



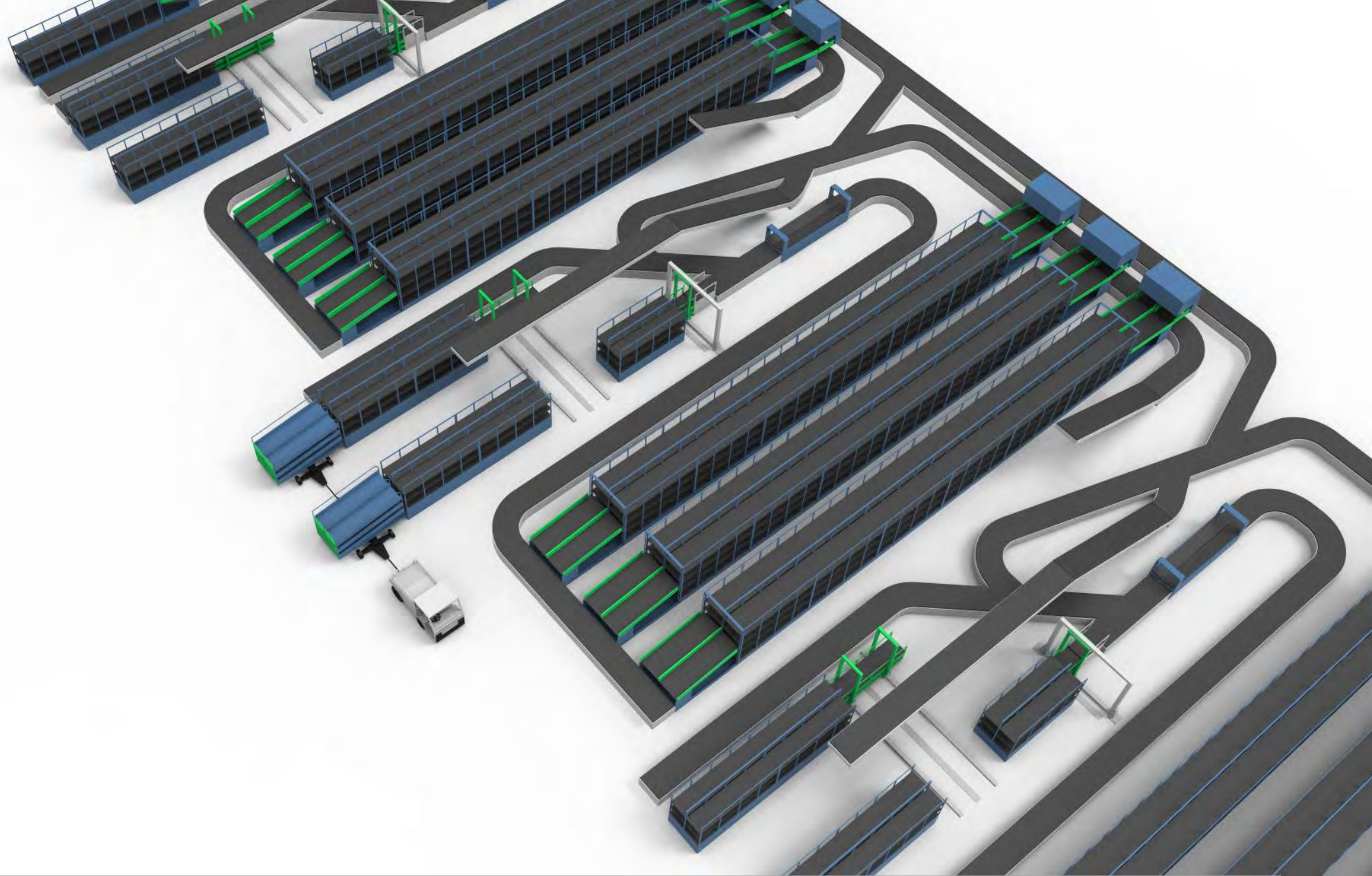
Integration and Scale Approach

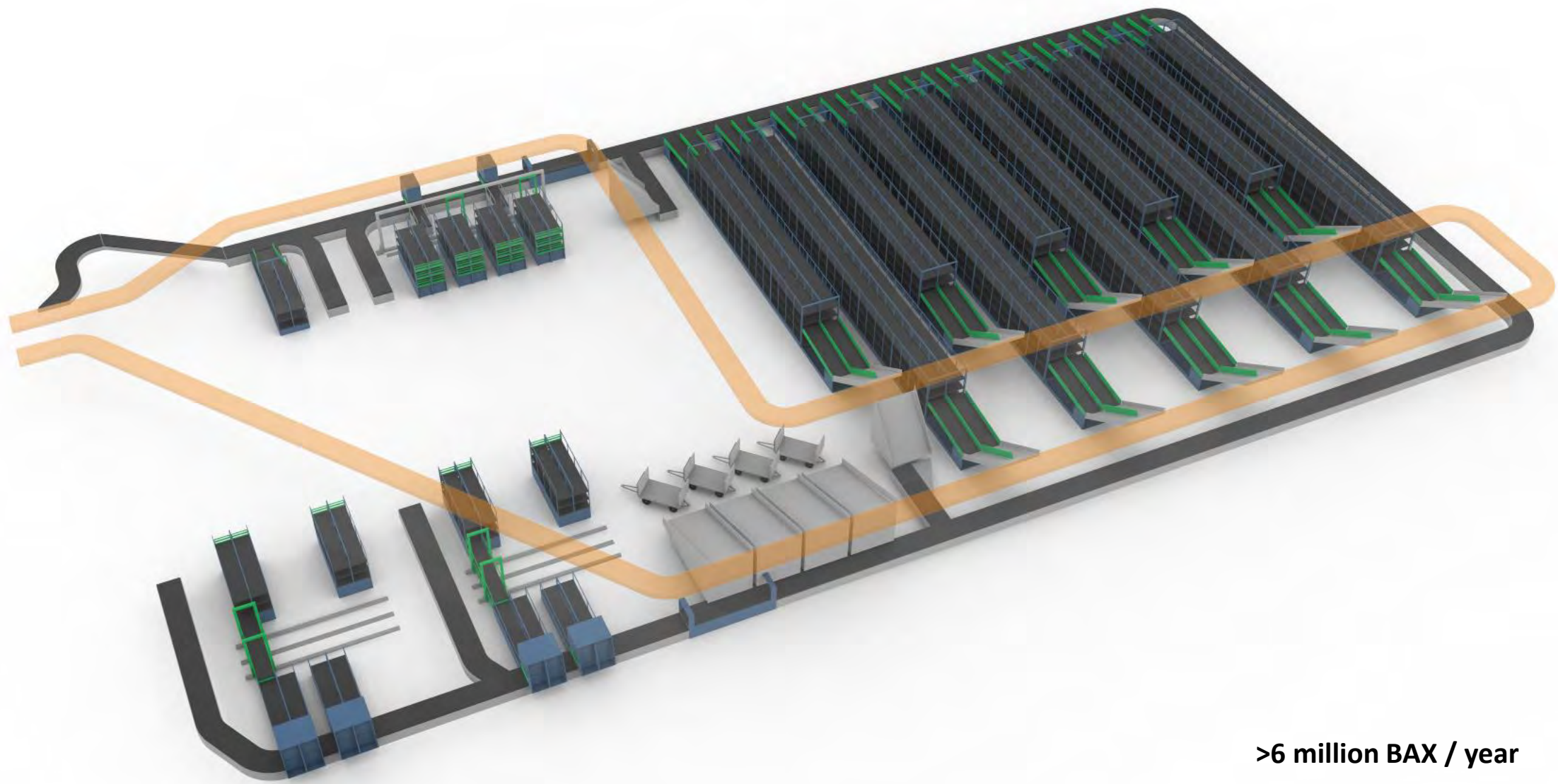
A photograph of an air traffic control tower at night. Two controllers are seated at a curved desk with multiple computer monitors. The tower has large windows overlooking an airport tarmac and terminal buildings illuminated by city lights. The text "Integration and Scale Approach" is overlaid in white on the image.

Close up



Scale Up





>6 million BAX / year

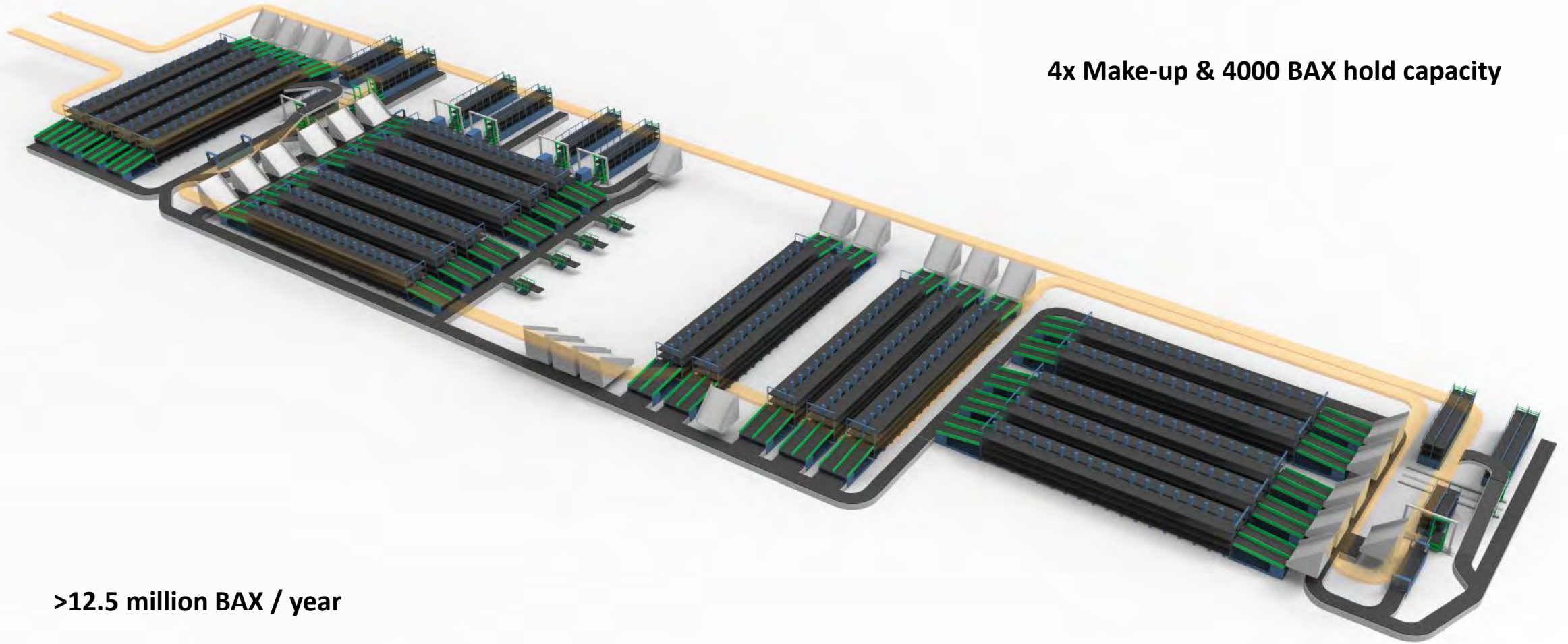


Scale Up

Case Study # 1



Scale Up



4x Make-up & 4000 BAX hold capacity

>12.5 million BAX / year



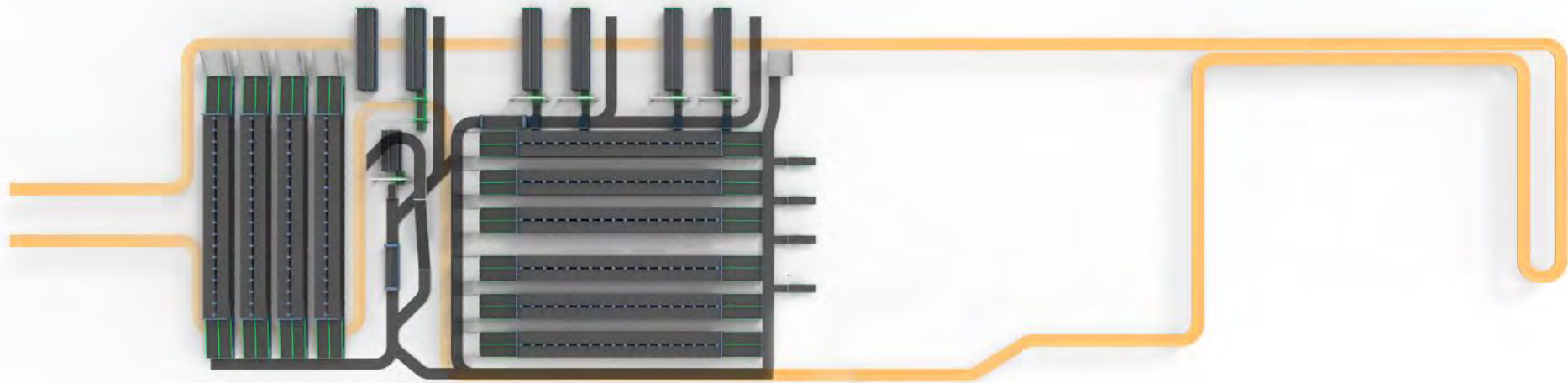
Scale Up



1x Make-up & 800 BAX hold capacity



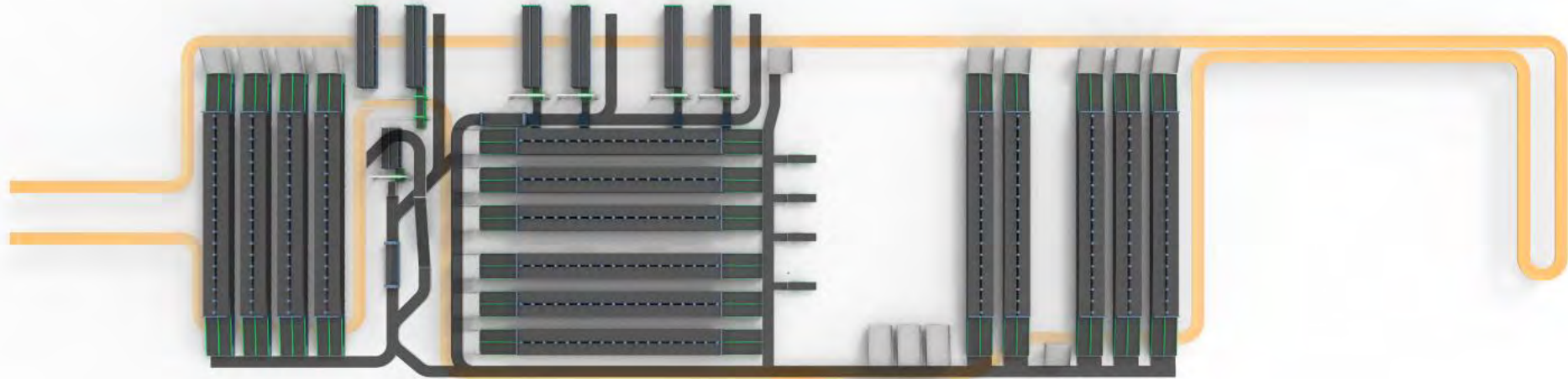
Scale Up



3x Make-up & 2000 BAX hold capacity



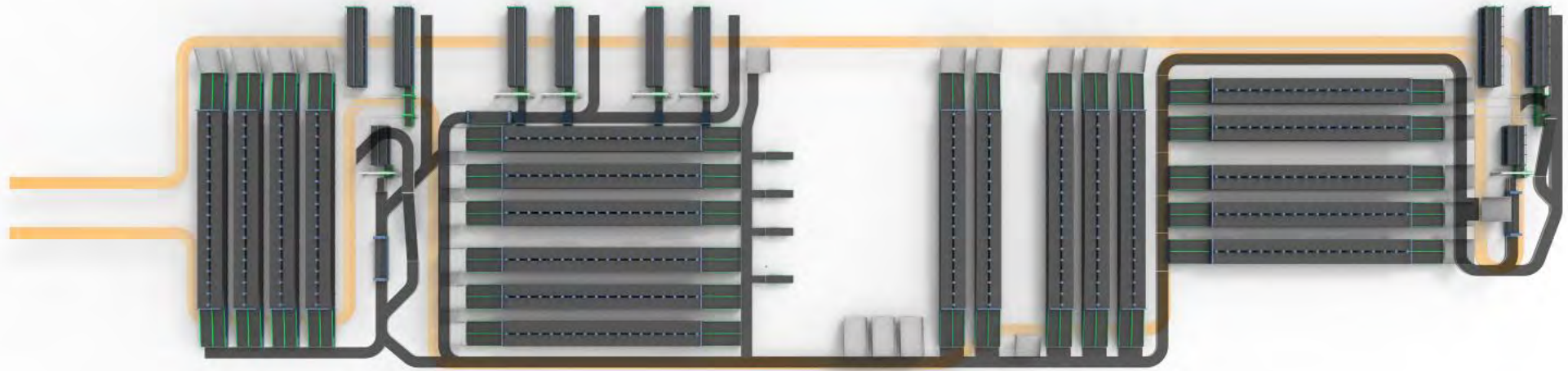
Scale Up



3x Make-up & 3000 BAX hold capacity



Scale Up



4x Make-up & 4000 BAX hold capacity



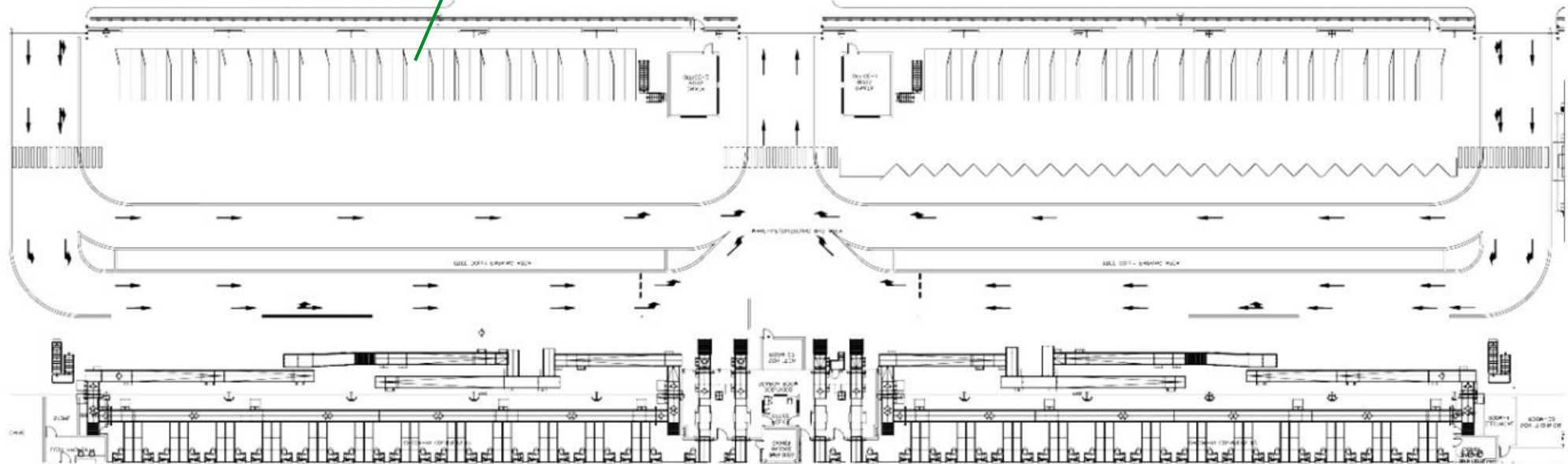
Scale Up

Case Study #2

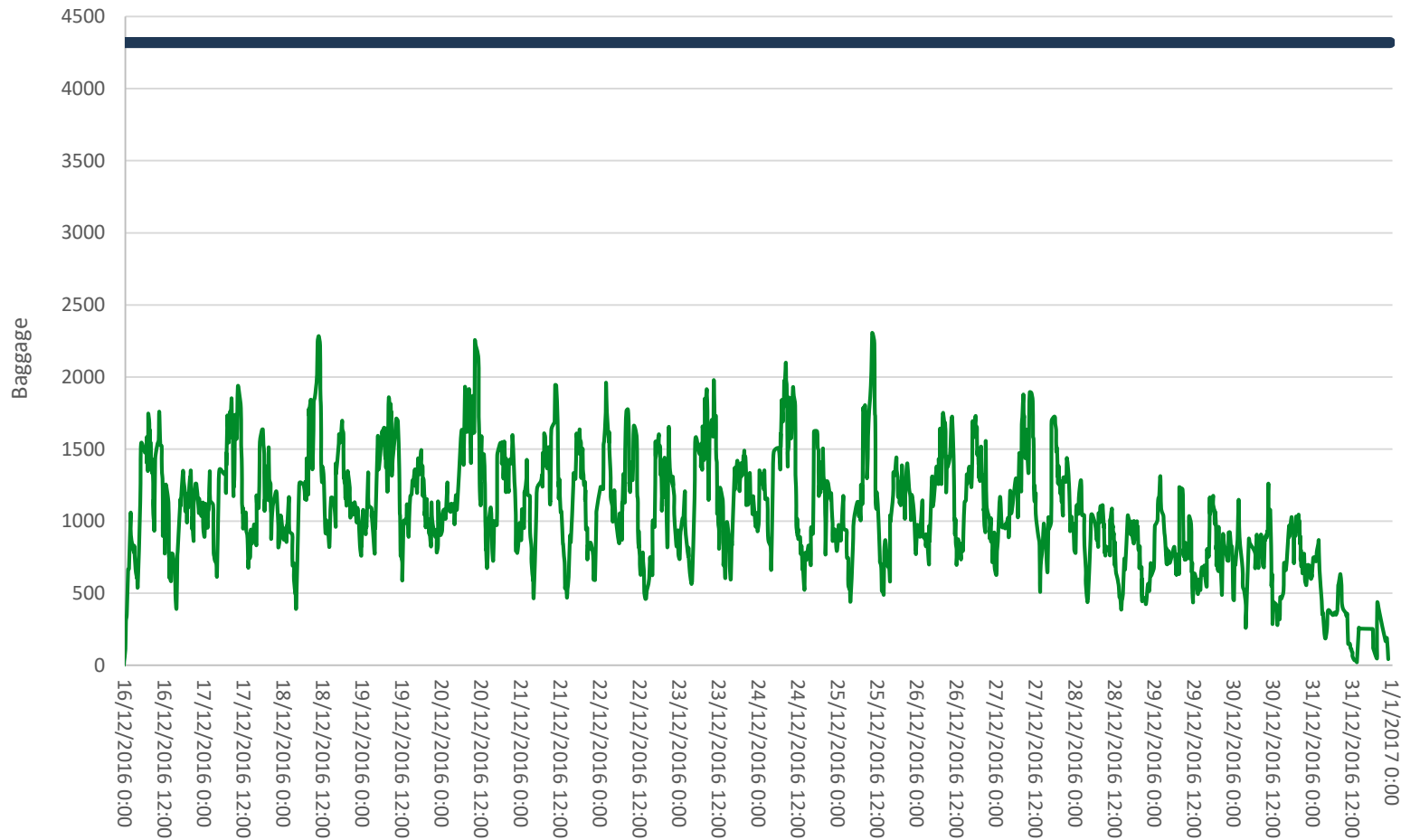


Scale Up

Chutes



Scale Up



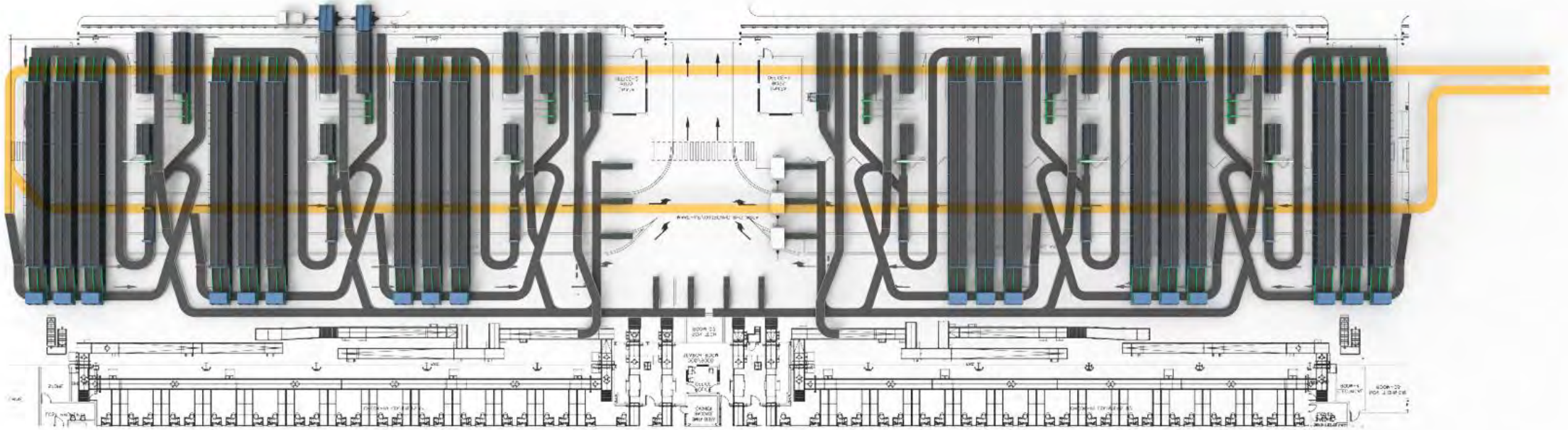
Peak data

Sorted for narrow-body only

>20 mil BAX / year



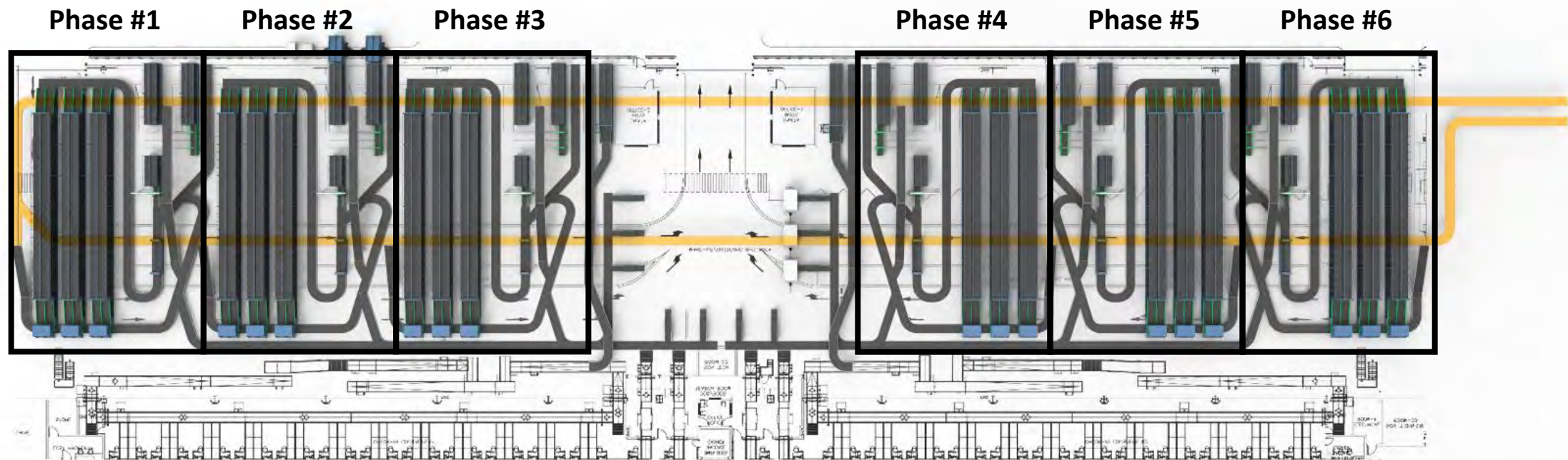
Scale Up



>20 mil BAX / year



Scale Up



>20 mil BAX / year



Scale Up

Case Study # 3

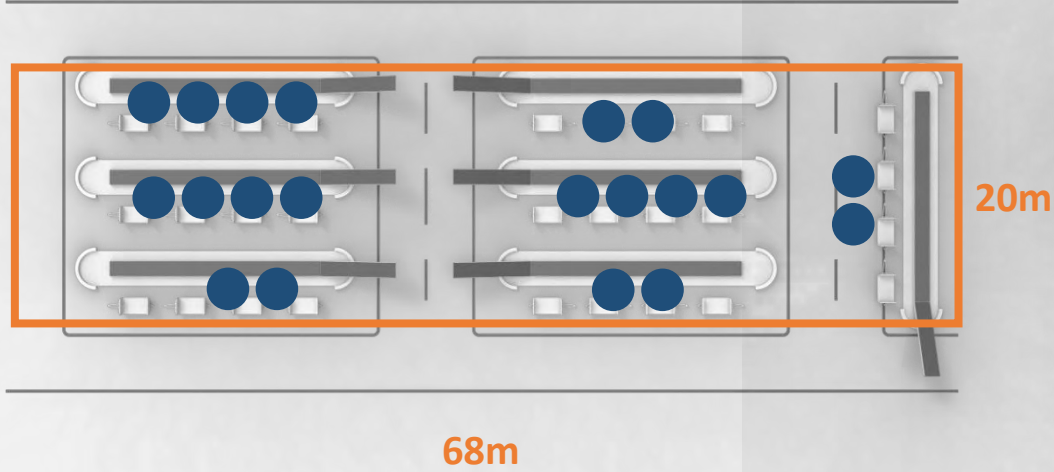


Scale Up

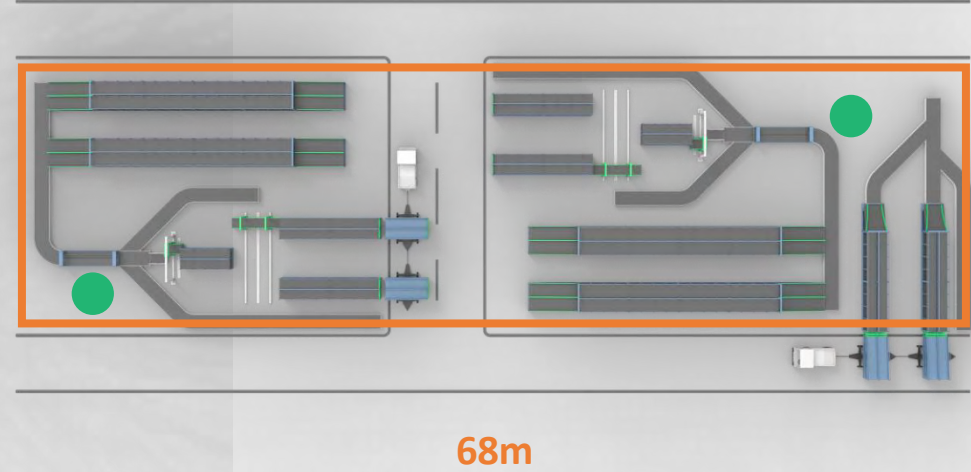
Preconditions and assumptions

- **Salary: \$ 80,000 per year ~ \$38,00 per hour (including social cost)**
- **40 hour work week**
- **4% of salary as worker insurance**
- **BBHS can reduce sickness absence with 2%-points**
- **Based on peak data**
- **BBHS can reduce tail-to-tail operations with 30%**
- **Based on airport with ~12.5 mio. PAX / year**

As is staffing need at peak



BBHS staffing need at peak

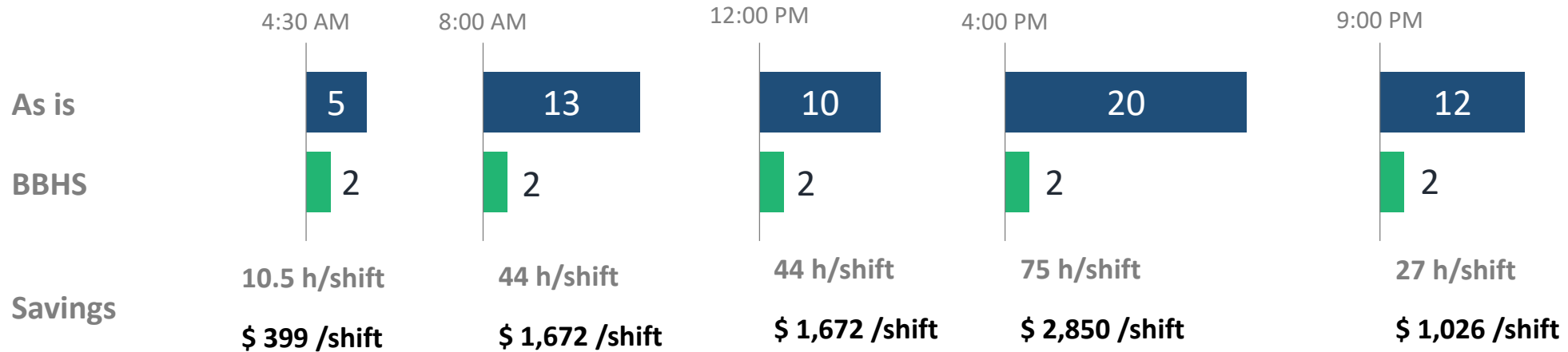


Current handler staffing ● BBHS operator staffing
20 handlers ● 2 operators

Sorting hall # 1

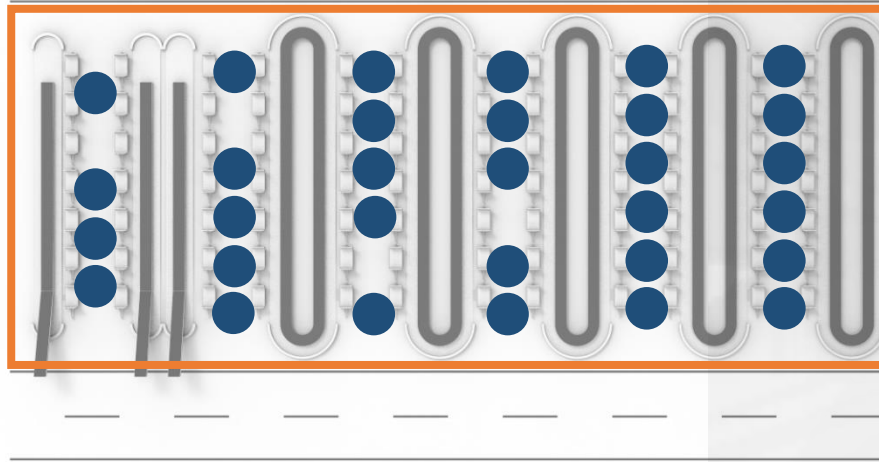
Staffing comparison at peak

Staffing Sorting Hall # 1



Summaries	As is	245.5 h/day	\$ 9,329 /day
	BBHS	39 h/day	\$ 1,482 /day
Savings		206.5 h/day	\$ 7,847 /day \$ 2,864,155 /year

As is staffing need at peak



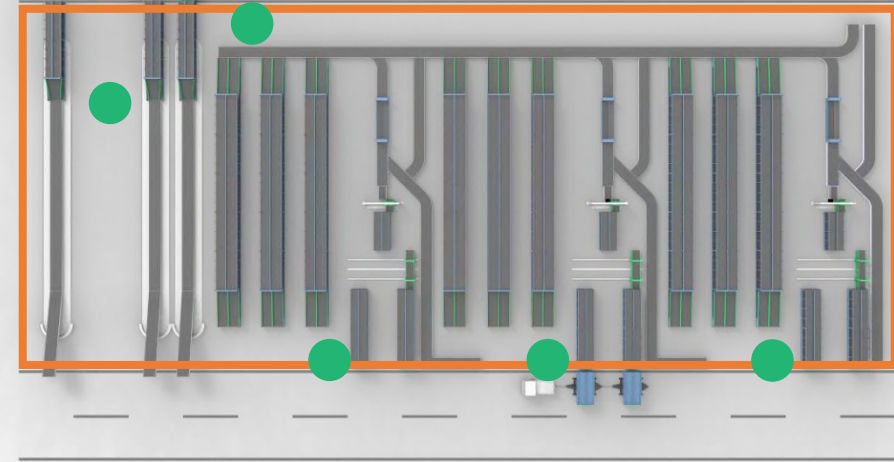
80m

Current handler staffing

31 handlers

34m

BBHS staffing need at peak



80m

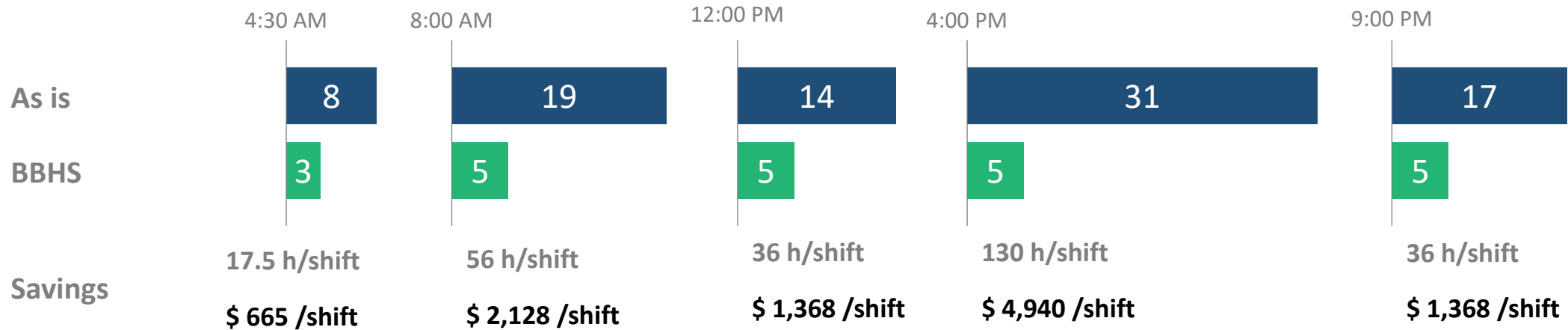
BBHS operator staffing

5 operators

Sorting hall #2

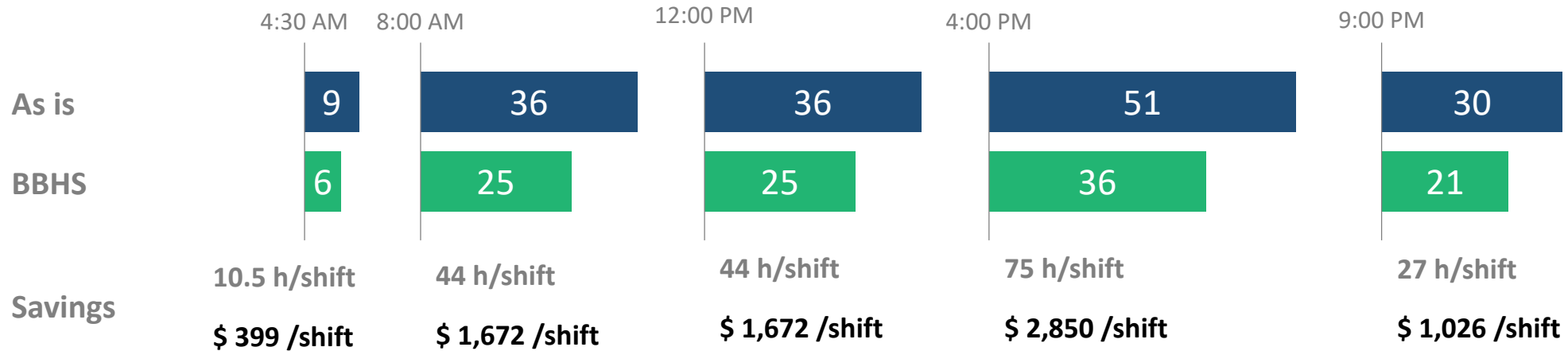
Staffing comparison at peak

Staffing Sorting Hall #2



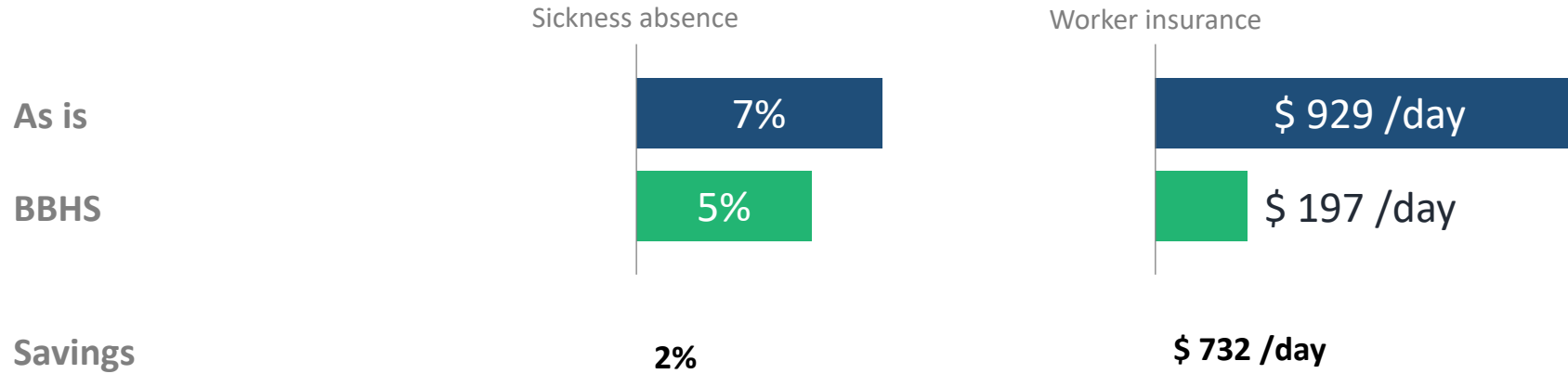
Summaries	As is	366 h/day	\$ 13,908 /day
	BBHS	90.5 h/day	\$ 3,439 /day
Savings		275.5 h/day	\$ 10,469 /day \$ 3,821,185 /year

Tail-to-tail operations



Summaries	As is	664.5 h/day	\$ 25,251 /day
	BBHS	464 h/day	\$ 17,632 /day
Savings		200.5 h/day	\$ 7,619 /day \$ 2,780,935 /year

Sickness absence and worker insurance



Cost Summaries	As is	\$ 1,626 /day	\$ 929 /day
	BBHS	\$ 246 /day	\$ 197 /day
Savings		\$ 503,700 /year	\$ 267,180 /year

Total Savings

Total Sorting Hall Savings **\$ 6,685,340 /year**

Total Other Savings **\$ 3,551,815 /year**

Total Potential Savings **\$ 10,237,155 /year**

Payback of ~2.5 years

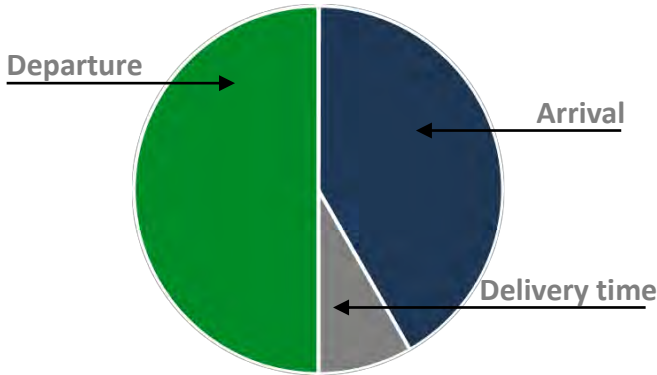
Excluding value of capacity increase, removing need for new building investment



Benefits and Opportunities

Benefits

As is



100%
of all BAX



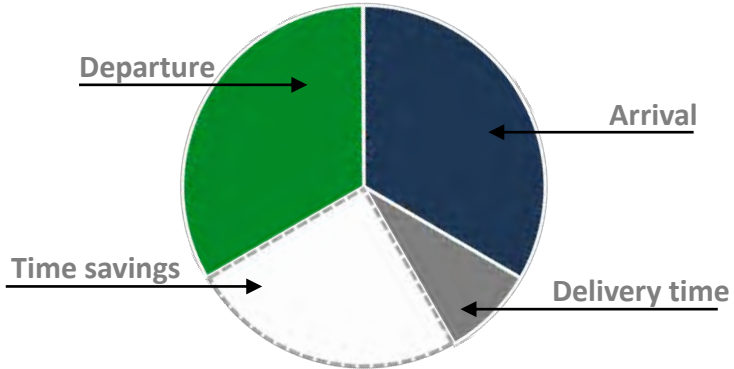
2.8/1000



8



BBHS



5%
of all BAX



1.4/1000



5

 Turn around time

 Lift

 Lost and damaged

 Staffing needs



Operational

- Smooth and safe baggage flow
- Gentle baggage handling
- 95% reduced manual lifting
- Full baggage reconciliation overview of arrival and departure
- Reduced work injuries
- Time savings
- Reduced amount of staffing required



Efficiency

- Improved turn around time
- Quicker handling process time
- Full BAX traceability
- High utilization of existing space
- High cart utilization
- Just in time storage and sortation
- Taking control over baggage flow



Financial

- Reduced labor costs on apron and in sorting hall
- Reduced insurance/injury costs
- Reduced lost and damaged BAX costs
- Aggressive system payback
- Less investment in new space




















Benefits

Value Proposition

 Improvement

-  Eliminates manual lifting
-  Baggage handling efficiency
-  Time savings
-  Full traceability
-  Baggage cart utilization
-  Gentle handling
-  Aggressive payback
-  Insurance premiums
-  Square meter utilization

	Airports	Passengers	Airlines	Ground handlers
Eliminates manual lifting				
Baggage handling efficiency				
Time savings				
Full traceability				
Baggage cart utilization				
Gentle handling				
Aggressive payback				
Insurance premiums				
Square meter utilization				

Luggage is flushed automatically to/from Trolleys and belts

Reduced time from bag drop-off to delivery at destination

Flushing to/from A-CU and D-CU prevail existing approach

By batching luggage it can be traced from drop off to delivery

Reduces airports cart fleet to 1/5th

BBHS eliminates abrasive manual lifts and loading

Cost efficient solution with only 3 years payback

Less manual lifts leads to fewer work injuries

The 'batch' approach reduces requirements to baggage halls



Thank you

For further information on the BBHS system, please contact us at info@bbhs.dk or +45 3178 1012