

Record Center Facility Considerations

The ideal record center location scheme is one that maximizes space, improves operational productivity, is simple to understand and flexible enough for future growth. When designing it, there are a number of issues to consider, which will make your RS-SQL® pick-list more effective.

Ask Yourself...

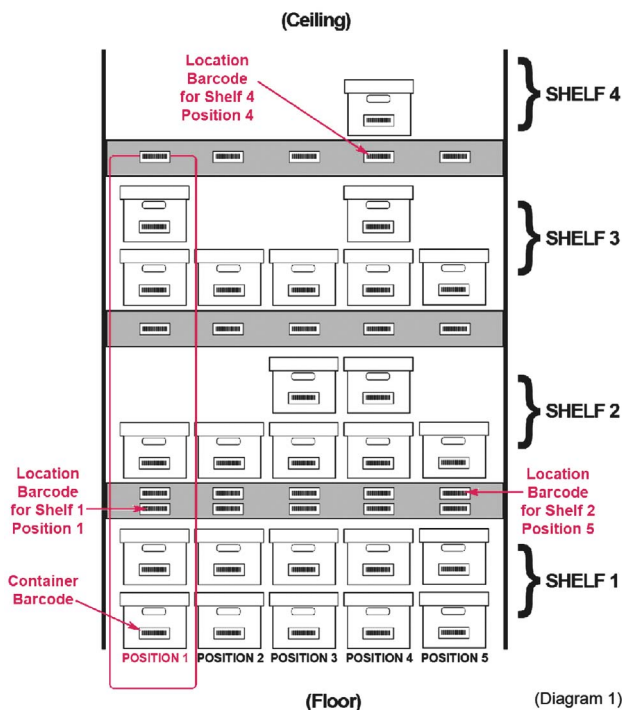
- What is the maximum number of aisles/rows my facility can hold?
- Could future buildings increase the total number of aisles/rows?
- What is the maximum number of sections (bays, levels or floors) per aisle/rows?
- Should the human readable number include dashes to help distinguish the location number on the label (comparing a simple range 00001 to a more specific location scheme 1-A-01-A-1-A)?

Shelf Layout

Most warehouse shelving can handle a large number of containers per shelf. Most configurations can be 7-9 containers wide, 2-3 containers high and 3-4 containers deep per shelf. Therefore, a standard pallet rack can have more than 72 boxes on one shelf. Identifying where specifically one box is on that shelf can save you a lot of time.

Your shelving typically has 3 components:

- Section (upright beam between shelves)
- Shelf Number (bottom being shelf #1)
- Shelf Position (left to right)



Warehouse Layout

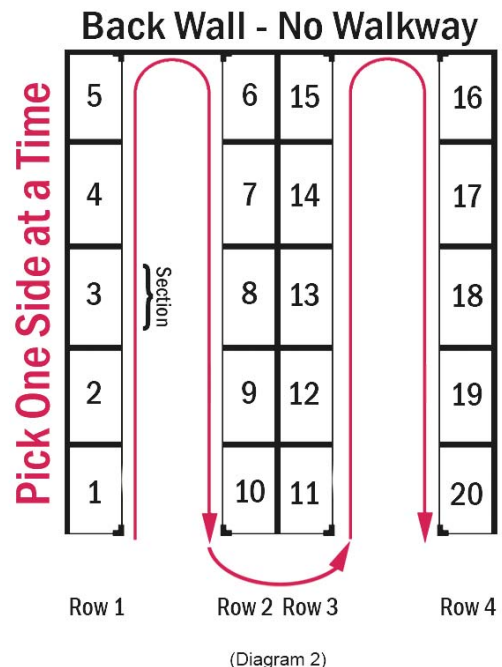
We can give recommendations, but each record center floor plan is unique. This needs to be a personal decision made by your management team, depending on how they would like the shelving and pulling of the records accomplished.

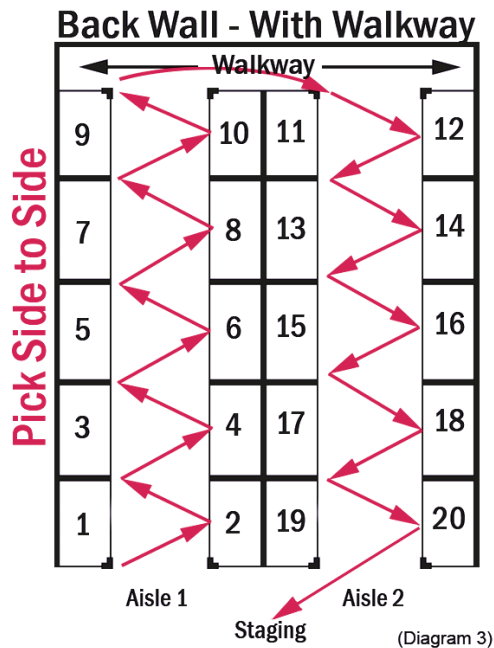
Also, consider where your staging area is located (loading and unloading bays). This will also play a role in how your locations will be set up. Some record centers place their initial locations toward the very back of the record center and move forward to the staging area. Others place them in the front, close to the staging area and work towards the back.

Pick One Side at a Time or Side to Side?

A location scheme should implement a sequential path throughout your warehouse. Low volume activity might dictate pulling your orders one work order at a time. High volume might necessitate pulling by location order for increased efficiency. RS-SQL allows for both. See our Item Process Control Feature for more information.

Regardless, you will want your numbering scheme to be in sequential order to increase pick and re-file efficiency. The layout of your racking and whether you have dead-ends or a pass-thru to the next aisle at the end of each run of racking will determine whether you want to use aisle or row numbering. Which pattern you adopt will have a lot to do with how you number your sections.





Barcode Length

O'Neil uses the unique length of a barcode number to identify and validate items you are scanning, such as a location number. Make sure the length you want to use (total characters including dashes) is not being used for another item in RS-SQL (files, tapes, containers).

Barcode length definitions must be defined and set up in RS-SQL Administration. Barcodes can be either numeric or alpha-numeric characters, including preceding zeros (if they exist) and dashes. Locations can be a maximum of 15 characters.

Sample Use of Incrementing Numeric Only

Some clients prefer a simple numbering system (without dashes) for their shelves and position, starting at number one and incrementing along each location along the shelves. If you stack boxes 3 high x 3 deep, it will mean each shelf location holds 9 boxes. Using this method, a 5 digit barcode would allow you to have 99,999 locations, starting at location 00001.

Sample Use of Alpha-Numeric "Address"

Many record centers adopt a combination of letters and numbers, to create an easily read "address" for each position within the facility. This generally means a longer barcode is required, but some find it easier to understand.

The alpha-numeric combination can be used to identify such elements as:

- Building, unit or city*
- Floor within a building*

* Note: There are fields within RS-SQL to hold this information, eliminating the need to incorporate these into the barcode, unless required.

- Aisle/Row — a center aisle with 2 sides (see Diagram 3) or each side representing a row (see Diagram 2)

- Section — the section of rack between two vertical beams (see Diagram 1)
- Shelf Level — from floor to ceiling
- Position across the shelf, usually read from left to right

Now let's take a look at a simple example, using the above elements, which also incorporates dashes to split each element of the barcode. Keep in mind that the dashes do not need to be in the actual barcode that is read by the scanner:



A barcode number of: **A-1-A-01-A-1**, with a barcode length of 12 characters (or 7 characters without the dashes), could represent the following:

- Building* **A** — your 1st building
- Floor* **1** — ground floor
- Aisle/Row **A** — with a maximum number of 26 rows per floor
- Section **01** — the first set of shelves between 2 vertical beams in the aisle/row
- Shelf Level **A** — the bottom shelf
- Position **1** — the column of boxes on the far left of the shelf

Using this logic, a barcode number of : **B-3-K-02-D-5** would represent the following:

- Building* **B** — your 2nd building
- Floor* **3** — third floor
- Aisle/Row **K** — with a maximum number of 26 rows per floor
- Section **02** — the second set of shelves between 2 vertical beams in the aisle/row
- Shelf Level **D** — the fourth shelf high
- Position **5** — the fifth column of boxes from the far left of the shelf

Note that this method works equally well with numerics only.

Whichever method you choose, think carefully about what your requirements are today and into the future. This way you can naturally expand your location scheme as your business grows. For example, single alpha characters give you up to 26 units, while single digit numeric characters will only provide 10.

Ideally speak with your support or training representative at O'Neil Software, for guidance on choosing and setting up your location scheme.