

What You Need to Know Before Starting a Warehouse Project



Expanding your warehouse or relocating an existing facility can be overwhelming, especially if you've never been involved in a project of this scale.

To help you get started, we've outlined essential components to achieve optimal results, allocate the proper amount of funding and keep your project on schedule.

Safety

Understanding the dangers of a warehouse system is fundamental to prevention. Aisle widths, secure beams and proper weight distribution are just a few items that need to be considered when designing a warehouse. Most systems are used for 5-10 years, so the cost of designing a warehouse safely from the beginning is well worth the investment. Cutting corners could lead to costly errors and/or accidents.

Forward Pick Locations

Except for safety, nothing is more important in a storage solution than understanding how to design a forward pick location. There are five key components to ensuring orders are picked quickly and accurately:

1. Velocity
2. Size
3. Weight
4. SKU Group
5. Warehouse SKU location for each product

The replenishment rate on a location is also an important consideration, and two weeks is the recommended starting point. An understanding of the five key components plus your

replenishment can solve 75% of the operational storage needs of your new location. This process is the foundation of your warehouse expansion. It requires time and effort, but once complete, you gain a clear vision of how your warehouse will look and function.

Overstock Locations

Overstock locations should be treated the same as the forward pick locations with two exceptions - it will be for a longer length of time, and they are typically full pallet locations. When designing for this area, we typically include enough storage space through the following order cycle plus 15% for good rotation. Additional considerations:

1. growth
2. opportunity buys
3. safety stock

The Budget

Determining how much money to allocate for a warehouse expansion or relocation is difficult and can be intimidating. To make the project easier, clearly define the objectives of your expansion.

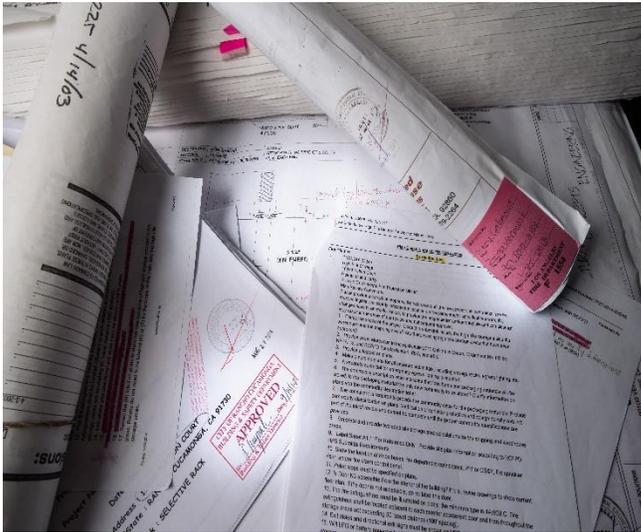
Identifying the systems and processes to deliver the level of services anticipated while controlling operational cost is the bottom line. Example, if one supplier is \$150,000 higher than another, it sounds easy to go with the lowest bidder. But, if the higher supplier can use 20,000 less square feet and ten less employees, then you've just saved your company two million dollars over five years.

Focus your efforts on optimizing your results. Work with companies that will help you understand all costs involved and give you a dollar amount that will not jeopardize the company's financial health. Remember, storage systems are scalable. You don't have to put it all in today. You can plan for the perfect system, but build it over time as funds become available.

Time

Time is one of the most overlooked components in any project. Most people underestimate the amount of time it takes to accomplish a task and miscalculate when building their schedule. To coordinate a project with so many components, accurate scheduling is critical. Develop a detailed schedule in conjunction with your suppliers and vendors to achieve a realistic timetable for completing the project.

Another component of time to consider is how long it will take to manage your storage system once it's operational. Operation managers understand that 60% of a warehouse employee's time is spent traveling, but what they may not understand is how new tools and systems can improve cost spent on travel time. When minimum wage was \$3.50, travel time did not impact operations. With minimum wage reaching \$15.00/hour in 2020, it's critical that travel time be part of the conversation and the investment into the storage system.



Code Compliance

If you are designing a complex storage system that will store products 12- 35 feet in the air, the city must evaluate additional aspects of the project other than the storage racks - the building construction, slab thickness, sprinkler system, handicap accessibility, egress, product commodity and construction of the storage system. It's not unusual for a storage rack permit to get stalled in the city for items other than the storage rack. Be sure to research and understand what other codes are required along with the storage rack codes.

Experience

Distribution Center designs and systems are not complicated, but understanding how all the pieces come together can be. Google searches or YouTube videos cannot adequately prepare you for the level of detail that goes into implementing projects of this scale. The smallest piece of information can have a profound change on the entire project. It will be to your advantage to have experienced suppliers and vendors who understand the scope of work. Good partners help protect you from costly surprises and not use them as opportunities for change orders.

Materials

One of the wonderful things about most storage systems is how easy they can be modified to the changing needs of the company. That's why it's important to understand where your materials are coming from. Since the system will be used for 5 -10 years, be sure you can add to it with materials locally. You want to avoid using materials that are only made on the opposite side of the country. If you need to add a handful of beams or uprights to a system, it can be a very expensive freight bill.

Installers

Installing racks is straightforward, but there are standards that need to be followed for approval by the city. Follow proper steps for safety when handling the products because they can be very dangerous standing and installing. Always make sure a licensed contractor with workman's compensation insurance is installing the racks. Although some cities do allow owner builder installers, it can be very risky installing racks yourself without sufficient experience

Strategic Planning Meetings

Strategic planning meetings will be your most valuable tool to ensure your expansion comes in on time and on budget. In the beginning stages, bi-weekly meetings are usually sufficient; suppliers will be information gathering and formulating their plan. As you are getting closer to executing contracts, it may be helpful to have them once a week. It's not uncommon to have architects, storage integrators, electricians, forklift suppliers and other trades all partnering with you for a common goal. Bringing them all together allows them to share their experiences and systems for the best possible results. Having the company team in the same room is invaluable. From the final decision maker to the warehouse employee, each team member's input is important during the design phase.

Not all meetings need to be face-to-face. There are many free web-based apps (example, [Join.Me](#), [gotomeeting](#)) that allow everyone to come together remotely. Screen sharing is also available and can be used to review drawings and make changes in real time.

A complex warehouse expansion is challenging. Having a good plan and partners will be the key to your success. We would be happy to schedule a no-cost visit to see if [IWS West, Inc.](#) can assist you in your expansion.