

Warehouse Slotting for Plumbing Supplies Distributor

A \$85M plumbing supplies distributor faced storage capacity challenges due to inefficient SKU placement and slotting strategies for its 32,000 SKUs.

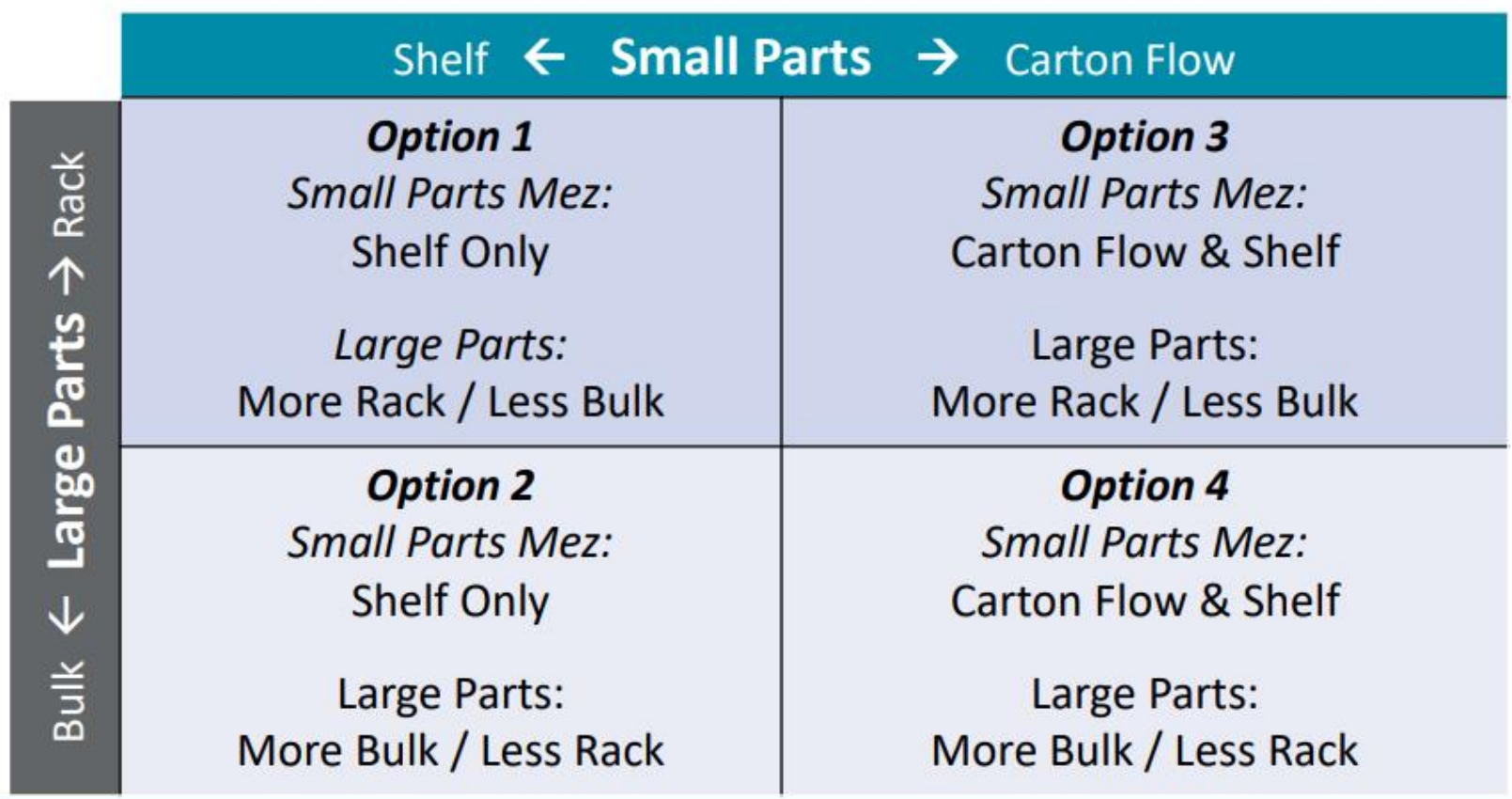
Optimize the warehouse slotting layout to maximize storage capacity, reduce picking times, and improve labor efficiency

Approach:

- Analyzed SKU movement data (ABC classification, picking frequency) and modeled storage requirements.
- Slot configurations defined by Size, Type & Inventory On Hand.
- Designed four layout options to optimize SKU placement for efficient picking and storage utilization.
- Presented the final proposal to the CEO, securing a \$2.2M budget to implement the recommended layout.

Option Storage Summary

	Current	Option 1	Option 2	Option 3	Option 4
Small / Medium Parts					
Mezzanine Footprint	7,200	9,407	9,407	14,831	14,831
Rack Storage - Small Parts	44,425	46,015	46,015	46,015	46,015
Large Parts					
Rack Storage - Large Parts	25,834	64,086	29,096	64,086	29,096
Bulk Floor Storage	62,388	32,661	104,508	32,661	104,508
Total Sq Ft	139,847	152,169	189,027	157,593	194,451
Pallet Positions					
Pallet Positions	5,330	11,182	6,720	11,182	6,720
SF per Pallet	13.2	9.8	11.2	9.8	11.2
Pick Module TTL SF	24,600	28,220	28,220	44,492	44,492
Bulk Lanes (SKU Capacity)	-	334	964	334	964
Open Space SF		44,622	7,764	39,198	2,340
Budget Cost Summary					
Pick Module		\$1,028,186	\$1,028,186	\$1,703,403	\$1,703,403
Rack		\$1,140,564	\$738,959	\$1,140,564	\$738,959
Bulk		\$10,645	\$34,434	\$10,645	\$34,434
Total Est. Budget Cost		\$2,179,395	\$1,801,579	\$2,854,611	\$2,476,796



Business Outcomes:

- Increased storage capacity by ~2X
- Reduced picking headcount by 15%
- Saved ~\$750K annually in labor costs

Slot Configuration Summary

Small / Medium Parts Storage	
Pick Module / Mezzanine	
Shelf - Small Bin Box 24" Deep	Small Parts: < 1 Case OH
Shelf - Large Bin Box 24" Deep	Small Parts: 1 - 2 Cases OH
Shelf - Case 24" Deep	Small to Medium Parts: 1 - 2 Cases OH
Carton Flow 48" Deep	Small to Medium Parts: 2 - 6 Cases OH
Carton Flow 96" Deep	Small to Medium Parts: 7 - 12 Cases OH
Rack Storage - Small / Med Parts	
Shelf - Case Ground Level	Medium Parts: 1 - 2 Cases OH
Shelf - Case High Bay	Medium Parts: 1 - 2 Cases OH
Carton Flow 96" Deep	Medium Parts: 2 - 10 Cases OH
Pallet Rack - Single Deep: Single	Medium Parts: 1 Pallet OH
Pallet Rack - Single Deep: Multi	Medium Parts: 2+ Pallets OH
Large Parts Storage	
Rack Storage - Large Parts	
Pallet Rack - Single Deep: Single	Large Parts: 1 Pallet OH
Pallet Rack - Single Deep: Multi	Large Parts: 2 - 6 Pallets OH
Pallet Rack - Double Deep	Large Parts: 6 - 12 Pallets OH
Pallet Rack - 3-Deep Push Back Rack	Large Parts: 12+ Pallets OH
Bulk Floor Storage	
Bulk Lane - 4 Pallets Deep	Large Parts: 12 - 16 Pallets OH
Bulk Lane - 6 Pallets Deep	Large Parts: 16 - 24 Pallets OH
Bulk Lane - 8 Pallets Deep	Large Parts: 24+ Pallets OH