



CASE STUDY
The New Guayaquil International Airport

Prepared for

**ICAO Airport Planning Seminar for the SAM Region
Lima, Peru | 10-14 Sep. 2018**

September 11, 2018

Outline

- Existing Guayaquil Airport And Its Challenges
- A New Guayaquil International Airport
- Master Planning Principles Adopted

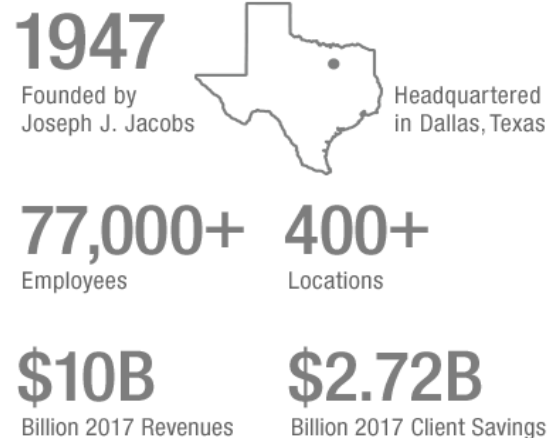
A company like no other

- At Jacobs, we focus on building long-term client relationships.
- **LeighFisher** is a brand of Jacobs.
- One of the largest and most diverse providers of technical, professional and construction services.
- Including all aspects of architecture, engineering and construction, operations and maintenance consulting.
- We serve a broad range of companies and organizations, including industrial, commercial, and government clients across multiple markets and geographies.

We're global. And we're local.

- Our delivery philosophy is simple: Jacobs is located around the world where our clients are today and where they need us to be tomorrow.
- 8 offices in Central/ South America.

Our company at a glance



Jacobs – A global player in the aviation business

Jacobs' aviation teams help clients and their customers prepare for a smooth take-off and landing at international, regional, and municipal airports around the globe.

Aviation infrastructure/ facilities:

- Runways
- Taxiways
- Aprons
- Drainage
- Power & utilities, AGL
- Terminals, BHS
- Air traffic control towers
- Cargo facilities
- Aircraft hangars
- Fixed-base operations
- Roadways
- Parking facilities

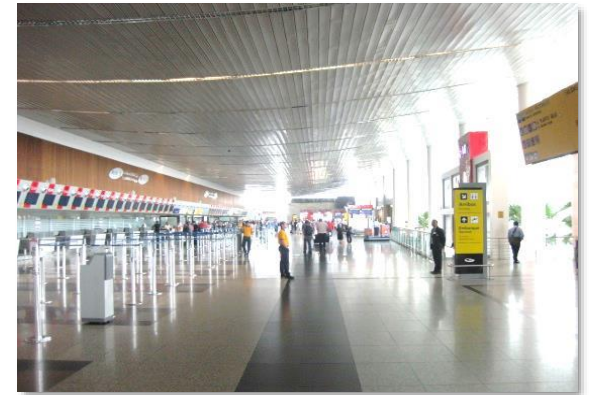
Aviation services:

- Planning
 - Master planning
 - Terminal planning
 - Airside planning
 - Landside planning
 - Capacity assessments
 - Simulation
- PPP Advice
 - Technical Due Diligence
 - Forecasting
 - CAPEX/ OPEX
 - Financial plan

- Engineering design
- Architecture
- Construction support/ supervision
- Facility/ asset management
- Environmental compliance
- Project/ program management

Existing Guayaquil Airport And Its Challenges

The Existing Airport is "Award Winning"



Director General's Roll of Excellence in Airport Service Quality

is presented to

Terminales Aeroportuarias de Guayaquil, S.A.
operating
Aeropuerto Internacional Jose Joaquín Olmedo

on the occasion of its induction onto
the Director General's Roll of Excellence
in recognition of its Top 5 Ranking in its category
in the Airport Service Quality Survey
from 2007 to 2011.

ACI World / ACI North America Annual General Assembly
Calgary, Alberta, Canada
12 September 2012

Angela Giffens
Director General

**Existing GUAYAQUIL INTERNATIONAL AIRPORT
site is severely constrained**



A New Guayaquil International Airport

The Airport Authority of Guayaquil is planning ahead

Existing Airport constraints:

The terminal capacity of 5 million passengers can be expanded to 7 million passengers

However, the single runway would eventually limit growth and the Airport's ability to accommodate cargo and passenger hubbing operations

Runway length limits destinations flown

Additional runways can not reasonable be provided because the Airport is surrounded by urban development



Would result in . . .

Scarcity of seats and increased fares

Diminished customer service levels (e.g., aircraft operational delays, congested terminals, etc.)

Inability to establish an airline hub network, which often acts as a catalyst for regional economic growth



Therefore, both the Airport Authority and the Municipality of Guayaquil have concluded that the long-term needs of the community, region, and Ecuador will best be met with a new international airport located in the Daular region

A New Guayaquil International Airport

Planning studies undertaken

- Initial master plan
 - Identified existing airport will not be able to accommodate forecast demand
- NGIA master plan
 - Identified long-term concept for new airport
- Program definition
 - Confirm long-term plan
 - Protect the plan

A New Guayaquil International Airport

Proposed new Guayaquil Airport

Located in the Daular area, 12 miles (20 km) outside of the city; additional access roads would be developed

Authority owns more than 5,000 acres (2,000 ha) of land in this location

Numerous studies have confirmed the aeronautical feasibility of the Daular site

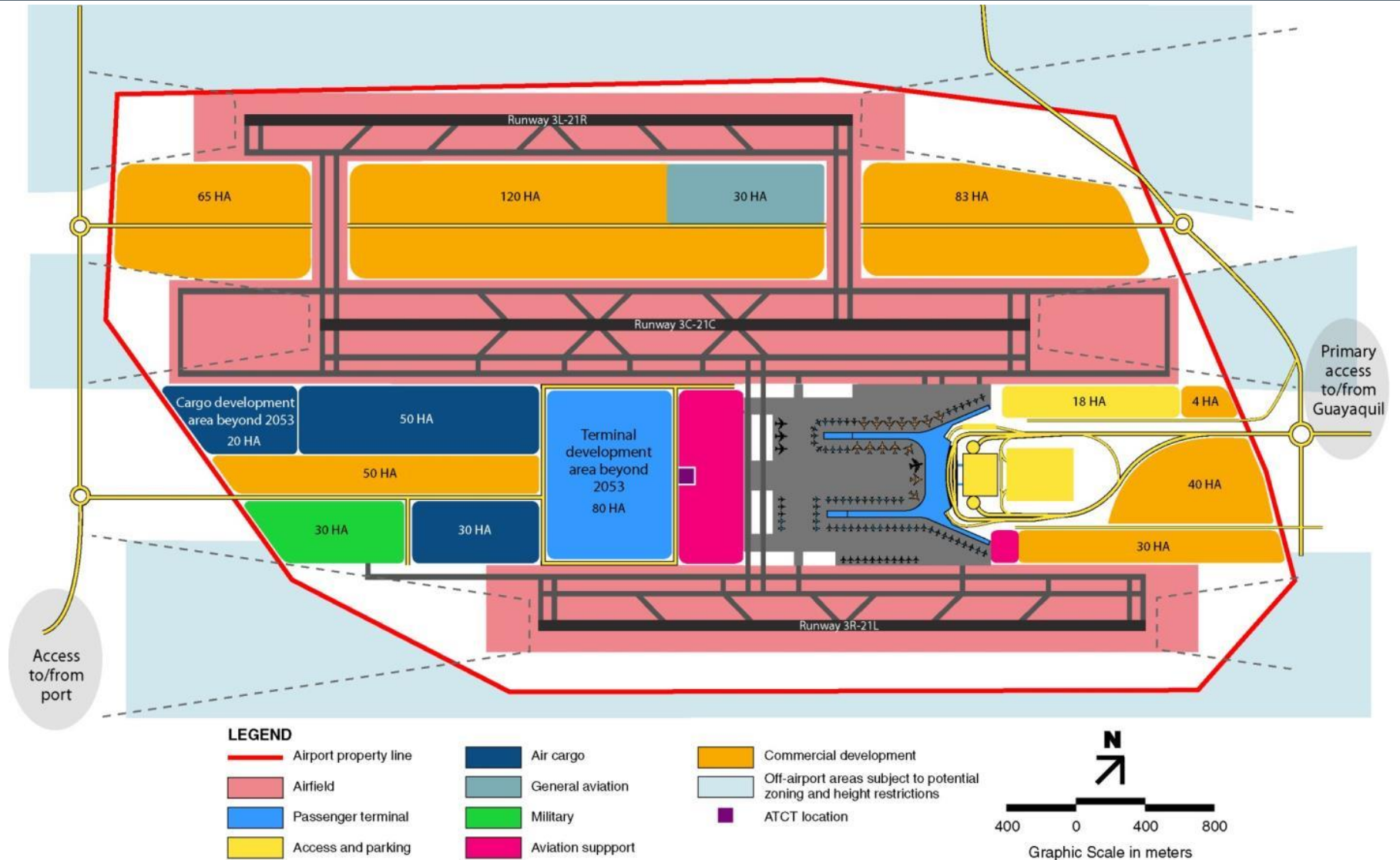


Advantages of the Daular Site (planning related)

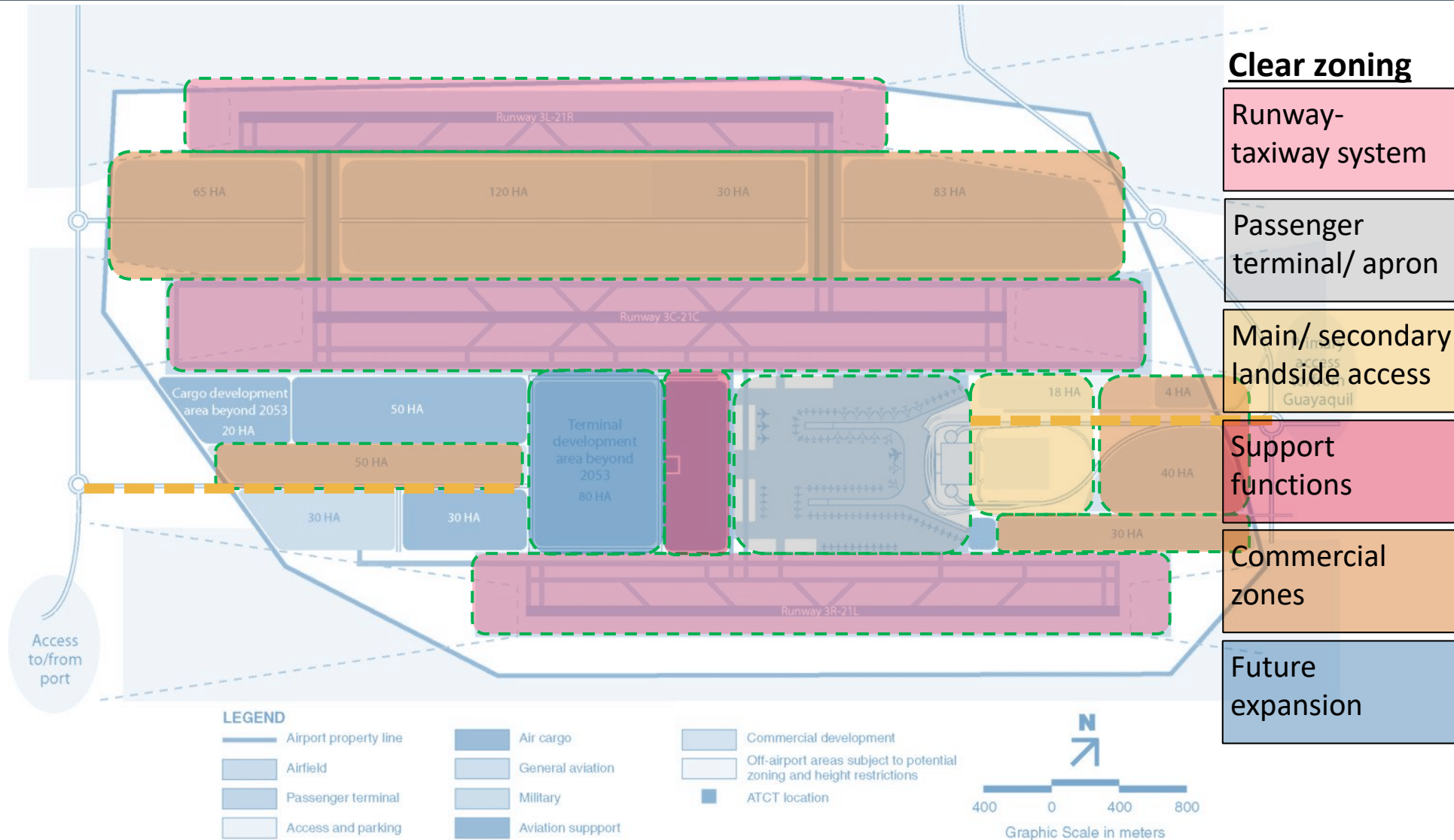
- 1 Excellent geography and weather conditions**
The site is relatively flat, and weather conditions would allow visual operations without restrictions
➡ Topography poses no OLS issues
- 2 Aeronautical feasibility for 3 parallel runways**
Today, the Daular site is the only site in Ecuador within a metropolitan area that can accommodate three parallel runways for simultaneous operations
➡ Long-term planning horizon adopted
- 3 Available land for an Airport City or “Aerotropolis”**
Sufficient land is available to develop ancillary commercial and industrial land uses for additional revenue generation
➡ Commercial needs taken into account
- 4 Potential for an international air cargo hub**
An international logistics/cargo operator may develop facilities for multi-modal cargo operations utilizing the site’s proximity to the Guayaquil port.
➡ Site responds to business plan

Master Planning Principles Adopted

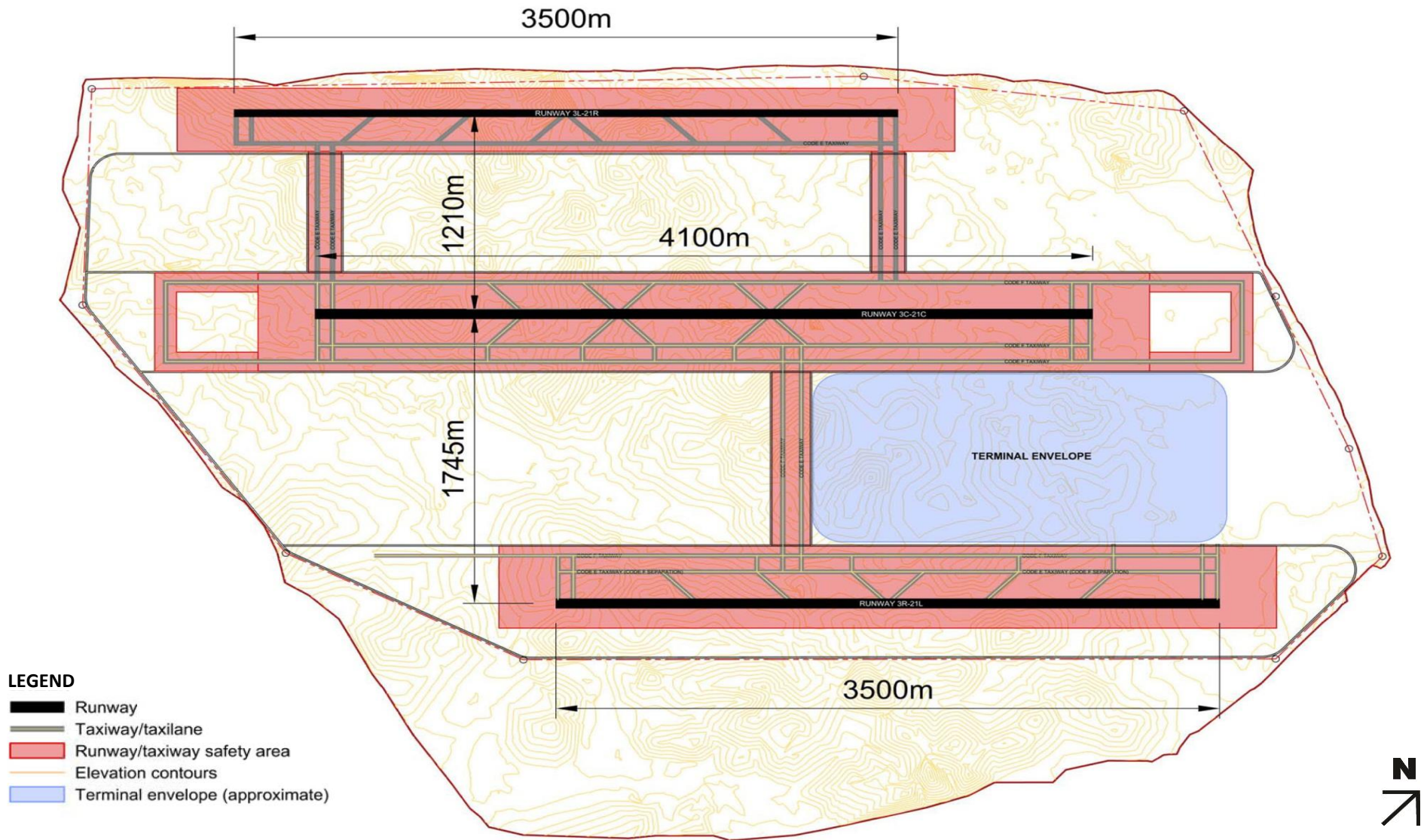
Preferred Land Use Concept – Maximum Build-out



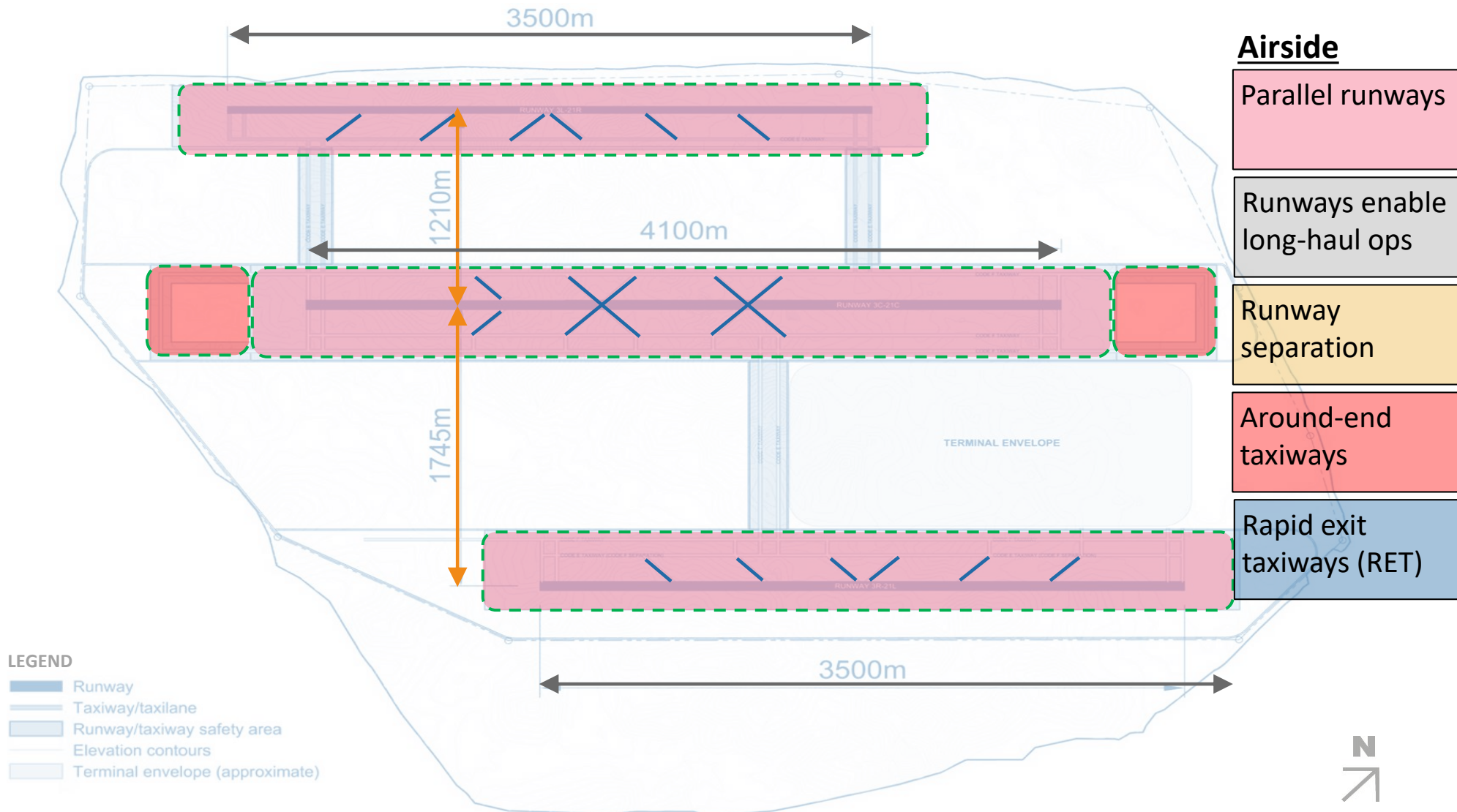
Preferred Land Use Concept – Clear Zoning



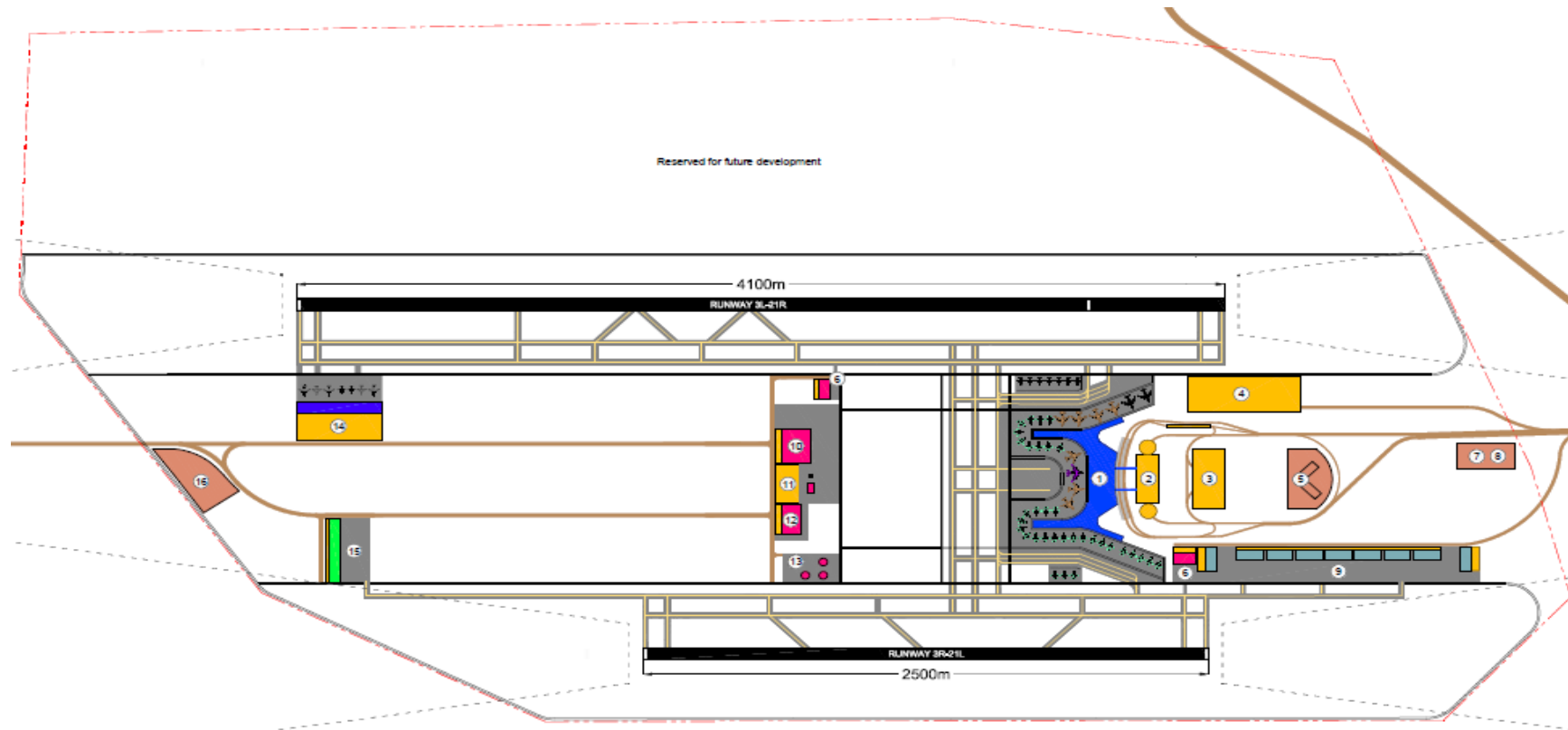
Preferred Airfield Concept – Maximum Build-out



Master Planning Principles Adopted – Airside



Airport Configuration PAL-1



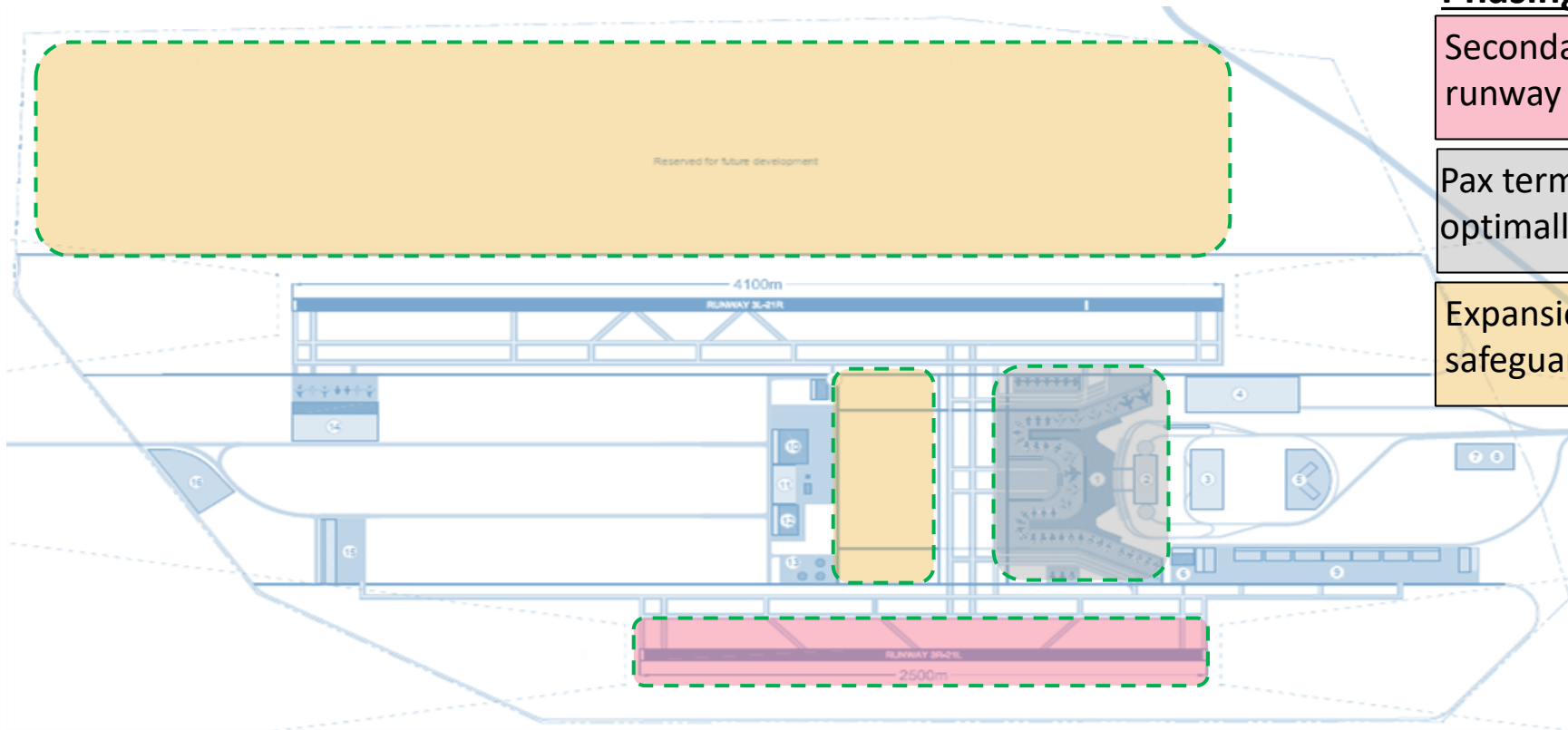
Airport Configuration PAL-1

Initial Airside Phasing

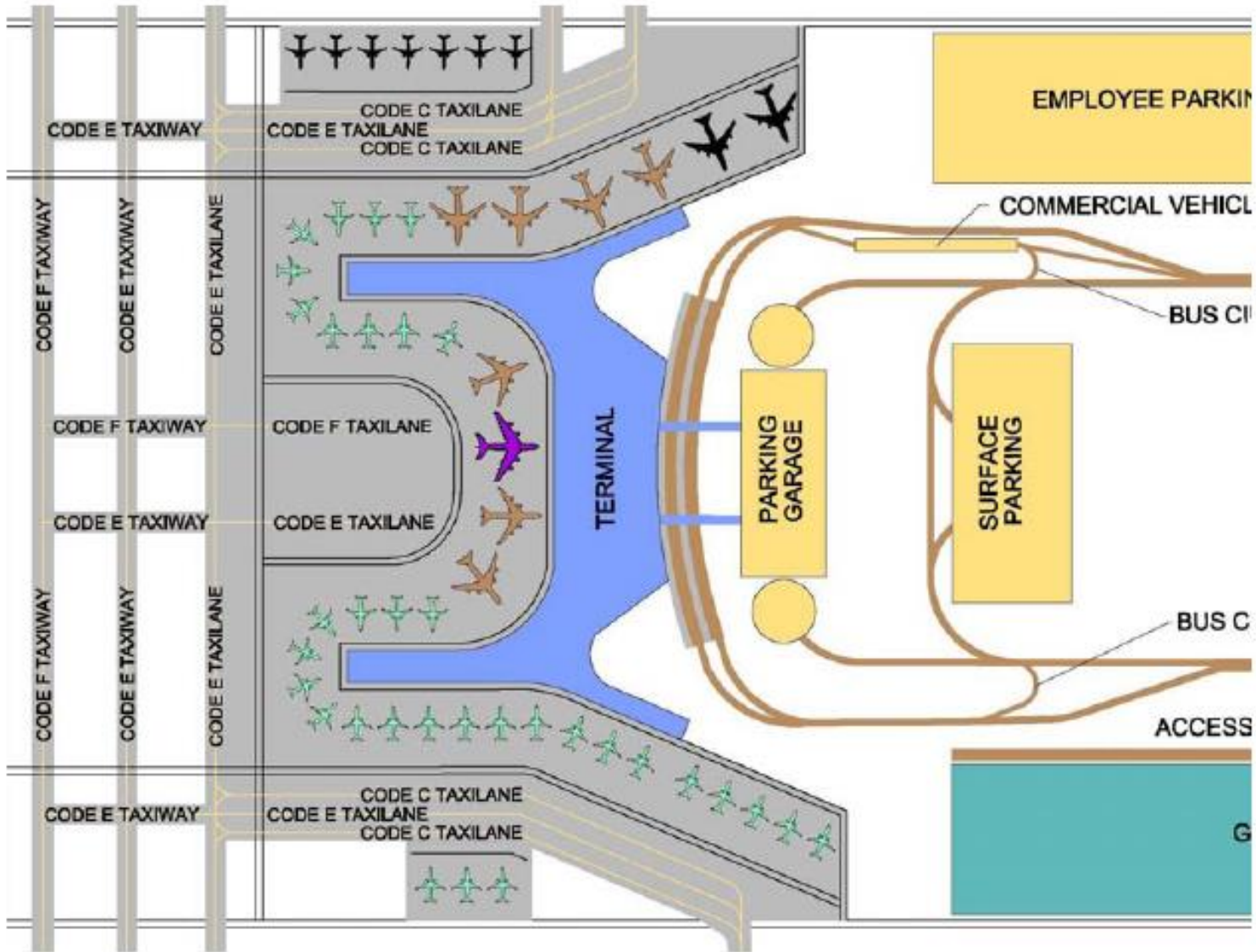
Secondary runway shorter

Pax terminal optimally located

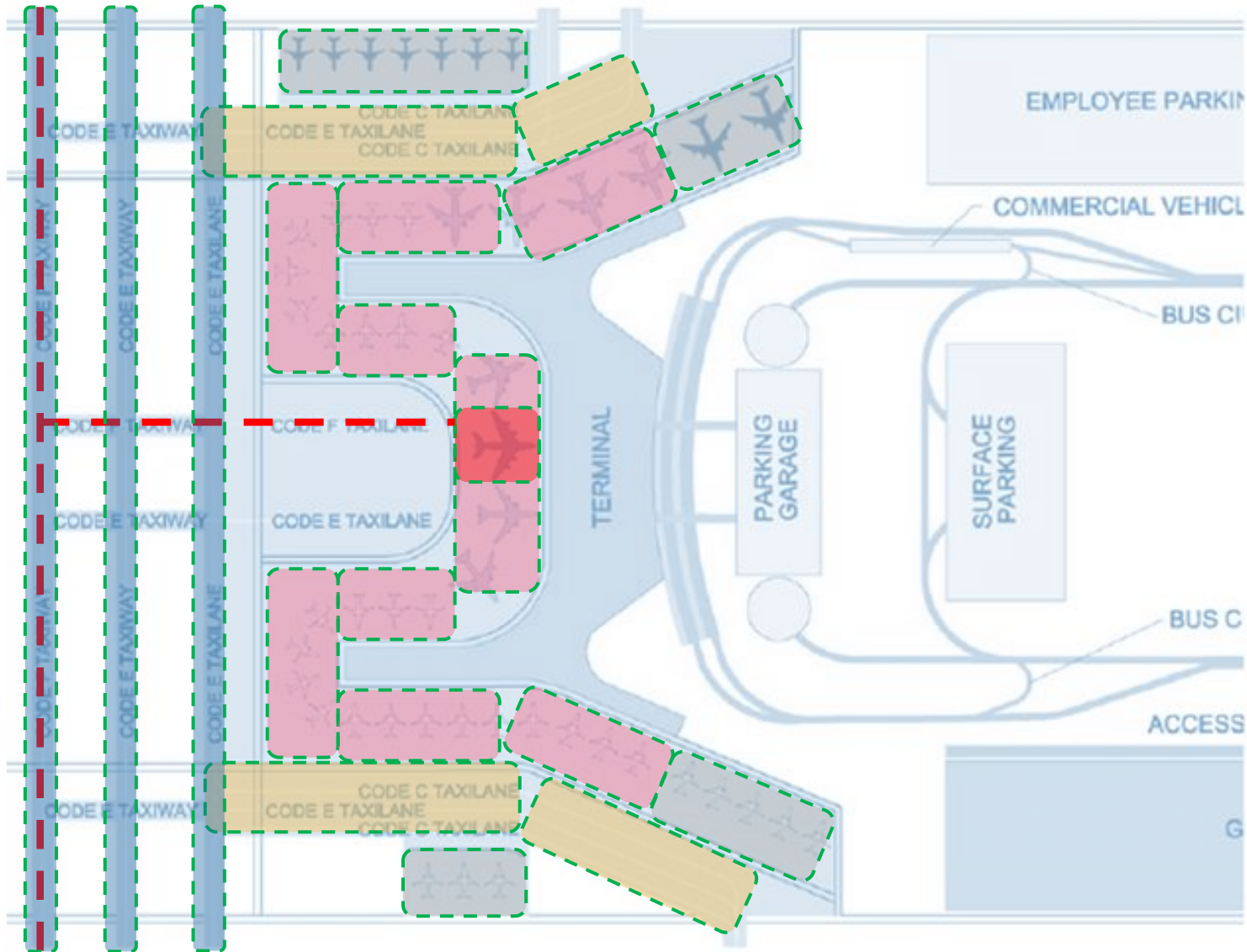
Expansion safeguarded



Apron Configuration PAL-1



Apron Configuration PAL-1



Apron Configuration

Terminal apron for contact %

Remote apron in proximity

Triple C-E-C taxilanes

2x TWY
1x TXL

Dedicated Code F taxi route



NEW GUAYAQUIL INTERNATIONAL AIRPORT
OPENING DAY – 2024 (16 mppa)



NEW GUAYAQUIL INTERNATIONAL AIRPORT
ULTIMATE DEVELOPMENT



NEW GUAYAQUIL INTERNATIONAL AIRPORT
COMPREHENSIVE TERMINAL DEVELOPMENT

Thank you

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