# WELCOME

## Please Sign In


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SD Airports

For more information about the project, please visit

**www.SDAirportPlans.com**

# Meeting Format

# Presentation Overview

- Master Plan Overview, Purpose and Schedule
- Noise / Air Quality Overview
- Economic Impact Analysis
- Introduction to Draft Alternatives
  - Airside
  - Landside
- Next Steps

# 1. Master Plan Overview, Purpose and Schedule

# What is a Master Plan

"...a comprehensive study of an airport [that] usually describes the short-, medium-, and long-term development plans to meet future aviation demand."

- FAA Advisory Circular 150/5070-6B, Airport Master Plans

# Why now

- Last City adopted Master Plan was completed in 1980
- Recommended in City Performance Audit
- New FAA Design Standards
- Transformational changes in aviation
- Updated and approved Airport Layout Plan required for FAA funding

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# Master Plan Objectives

## 1. What do you have?

- Existing conditions
- Inventory of assets
- Obtain stakeholder input

## 2. What do you need or want?

- Aviation forecasts (FAA reviews and approves)
- Demand and capacity analysis
- Obtain stakeholder and public input

## 3. How do you get it?

- Determine alternatives
- Select the best alternative
- Prepare an implementation plan
- Obtain stakeholder and public input

## Airport Master Plan

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# Roles and Responsibilities

| City of San Diego | FAA |
| --- | --- |
| Airport Sponsor | Provides Grant Funding |
| Provides Historical Data | Gives Technical Guidance |
| Converges Community Input | Approves the Forecast |
| CEQA Lead Agency | Reviews Work Product |
| Adopts Master Plan | Approves Airport Layout Plan |

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# Roles and Responsibilities

## Community

- Shares Ideas
- Reviews Work Product
- Offers Recommendations and Suggestions

## Advisory Committee

- Advises Study Team
- Promotes Planning Process to Others
- Collaborates on Key Issues
- Reviews Work Product


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# Master Plan Steps

## 1. Data Collection

Airport inventory
Environmental setting
Related studies
Historical activity review

## 2. Forecast

Aircraft operations
Fleet mix/based aircraft
Peaking characteristics
FAA approval

## 3. Facility Requirements

Airfield design
Landside development/support

# Master Plan Steps

## 4. Alternatives

Reasonable and practical

Formulate evaluation criteria

Matrix evaluation

## 5. Preferred alternative /CEQA analysis

City selects preferred alternative

Conduct CEQA analysis

Financial plan

## Master plan adoption and ALP approval

City adopts the plan

FAA approves Airport Layout Plan

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# 2. Noise / Air Quality Overview

# Outline

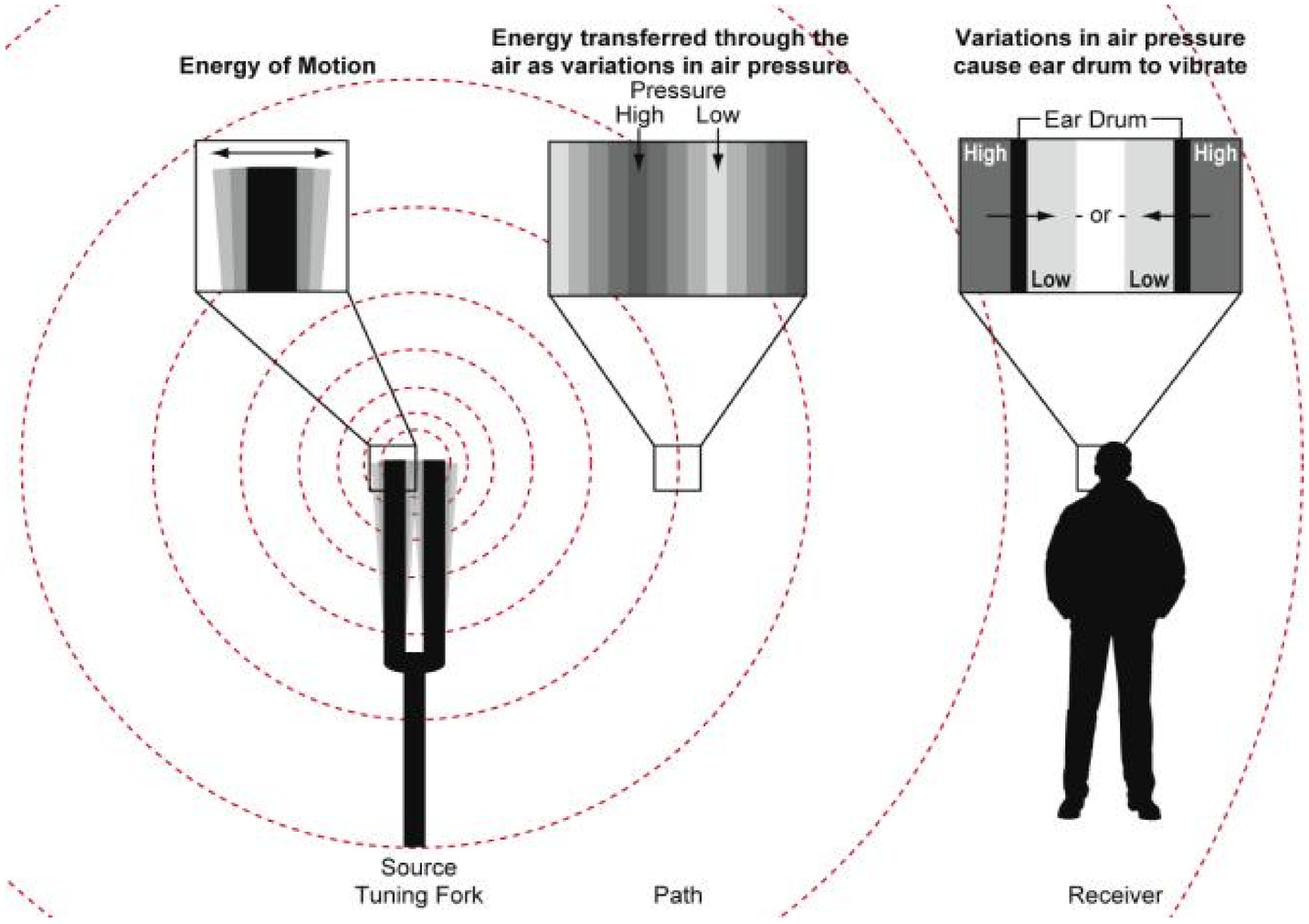
- Modeling Approach
- Noise Metric Definitions
- Noise Results
  - Annual Average Day Operations
  - CNEL 2017 Baseline Noise Contours
  - CNEL 2017 Baseline and Alternative Noise Contours
- Air Quality Results

# Modeling Approach

- Noise and air quality modeled using Aviation Environmental Design Tool
- Required Modeling Inputs
  - Airport Configuration
  - Fleet Mix and Operations
  - Runway Use
  - Model Flight Tracks
  - Flight Track Use
  - Meteorological Conditions
  - Terrain

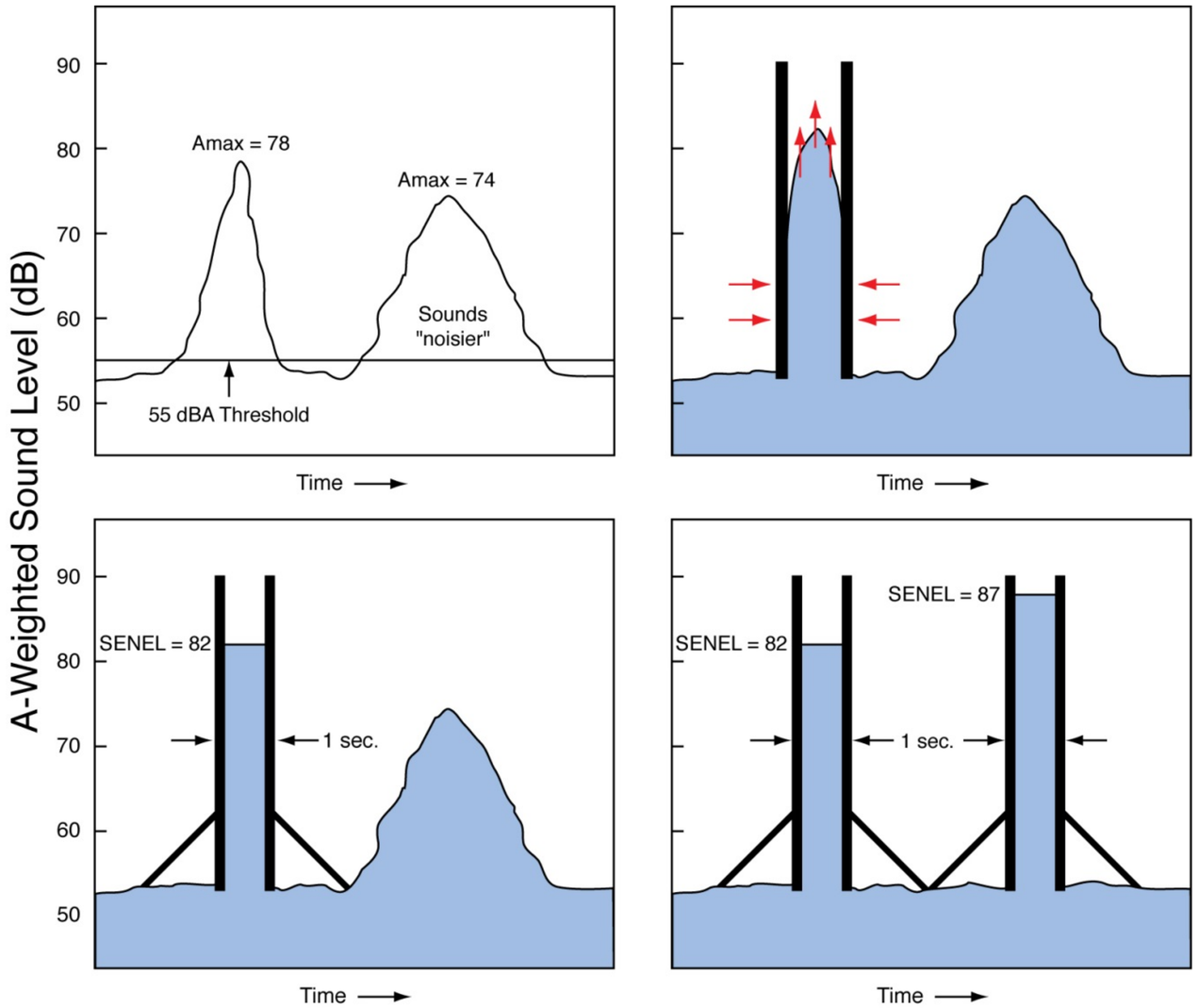
# Noise Metric Definitions

- Sound is pressure variation our ears can detect
  - An objective quantity
- Noise is “unwanted sound”
  - A subjective quantity
- We relate sound and noise by considering effects
  - Annoyance
  - Speech interference
  - Sleep disruption



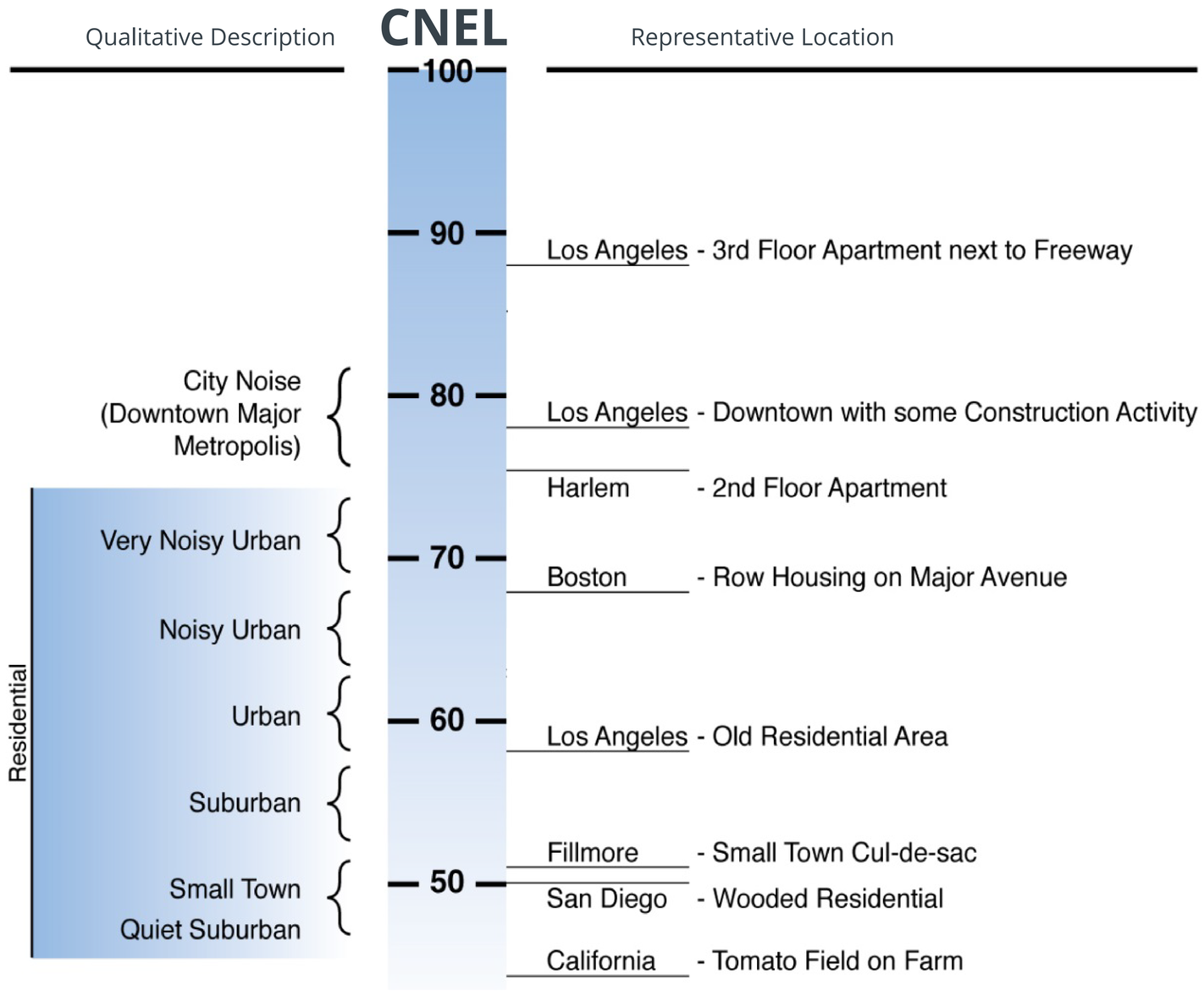
# Noise Metric Definitions

- We use a logarithmic scale – decibels, or dB to express sound levels and noise levels
- Our ear is not equally sensitive to all frequencies
  - A-weighted decibels (dB) measure sound the way we "hear" it
- The simplest way to describe a noise "event" is its maximum sound level, Amax
- A longer event may seem "noisier," even if it has a lower or equal maximum level
- Single Event Noise Equivalency Level (SENEL) measures the total "noisiness" of an event by taking duration into account

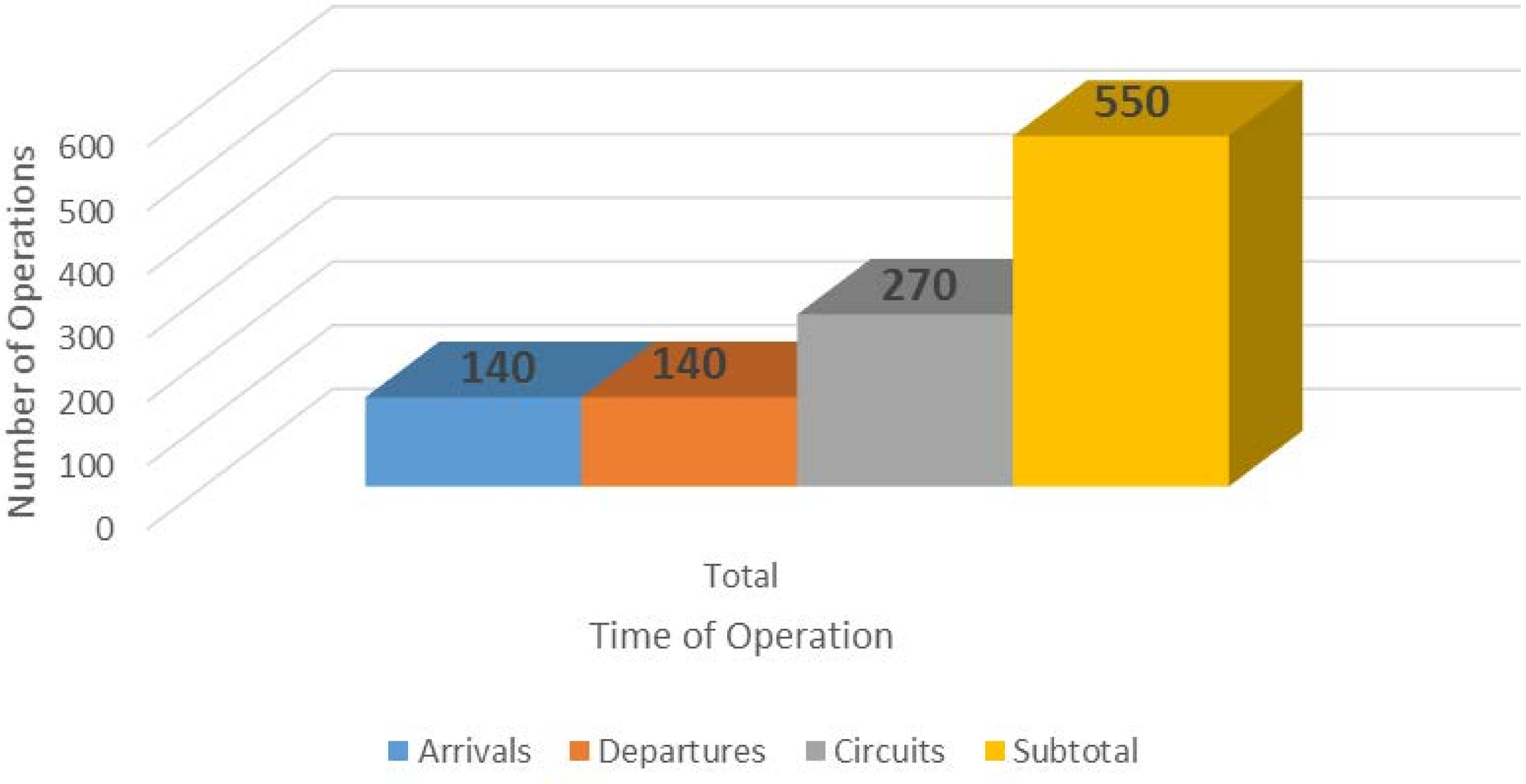


# Noise Metric Definitions

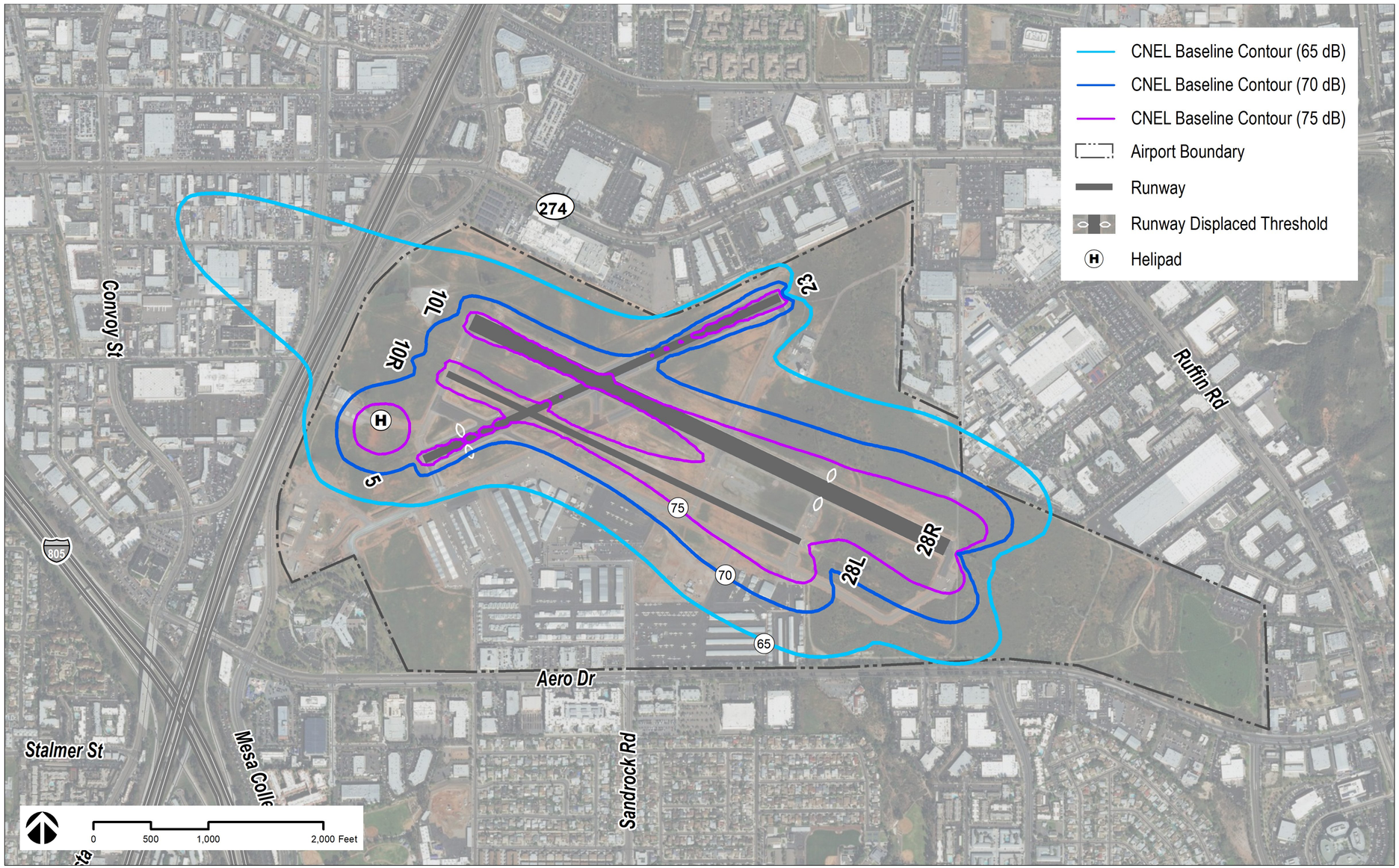
- Community Noise Equivalent Level (CNEL)
  - Describes 24-hour noise exposure
  - Noise from 7 PM – 10 PM is factored up by 4.77 dB
  - Noise from 10 PM – 7 AM is factored up by 10 dB
    - This "penalty" is equal to counting each night aircraft 10 times



# Annual Average Day Operations



# 2017 Baseline
# CNEL Noise Contour

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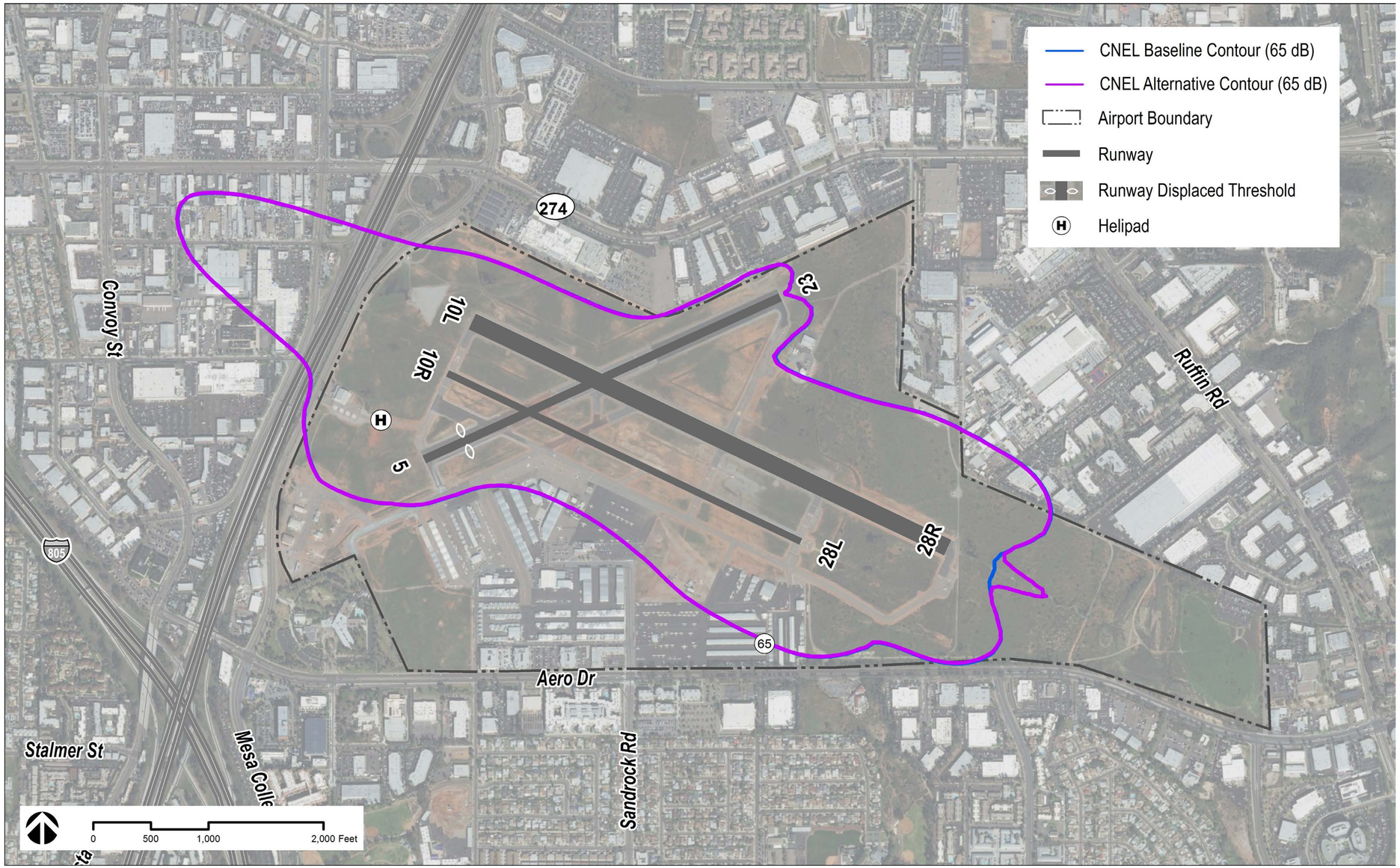
# 2017 Baseline and Alternative CNEL Noise Contour Comparison



# Air Quality: Overview

- The EPA has identified Criteria Pollutants to be part of the National Ambient Air Quality Standards (NAAQS), which are protective of human health.
- Each state or region can specify their own pollutant levels (that may be more stringent) with mandated levels set by EPA as minimum requirements.
- De minimus levels define threshold of increased pollutants indicating impacts in nonattainment areas[1].
  - Typically 100 tons per year

[1]US Environmental Protection Agency. https://www.epa.gov/general-conformity/de-minimis-tables

# Air Quality Results

- Criteria Air Pollutants
  - Carbon monoxide (CO)
  - Nitrogen dioxide ($NO_2$)
  - Particulate matter (PM10)
  - Particulate matter (PM2.5)
  - Sulfur dioxide ($SO_2$)
  - Lead (Pb)
  - Ozone ($O_3$)

Note: Ozone is an indirect or secondary pollutant that occurs due to chemical reactions primarily between $NO_2$ and volatile organic compounds (VOCs). As a result, volatile organic compounds (VOCs) and $NO_2$, the primary precursors to ozone formation, provide surrogate information for assessing ozone levels.

# Air Quality Results

- Compared to EPA de minimis levels, MYF emissions fall well below the limits for the baseline; impacts are considered insignificant.

| Airport | Co | $No_x$ | PM10 | PM2.5 | $SO_2$ | VOC | Lead (Pb) | $CO_2$ |
|---|---|---|---|---|---|---|---|---|
| MYF Aircraft – Total | 4.233 | 0.011 | 0.005 | 0.005 | 0.005 | 0.103 | 1.442 | 14.287 |

Notes:
1. Results expressed in metric tons.
2. Carbon dioxide ($CO_2$) emissions as a greenhouse gas, though this estimation does not account for the varying greenhouse gases and their associated emissions factors in comparison to $CO_2$.

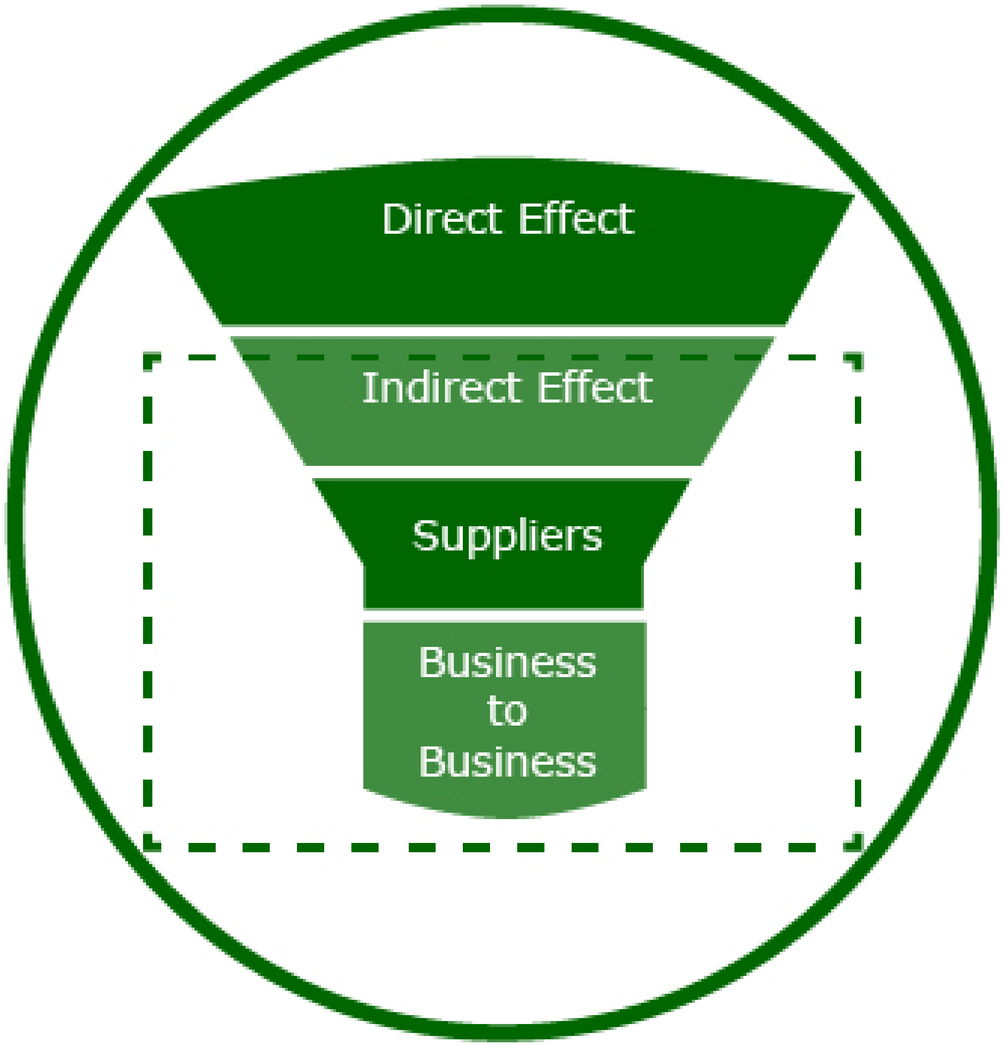
Source: HMMH 2017

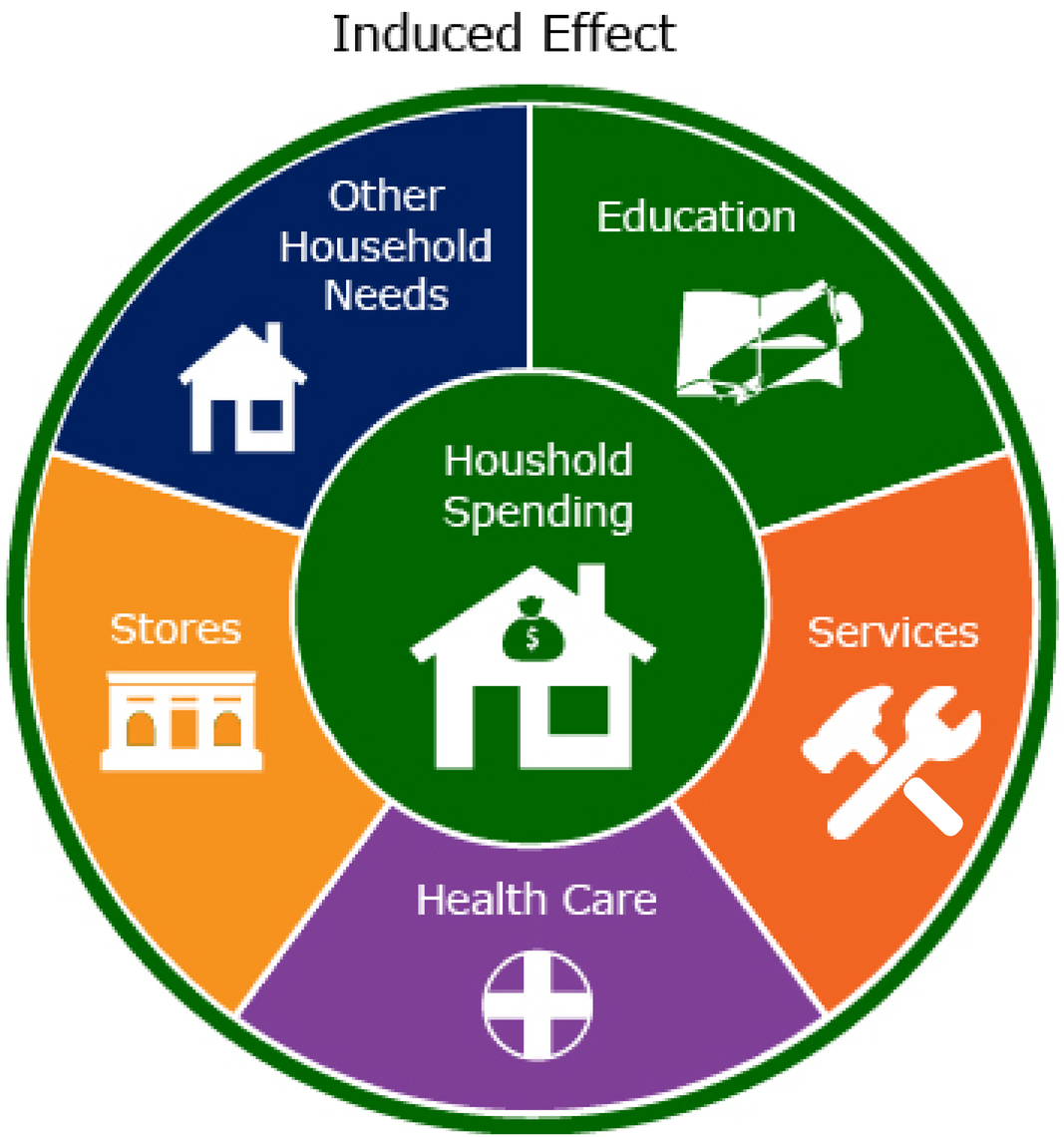
# 3. Economic Impact Analysis

# Economic Impact Analysis

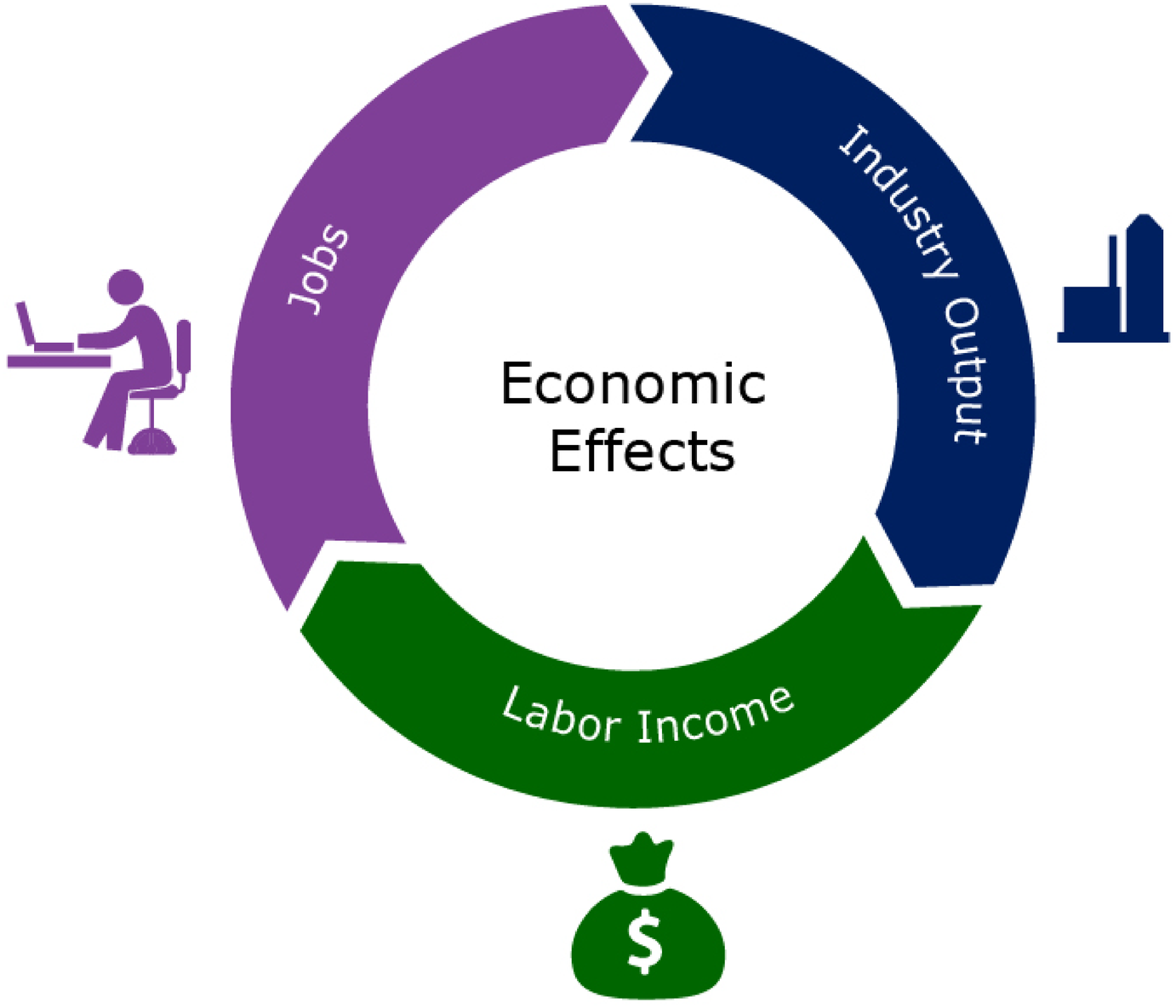
- Airport and Tenant Operations
- Multipliers: On-Site Activity -> Off-Site Activity
  - Local effect (MYF) leads to regional effect (SD County)
- Methodology
  - Input-Output Modeling
  - Primary and Secondary Data
  - Site Visits

# Multiplier Effects



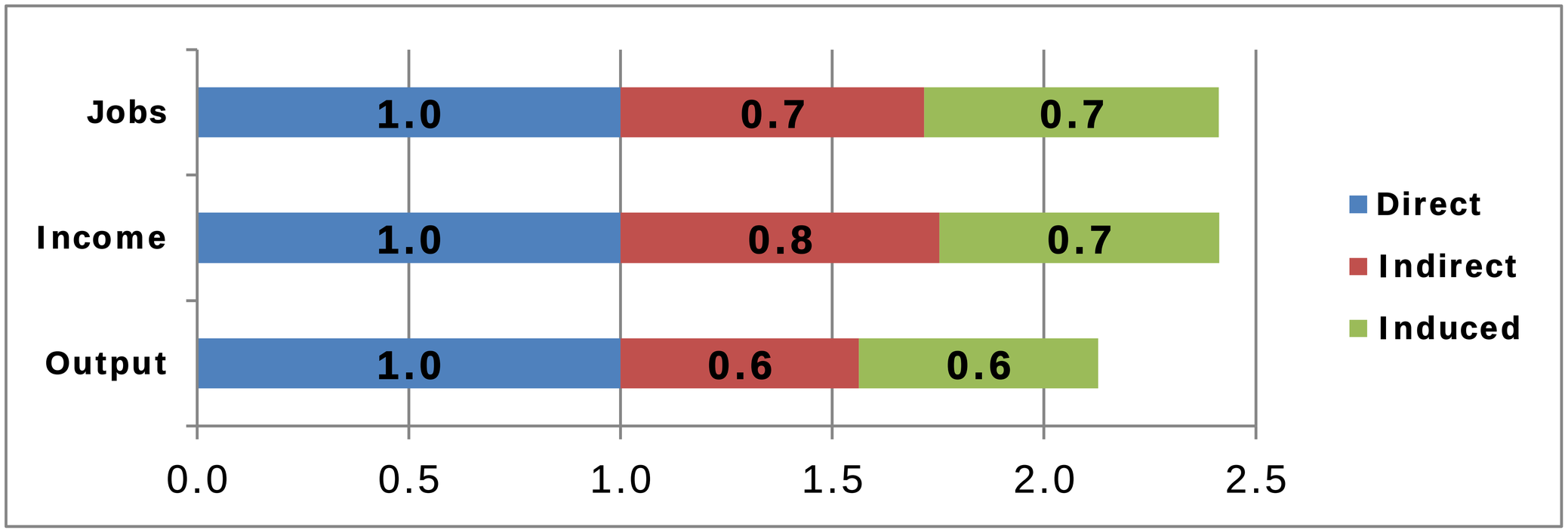
# Economic Measures



# Airport Operations

- 46 On-Site Jobs
- Industry Output: $8.2 million
- Labor Income: $2.7 million

# Multipliers: Airport Operations




- 46 On-Site Jobs = 110 Total Jobs
- Industry Output: $8.2M On-Site = $17.5M Total
- Labor Income: $2.7M On-Site = $6.5M Total

# Tenant Operations

- 694 On-Site Jobs
- Largest Employers
  - Administrative/Support Services
  - Transportation Support Services
  - Hospitality
  - Educational Services
  - Professional Services
- Industry Output: $75.7 million
- Labor Income: $35.8 million

# Multipliers: Tenant Operations


- 694 On-Site Jobs = 1,279 Total Jobs
- Industry Output: $75.7M On-Site = $161.8M Total
- Labor Income: $35.8M On-Site = $69.2M Total

# Overall MYF Operations

- 740 On-Site Jobs, 1,390 Total Jobs
- Industry Output: $83.9M On-Site, $179.3M Total
- Labor Income: $38.5M On-Site, $75.7M Total

# Largest Secondary Effects

- Public Sector
- Health Care
- Administrative/Support Services
- Retail Trade
- Professional Services
- Hospitality (Accommodation and Food Service)

# Next Steps

- Future Impacts
- Fiscal Impact Analysis

# 4. Introduction to Draft Alternatives

# Alternatives Analysis

**Evaluation**

- Identifies best options to meet existing and forecast aviation activity

**Sources**

- Working Papers 2 and 3 – Forecast of Aviation Demand and Facility Requirements

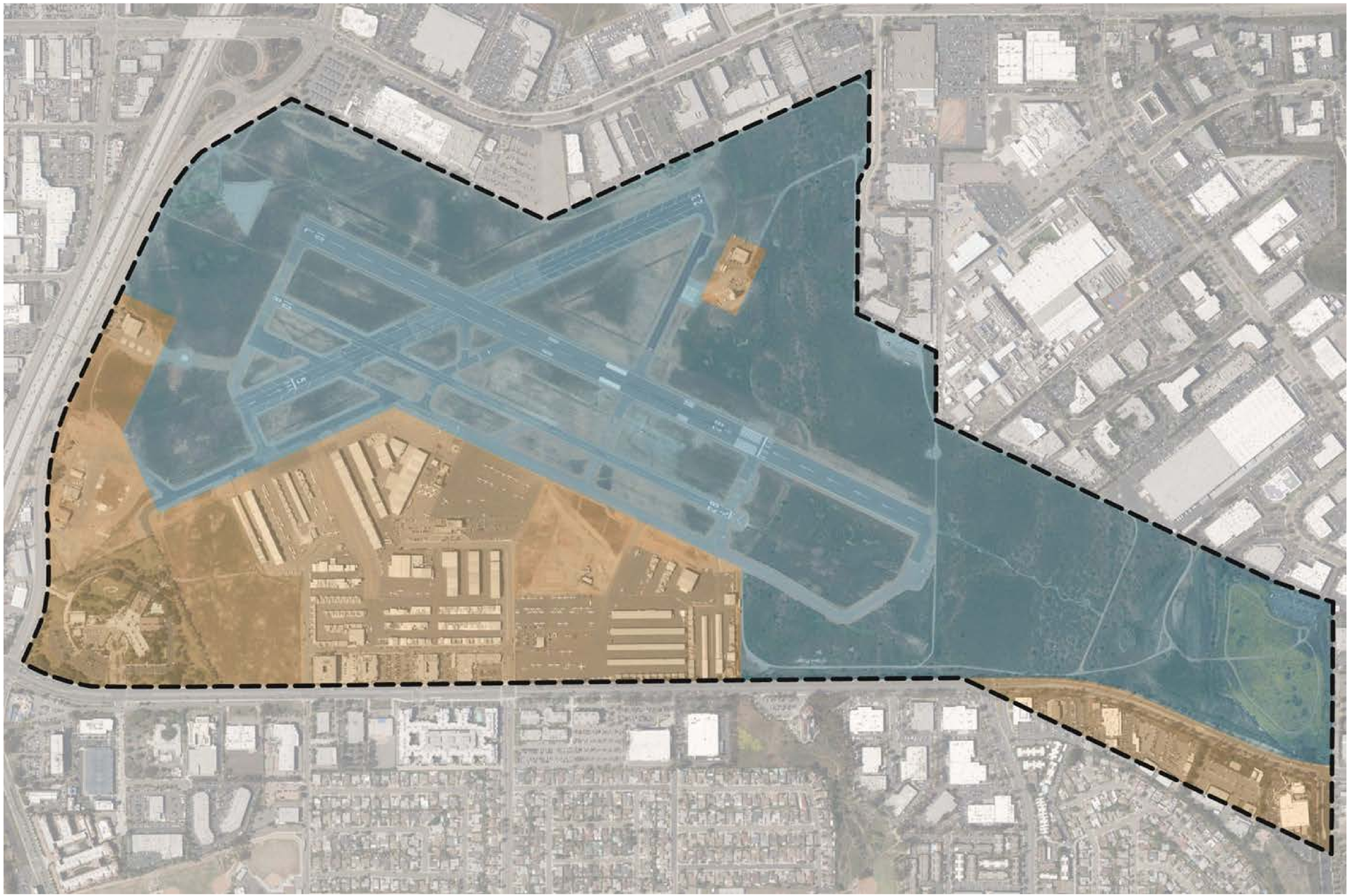
**Elements**

- Airside and Landside Considerations

**Application**

- Preferred Alternative Selection

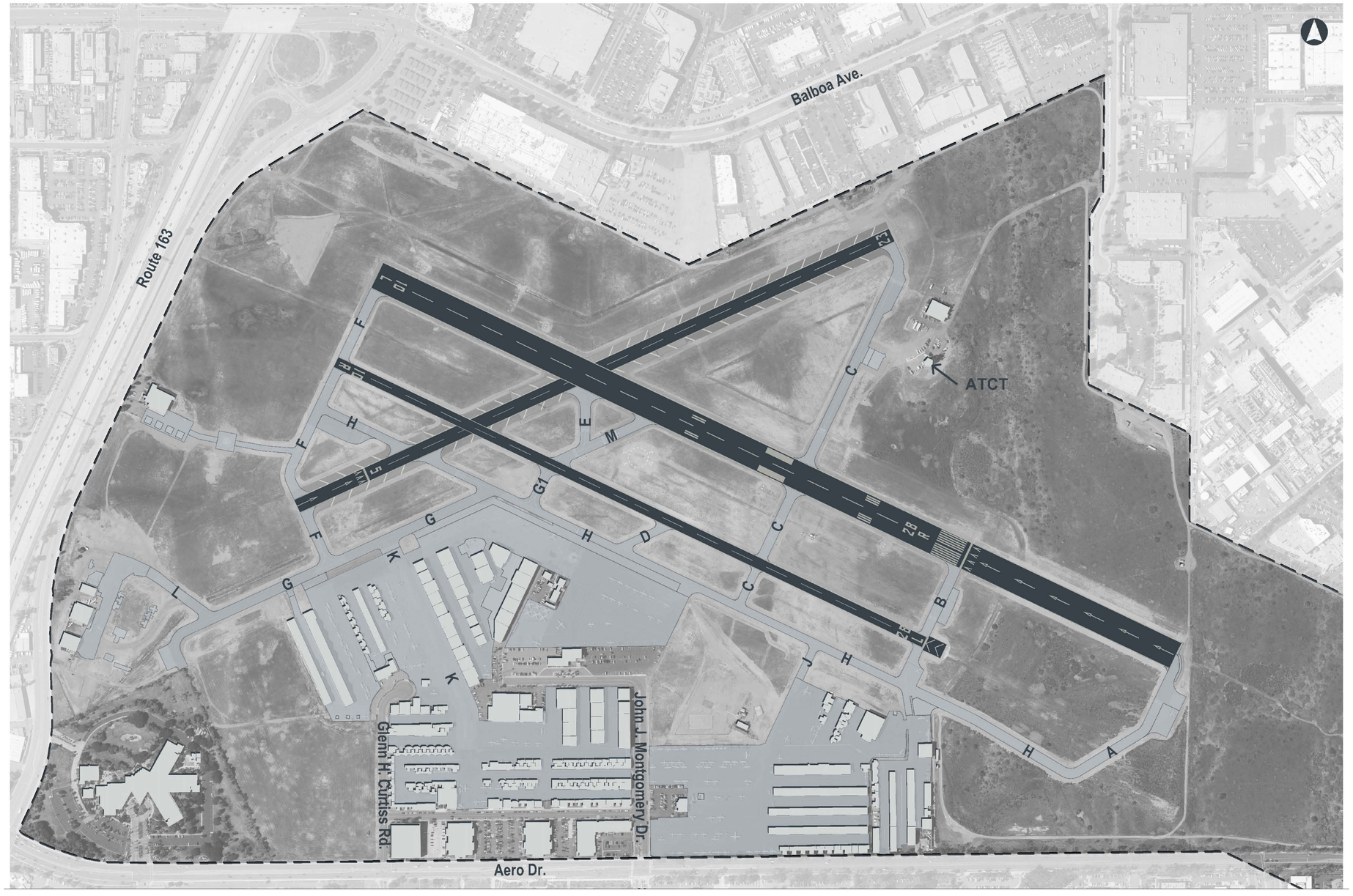
# Airside vs. Landside



Airside Landside

# Airside Alternatives

# Alternative #1 – No Action

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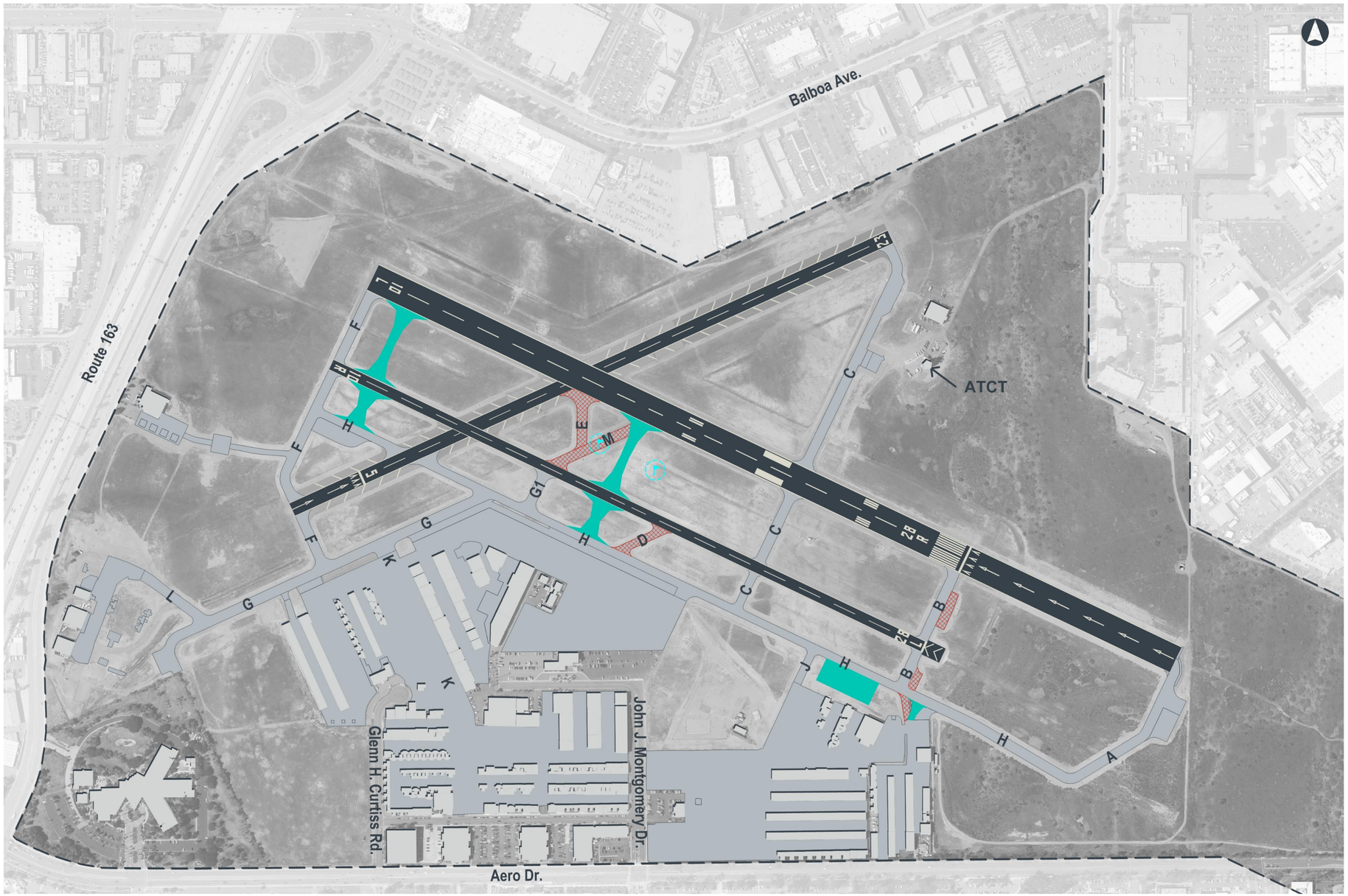
# DRAFT Alternative #2

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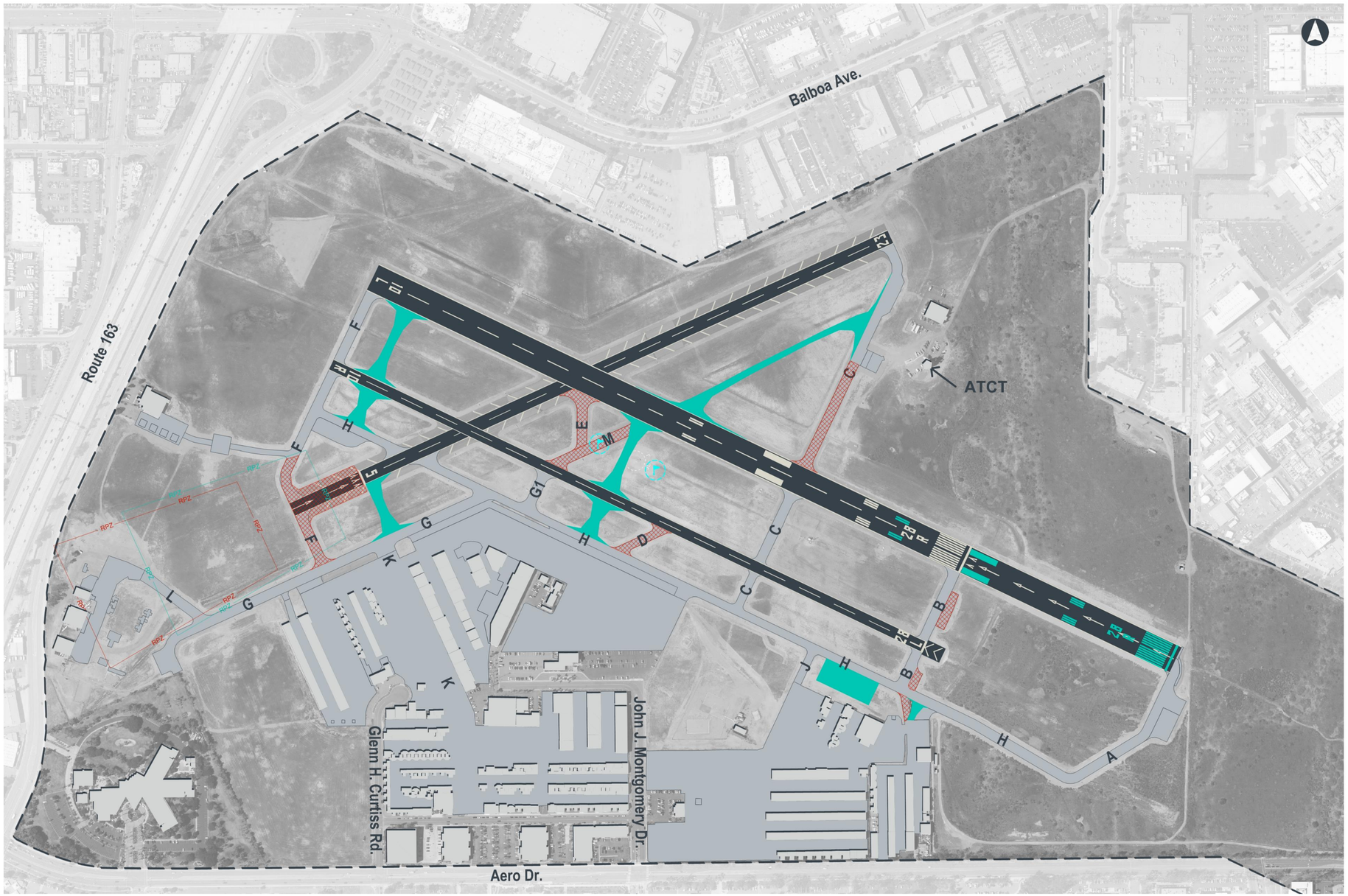


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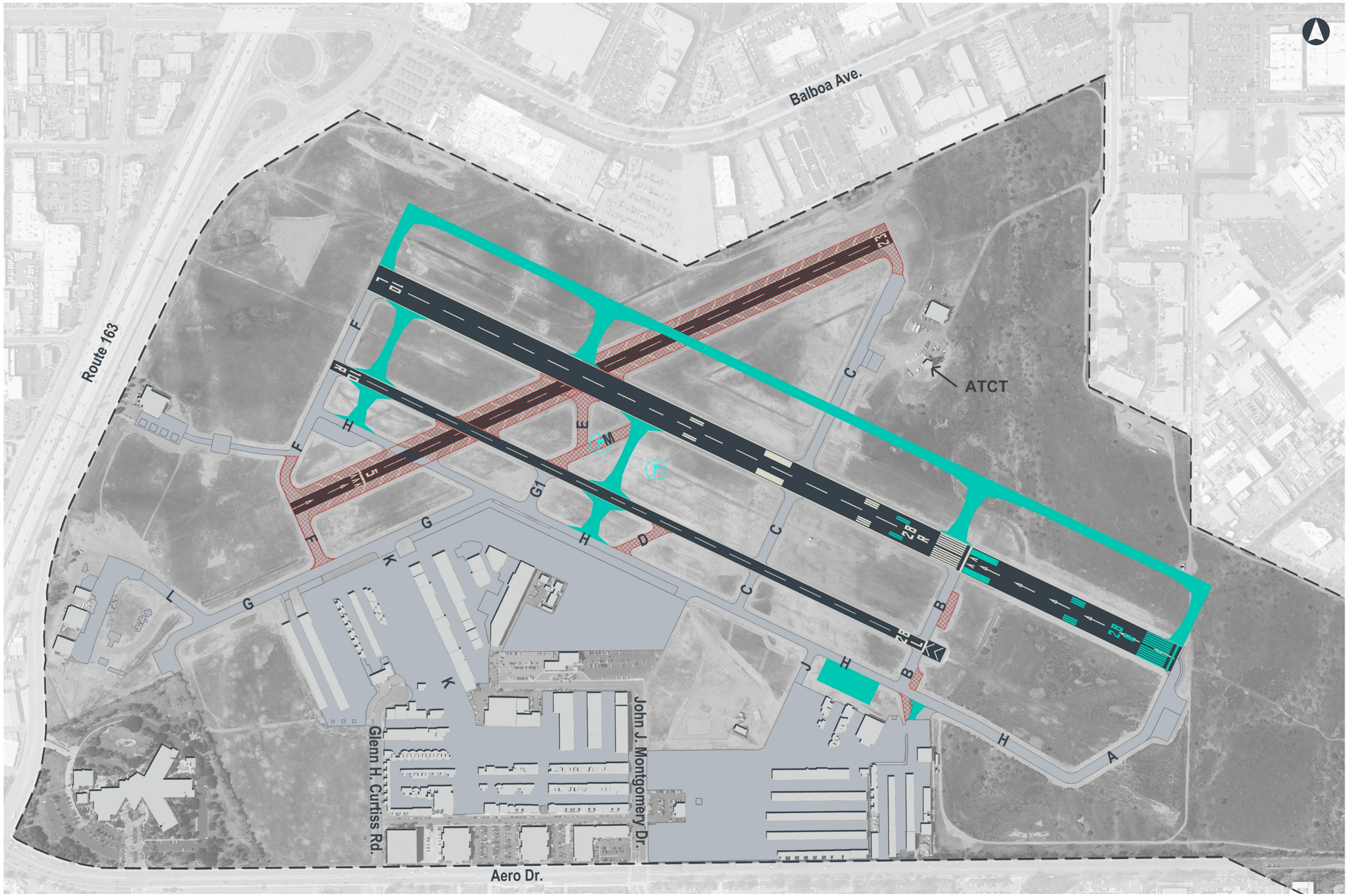
# DRAFT Alternative #4

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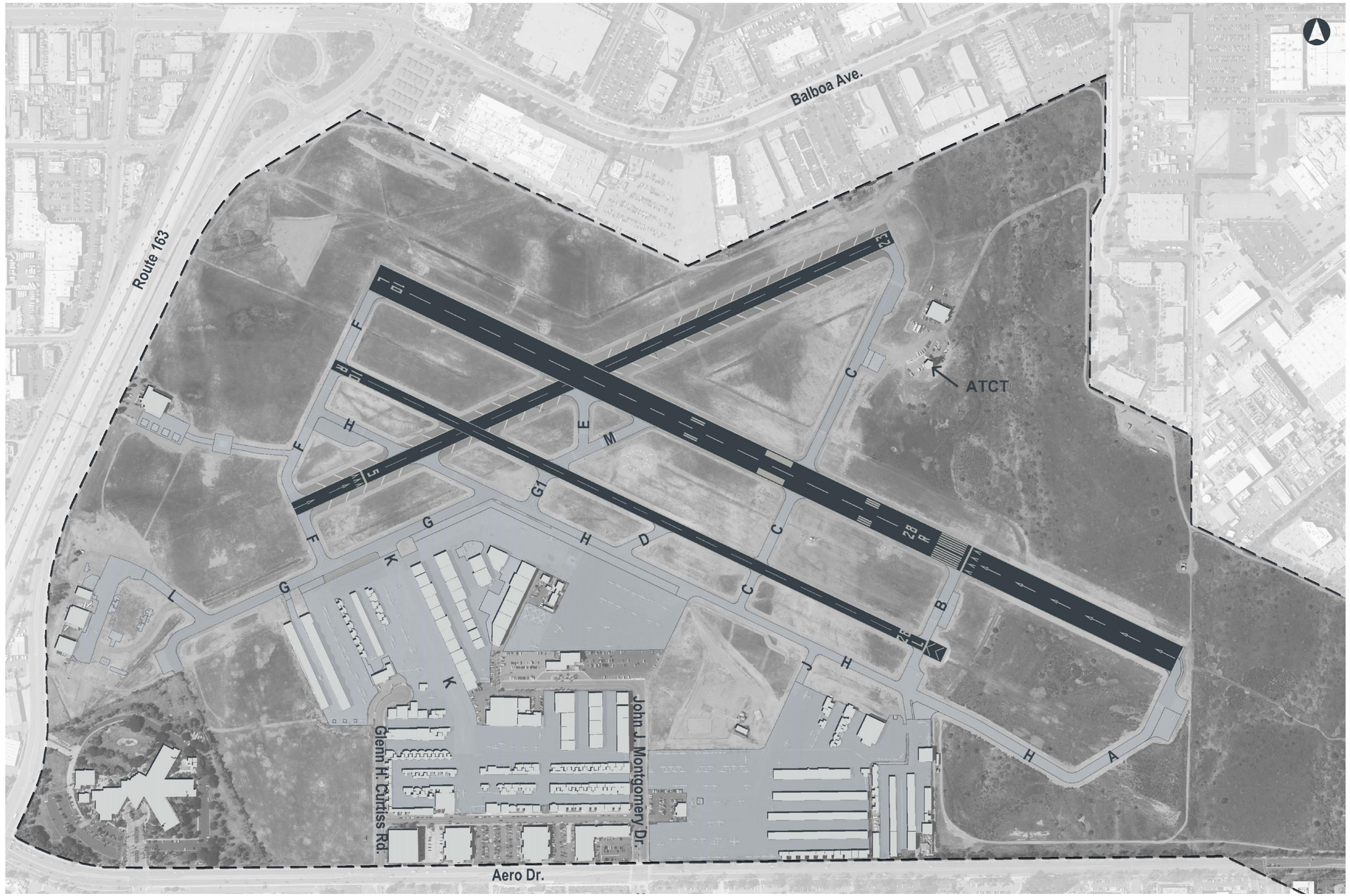
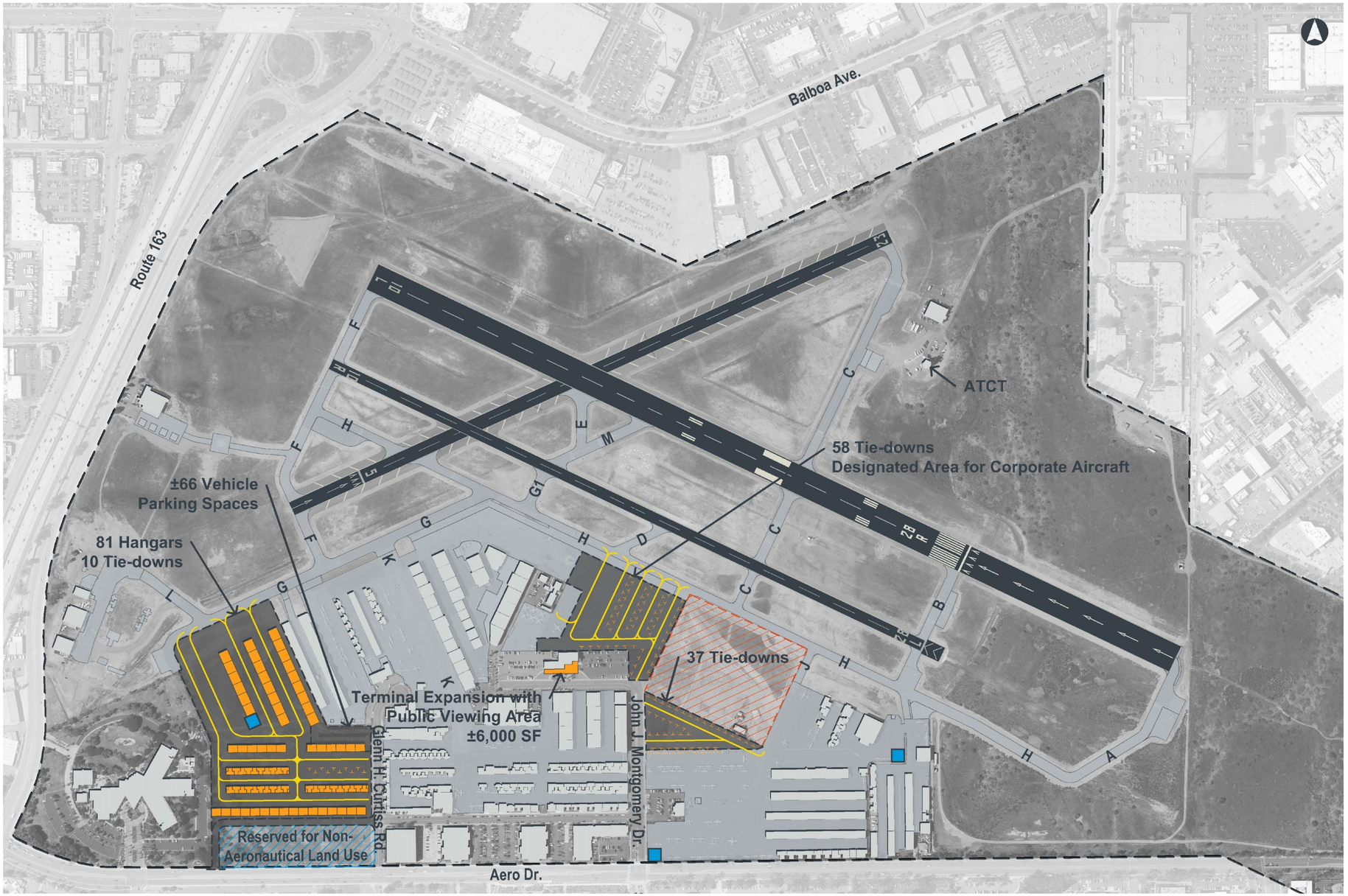
# Landside Alternatives

# Alternative #1 – No Action



# DRAFT Alternative #2



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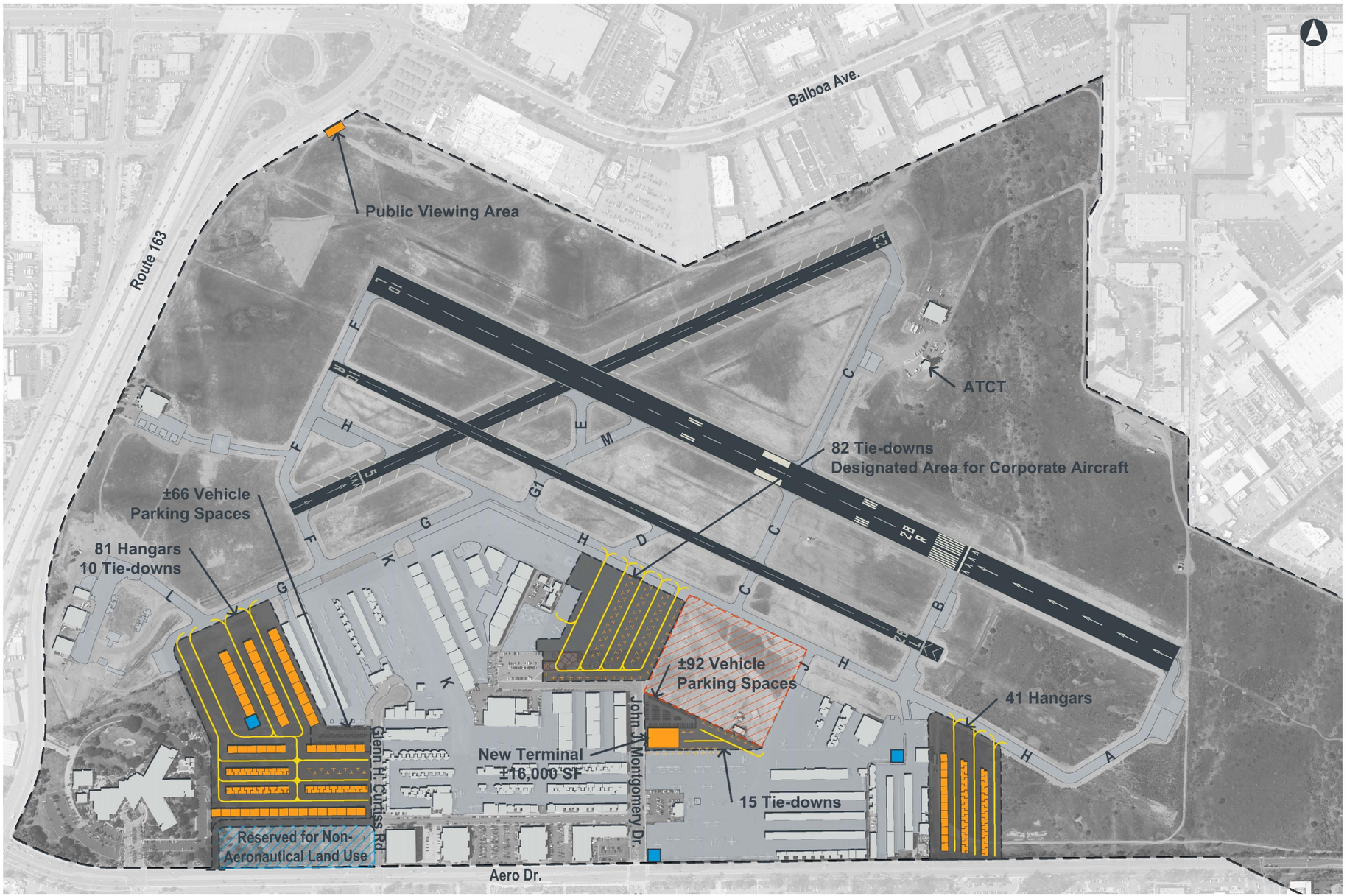


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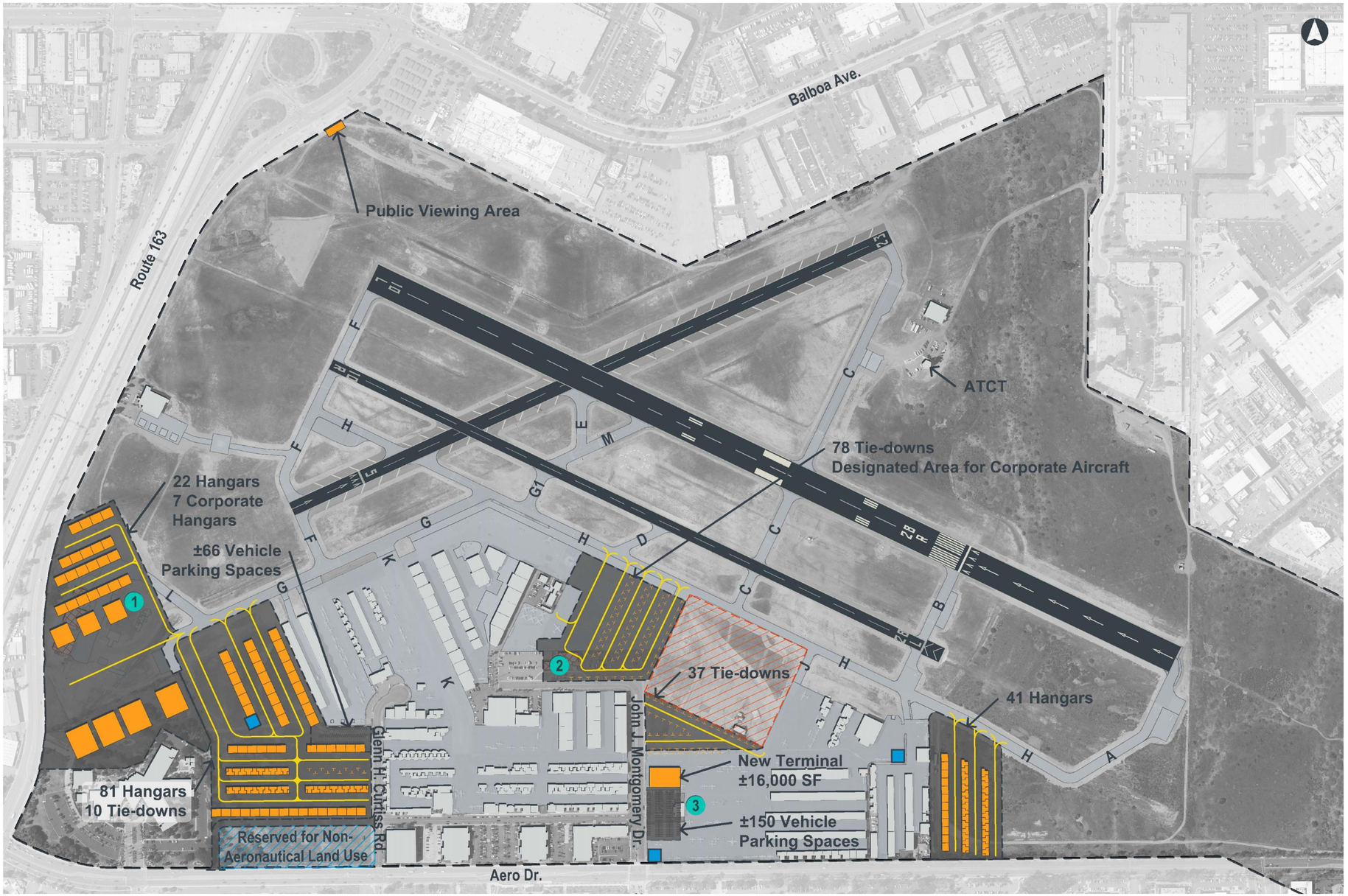
# DRAFT Alternative #4

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# 5. Next Steps

# Project Schedule

**Spring 2017**

We are here

**Summer 2018**

Existing Conditions Analysis

Forecasting & Facility Requirements

Alternatives Evaluation & FFA

Preferred Alternative & CEQA Analysis

Master Plan Adoption & ALP Approval

## Ongoing Public Outreach

ALP – Airport Layout Plan
CEQA – California Environmental Quality Act
FFA – Financial Feasibility Analysis

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# Next Steps

**Preferred Alternative** → **Working Paper 5 – Alternatives Analysis** → **ALP Development**

**CEQA**

# Q&A

# Ground Rules

- Speak Clearly and Slowly
- State Your Name and Association
- One Question Per Person
- Help Us Stay on Track
- Focus on New Input

**Verbal comments and questions are *not* being recorded. Please provide your comments in writing for consideration and evaluation by the project team.**

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# Work Stations