



Beyond PCI: Considering other Parameters for Pavement Management

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What the FAA says about Airport Foreign Object Debris?

The presence of FOD on an airport's air operations area (AOA) poses a significant threat to the safety of air travel. FOD has the potential to damage aircraft during critical phases of flight, which can lead to **catastrophic loss of life** and airframe, and at the very least increased maintenance and operating costs.

Pavements. Asphalt and concrete pavements may be the **most common source** of FOD on an airport. Therefore, effective pavement maintenance practices are critical to the mitigation of FOD



Foreign Object Damage Potential





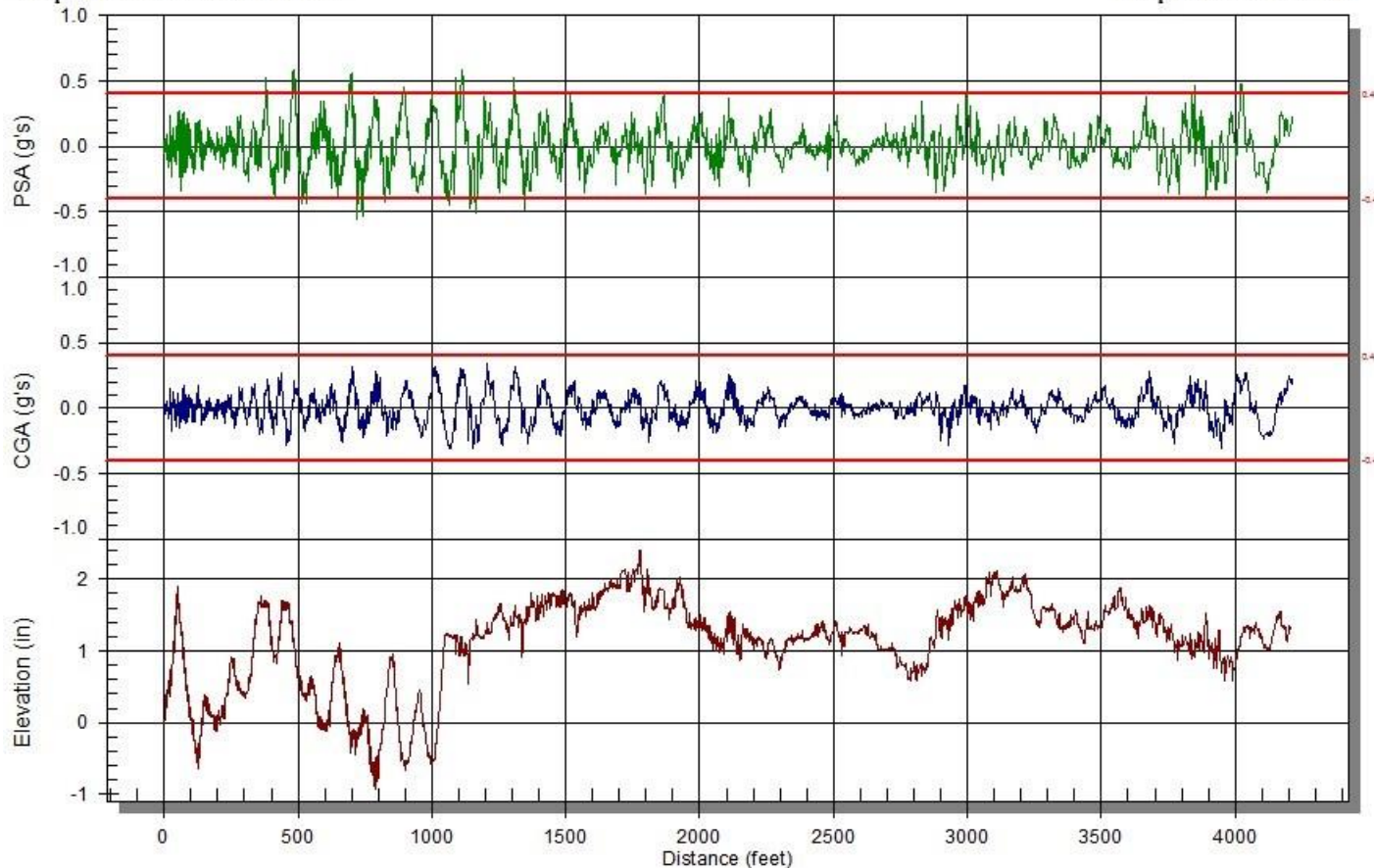
Runway 04L-22R Takeoff Simulation

Takeoff: Boeing 737-800 Aircraft 172500 lbs GW

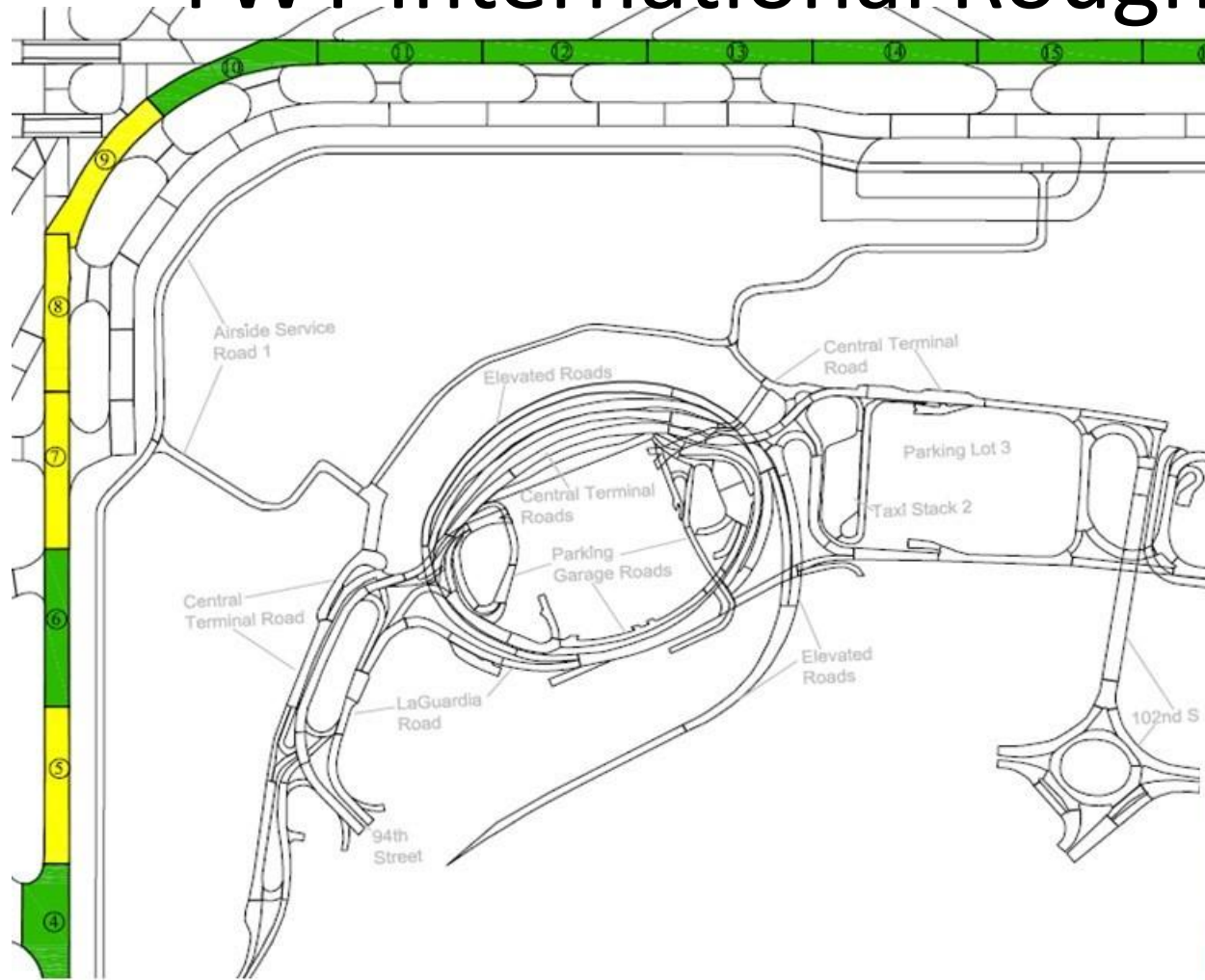
Air Temperature = 59 (°F)
Profile Filename = EWR 4L-22R Centerline.dat
Output Filename = 7378 TO CL.out

EWR 4L Centerline
Field Elevation = 0 (ft)
Sim. Start = 0 (ft)

Headwind = 0 (kts)
RQF = 2.6896
Complete Simulation = Yes



TWY International Roughness Index



LEGEND

- I (IRI \leq 140 in/mile)
- II (140 < IRI \leq 270 in/mile)
- III (IRI \geq 270 in/mile)

ACN-PCN Comparison

ACN-PCN Legend

ACN-PCN Tab

Select Aircraft Type

Select Aircraft Weight

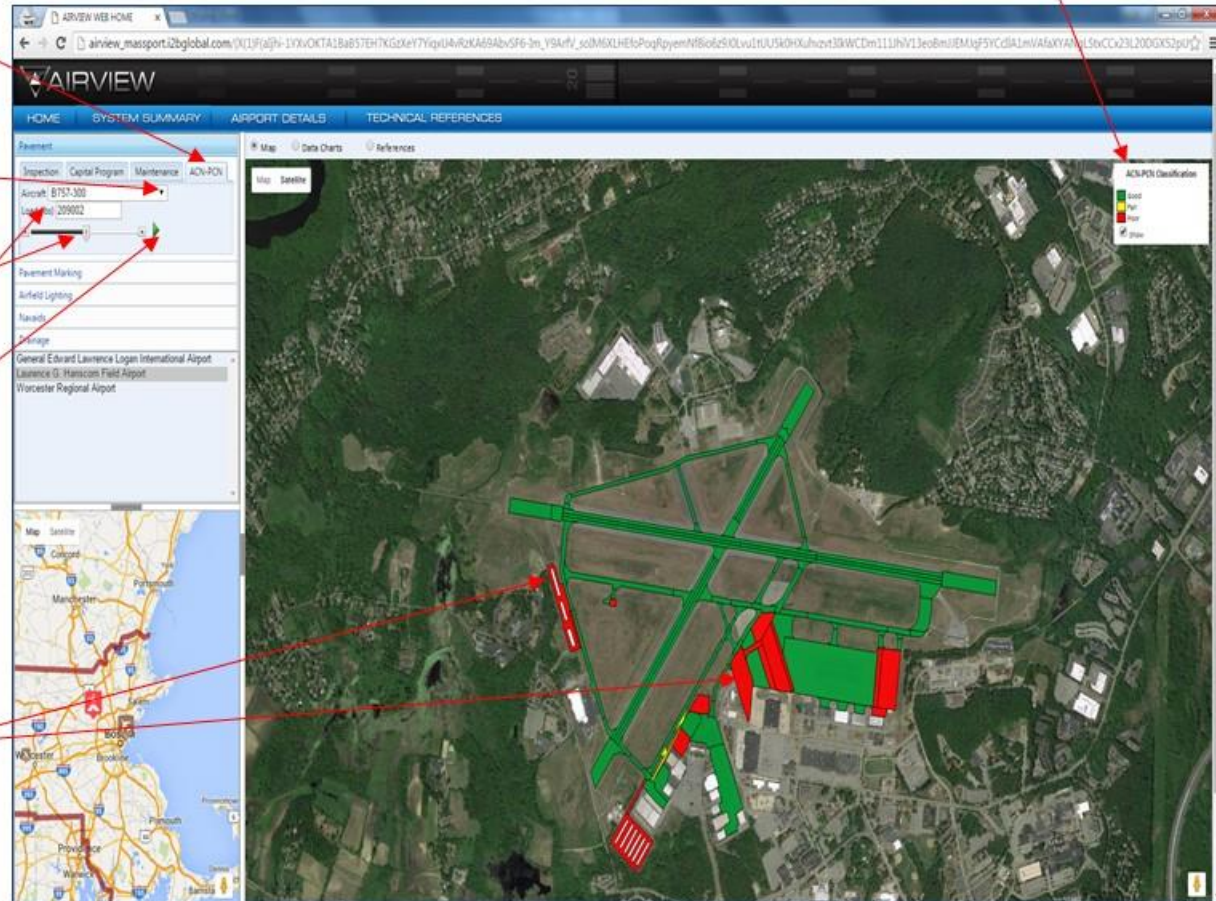
Display Results

Operational Plan

Green – No restrictions

Yellow – Caution

Red – Operations prohibited

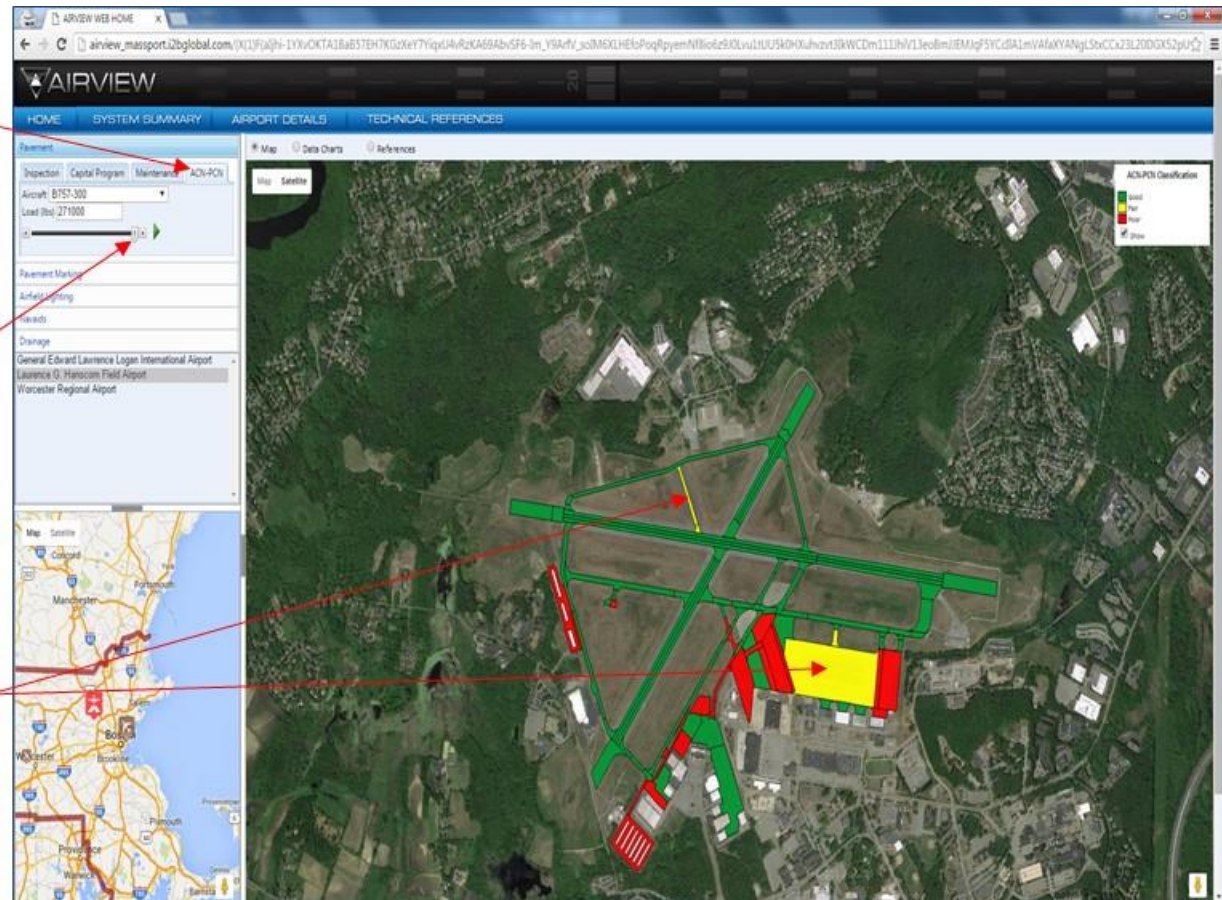


Minor Overload

ACN-PCN Tab

Evaluation at the
Maximum Takeoff Weight
(MTOW)

Yellow areas represent a
minor overload (within FAA
guidance) and operations
are typically at the
discretion of the airport
manager





Using a Pavement Management System

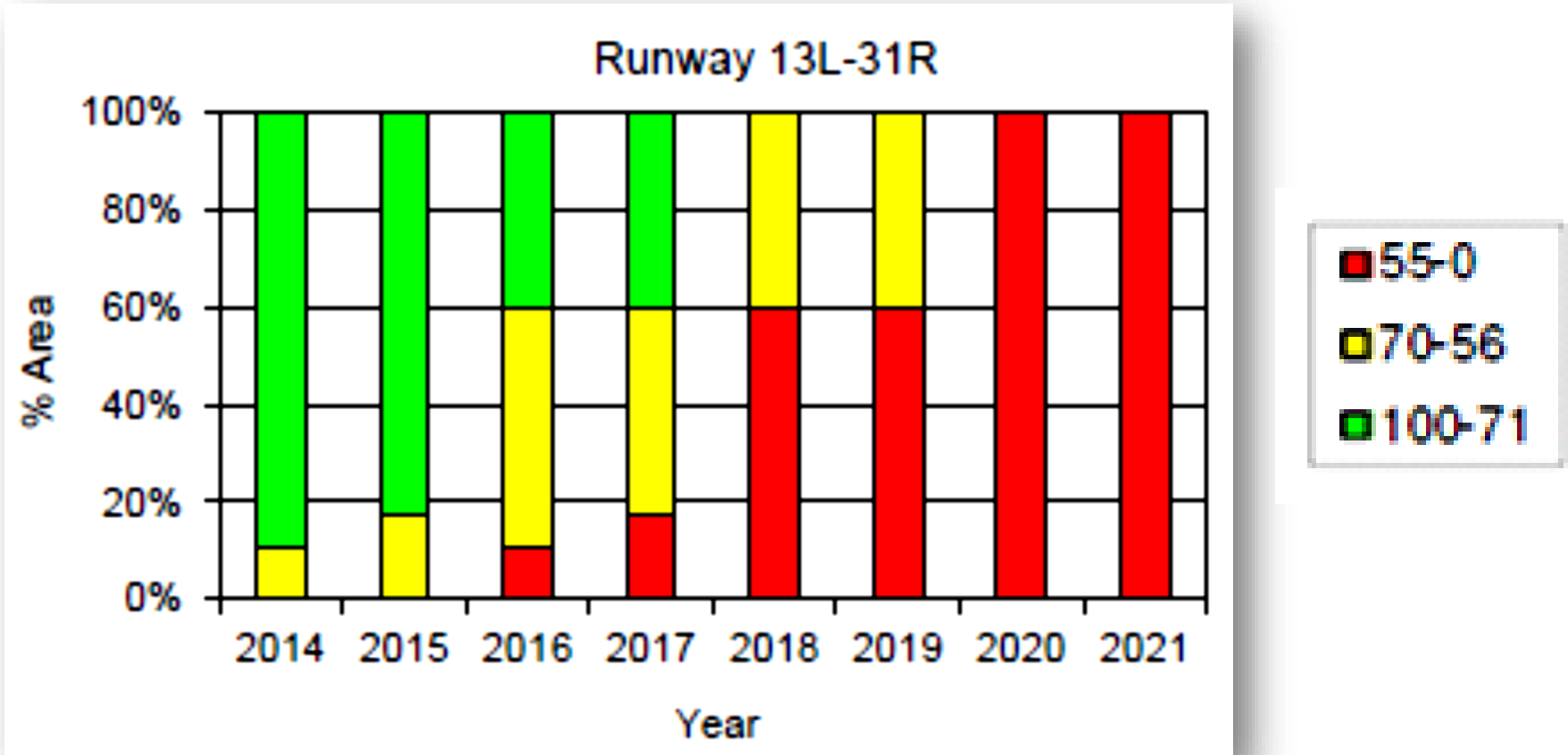


PCI MAP



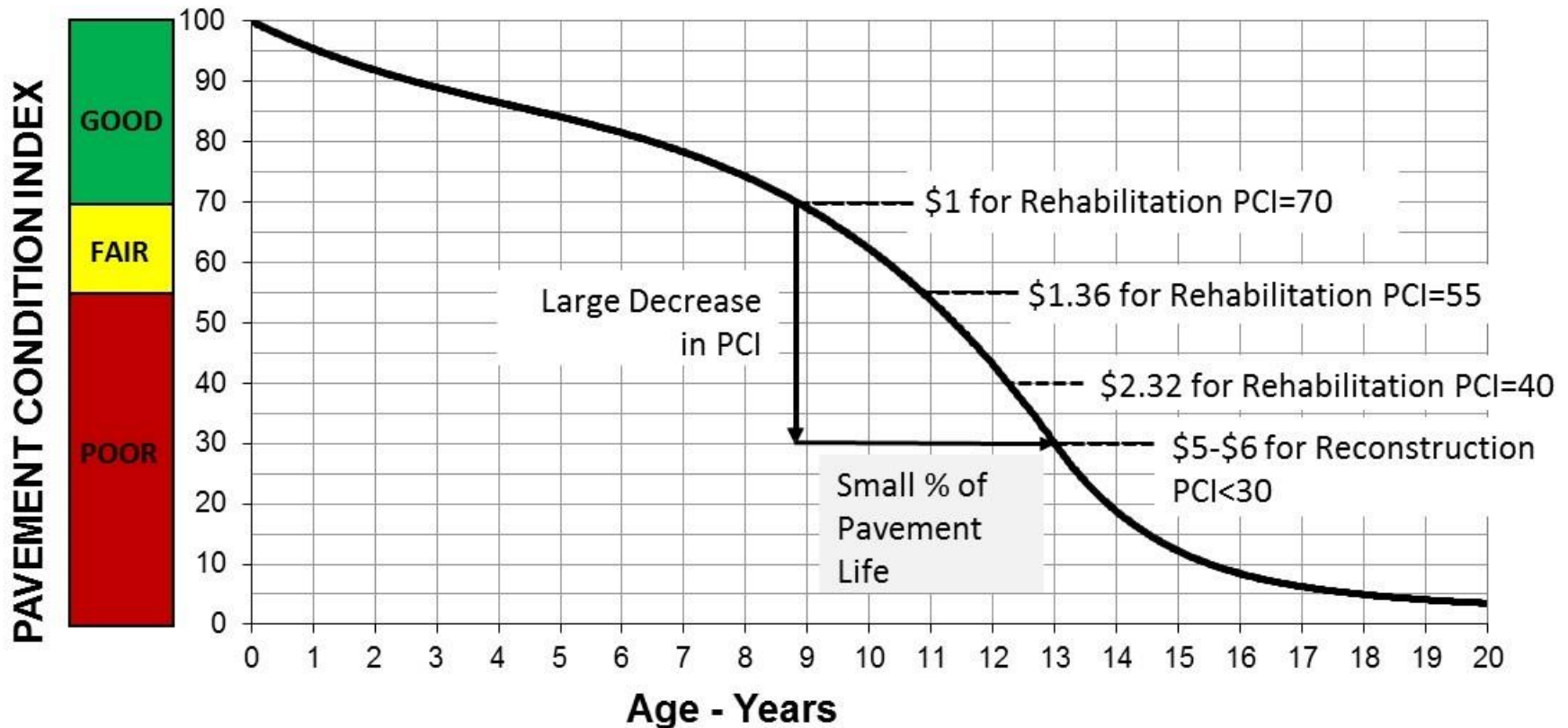


PCI Forecasting



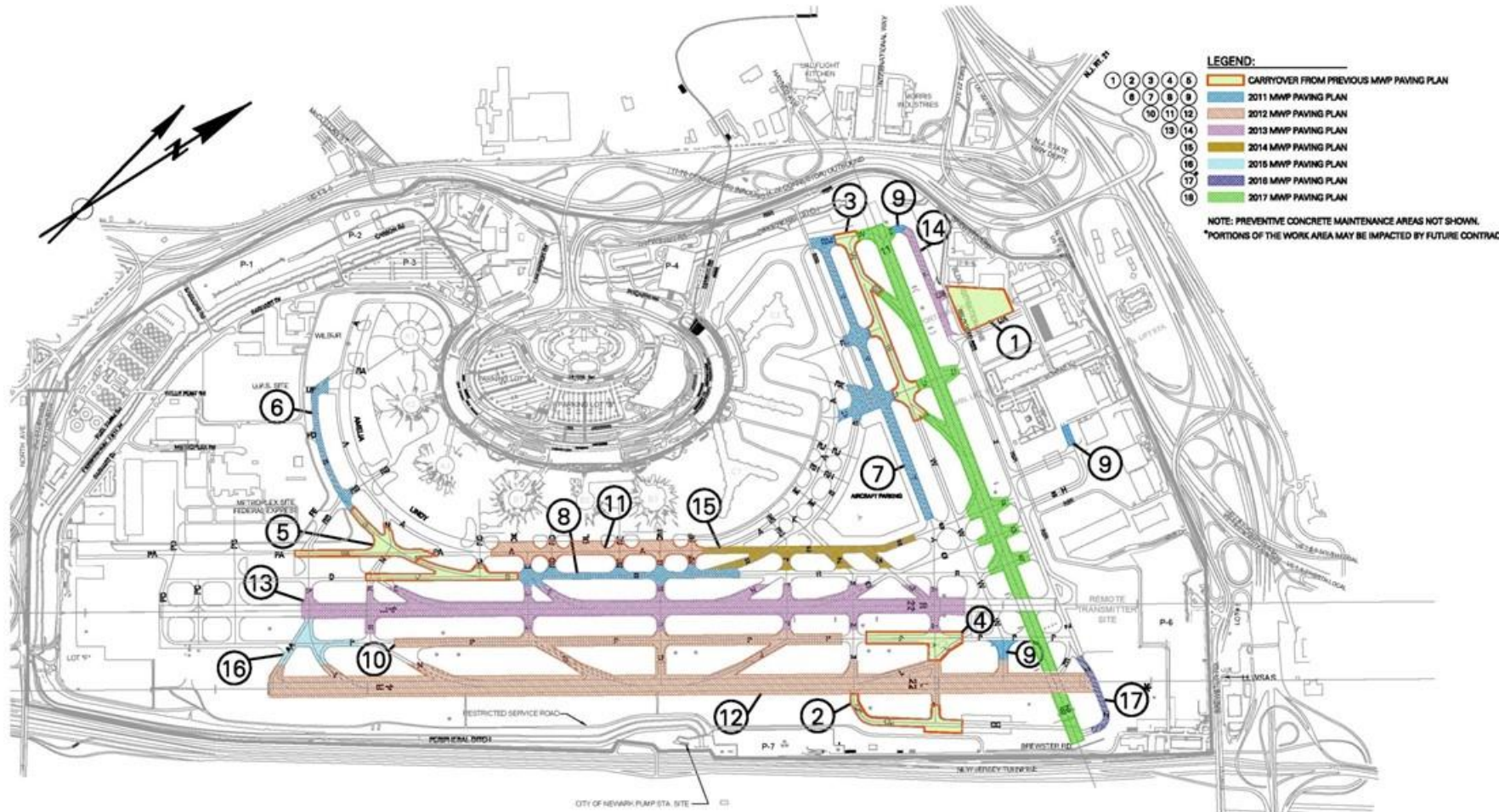


The Cost of Deferring Pavement Rehabilitation



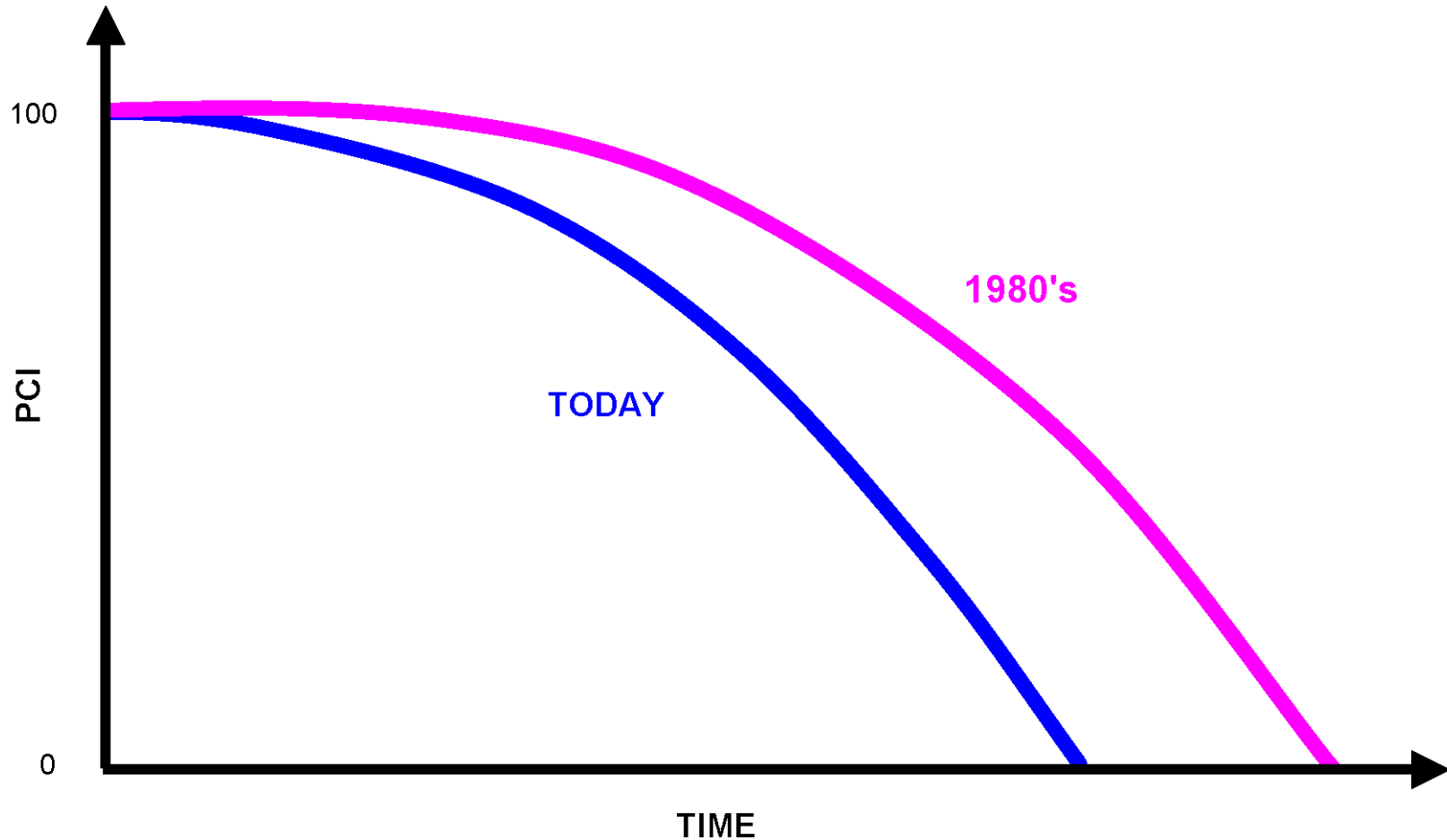


Newark Liberty International Airport





Tracking Pavement Performance





QUESTIONS?

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