jones Road, which is part of the Airport. Ike Jones Road provides access to a two-story building occupied by Limited Service FBO Martin Aviation and the Lyon Air Museum. Photograph C shows views from Ike Jones Road looking north. Shade structures and aircraft tie-downs predominate the view. However, at the eastern end of Ike Jones Road there are views across the airfield. Photograph D shows Martin Aviation in the foreground with aircraft on the apron. Once Ike Jones Road turns to the south, Martin Aviation and the Lyon Air Museum block direct views of the airfield. Photograph E depicts views from the Lyon Air Museum, which would be considered a public view. From this vantage point, full views of the airfield are visible. It should be noted, no modifications to Martin Aviation or the Lyon Air Museum are proposed.

As noted above, along portions of Airway Avenue, the Airport is separated from public view points by office/industrial buildings. Photograph F shows that from these locations distant views of the Airport can be seen through the parking lots of the office buildings, but defining characteristics of the Airport are limited.

 Airport Property Boundary
 Photo Location



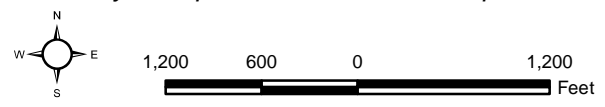
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Aerial Source: ESRI 2016

Views from West of the Airport

Exhibit 4.1-1a

John Wayne Airport General Aviation Improvement Program





Photograph A: Airway Avenue at Paularino Avenue looking east.



Photograph B: Airway Avenue, north of Baker Street, looking northeast.

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Views from West of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-1b





Photograph C: View from Ike Jones Road, east of Airway Avenue, looking north.



Photograph D: Ike Jones Road looking southeast with Martin Aviation in the foreground.

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Views from West of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-1c





Photograph E: View from the Lyon Air Museum, looking east across the airfield.



Photograph F: Airway Avenue in the vicinity of Kalmus Drive looking east through the parking lot of an office buildings.

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Views from West of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-1d





Photograph G: Airway Avenue looking east at the Limited Service Southwest FBO site.



Photograph H: View from Clinton Street looking north.

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Views from West of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-1e



Photograph G provides views of the Airport from Airway Avenue at the Limited Service Southwest FBO site. Views of the hangars and tie-downs are visible though the security fencing.

From the cul-de-sac at the eastern end of Clinton Street, views of the Airport are clearly visible. As shown in Photograph H, this vantage point provides close-range views of the County tie-down area with views across the airfield.

The Airport is generally not visible from streets and land uses farther west or from State Route 55 due to intervening trees and structures.

Views from East of the Airport

On the east side of the Airport, general aviation is south of the Campus Drive/Airport Way intersection. General aviation uses are in the foreground along the west side of Campus Drive. The adjacent land uses are office and industrial buildings located on the east side of Campus Drive. The visual orientation of these developments is not focused on the Airport, and they are separated from the Airport by Campus Drive. Viewer groups would include motorists, pedestrians, and bicyclists on Campus Drive and occupants of the nearby businesses. These uses are not considered view-sensitive uses because their length of exposure to the views is brief, and the nature of the businesses does not connect them to the visual character of the site. Exhibit 4.1-2a provides a key map depicting the location of photographs taken with views of the east side of the Airport. Exhibits 4.1-2b and 4.1-2c provide Photographs I through L taken from various vantage points along the east side of the Airport. The views from these locations are discussed below.



The general aviation area is visible from within the Terminal Building. Photograph I shows views from Terminal C (the terminal location in closest proximity to the general aviation uses). The aviation uses contribute to the ambiance of the Airport and can be fully seen across the airfield by passengers waiting for their flights. Photograph J provides views of the existing Full Service Northeast FBO, located in the southwest quadrant of the Campus Drive/Airport Way. These buildings begin the transition from the more intense commercial carrier terminal building and parking structures to the general aviation uses at the Airport. Key visual features include the paved areas used for vehicle parking and aprons for aircraft parking. The Northeast FBO building, although not architecturally unique, has a distinctive blue roof which is visually notable. Views of the Airport, including general aviation, are clearly visible to user groups along Campus Drive.

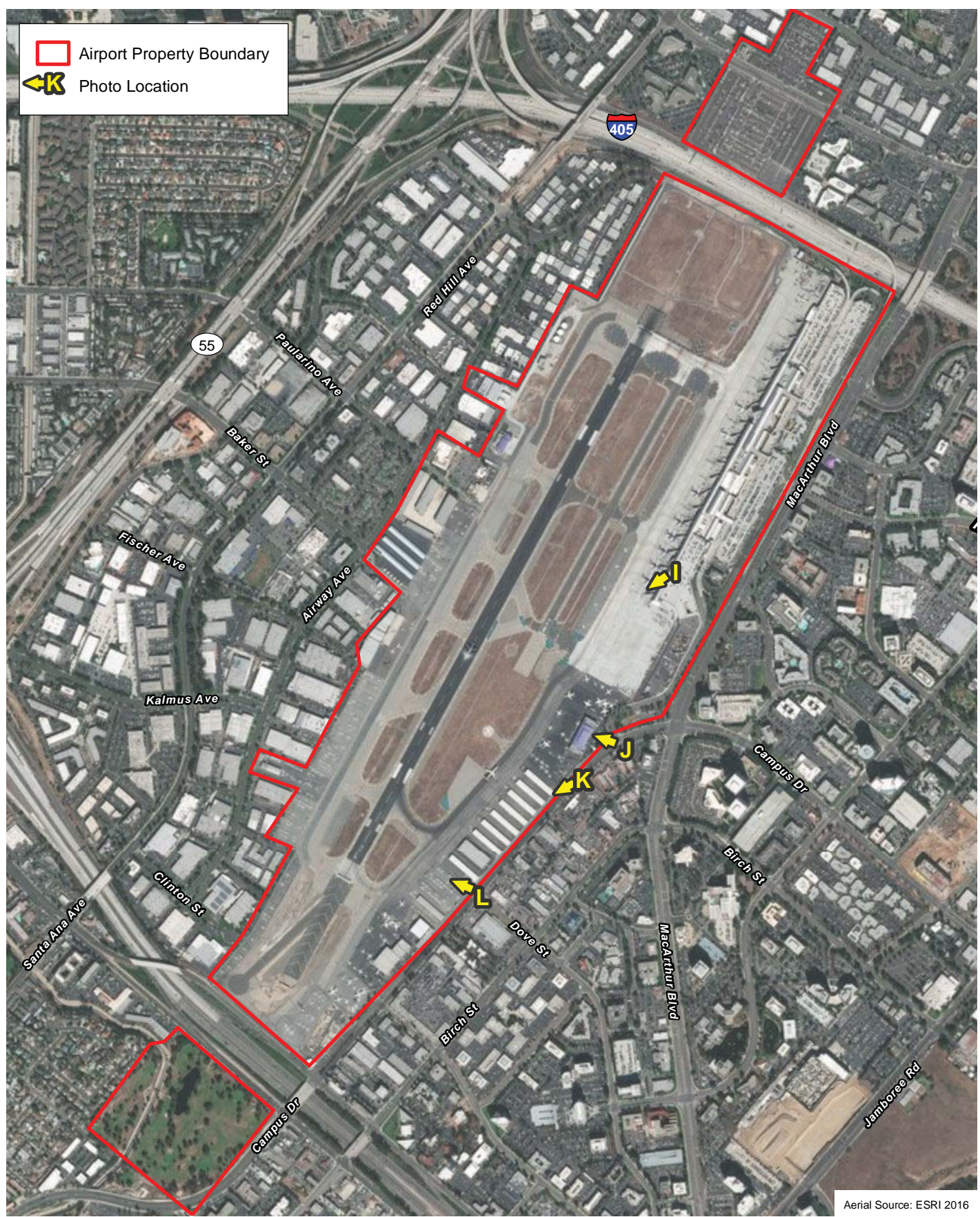
Traveling south on Campus Drive, views of the T-hangars are visible (Photograph K). The visual character of these facilities is industrial. Vehicle parking, small aircraft tie-downs, and rows of hangars are the predominant view. These structures are all located behind a chain-link fence, which is lined with low shrubs and parkway trees at some locations.

Photograph L shows the views of the site from the intersection of Campus Drive and Dove Street, which are views of small aircraft tie-down areas, apron areas, taxiways, and runways at JWA.

Views from North and South of the Airport

Views of the general aviation activities are very limited from both north and south of the Airport. North of the Airport views would be limited to people on Main Street and I-405. From both

 Airport Property Boundary
 Photo Location



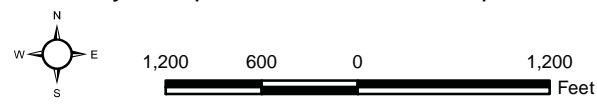
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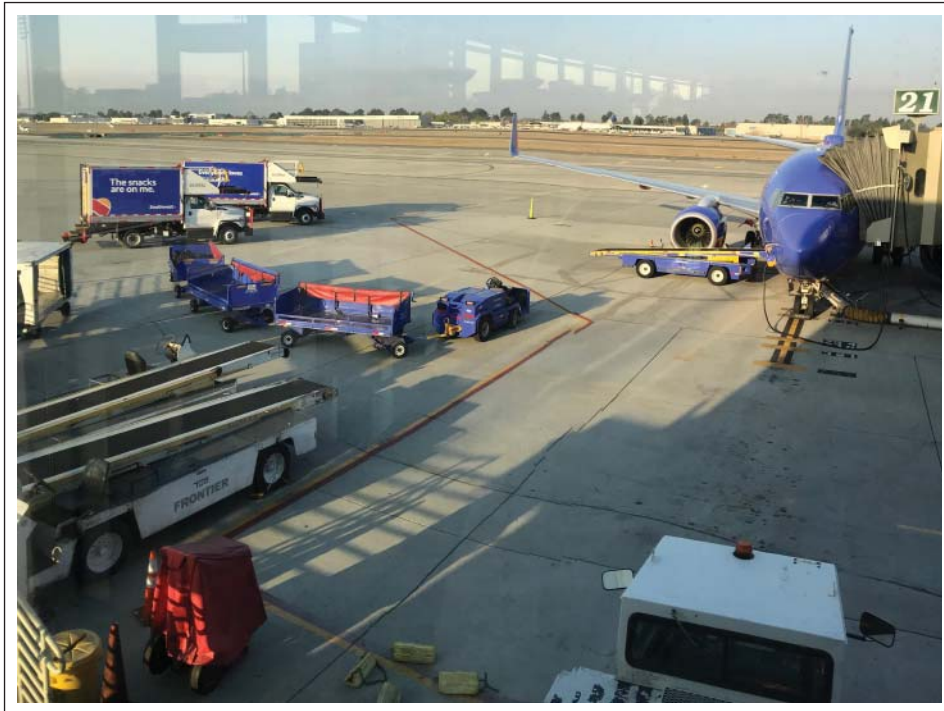
Aerial Source: ESRI 2016

Views from East of the Airport

Exhibit 4.1-2a

John Wayne Airport General Aviation Improvement Program





Photograph I: Views of the General Aviation Uses from the Terminal.



Photograph J: View of the existing Full Service Northeast FBO from Campus Drive.

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Views from East of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-2b





Photograph K: View from Campus Drive looking south.



Photograph L: View of the Airport from Campus Drive and Dove Street.

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Views from East of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-2c



locations, views are limited to the northern ends of the runways, with the Airport passenger terminal and aircraft on the east, and buildings and fuel storage tanks to the west. The general aviation facilities are in the distance and are not readily visible. Exhibit 4.1-3a provides a key map depicting the location where photographs taken with views north and south of the Airport. The photographs are provided in Exhibit 4.1-3b. From Main Street, the long-term parking lot is visible, which is a potential construction staging/lay-down area for the GAIP (see Exhibit 4.1-3b, Photograph M).

From the southern end of the Airport, views of the Airport are limited from North Bristol Street and northbound along Irvine Boulevard (which becomes Campus Drive north of North Bristol Street). Views are of an Airport maintenance building, with aircraft tie-downs and the airfield in the background. Views from South Bristol Street are limited to distant views of the storage building, sheds, hangars, runway, and apron areas. Similar distant views can be seen from a portion of the Newport Beach Golf Course, which is owned by the Airport. The golf course portion along Irvine Avenue is proposed to be used for a potential construction staging/lay-down area for the GAIP (see Exhibit 4.1-3b, Photograph N). Views from vehicles on SR-73, which is parallel to and located between North Bristol Street and South Bristol Street, do not include the site due to the lower elevation of this freeway in relation to the Airport.

4.1.4 THRESHOLDS OF SIGNIFICANCE



In accordance with the County's Environmental Analysis Checklist and Appendix G of the State CEQA Guidelines, the GAIP would result in a significant impact related to aesthetics if it would:

- Threshold 4.1-1** Substantially degrade the existing visual character or quality of the site and its surroundings
- Threshold 4.1-2** Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area

4.1.5 REGULATORY REQUIREMENTS AND STANDARD CONDITIONS OF APPROVAL

Implementation of the GAIP assumes compliance with existing regulations related to the land use, building heights, and sources of light and glare, which affect the visual quality at the Airport, as discussed under Section 4.1.1, Regulatory Setting, above. These include the regulatory requirement ("RR") listed below. There are no County Standard Conditions of Approval pertaining to aesthetics that would be applicable to the GAIP.

- RR AES-1** Prior to issuance of any building permit for individual general aviation projects at JWA, the contractor shall file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) with the FAA regional office that will show compliance with the FAR Part 77 regulation, as it relates to building or structure heights, markings, lighting, and other standards. The FAA's Determination of No Hazard shall be submitted to the County prior to the start of construction.

 Airport Property Boundary
 Photo Location

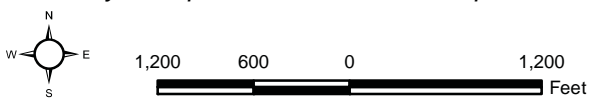


Aerial Source: ESRI 2016

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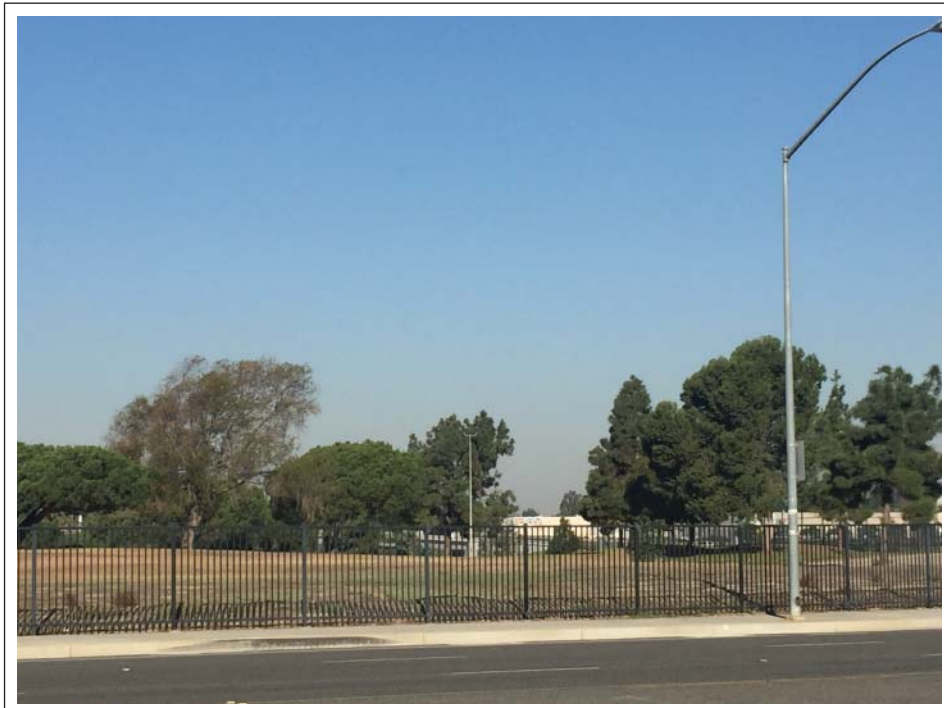
Views from North and South of the Airport
 John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-3a





Photograph M: View from Main Street looking south toward a potential staging area.



Photograph N: View from Irvine Avenue looking north toward a potential staging area.

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Views from North and South of the Airport

John Wayne Airport General Aviation Improvement Program

Exhibit 4.1-3b



4.1.6 IMPACT ANALYSIS

Threshold 4.1-1

- *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

Proposed Project

Short-Term Construction Impacts

Demolition, grading, and construction activities associated with implementation of the Proposed Project would present views of demolition debris, small amounts of excavated soils, and heavy equipment (e.g., backhoes, bulldozers, dump trucks) and activities and debris. Building material stockpiles and equipment staging areas would generally be visible from outside the construction site boundaries. Two potential staging or material laydown locations have been identified on the Airport property (see Exhibit 2-1). Both locations are off-airfield. One location is in the western portion of the long-term parking lot on Main Street, and the second location is west of Campus Drive and south of South Bristol Street. Views of construction activities may be considered unappealing by some; however, construction and other forms of development are common sights and interruptions to the visual character of urban areas are largely accepted as temporary. The overall duration of construction is slightly more than seven years (2019 to 2026), and construction would occur over 14 primary phases. As a result of the incremental implementation of the improvements, views of demolition and construction activities would affect areas throughout all project phases. During each phase, security fencing would be provided around the construction sites and staging areas.

As discussed under Existing Conditions above, there are existing developments around the Airport that block direct views into the Airport's general aviation facilities. Thus, public views of the general aviation facilities are limited to those available from streets and land uses adjacent to specific general aviation facilities at the Airport, and long-range views are limited in number and scope. Also, due to the size of the Airport and the locations of general aviation facilities east and west of the Airport runways, construction activities for the GAIP would only be visible to viewers in the immediate vicinity of each phase of the improvements. These views would also be temporary and confined to the individual construction phases. Given the industrial character of the Airport, construction activities would not substantially degrade the visual character of the site, and aesthetic impacts related to construction activities would be less than significant.

The locations proposed for staging would have greater visibility. The site in the long-term parking lot would be visible from the direct connector freeway ramp to SR-55, Main Street, and the office buildings immediately adjacent to the parking lot. None of these uses would be considered visually sensitive. From the SR-55 connector ramp and Main Street, the views would be of brief duration and would not be considered a significant impact. The office buildings represent private views; however, landscaping provides some visual screening between the parking lot and the office buildings. The potential staging location at the corner of Irvine Avenue and South Bristol Street would be visible from viewers on either of these roadways, users of the Newport Beach Golf Course, and nearby office buildings. Currently, this area, which is in Airport ownership, is turf and is visually part of the golf course. The golf course is open to the public;

therefore, this would be considered a public view. Although use of the golf course would not be impacted (i.e., this area is not used for play); using the eastern edge of the property for construction equipment and materials would adversely affect the visual quality in this location. Given the context of the site (i.e., in an urban setting, adjacent to two major roadways, a freeway, and the Airport), the visual impact would not be sufficiently adverse to be considered a substantial degradation of the visual character or quality of the area. Although impacts would be less than significant, a minimization measure (MN AES-1) is recommended to provide screening during construction.¹ During each phase, security fencing that would block the ground-level views of individuals at the site boundaries would be provided around the construction sites and staging areas (MN AES-1). No additional mitigation is required.

Long-Term Operational Impacts

Implementation of the Proposed Project would not result in substantial changes to the visual character of Airport. The area dedicated to general aviation would remain as general aviation. Older facilities would be replaced with newer facilities that are generally consistent in nature. The Proposed Project would result in some intensification as the amount of tie-down area, which visually is just a paved area, is replaced with hangars. Although detailed design plans will be developed as improvements are implemented, the following discussion is based on the Proposed Project concept plan and regulatory requirements that would be applicable to development at the Airport. Proposed structures would need to comply with FAR Part 77 regulations (RR AES-1) in terms of building heights and lighting. Therefore, the heights of buildings are assumed to be generally consistent with the height of the existing buildings on site.

On the west side of the Airport, the visual quality of the area defined by Paularino Avenue, Airway Avenue, and Baker Street would change as the existing box hangars, shade structures, and tie-down apron are reconfigured to accommodate a vehicle parking area, FBO hangars and apron, and an OCSO box hangar. However, the overall character of the improvements are consistent with the facilities that are currently located on the Airport. As noted in the discussion under Existing Conditions, none of the locations with views of the Airport are considered visually sensitive, and no character-defining elements are in this area. The Lyon Air Museum is the location with the most expansive views of the Airport; however, all the improvements are aviation-related and would contribute to the context of the museum.

The County tie-down area south of the Lyon Air Museum would also be reconfigured to provide a smaller County tie-down apron, four rows of T-hangars, and additional hangar facilities at the Limited Service Southwest FBO. This represents an intensification of the uses in this location; however, as shown in Photographs F through H, no key public views would be impaired; and the overall character of the improvements would be consistent with the existing character of the Airport. Uses would remain dedicated to general aviation uses.

On the east side of the Airport, the facilities would be redeveloped with the larger FBO community hangars, box hangars, and rows of T-hangars. Views of this area from Campus Drive between Airport Way and North Bristol Street would change as new structures and site

¹ As defined in Section 4.0, a minimization measure is a condition proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact.

improvements are constructed. However, this area is already developed with facilities to support general aviation uses.

Overall, the new construction would be consistent with the visual character of the area but would replace existing older facilities with new facilities that would result in a visual improvement. The changes in visual quality would not present a major change over existing conditions, and no major group of viewers with long-term views would be exposed to these visual changes. Impacts would be less than significant, and no mitigation is required.

Impact Conclusion: *Construction activities would result in temporary visual changes at the Airport; however, given the urban context of the GAIP site, these changes would not result in a significant visual impact. Long-term, the character of the improvements for the Proposed Project would be consistent with the visual character of the Airport. The Proposed Project would have to comply with existing regulations related to building height. The replacement of older facilities with new facilities would result in an improvement; therefore, the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Implementation of MN AES-1 would serve to reduce impacts associated with construction staging. Impacts would be less than significant under Threshold 4.1-1.*

Alternative 1

Short-Term Construction Impacts

The construction impacts for Alternative 1 would be similar to those identified for the Proposed Project. Construction activities would present views of demolition activities and building material stockpiles and equipment staging areas that would be generally visible from outside the construction site boundaries. Construction would occur over 15 primary phases over slightly more than seven years (2019 to 2026). As a result of the incremental implementation of the improvements, views of demolition and construction activities would affect areas throughout all project phases. During each phase, security fencing would be provided around the construction sites and staging areas.

The viewpoints would be the same for Alternative 1 as those discussed for the Proposed Project. Security fencing that would block the ground level views of individuals at the site boundaries would be provided around the construction sites and staging areas. Thus, changes in the visual character of the site due to demolition and construction activities would be less than significant. No mitigation is required.

Long-Term Operational Impacts

Implementation of Alternative 1 would not result in substantial changes to the visual character of the Airport. As with the Proposed Project, the area dedicated to general aviation would remain as general aviation. Older facilities would be replaced with newer facilities that are generally consistent in nature. The visual effect of the development on the west side of the Airport would be very similar to that discussed for the Proposed Project. A greater number of T-hangars would be provided between the Lyon Air Museum and the Limited Service Southwest FBO. However, since no key public views would be impaired and the overall character of the improvements

would be consistent with the existing character of the Airport, this intensification of uses would not result in a significant visual impact.

Alternative 1 would result in the development of two full service FBOs in closer proximity than currently exist on the east side of the Airport. This would change the visual intensity of the Airport development along Campus Drive; however, the overall character of the development would not be substantially different than what currently exists at the Airport. Detailed design plans will be developed as improvements are implemented, and proposed structures would need to comply with FAR Part 77 regulations (RR AES-1) in terms of building heights and lighting. Overall, changes in visual quality would not present a major change over existing conditions; and no major group of viewers with long-term views would be exposed to these visual changes. Alternative 1 would result in a less than significant impact on visual quality, and no mitigation is required.

Impact Conclusion: *Construction activities would result in temporary visual changes at the Airport; however, given the urban context of the GAIP site, these changes would not result in a significant visual impact. Long-term, the character of the improvements for Alternative 1 would be consistent with the visual character of the Airport. Alternative 1 would have to comply with existing regulations related to building height. The replacement of older facilities with new facilities would result in a visual improvement; therefore, Alternative 1 would not substantially degrade the existing visual character or quality of the site and its surroundings. Implementation of MN AES-1 would serve to reduce impacts associated with construction staging. Impacts would be less than significant under Threshold 4.1-1.*

Threshold 4.1-2

- ***Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?***

Proposed Project

Short-Term Construction Impacts

There would be some construction activities that would occur during the nighttime hours, resulting in the need for temporary lighting. This would be limited to specific construction sites for each phase. This lighting would have to comply with FAR Part 77 regulations (RR AES-1) to prevent hazards to aircraft operations. Given the lack of sensitive receptors adjacent to the construction site, impacts associated with lighting would be less than significant, and no mitigation is required.

Long-Term Operational Impacts

The Proposed Project would include the removal of existing light sources at structures to be demolished, as well as the installation of new light sources at structures and site improvements constructed under the GAIP. While this would involve the replacement of existing light sources (e.g., interior and exterior building lights, security lighting, walkway lighting, lighted signs, and

other paved area lighting), the same type of light sources would be provided on site. Changes in lighting levels may occur in different areas of the site as different facilities are constructed at different locations. Potential glare sources in the form of mirrored or metallic surfaces would be minimal and limited to scattered glass windows and exterior surfaces similar to existing structures (which are in compliance with FAA regulations for markings and lighting).

Should any of the GAIP facilities propose to utilize solar panels for energy efficiency, there would be the potential the solar panels could result in glint and glare, which dependent on the placement of the panels, could result in an aesthetic impact on adjacent land uses and a potential safety concern to pilots and/or the FAA control tower. The potential for glint and glare is generally the greatest when the sun is low on the horizon (toward sunrise and sunset) because the solar panels are absorbing much less of the incoming light (Barrett 2013). The greatest potential for glint and glare is generally associated with installation of large arrays of solar panels. Solar panels with an anti-reflective coating on the solar cells substantially reduces the potential for glint and glare. The coating also would increase the solar module's light absorption properties, making them more efficient. Given the limited size of the Airport and the facilities being proposed (i.e., the largest buildings would be terminal buildings for the full service FBOs, which are about 21,653 square feet), the size of the solar installations would also be limited. Additionally, there are no sensitive views adjacent to the Airport; therefore, the aesthetic impacts would be less than significant. MN AES-2 would require an applicant to perform a glare study in accordance with FAA guidance.

All new long term light sources and potential glare sources would have to comply with FAR Part 77 regulations (RR AES-1), including types of lights and intensity of lighting and night/day lighting combinations. By complying with these regulations, the sources and intensity of lighting would be similar to existing lighting. In addition to avoiding the creation of hazards to Airport operations, compliance with these requirements would prevent the creation of new sources of substantial light or glare that would result in significant visual impacts. In addition, no light-sensitive uses are immediately adjacent to the site that would be affected by changes in lighting levels. Impacts would be less than significant, and no mitigation is required.

Impact Conclusion: *The Proposed Project would result in the replacement of existing light sources on site. Compliance with RR AES-1 would regulate the type of building materials allowed and the intensity of lighting for all new facilities at the Airport. In addition, should any of the facilities proposed under the Proposed Project utilize solar panels for energy efficiency, MN AES-2 requires an evaluation of glare and glint on surrounding land uses and potential effects on navigation. Therefore, the Proposed Project would not result in substantially greater new sources of light or glare. Impacts would be less than significant under Threshold 4.1-2.*

Alternative 1

Short-Term Construction Impacts

As with the Proposed Project, there would be some construction activities that would occur during the nighttime hours, resulting in the need for temporary lighting. This would be limited to specific construction sites for each phase. This lighting would have to comply with FAR Part

77 regulations (RR AES-1) to prevent hazards to aircraft operations. Given the lack of sensitive receptors adjacent to the construction site, impacts associated with lighting would be less than significant, and no mitigation is required.

Long-Term Operational Impacts

Similar to the impacts of the Proposed Project, Alternative 1 would result in the replacement of existing light sources on site and changes in lighting levels in different areas of the Airport as different facilities are constructed at different locations. Compliance with RR AES-1 would regulate the type of building materials to avoid potential glare from buildings. As with the Proposed Project, by complying with these regulations, the sources and intensity of lighting would be similar to existing lighting and would prevent the creation of new sources of substantial light or glare that would result in significant visual impacts. Impacts would be less than significant, and no mitigation is required.

Should any of the GAIP facilities propose to utilize solar panels for energy efficiency, there would be the potential the solar panels could result in glint and glare, which dependent on the placement of the panels, could result in an aesthetic impact on adjacent land uses and a potential safety concern to pilots and/or the FAA control tower. The potential for glint and glare is generally the greatest when the sun is low on the horizon (toward sunrise and sunset) because the solar panels are absorbing much less of the incoming light (Barrett 2013). The greatest potential for glint and glare is generally associated with installation of large arrays of solar panels. Solar panels with an anti-reflective coating on the solar cells substantially reduces the potential for glint and glare. The coating also would increase the solar module's light absorption properties, making them more efficient. Given the limited size of the Airport and the facilities being proposed (i.e., the largest buildings would be terminal buildings for the full service FBOs, which are about 21,653 square feet), the size of the solar installations would also be limited. As with the Proposed Project, there are no sensitive views adjacent to the Airport; therefore, the aesthetic impacts would be less than significant. MN AES-2 requires a glare study be conducted prior to issuance of a building permit.

Impact Conclusion: *Alternative 1 would result in the replacement of existing light sources on site. Compliance with RR AES-1 would regulate the type of building materials allowed and the intensity of lighting for all new facilities at the Airport. In addition, should any of the facilities proposed under Alternative 1 utilize solar panels for energy efficiency, MN AES-2 requires an evaluation of glare and glint on surrounding land uses and potential effects on navigation. Therefore, Alternative 1 would not result in substantially greater new sources of light or glare. Impacts would be less than significant under Threshold 4.1-2.*

4.1.7 CUMULATIVE IMPACTS

When evaluating cumulative aesthetic impacts, a number of factors must be considered. In order for a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not in proximity to each other, the viewer would not perceive them in the same scene. The context in which a project is being viewed will also influence the significance of the aesthetic impact.

The GAIP (Proposed Project and Alternative 1) would be developed in the context of the Airport, which is nearly completely developed with aviation uses or the necessary undeveloped area between runways. The Airport is also in a urbanized setting, which establishes the visual character of the area.

Given the developed nature of the area surrounding the Airport, the only cumulative project that would contribute to a change in the visual character is the Wickland Pipeline project, located on the west side of the Airport. As noted in Section 4.0, the Wickland Pipeline project will provide fuel to the Airport via a pipeline and construction of two new fuel storage tanks south of the existing Airport fuel tanks. The project is under construction. The tanks will have an approximately 1.5-million-gallon storage capacity² and are approximately 34 feet in height and 98 feet in diameter. The Mitigated Negative Declaration prepared for the Wickland Pipeline project identified that aesthetic impacts were less than significant, and no mitigation measures were required. The GAIP (the Proposed Project or Alternative 1) combined with the Wickland Pipeline project will result in an intensification of development on the Airport. However, both the GAIP and the Wickland Pipeline project would be consistent with the visual character of the Airport. Buildings surrounding the Airport provide visual screening of much of the site from off-Airport vantage places. Both the GAIP and the Wickland Pipeline project would be required to comply with FAA requirements pertaining to lighting and use of reflective materials, thereby minimizing the potential for light and glare impacts. Cumulative visual impacts would be less than significant for aesthetics.

4.1.8 MITIGATION PROGRAM

Minimization Measure

MN AES-1 Construction contract specifications for any phase of development where the Airport property on the southwest corner of Irvine Avenue and Bristol Street South (i.e., golf course area) will be used as a construction laydown area/staging area, shall include security fencing with opaque screening around the construction sites and staging areas to block the ground-level views of the site. No removal of trees shall be allowed at the staging area.

MN AES-2 Prior to issuance of a building permit for any project proposing the use of solar panels, the applicant shall prepare an evaluation of glare and glint on surrounding land uses and effects on navigation. The evaluation shall include description of the number, style, and placement of all solar panels. Additionally, evaluation shall include an analysis consistent with FAA guidance on evaluating solar technologies at the Airport. The evaluation shall be approved by the John Wayne Airport, Deputy Director, Facilities.

With compliance with above listed minimization measures and existing regulations, no significant impacts related to aesthetics would result from the implementation of the Proposed Project or Alternative 1. Therefore, no mitigation measures have been identified.

² The jet fuel tanks would have a total shell capacity of 1,722,000 gallons and a net operating capacity of 1,554,000 gallons.

4.1.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With compliance with minimization measures (MN AES-1 and MN AES-2) and existing regulations (RRs AES-1), no mitigation measures would be necessary. As a result, no significant unavoidable impacts would be associated with the Proposed Project or Alternative 1. Additionally, because neither the GAIP (Proposed Project or Alternative 1) would change the visual character of the Airport or introduce a new source of substantial light or glare, the GAIP would not contribute to a cumulative aesthetic impact.

4.1.10 REFERENCES

AECOM. 2018. (April) *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*. Orange, CA (Appendix D)

———. 2017 (December). *General Aviation Facility Requirements Technical Report*. Orange, CA.

Barrett, S. 2013 (June). Glare Factor: Solar Installations and Airports. *Solar Industry*. 6(5): 1–3. Oxford, CT: Zackin Publications. <http://solarindustrymag.com/issues/SI1306/index.html>.

California Legislative Information. 2017 (November 20, access date). California law, Public Utilities Code. Sacramento, CA: California Legislative Information.

Federal Aviation Administration (FAA). 2016 (October 8). Advisory Circulation 70/7460-IL, Obstruction Marking and Lighting. Washington D.C.

———. 2015 (July). *Evaluation of Glare as a Hazard for General Aviation Pilots on Final Approach*.

———. 2010 (November). *Technical Guidance for Evaluating Selected Solar Technologies on Airports*.

Orange, County of, John Wayne Airport (JWA). 2017 (November 20, access date). ALUC, About the Airport Land Use Commission. Costa Mesa, CA: JWA. <http://www.ocair.com/commissions/aluc/>

Orange County Airport Land Use Commission (OCALUC). 2008 (April 17). Airport Environs Land Use Plan for John Wayne Airport. Costa Mesa CA

U.S. Government Printing Office (GPO). 2017 (November 16). e-CFR – Electronic Code of Federal Regulations, Title 14, Chapter 1, Subchapter E, Part 77. Washington D.C.: GPO. https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=61302bd90d79271a583474ad2f9dcd7e&rgn=div5&view=text&node=14:2.0.1.2.9&idno=14#se14.2.77_19