



Airport Name: Queen Beatrix International Airport, Aruba Airport Authority N.V.

Responsible: Christine Leo, Sustainability & Health Manager

Project Name: Gateway 2030 Expansion Project & BHS Works

Executive Summary

Queen Beatrix Airport is on track to revolutionize the travel experience with the introduction of groundbreaking enhancements aimed at enhancing both passengers' experience and operational efficiency. The project, known as Gateway 2030, represents a significant investment in modernizing and innovating Queen Beatrix Airport to overcome capacity constraints and deliver a world-class airport experience.

The Gateway 2030 Expansion Project, specifically Phase 1A including the new US Check-in Hall, and the Baggage Handling System area showcases a seamless fusion of state-of-the-art technology and sustainable design principles. The new building includes:

Newly designed check-in hall with spacious and eco-friendly environment, engineered for efficiency and comfort.

Check-in hall also features beautiful art showcasing Aruba's diverse flora and fauna by renowned local artist Armando Goedgedrag.

Implementation of self-service options and streamlined processes aims to simplify and expedite the pre-flight experience, setting a new standard for hassle-free travel.

Cutting-edge baggage handling system, capable of processing up to 2000 pieces of luggage per hour with exceptional speed and accuracy. This system not only optimizes security screening but also eliminates the need for passengers to retrieve and recheck their luggage when travelling to the USA, enhancing convenience and reducing travel time significantly.

Based on LEED requirements, this project leads by example by adopting sustainable and environmental best practices by following a framework for healthy, highly efficient, and cost-saving green buildings, which offer environmental, social and governance benefits. This new airport terminal sets the standard for the Latin American and Caribbean region, but also globally.

Project results and benefits

Some highlights on the new US Check-in Hall and BHS Works building:

Water Efficiency and Reduction:

1. The project has reduced potable water use by 24.66%
2. No potable water Use for irrigation.

Energy Performance and Optimization:

1. The project has achieved energy cost savings of 50%. The total predicted annual energy consumption for the project is 1,969,440 kWh/year of electricity, and 11,257,620 kWh/year of District Cooling.

2. Enhanced Refrigerant Management: The refrigerant impact calculation indicates that the total refrigerant impact of the LEED project is 12.67 per kW, which is less than the maximum allowable value of 13.
3. The project team has developed and implemented a Reduced Mercury in Lights strategy. The project only uses LED lighting.

Materials and Resources:

1. The project has diverted 57.49% of the on-site generated construction waste from landfill.
2. 21.96% of the total building materials content, by value, has been manufactured using recycled materials.

Air Quality and Monitoring:

1. The project is mechanically ventilated, that a CO2 sensor has been installed within each densely occupied space, that an outdoor airflow measurement device has been installed for all systems where 20% or more of the design supply airflow services non-densely occupied spaces, and these devices are programmed to generate an alarm when the conditions vary by 10% or more from the design value.

Low-emitting materials and flooring:

1. All interior flooring materials meet or exceed applicable criteria for the Carpet and Rug Institute, South Coast Air Quality Management District, the California Department of Health Standard, or FloorScore; the carpet adhesives used have a VOC level of less than 50 g/L; all floor finishes meet the requirements of SCAQMD Rule 1113; and all tile setting adhesives and grout meet SCAQMD Rule 1168.



