

APPENDIX T
*Jacumba Airport Land Use
Compatibility Plan
Technical Memorandum*



MEMORANDUM

To: Geoff Fallon
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From: David Bossu, P.E.
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Date: 04/09/21

Subject: Jacumba Airport Land Use Compatibility Plan (ALUCP) – JVR Energy Park Project

Attachment: Lot Coverage and Open Land Figure

This memorandum was prepared for the JVR Energy Park Project (Proposed Project), which is a proposed solar energy generation and storage facility. A portion of the Project site is located within safety zones for the Jacumba Airport. A number of commenters stated concerns that implementation of the Proposed Project would impact operations at the Jacumba Airport. In particular, commenters expressed concern that the Proposed Project conflicts with the Jacumba Airport Land Use Compatibility Plan's (ALUCP) lot coverage and open space requirements. The purpose of this memorandum is to address the comments regarding the Proposed Project's consistency with the ALUCP. The adopted Jacumba Airport ALUCP is available at the following website:

https://www.san.org/DesktopModules/Bring2mind/DMX/API/Entries/Download?Command=Core_Download&EntryId=2943&language=en-US&PortalId=0&TabId=225

The San Diego County Regional Airport Authority is currently preparing an update to the Jacumba Airport ALUCP. The draft update is available at the following website:

<https://www.san.org/Portals/0/Documents/Airport%20Projects/Planning/Jacumba-Airport-ALUCP-Feb-2020.pdf>

PART I: LOT COVERAGE

A comment was received that expressed concern that the Proposed Project does not meet lot coverage requirements as defined in the Jacumba ALUCP.

The Proposed Project meets the lot coverage requirements outlined in the Jacumba ALUCP table JAC-2, which restricts maximum lot coverage to 50%, 70% and 70% in Safety Zone 2, 4, and 5 respectively. The specific breakdown of the Proposed Project's lot coverage within the MUP for the Safety Zone 2, 4 and 5 are 33%, 32%, and 34% respectively as shown in the attached figure. The calculations account for all areas covered by vertical projections within these zones, which includes panels, battery storage containers, inverters and fences. The calculations are based on the worst-case ground coverage at high noon with a zero-degree tilt angle.

The County of San Diego Zoning Ordinance defines lot coverage as "the percentage of net site area covered by the vertical projection of any structure excluding any structure not extending above grade." Under this definition, the area between each row of solar panels (between each tracker) shall not be considered lot coverage in calculations because there is no vertical projection of a structure above grade covering that space. Therefore, the calculations provided below are sufficient to meet the maximum lot coverage policy.

The breakdown for each safety zone is provided below:

Safety Zone 2

Total Safety Zone 2 Area within MUP limits: 33.57 acres

Total Area Covered (Panels, Battery Storage Containers, Inverter, and Fence): 11.12 acres

Max Lot Coverage (per ALUCP JAC-2): 50%

Calculated Lot Coverage: 33%

Safety Zone 4

Total Safety Zone 4 Area within MUP limits: 75.06 acres

Total Area Covered (Panels, Battery Storage Containers, Inverter, and Fence): 24.13 acres

Max Lot Coverage (per ALUCP JAC-2): 70%

Calculated Lot Coverage: 32%

Safety Zone 5

Total Safety Zone 5 Area within MUP limits: 0.88 acres

Total Area Covered (Panels and Fence): 0.30 acres

Max Lot Coverage (per ALUCP JAC-2): 70%

Calculated Lot Coverage: 34%

The space between solar panels is greater than the panel width so there is more area exposed to the sky than obstructed. In consultation with the County of San Diego Department of Public Works-Airport Division, they have found no issues with this analysis. As the calculations show, all Safety Zones are below the maximum lot coverage requirements outlined in the ALUCP.

PART II: OPEN LAND

Comments were received on the Draft EIR For the Proposed Project regarding concerns for emergency landing areas near Jacumba Airport. Policy JAC 2.9 of the adopted Jacumba ALUCP states that risks to light aircraft can be minimized in the event of a landing away from the airport by providing as much open land area as possible within the airport vicinity. Policy JAC 2.9 requires open land area to be free of most structures and other major obstacles, have minimum dimensions of approximately 75 feet by 300 feet, and be oriented with the typical direction of aircraft flight over the location involved.

Per Jacumba ALUCP §2.8.a and §2.9.b.2, proposed development of 10.0 acres or more within Runway Safety Zones 2, 3, 4, and 5 are required to have a minimum of 0.5 acres per each 10 acres of the site as open land. The area must have a minimum dimension of approximately 75 feet by 300 feet. This area must be free of all structures and obstructions to allow aircrafts to land during emergencies.

The Proposed Project exceeds these open land requirements outlined in the Jacumba ALUCP and has been adjusted further to provide more space along the east-west oriented access road between trackers as well as south of the perimeter fence. The proposed development within the MUP boundary includes 109.51 acres spread across Runway Safety Zones 2, 4, and 5. A total of 11.83 acres of open land is provided across these safety zones within the MUP boundary, which exceeds the minimum requirement of 5.48 acres. Additionally, 12.11 acres of open land are provided outside the MUP boundary for a total of 23.94 acres of open land in the project vicinity within Safety Zones 2, 3 and 4. Notably, this open land is provided as follows:

- 1) 4.15 acres across Safety Zones 4 and 5 in the form of an 80-foot-wide road that bisects the Proposed Project and is aligned with the airport runway in an east-west direction
- 2) 3.60 acres on Old Highway 80 in Safety Zone 4, northwest of the airport, which bisects the southern and northern sections of the Proposed Project
 - a. According to JAC 2.9.d., roads are acceptable as open land areas
 - b. Old Highway 80 meets the Open Land Criteria as it has 76.5' of space between two lines of power poles on either side of the highway
- 3) 10.79 acres in Safety Zone 4 as a setback from the border fence to the south side of the Proposed Project
- 4) 5.40 acres in Safety Zone 4 as two stretches of land between Old Highway 80 and the Proposed Project's landscape buffer

Each open land area provided as noted above exceeds the minimum dimensions of 75 feet by 300 feet and are logically oriented parallel to the runway bearing. Please refer to the attached figure for a map of these open land areas.

The values noted here are intended for preliminary compliance demonstration. Final values are dependent on the final project layout but will continue to exceed minimum requirements and provide additional open land wherever feasible.

Please do not hesitate to reach out with any further questions to clarify the responses herein.

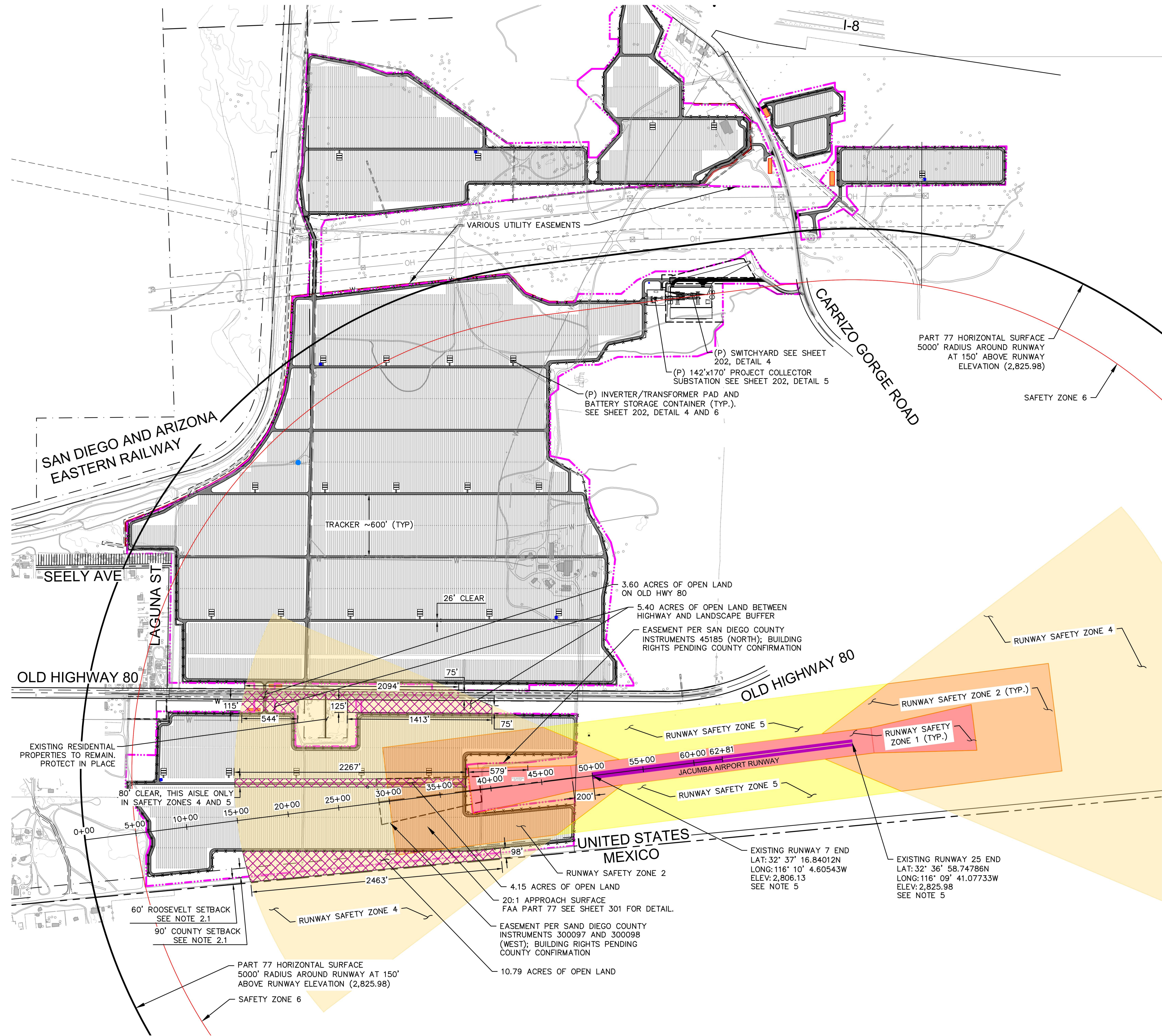
Sincerely,

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22090324



| LEGEND | |
|--------|---|
| | PROPERTY LINE |
| | CENTER LINE |
| | EASEMENT LINE |
| | MUP BOUNDARY |
| | PROPOSED FENCE. SEE SHEET 202, DETAIL 1 |
| | ALL WEATHER ACCESS DRIVE |
| | OPEN LAND |

- NOTES**
1. SURVEY INFORMATION PREPARED BY KIMLEY-HORN AND ASSOCIATES DATED AUGUST 2018; PENDING ALTA COMPLETION.
 2. SETBACKS
 - A. 60' "ROOSEVELT" PUBLIC RESERVE SETBACK PER "COUNTY OF SAN DIEGO, CALIFORNIA BOARD OF SUPERVISORS POLICY NUMBER I-111"
 - A.1. ~1.34 ACRES OF ENCROACHMENT INTO 90'-WIDE SD COUNTY SETBACK ~0.10% OF GROSS (PROPERTY) AREA; ~0.25% OF FENCED AREA.
 - B. 90' COUNTY SETBACK PER "COUNTY OF SAN DIEGO, CALIFORNIA BOARD OF SUPERVISORS POLICY NUMBER I-111"
 - C. FRONT, REAR, AND SIDE BUILDING COUNTY SETBACKS PER SAN DIEGO COUNTY "SETBACKS FOR SOLAR PHOTOVOLTAIC PANELS" DATED 01/30/18, REQUIRES A MINIMUM 3' SETBACK FROM PROPERTY LINE TO GROUND-MOUNTED PV SOLAR ARRAYS.
 3. RUNWAY SAFETY ZONES DELINEATED PER JACUMBA AIRPORT LAND USE COMPATIBILITY PLAN (ALUCP) ADOPTED BY THE SAN DIEGO COUNTY AIRPORT LAND USE COMMISSION (ALUC) IN DECEMBER, 2006 AND AMENDED IN DECEMBER, 2011. DATA SOURCE IS NOTED BELOW:
 - A. SHAPEFILES PROVIDED BY SAN DIEGO COUNTY
 - B. KIMLEY-HORN DEPICTION PER SAFETY ZONE DIMENSIONAL PLAN PROVIDED BY BAYWA AND ALUCP; ALSO INCLUDES KIMLEY-HORN DEPICTION OF ADDITIONAL BUILDING LIMITATIONS PER FAA PART 77 INCLUDING RUNWAY PROTECTION ZONE (RPZ), APPROACH ZONE, ETC AS SHOWN IN GREEN.
 4. ELECTRICAL LAYOUT SHOWN AS PROVIDED BY BAYWA R.E. SOLAR PROJECTS, LLC DATED OCTOBER 09, 2018.
 5. RUNWAY COORDINATES PER SD COUNTY -EMAIL DATED 10/4/2018 FROM ERIC NELSON

OPEN LAND

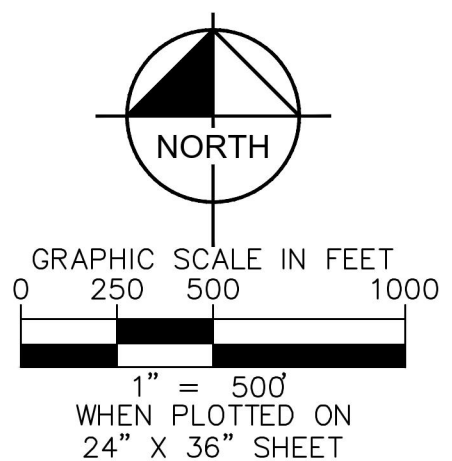
THIS LAYOUT COMPLIES WITH §2.9 OF THE ALUCP (CLEAR SPACE) AS CALCULATED BELOW:

CLEAR SPACE REQUIREMENT: 0.5 AC MINIMUM PER 10 AC PORTION OF DEVELOPED SITE

DEVELOPED SITE AREA*: 109.51 ACRES
MINIMUM REQUIRED OPEN LAND AREA: 5.48 ACRES
PROPOSED OPEN LAND AREA: 23.94 ACRES
(12.11 ACRES OF THE 23.94 ACRES ARE OUTSIDE THE MUP BOUNDARY)
*WITHIN ALUCP SAFETY ZONES 2,4,5

| LOT COVERAGE | | | | | |
|--------------|--------------------------------------|-------------------------------|------------------------------------|---|-------------------|
| SAFETY ZONE | PROP. LAND USE CATEGORY ¹ | MAX LOT COVERAGE ² | SAFETY ZONE AREA [AC] ³ | AREA OF COVERAGE IN SAFETY ZONE [AC] ⁴ | EST. LOT COVERAGE |
| 1 | CELL PHONE TOWERS, WIND TURBINES | 0% | 0.00 | 0.00 | 0% |
| 2 | | 50% | 33.57 | 11.12 | 33% |
| 4 | | 70% | 75.06 | 24.13 | 32% |
| 5 | | 70% | 0.88 | 0.30 | 34% |

¹PER ADMINISTRATIVE DRAFT ALUCP MAP JAC-2
²PER ALUCP § 2.8
³MEASURED AREA OF MUP BOUNDARY WITHIN CORRESPONDING SAFETY ZONE
⁴TOTAL COVERAGE AREA WITHIN THE SPECIFIED ZONE AND MUP BOUNDARY THAT ACCOUNTS FOR PANELS, STORAGE CONTAINERS, INVERTERS, AND/OR FENCE



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SITE INFORMATION
JVR ENERGY PARK

PROJECT MANAGER
GEORGE GUNNOE
832.303.2477

PROJECT ENGINEER
AKHILA KRISHNAN
949.771.2976

| NO. | ISSUE | DATE |
|-----|---------------------|------------|
| 1 | MUP - 1ST SUBMITTAL | 11/01/2018 |
| 2 | MUP - 2ND SUBMITTAL | 10/17/2019 |
| 3 | MUP - 3RD SUBMITTAL | 03/25/2020 |
| 4 | MUP - 4TH SUBMITTAL | 04/08/2021 |

PROJECT NUMBER KHA-194083001
DRAWN BY LL
REVIEWED BY WC
APPROVED BY DB

CLIENT SIGNATURE

MAJOR USE PERMIT

AVIATION COMPATIBILITY PLAN

DRAWING NUMBER **300**
SHEET SIZE: ARCH D - 24" x 36"

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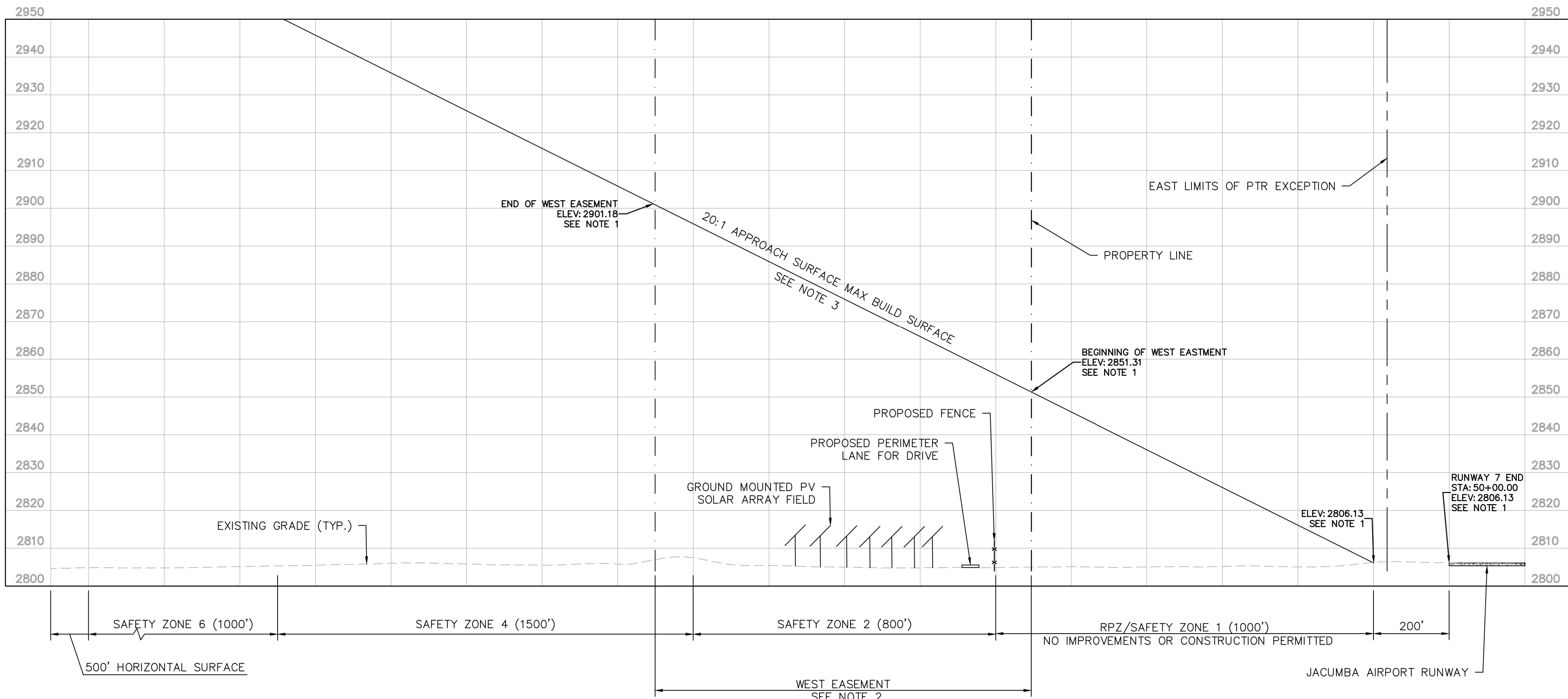
MAJOR USE PERMIT
AVIATION
COMPATIBILITY
PROFILE

DRAWING
NUMBER 301

SHEET SIZE: ARCH D - 24" x 36"

NOTES

- ELEVATIONS ARE MEASURED ABOVE MEAN SEAN LEVEL PER SURVEY BY KIMLEY HORN & ASSOCIATES DATED AUG. 22, 2018.
- WEST EASEMENT — COUNTY OF SAN DIEGO EASEMENT INSTRUMENT NO. 300098 RECORDED 8/25/1973
- DO NOT PENETRATE WITH PERMANENT IMPROVEMENTS OR CONSTRUCTION EQUIPMENT.



AVIATION COMPATIBILITY PROFILE
N.T.S.