

City of Grapevine Speeds Fleet Parts Retrieval 3-4x with Kardex VLMs

Southwest Solutions Group implemented an automated storage and retrieval system for the City of Grapevine Fleet Services parts room in the Dallas-Fort Worth area. Using Kardex Shuttle XP Vertical Lift Modules and Power Pick Global software, the City increased storage density, improved inventory visibility, enhanced security, and accelerated parts retrieval without expanding the facility.

INDUSTRY

Government

Municipal fleet services operation supporting public works, vehicles, and city departments that depend on reliable parts storage and retrieval.

LOCATION

Grapevine, Texas

The project was completed for City of Grapevine Fleet Services in the Dallas-Fort Worth metroplex.

FACILITY TYPE

Fleet Services Parts Room

The storage area housed parts inventory used by fleet technicians for municipal vehicle maintenance.

SOLUTION

Automated Storage and Retrieval System

The project used Kardex Shuttle XP Vertical Lift Modules with inventory control software.

PRODUCTS USED

Kardex Shuttle XP VLMs and Power Pick Global

The system combined automated vertical storage with software-supported fleet inventory management.

OPERATIONAL GOAL

Increase Storage Density and Retrieval Speed

The City needed to support growing inventory demands while improving access, security, and organization within the existing facility footprint.

THE PROBLEM

Growing Fleet Inventory Was Straining the Parts Room

City of Grapevine Fleet Services had growing inventory demands that exceeded the available storage space in the parts room. Overcrowded open shelving consumed floor space, slowed parts retrieval, and left high-value fleet components exposed to unauthorized access and theft.



01

Overcrowded Open Shelving

The parts room relied on open shelving that had become crowded as inventory demands increased. This layout consumed valuable floor space and limited how efficiently fleet parts could be stored.

02

Slower Parts Retrieval

Technicians had to search through conventional shelving to locate the parts they needed. That process reduced operational efficiency and made daily parts access slower than the department required.

03

Limited Inventory Control

High-value fleet components were stored in an open environment with limited access control. The department needed a more secure and visible way to manage parts and reduce exposure to unauthorized access and theft.

THE SOLUTION

Kardex Vertical Lift Modules for Secure Fleet Parts Storage

Southwest Solutions Group implemented two Kardex Shuttle XP Vertical Lift Modules with Power Pick Global software to consolidate fleet parts into automated enclosed storage. The automated storage and retrieval system was selected to use unused vertical space, improve retrieval speed, increase inventory visibility, and avoid facility expansion. The City also used the Equalis cooperative purchasing contract to streamline procurement.



WHAT WE INSTALLED

Two Kardex Shuttle XP Vertical Lift Modules

SSG installed two Kardex Shuttle XP Vertical Lift Modules to automate storage and retrieval for fleet parts. The solution included Power Pick Global software for inventory tracking, automated tray delivery, enclosed secure storage, and CubeStar technology.

WHY IT FIT

Vertical Storage Reduced Dependence on Floor-Based Shelving

The VLMs used vertical space to consolidate parts that had been stored on open shelving. Automated tray delivery brought items to an ergonomic access point, supporting faster retrieval while helping the City manage growing inventory within the existing facility.

OPERATIONAL IMPACT

More Controlled Access to Parts and Inventory Data

The completed system improved parts access, organization, accountability, and operational readiness. Project results included 3-4x faster parts retrieval, over 90% of shelving eliminated except bulk items, improved inventory accuracy, enhanced parts security, and recovered floor space.

A Structured VLM Installation for a Municipal Fleet Parts Room

The implementation focused on replacing overcrowded shelving with automated vertical storage and software-supported inventory control. Equipment delivery occurred 16-17 weeks after purchase order, followed by a two-week installation and operator training period completed by certified Kardex technicians.

01 DISCOVERY & SITE SURVEY

Reviewed Parts Room Storage and Access Requirements

SSG evaluated the Fleet Services parts room goals, including storage density, retrieval speed, inventory visibility, and secure access. The project focused on using the existing facility footprint more efficiently instead of expanding the space.

02 LAYOUT, POWER & DATA PLAN

Planned the VLM Placement Within the Existing Space

The team planned placement for the Kardex Shuttle XP Vertical Lift Modules with attention to access, service space, power, data, and software connectivity. The layout supported automated tray delivery and inventory control through Power Pick Global.

03 SUBMITTALS & APPROVALS

Supported Review, Approval, and Cooperative Procurement

SSG provided project documentation needed for review and approval. The Equalis cooperative purchasing contract helped streamline procurement for the City.

04 FABRICATION & DELIVERY

Coordinated Kardex Equipment Delivery

The Kardex equipment was delivered 16-17 weeks after purchase order. Delivery was coordinated as part of the project sequence before installation began.

05 INSTALLATION & TRAINING

Installed the VLMs and Trained Operators

Certified Kardex technicians completed installation and operator training during a two-week installation and training period. Training prepared staff to use the automated storage system and Power Pick Global software for daily parts room operations.

06 MAINTENANCE & SUPPORT

Supported Long-Term Storage System Use

The completed system gives the department a structured platform for ongoing parts room organization, fleet inventory management, storage density, and workflow improvement. Continued support helps preserve system performance as inventory needs change.

RESULTS

Faster Parts Retrieval with Higher Storage Density

The completed automated storage and retrieval system transformed the City of Grapevine Fleet Services parts room from overcrowded shelving into a secure, high-density storage solution. Using Kardex Shuttle XP Vertical Lift Modules and Power Pick Global software, the department improved retrieval speed, inventory visibility, security, and available floor space within its existing Dallas-Fort Worth area facility.

PRIMARY OUTCOME

More Than 90% of Shelving Eliminated

The Kardex Vertical Lift Modules replaced most conventional shelving, allowing the City to recover valuable floor space while significantly increasing storage density. Only oversized bulk inventory remained on traditional shelving.

WORKFLOW

Parts Retrieval Improved by 3-4 Times

Automated tray delivery reduced walking and search time, allowing technicians to retrieve parts approximately three to four times faster than the previous shelving-based process.

ORGANIZATION

Better Inventory Visibility and Security

Power Pick Global software improved inventory accuracy and accountability while enclosed storage protected valuable fleet components from unauthorized access and theft.

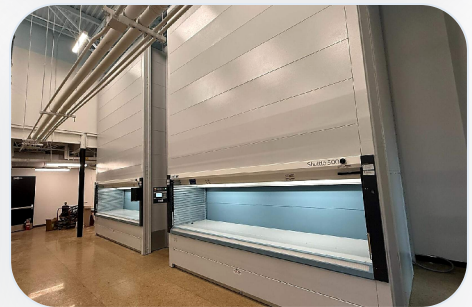
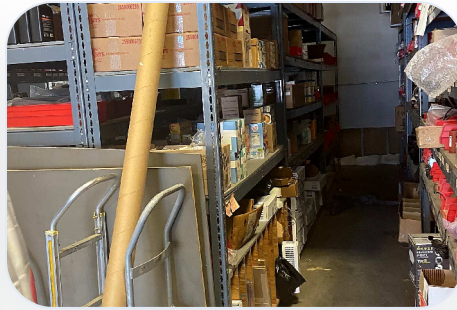
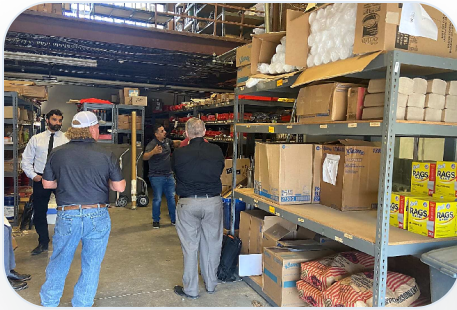
LONG-TERM VALUE

Supports Future Fleet Growth Without Expansion

By utilizing vertical space instead of expanding the building footprint, the City created a scalable storage solution that supports long-term fleet operations and future inventory growth.

Before and After Fleet Parts Storage Transformation

These project photos show how the City of Grapevine Fleet Services transformed an overcrowded parts room into a secure, automated storage system using Kardex Shuttle XP Vertical Lift Modules.



READY TO SOLVE A SIMILAR PROBLEM?

Need to Improve Fleet Parts Storage Without Expanding Your Facility?

Southwest Solutions Group helps municipalities, fleet maintenance departments, public works organizations, and government agencies improve parts storage with Kardex Vertical Lift Modules, automated storage and retrieval systems, and inventory management software.

If your team is managing overcrowded shelving, slow parts retrieval, or limited inventory visibility, our storage specialists can evaluate your facility and recommend a solution that maximizes existing space.