

SPATIAL MAP • SOLUTION 05 / 07

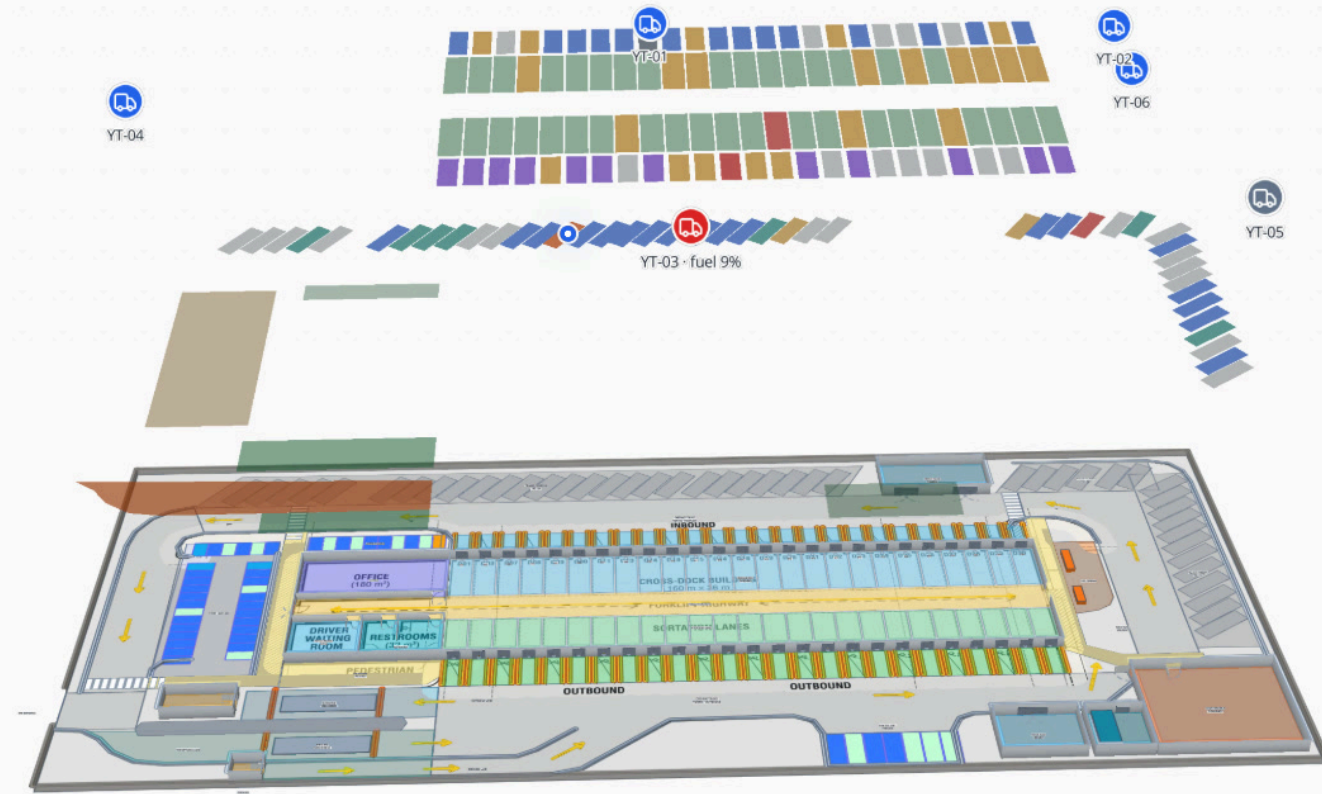


Logistics

See every trailer, door and pallet, live.

EVERY GATE • EVERY DOOR • EVERY PALLET • LIVE

 EASTPORT CROSS-DOCK FREIGHT HUB



01 — THE CHALLENGE

Freight stalls where no one is looking.

At a busy cross-dock, the problem is rarely a lack of data — it is that the gate, the yard, the doors and the hall each see their own piece. A late trailer, a forgotten load or an overweight truck only becomes visible when a cut-off is missed or a detention charge lands.



01

Late dock appointments

A quarter of trailers start late, pushing outbound cut-offs.

1,029

OF 3,946 DOCK TURNS STARTED LATE · 10 DAYS



02

Trailers forgotten in the yard

Loaded trailers sit unseen until detention charges start.

46

TRAILERS HELD OVER 24 H · 15 DAYS



03

Overweight trucks at the gate

Over-limit loads stall the weighbridge and risk road fines.

30

TRUCKS OVER 40,000 KG · 7 DAYS

AT A GLANCE

50

DOCK DOORS

44

YARD SLOTS

5

GATE LANES

1,180

RFID-TAGGED PALLETS

104

CONNECTED DEVICES

02 — THE LIVE TWIN

Your hub, live in 3D.

📍 EASTPORT CROSS-DOCK FREIGHT HUB · 4 LAYERS

We model your site to scale — gate plaza, weighbridges, trailer yard, dock doors, sortation lanes and the hall — and layer every data source on top. Yard, gate, pallets and doors stay in one browser view that anyone on site can open.

Structure

Cross-dock hall, gate plaza and trailer yard.

Yard & gate

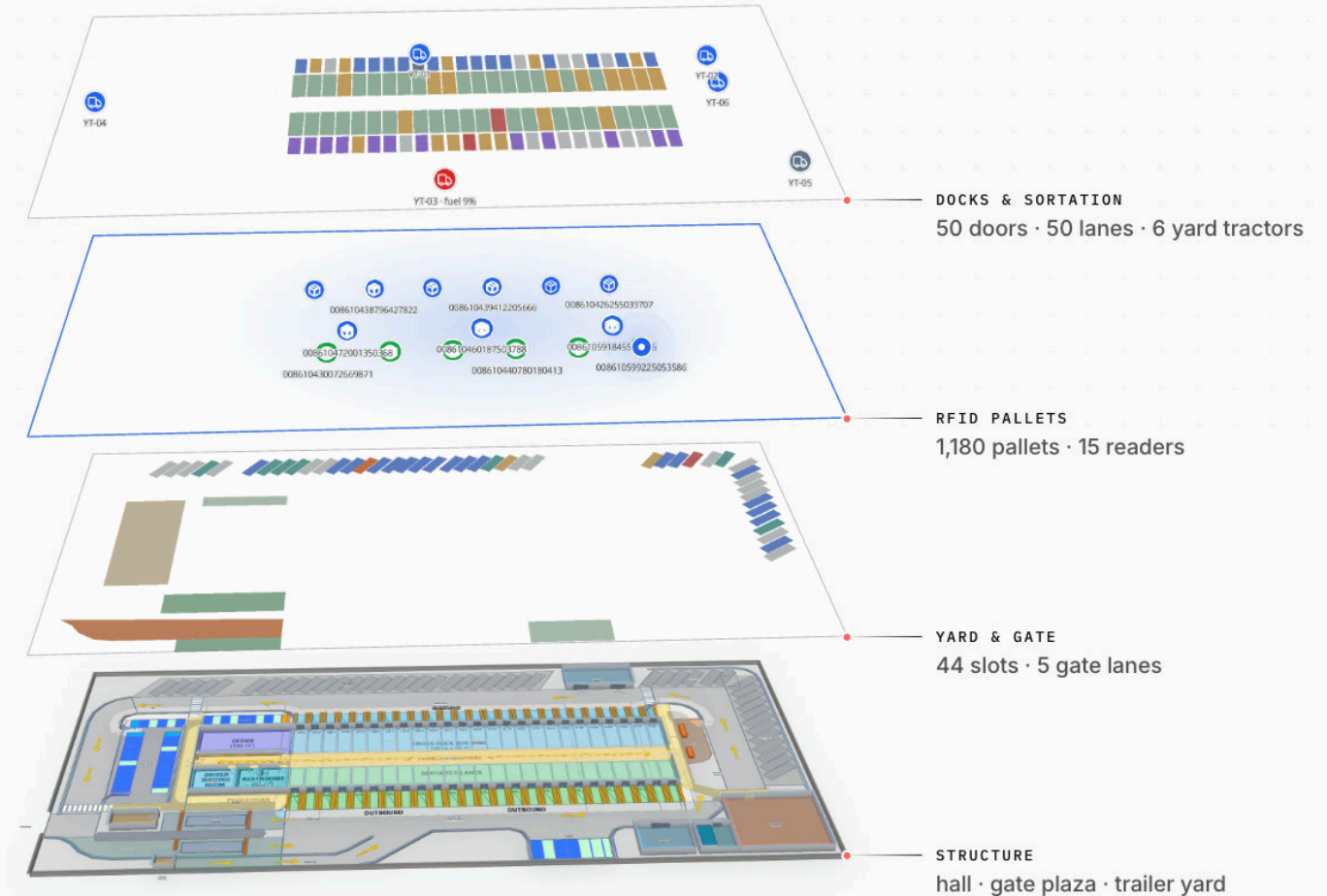
44 yard slots and 5 gate lanes, tinted live.

RFID pallets

1,180 pallets read by 15 readers, reader by reader.

Docks & sortation

50 doors · 50 lanes · 6 yard tractors.



50

DOCK DOORS

44

YARD SLOTS

1,180

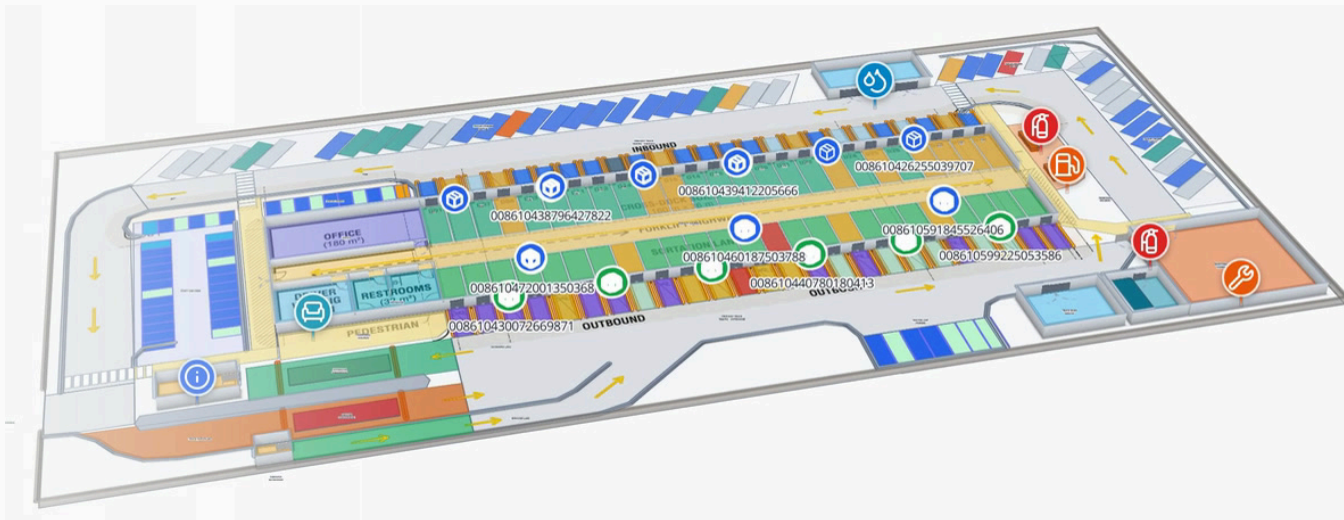
RFID PALLETS

03 - LIVE RFID PLAYBACK

Every pallet, door to door, live.

📍 EASTPORT CROSS-DOCK FREIGHT HUB · WHOLE SITE

The twin is not a picture — it is live. Every RFID read moves its pallet on the map, and the built-in history player replays any shift, so you can see exactly where freight crossed the dock, waited in a lane or went missing.



● **Dock doors** 26 OF 50 WORKING
14 unloading and 12 loading right now.

● **Truck Queue Lane** 7 TRUCKS QUEUED
Gate congestion seen before it reaches the docks.

● **RFID portals & arches** 99.7% READ RATE
3,232 of 3,242 reads across 15 readers.

3,946

DOCK TURNS
IN 10 DAYS

1,180

PALLETS TRACKED
BY RFID

1,558

TRUCKS WEIGHED
IN 7 DAYS

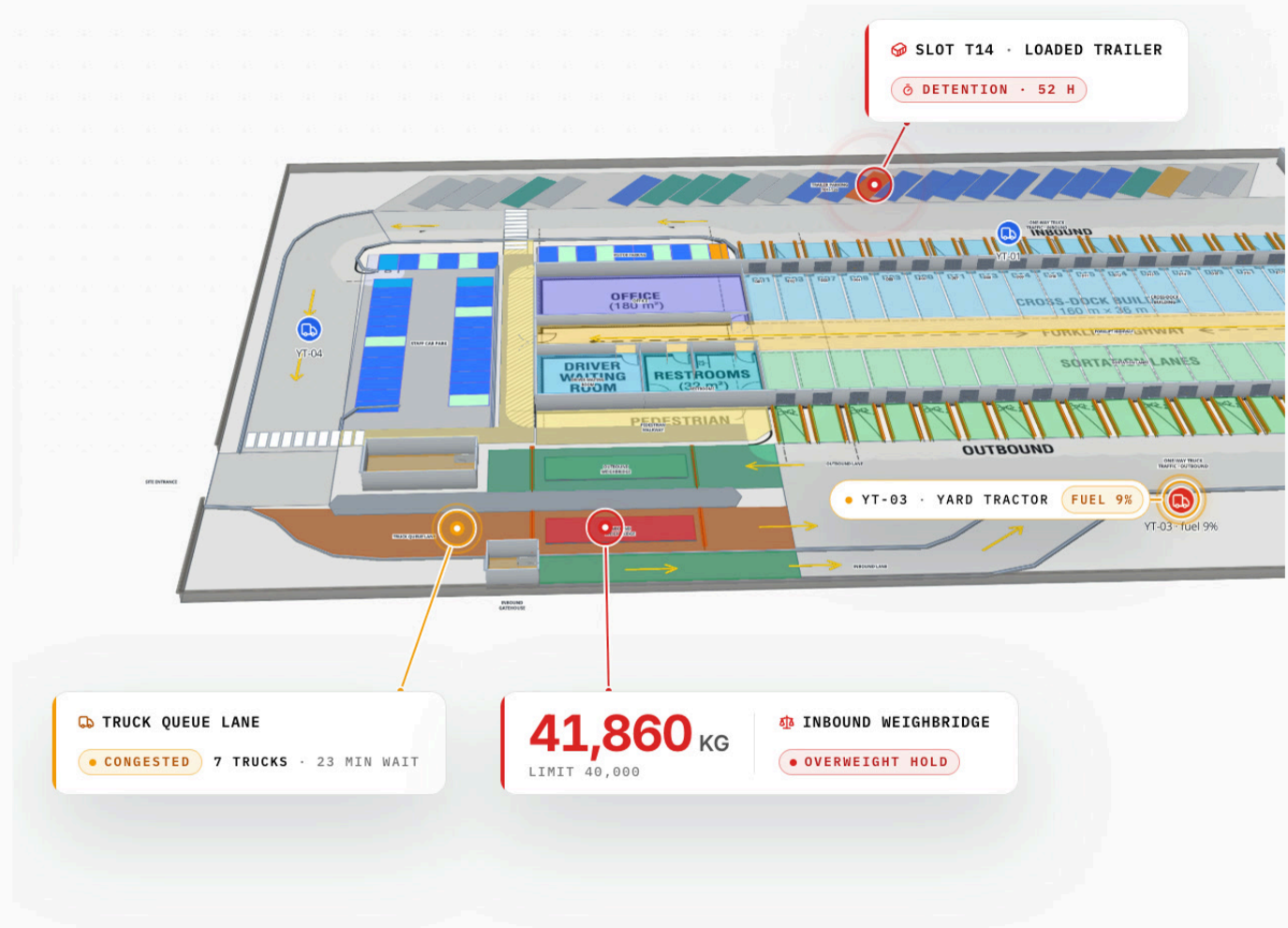
04 — GATE TO YARD

Every truck, trailer and slot — live.

GATE PLAZA · WEIGHBRIDGES · TRAILER YARD

Weighbridges, barriers, the queue lane, every yard slot and every yard tractor in one live view. An overweight hold, a congested queue or a loaded trailer running up detention is pinned to the exact lane or slot the moment it happens.

- Inbound Weighbridge** **OVERWEIGHT HOLD**
41,860 kg against a 40,000 kg limit · barrier down.
- Truck Queue Lane** **CONGESTED**
7 trucks · 23 min wait.
- Slot T14 · Loaded trailer** **DETENTION · 52 H**
Detention charge running — over 24 h in the yard.



26 / 44

19

3 / 5

YARD SLOTS IN USE

LOADED TRAILERS

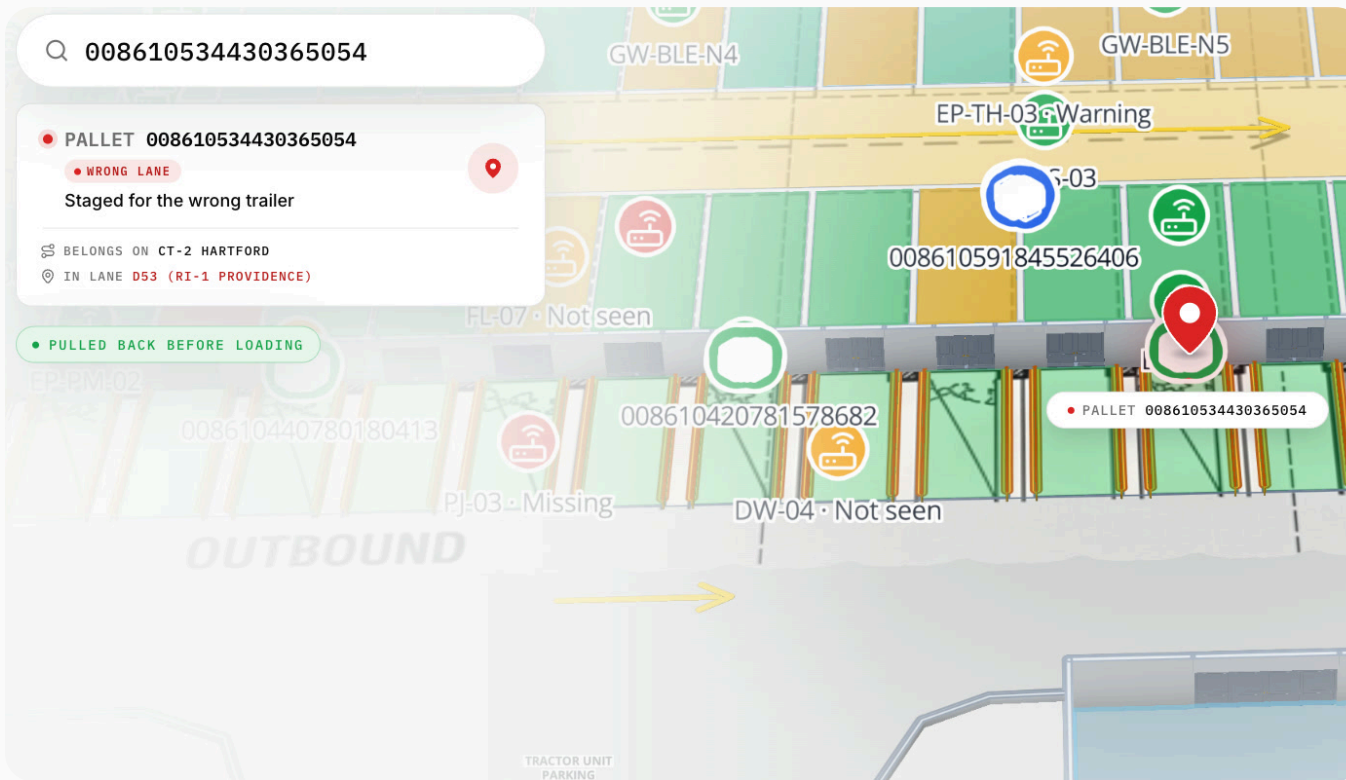
GATE LANES FLOWING

05 - FIND ANY PALLET

Every pallet, reader by reader.

OUTBOUND STAGING LANES D47-D55

Search any pallet, door or lane and the twin flies to it. Here a pallet staged for the wrong trailer is found in lane D53 and pulled back before loading — and every missed read traces back to one degraded portal reader.



● Pallet 008610534430365054 **WRONG LANE**
Belongs on CT-2 Hartford · staged in lane D53.

● Lane D53 **NOT ITS ROUTE**
Staging RI-1 Providence · 16 of 26 pallets.

● RD-D37 · Outbound Portal D37 **DEGRADED**
All 10 missed reads trace back to this reader.

3,242

RFID READS

15

READERS

99.7%

READ OK

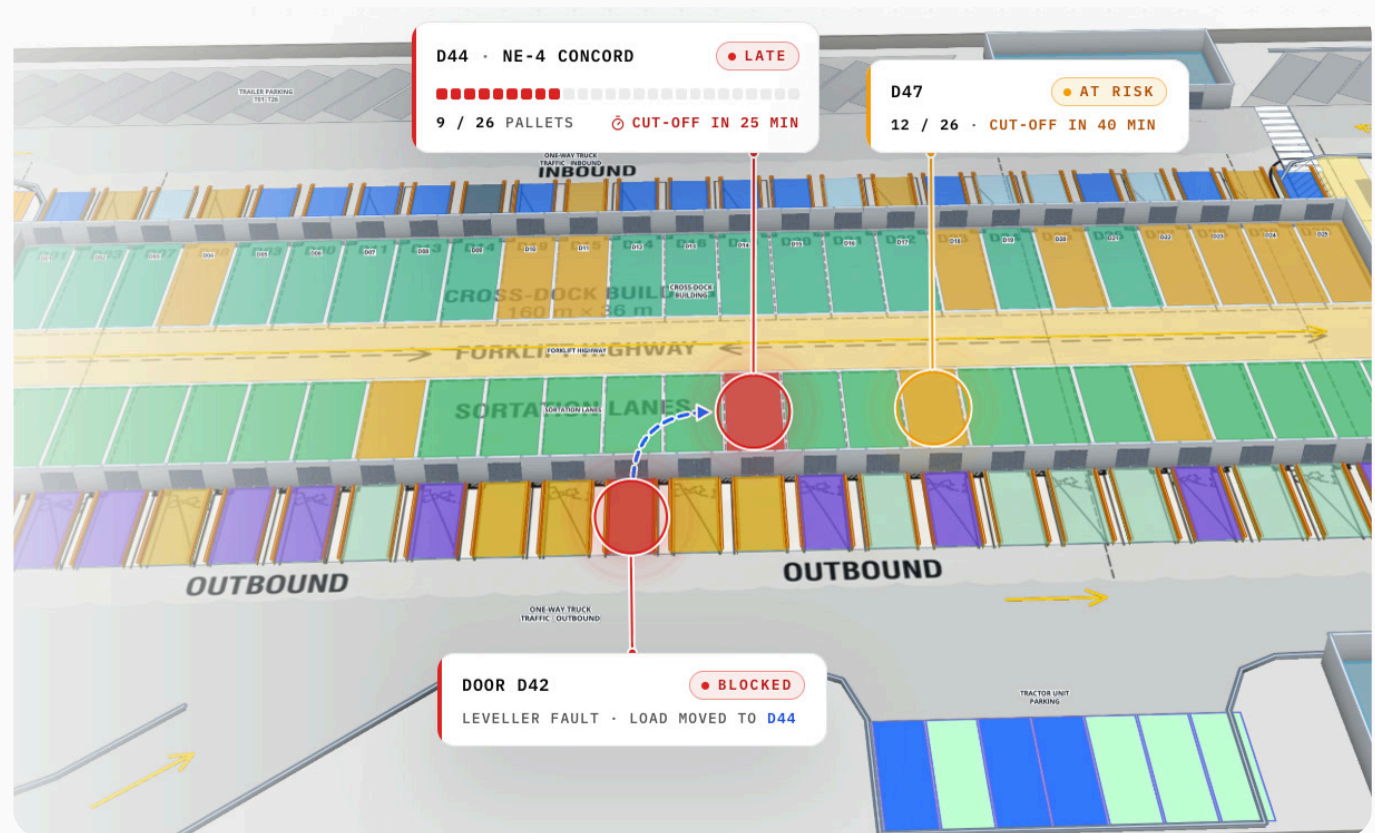
06 — BEAT THE CUT-OFF

See the short load before it leaves.

SOUTH DOCK FACE · DOORS D42-D47

Dock doors and outbound lanes are tinted live by cut-off risk. When a leveller fails and its load moves to another door, the twin shows which trailer will leave short — while there is still time to act.

- **D44 · NE-4 Concord** **LATE**
9 of 26 pallets · cut-off in 25 min · 17 short.
- **Door D42** **BLOCKED**
Leveller fault · load moved to D44.
- **D47** **AT RISK**
12 of 26 pallets · cut-off in 40 min.



21/25

LANES ON TIME

3

LANES AT RISK

1

LANE LATE

07 — REPORTS, READY

Dock, gate and yard reports, built in.

Every map layer feeds reports your teams already use — built around your KPIs and ready from day one. Each report keeps its live map, so a number always leads back to the exact door, lane or slot it comes from.

- Dock Doors — doors working and blocked, trailer turns and on-time starts, door by door.
- Cross-Dock Flow — pallets staged in the hall, outbound loads at risk, dock-to-dock time.
- Trailer Yard and Gate & Weighbridges reports run on the same live data.

26

DOORS WORKING NOW

73%

ON-TIME STARTS

4

AT-RISK OR LATE
LOADS

08 — CONNECTED TECHNOLOGY

Connects what you already run.

New RFID, BLE and sensor networks sit alongside the equipment you already own. ANPR cameras, weighbridges, barriers, CCTV and yard-tractor telematics are connected as they are — no rip-and-replace.

104

DEVICES ON ONE MAP

86.5% **99.9%** **1,180**

ONLINE NOW 7-DAY UPTIME RFID PALLET TAGS



15

RFID readers

12 PORTALS · 3 ARCHES · LLRP



36

Sensors

DOOR, CLIMATE, POWER, LEAK, CO₂



18

BLE tags

FORKLIFTS, PALLET JACKS, CREW



15

Gateways

BLE · LoRaWAN · MODBUS · LLRP



14

Site systems

EXISTING · ANPR, CCTV, BARRIERS



6

Tractor telematics

EXISTING · CAN + GPS OVER LTE-M



Connects what you already run

20 existing devices — ANPR, CCTV, barriers, weighbridge load cells, yard radar and the yard-tractor fleet — feed the same map as the new readers, tags and sensors.

PROTOCOLS

BLE 5.0

LoRaWAN

MQTT (PoE)

LLRP

Modbus TCP

LTE-M

Zigbee

 WHAT WE DELIVER

Built for your hub. Like no other.

-  **Your hub as live 3D**
Gate, yard, every door and the hall, modelled to scale.
-  **Every tag, one map**
RFID, BLE, ANPR and telematics on one map — with playback.
-  **Alerts pinned in place**
Overweight holds, late lanes, offline readers — exactly where.
-  **Reports teams already use**
Dock, gate, yard and cross-dock reports, built on your KPIs.
-  **Built end-to-end for you**
We model, connect and maintain it around your operation.

 HOW WE WORK

- 1

Discover
We walk your sites with your teams and agree the questions the solution must answer.
- 2

Model
We build your buildings as a live 3D twin — every floor, room, rack and door, to scale.
- 3

Connect
We integrate the readers, sensors, cameras and systems you have, and add what is missing.
- 4

Configure
Alerts, playback and reports are set up around your workflows and KPIs.
- 5

Run & evolve
We support the solution and extend it as your operation changes.

LET'S MAP YOUR OPERATION

contact@spatialmap.io

spatialmap.io

Tell us about your sites — we design, build and run the solution around them.

