



A Warehouse Facility Design for Dinosaurs and Documents



When 13 state agencies, including the Departments of Criminal Justice: Records & Evidence; Taxation; Health & Administration; Agriculture; Human Services; Treasury; Legislature; and more, found themselves managing individual warehouses across multiple campuses, they knew that consolidating these facilities into one building would ultimately save them time and money. But designing a facility that could house everything from documents to dinosaurs was a daunting undertaking. That's why this state team decided to partner with Alpine Supply Chain Solutions, a boutique consulting firm focused on developing and implementing optimal solutions that drive maximum value.

The Challenge

For this state, running 13 warehouses involved 13 different locations and organizing inventory, managing shipping and receiving, overseeing labor, and tracking performance within each. But it understandably took some time to find a location to accommodate the needs of the multiple agencies who handle varying types of goods such as record storage boxes, tables, chairs, computers, museum exhibits, and more. In 2021, the right location was found just outside the state's capital, and a 195k facility was built.

The Solution

Once the structure itself was built, it was time to get smart about storage. That's when Alpine stepped in to perform a Storage Type Analysis (STA). This exercise assessed the ideal type and quantity of storage equipment required for the building in order to meet each agency's unique needs. To begin the process, Alpine visited each of the agencies in their existing warehouses in order to collect product (or SKU) dimensions. Vigorous brain-picking was required! Growth projections in terms of the amount and type of products was also queried and analyzed.

With SKU dimension and growth estimates in hand, the ideal size and quantity for picking and storage alternatives that best matched each agency's goals was determined. From there, it was time to plan the facility layout. Data, including shipping and receiving demands, inventory, labor availability, and more were considered to identify current and future needs. Finally, overall space requirements, storage types, possible automation, dock size, number of dock doors, and many other value-added features were understood and planned for.

In the end, the warehouse was divided into thirteen zones to meet the needs of each agency. Each agency's space was physically fenced off into a zone. Within each zone, racking needs varied as storage space/capacity needed to be balanced with operations/work center space. Alpine developed a racking RFP and identified three potential vendors to bid on the project. Proposals were evaluated and Storage Solutions was ultimately selected.

The Implementation

Storage Solutions began installing the racking in March 2022. Alpine was on hand to ensure all equipment was placed correctly. Certain agencies required wire racking, others needed shelving, and some mandated pallet supports. Specialized racking for the museum portraits were impacted by supply chain disruptions related to the pandemic, but Alpine was able to source custom manufactured racking from their partner, LJS Solutions.

The Results

This state now has a solution that allows 13 agencies to share land, a building, dock doors, and material handling equipment. And this building is well-equipped to accommodate both growth in storage and operational services. The facility was ready to be occupied at the close of 2021 at which point agencies began relocating their inventory. But, because each agency previously had its own warehouse and lease, each agency is transitioning according to their own requirements. It's expected that full consolidation will be complete in early 2023.

However, benefits of the new space are already apparent. By using a data-centric approach to design, storage types, and layout, the state can now store a lot more inventory in much less space. The new building's flow is more conducive to getting goods in and out the door, so productivity is on the rise. And, with a more comfortable environment to do their jobs, everyone is happier. With room to grow, there will be no need to invest in additional storage, saving the state and its residents valuable resources.