

## AARDEX CORPORATION

# NARA Facility Will Increase Productivity, Reduce Costs

Borroughs recently completed the installation of 9,440 shelving units at the National Archives and Records Administration's (NARA) new Federal Record Center in Riverside County, California. Each shelving unit is 42" wide by 30" deep by 14' 3" high and contains fifteen shelves. The result is almost 94 miles of shelving in a 146,273 square foot area. If laid end-to-end, that's more than enough shelving to reach from Key West, Florida to Cuba.

The agency is currently storing 424,800 boxes of records in a four-bay storage area that has the capacity to store up to 850,000 boxes. The boxes are 12" wide by 15" deep by 10.5" high. Not only was Borroughs able to maximize the use of the space available, it was able to do so while meeting or exceeding NARA's stringent requirements for fire suppression, code compliance, seismic requirements, and a variety of safety issues.



NARA operates fourteen similar facilities located throughout the U.S. In its mission statement the agency says, "NARA ensures, for the citizen and the public servant, for the President and for the Congress and the Courts, ready access to essential evidence." To that end the agency

is responsible for the preservation and storage of a vast array of documents and records ranging from historical documents to evidence and court records. In addition to safeguarding records, the agency strives to ensure maximum utilization of available storage space without compromising efficiency of access.



Manufacturer: **Borroughs Corporation** [www.borroughs.com](http://www.borroughs.com)  
 Owner: **Aardex Corporation** [www.aardex.com](http://www.aardex.com)  
 Tenant: **NARA** [www.nara.gov](http://www.nara.gov)  
 Location: **Perris, California**

- 146,273 square foot storage area
- 4 bays of shelving
- All shelving units are 42"W x 30"D x 14'3"H
- Bay One contains 1,112 shelving units
- Bays 2-4 contain 2,776 shelving units
- Each unit holds 45 boxes that are 12"W x 15"D x 10.5"H

Storage capacity: **Approximately 1 million documents**

Planned installation timeline: **120 days**

Installation completed: **60 days**

## 20-30% Increase in Productivity Expected

The Borroughs shelving was installed in a building designed and built by Aardex Corporation for NARA. Aardex is a vertically integrated real estate development firm of build-to-suit *User Effective*<sup>®</sup> workplaces. The NARA facility in Perris will replace the facility in Laguna Niguel. "The old facility was no longer economically feasible," according to Scott Niebuhr, project manager for Aardex. "It suffered from declining productivity due to a combination of factors, including low density storage that contributed to excessive movement of staff and materials throughout a facility not designed as a records storage space."

The new facility's high-density storage will combine with Aardex's *User Effective*<sup>®</sup> workplace concepts to improve efficiency and productivity and will meet all 2009 standards for records center facilities. Aardex asked NARA employees *User Effective*<sup>®</sup> questions that enabled Aardex to design more efficient adjacencies and office layouts. Prior to move-in, several NARA employees participated in Aardex's



*User Effective® Calculator.* A few months post occupancy in the new facility NARA employees will be asked to retake the *User Effective® Calculator.* “We anticipate NARA will see productivity increases of 20-30% in the new facility,” says Niebuhr.



### Fast Installation Exceeds Expectations

According to Mike Mahaffey, Borroughs regional sales manager, the company's utilization of its Configura® innovative architectural software prior to installation, combined with the company's extensive experience with large installations, enabled them to complete the project early, meeting a compressed time schedule. “With the Configura® software, we can ensure that the system will work as planned in the space available. We can also show the customer a photo-quality rendering so they can ‘see’ the system before it is installed. The software also generates a complete bill of materials that improves our planning process and ensures that we meet or exceed the customer's deadlines.”

### Borroughs Works Well With Others

“On a large installation like this one, we have to work hand-in-hand with a variety of subcontractors such as the HVAC, electrical, and fire suppression people,” Mahaffey continued. “Because we have done so many of these, we understand where the problem areas will be, and how to work together with the subs to make sure the job goes smoothly.”

“One example is our success in exceeding the NARA fire suppression requirements,” said Mahaffey. The Borroughs system surpassed NARA's own fire suppression requirement that states that a maximum of 300 boxes may be lost in the event of a fire. When fire suppression systems

were tested, the Borroughs installation suffered just 10% of the allowable loss, a remarkable achievement according to Aardex.

### Less Space for Shelving. More Space for Storage.

The design and strict manufacturing tolerances of the Borroughs shelving minimized the “growth” from one shelving unit to the next to less than 1/2" per row. According to Niebuhr, the new facility will maximize storage capacity per square foot because Borroughs was able to hold their Box Edge Plus® shelves used in this installation to virtually zero growth. That means more of the area's cubic space is available for storage.

These tight tolerances were also necessary in order to meet NARA and code requirements for clear aisle widths of 72" for the main aisle and 36" for all other aisles. According to Niebuhr, this shelving growth restriction could not be met by any Borroughs competitors for the project.

### Shelving Design Exceeds Seismic Requirements

A custom-bracing pattern was designed for the specific load and seismic requirements and all units are anchored to the floor. The shelving meets or exceeds all applicable seismic requirements. The unique design of the Borroughs Box Edge Plus® Shelving used in this installation not only minimized shelving growth, but exceeded NARA's shelf-loading requirement of 50 pounds per cubic foot.

### A Win-Win Situation

This is a case where Borroughs and Aardex combined to create a *User Effective®* workplace that will increase productivity for NARA and will continue to meet and exceed their archive storage requirements for years to come.



Borroughs ability to maximize the use of the storage space available means significant cost savings for the federal agencies that use the facility and ultimately for taxpayers. More archive storage space is available without the increased cost of a larger building. While archived records are kept safe and secure, they can also be retrieved and replaced with optimum efficiency due to the system design. The reduced costs and increased productivity of this facility will play a significant role in helping NARA accomplish their mission.

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