Preserving & Interpreting Savannah River Site History



## SRS HERITAGE FOUNDATION

**NEWSLETTER** 

March, 2016



#### Stewart Builders to Adapt Building for SRS Museum

J.E. Stewart Builders, Inc. has been selected by the SRS Heritage Foundation to adapt the former Dibble Memorial Library building for use as the SRS Museum. The adaptation work will proceed in two phases:

- Phase 1 will include modification of the existing restroom on the first floor to permit handicapped access, installation of fire suppression throughout the facility and repair and renovation of the Dibble Building exterior.
- Phase 2 will begin after Phase 1 is complete and will include addition of an elevator and stairwell providing access to the second floor and creation of a environmentally-controlled storage facility for artifacts..

Nine builders were invited to submit bids for both Phases 1 and 2. Three proposals were received in response to the invitations; these proposals were evaluated by the architect, the project manager, Heritage Foundation members and representatives of Aiken County. Stewart Builders, an Aiken firm with considerable experience in renovating historic buildings was selected. A preconstruction meeting was held March 15<sup>th</sup> and Stewart was told that funds for the Phase 1 enhancements were in hand and construction could begin when they are ready.



Nathan Stewart of Stewart Builders & Joe Ortaldo, Chairman of SRS Heritage Foundation Board of Directors

Nathan Stewart noted that a certified civil design for connection of the fire suppression system to the Aiken City water line and an architectural drawing of the handicapped restroom will be required before they apply to the City for the Building Permit. Issuing the Building Permit should be expedited because the City previously issued a Certificate of Appropriateness for the exterior building modifications. He estimated that the required Phase 1 work could be completed within three months after the Permit is issued.

After Phase 1 is completed, only minor work remains to equip the first floor of the building to accept museum artifacts on loan from the Curation Facility at SRS and touring exhibits from other museums.

Selection of the contractor marks another major milestone toward establishing the Savannah River Site Museum. **Watch our progress.** 



Pre-construction meeting with L-R: Walt Joseph, Paula Joseph, Nathan Stewart, Mike Jordan, Architect and Justin Swanson, Project Manager

# SRS at Sixty

By Art Osborne

The Department of Energy's nuclear weapons complex was built in two phases 1942 - 1944 and 1947-1953. Starting in 1942 following the first demonstration of nuclear fission in Chicago and with a wartime footing and urgency, the Manhattan Project identified three locations: Los Alamos, New Mexico for weapon development and construction; Oak Ridge, Tennessee for Uranium processing; and Hanford, Washington for Plutonium production.

When General Leslie Groves first assumed command of the Manhattan project he very quickly selected Los Alamos and then Oak Ridge. Oak Ridge was selected because of its ample electrical power. Electrical power was a strategic concern during wartime. Oak Ridge also provided a central location between the Appalachians and Rocky mountains and was at least 200 miles from the Canadian and Mexican borders. These qualifications met the desired defense criteria. At this stage it was felt that at least 200 square miles would be needed to ensure public safety. Initially it was felt that Plutonium production could also be done at Oak Ridge. Nuclear scientific discoveries, technology, and know how were changing on an almost daily basis. DuPont was contacted and agreed to build and operate the Plutonium production facilities.

However, DuPont soon raised questions about producing Plutonium at Oak Ridge because of the many still unknown concerns over reactor operation, ensuring public protection and the safety of production processes. DuPont and Manhattan project personnel met on December 14, 1942 to develop the basic criteria for selecting potential reactor sites. This meeting marked the first time a systematic approach was used to match reactor technical requirements to engineering and safety considerations. This resulted in the selection of the Hanford, Washington site. Hanford provided a far more remote and isolated site than Oak Ridge.

After the war was won DuPont left Hanford and GE took over the operations. However DuPont stayed in touch with nuclear development and assisted with research into nuclear fission product chemical separation. Several DuPont executives also served in various national positions including the newly created Atomic Energy Commission (AEC).

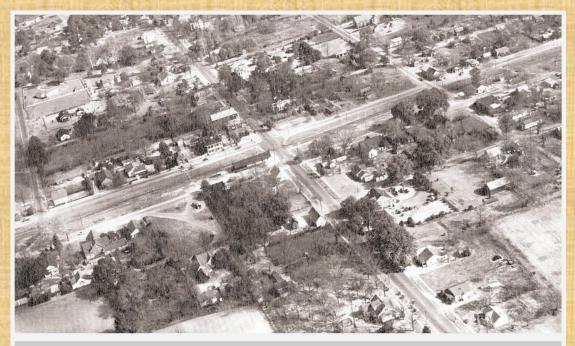
In 1947 the AEC decided that for strategic insurance additional reactors should be built. Various alternatives were proposed. The selection soon became embroiled and complicated by numerous political arguments. This all culminated in congressional hearings during April and May, 1949. A location in Idaho was eventually selected to locate these new test reactors. The government learned some painful lessons from the Idaho experience and when the decision was made to build a new major facility for nuclear materials production a different approach was employed. The DuPont Company was asked to do it all: locate, site, design, build and operate the facility. The formality of government approval was also included out of necessity. DuPont agreed to do this on a not for profit basis and would be reimbursed only for all expenses plus \$1 at the end of the contract.

Two of the lessons learned items were especially significant in the final selection of the CSRA as the site of choice for the new facility. The first was no cities of more than 1000 should be within the site. The second was the capability of Soviet Union's long range bombers and the defense of the facility. The CSRA fell outside the maximum distance of the Soviet Bomber fleet and its rural nature placed it at the top of the list. Bill Bebbington in his book "History of DuPont at the Savannah River Plant" summarized it well. He made the following points:

- "a very large and dependable flow of water of satisfactory purity to remove the great quantities of heat that would be generated in the reactors, and to supply the water from which heavy water would be extracted.
- a large land area with terrain, geology and a climate that were conducive to fast construction
- an area from which it would be necessary to remove only a comparatively small number of Inhabitants: which was somewhat isolated, yet near cities and towns that could accommodate construction and operations personnel good transportation"

The good transportation item included a few main roads, a rail line passing through, and the Savannah River. Copies of Bebbington's book are available at the SRS Museum.

See photos on page 3



Aerial of Ellenton, circa 1950. Courtesy of the Savannah River Archaeological Research Program.

Charles H. Topping, Du Pont's principal architect and civil engineer, was responsible for the "plant survey"



### Please, No Drop-Offs



Recently, several contributors have left unsolicited packages at the door of the Museum. We appreciate contributions of artifacts but need to review them before they are accepted into the Museum collection. Please contact

Museum staff about artifacts you might want to donate. Thank you

#### **Retirees Schedule Annual Meeting**

The SRS Retirees Association will host their annual meeting at the USCA Etherredge Center on Friday, April 23<sup>rd</sup>. Doors will open at 11:00AM for registration and to provide opportunities for attendees to talk with Site contractors. The formal meeting will begin at 1:30PM and will focus on new health insurance programs.

Representatives of the Department of Energy and local congressional delegations also are expected to attend. The SRS Heritage Foundation will have a table at the event.

#### **New Exhibits Added**



The simulated glovebox exhibit is operational and is a great success with Museum visitors. The glovebox, our first interactive exhibit, is built in the framework of the dumbwaiter that was used to transport books between the first and second floors when the building was used as a library. Visitors can interact with the exhibit to simulate the challenges

associated with working with radioactive samples at the Savannah River Site.

The Savannah River Ecology Laboratory has contributed radiotracking collars and transmitters used to track movements of

animals and birds at the Site. Typical collars and transmitters have been installed on realistic fox and owl puppets to show how the equipment is mounted. Descriptive material is being designed to explain the radiotracking program.

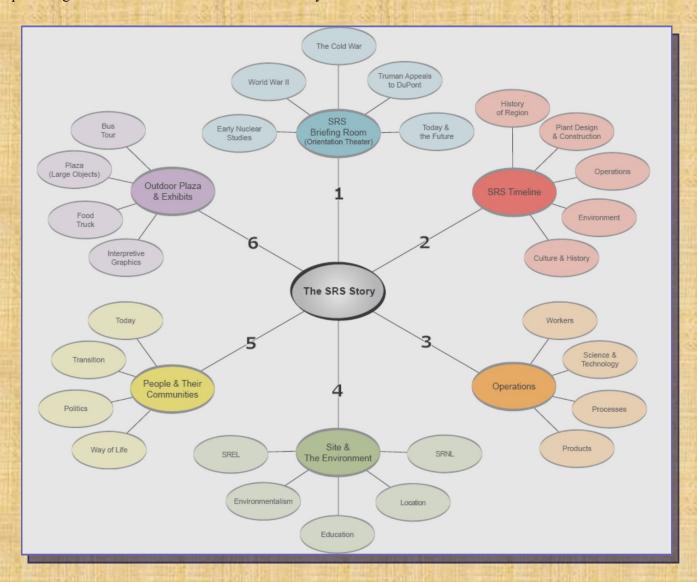


#### **Exhibit Designers Hired**

The Foundation Board of Directors recently authorized hiring the exhibit-design firm of Van Sickle and Rolleri, Ltd. (VSR) to begin design of exhibits for the SRS Museum. VSR was previously employed by the Foundation in 2007 as part of the design team hired to provide predesign for the adaptation of Building 742-A at the Savannah River Site for use as the SRS Heritage Center. Although the use of Building 742-A proved to be impractical, the exhibit design performed by VSR is largely independent of the specific building and can be readily adapted to the current SRS Museum in Aiken.

VSR proposed a set of six story lines to tell the SRS story. These story lines included a SRS Orientation (including the Cold war and background), SRS Timeline, SRS Operations, the Site and the Environment, People and their Communities, and an Outdoor Plaza and Exhibits. Illustrations were provided for conceptual exhibits within each of the story lines.

Van Sickle and Rolleri designers will visit Aiken in the next few weeks to visit our new space, review artifacts currently in storage at the SRS Curation Facility, adapt previous VSR designs to the new building, prepare plans for space utilization, and develop budgets for exhibit fabrication. We are looking forward to working with them to develop exciting and informative exhibits that tell the many stories of the Savannah River Site.



#### **Preview Openings Scheduled**

The Foundation is continuing to hold "Preview Openings" of the SRS Museum between 10:00 AM and 2:00 PM on the third Saturday of each month. These openings are scheduled through June and will be continued as long as construction activities permit safe public access.

The next scheduled public openings are:

- April 16
- May 21
- June 18

The SRS Museum is located at 224 Laurens Street SW in downtown Aiken. Handicapped access and parking is available in the rear of the building. There is no charge for attending an opening.

#### **Dibble Memorial Plaque Uncovered**

Volunteers working to clean out the second floor of the Museum building recently discovered the original plaque from the Dibble Memorial Library. The plaque was found underneath a pile of discarded boxes. It reads,

#### THANKS TO OUR SRS HERITAGE FOUNDATION SPONSORS 2015

We are please to recognize our sponsors who have made substantial contributions to Foundation programs.

<u>Corporate Sponsors</u>
Savannah River Nuclear Solutions
Fluor Inc.

<u>Corporate Members</u> Savannah River Remediation Centerra SR

**Business Members** 

**New South Associates** 

A special thank you to the individual members for their continued support of the Foundation



Foundation volunteer, Rex Nordeen, cleans the Dibble Memorial Library plaque to prepare it for exhibit.

THE DIBBLE
MEMORIAL LIBRARY
ERECTED 1926
BY HIS MANY FRIENDS

IN GRATEFUL MEMORY OF
HENRY M. DIBBLE
AND HIS WISE SERVICE
TO THIS COMMUNITY

**LIKE US ON FACEBOOK!** We will be posting news and tidbits during these exciting times of Foundation progress. The SRS Heritage Facebook page is open for business. Please join us at <a href="http://www.facebook.com/srs.heritage">http://www.facebook.com/srs.heritage</a>. And don't forget the news and archives at the website, <a href="http://www.srsheritage.org/">http://www.srsheritage.org/</a> or check out the srsmuseum@aikencountysc.gov

We're working hard to make the SRS Museum a place where you can learn what contributions the Site has made and continues to make to the CSRA and a place to enjoy with family and friends.

Dear,

Thank you for your past membership in the SRS Heritage Foundation. We could not do our work without your loyalty and support.

Your membership enabled the Foundation to accomplish much in 2015:

- We upgraded the Museum building and installed fire and security systems and a handicapped-access ramp.
- We were able to open the SRS Museum on a limited basis to the public and community groups.
- We built exhibits including the SRS Timeline, Cold War and Fallout Shelter, SRS
   Plutonium in Space, Underground Counting Facility, Defense Waste Processing
   Facility, and the Simulated Glovebox and Radiation Gallery—and plan for more.
- We opened the Ellenton Heritage Trail and operated our first public tour.

We are proud of our accomplishments and could not have done it without you.

Building on these successes, we plan to achieve even more in 2016.

- The Museum is a work in progress and work on the building will accelerate as we install a handicapped rest room, put in a fire suppression system, modify the heating and ventilating system and restore the building exterior.
- We will complete existing exhibits on the first floor and begin to design exhibits for the second floor.
- We will conduct scheduled public tours of the Ellenton Trail.

Please renew your membership today. If you renew your membership in December you can take a tax deduction **and** have membership through 2016. Consider renewing at a higher level or adding an extra amount.

Thank you again for your loyalty and support.

Sincerely,

Walt Joseph Executive Director

SRS Heritage Foundation

# DON'T MISS OUT ON ALL THE GREAT NEWS AND EVENTS THAT ARE COMING....JOIN TODAY...(use this form to become a member)



P.O. Box 2226 Aiken, SC 29802

Phone: 803-648-1437

# SRS HERITAGE FOUNDATION MEMBERSHIP APPLICATION

	become a member o (Please Check One)		itage Foundation in the
	Benefactor	\$120.00	
	Patron	\$ 60.00	
	Sustaining	\$ 35.00	
	Student	\$ 15.00	
	Small Business	\$ 250.00	
	Corporate Membe	er \$1,000.00	
	Corporate Sponsor	r \$5,000.00	
I would be willing to help with Publications, Membership, Fundraising, Publicity, other			
This	membership is valid t	hrough Decer	nber 2016
Name:	•		
Address:			
City, Zip Code:			
Phone:			
Email (s):			
Fax #:			
My check, made	Foundation are tax exe		cenclosed. Contributions to the 20-1629370

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Email: srsmuseum@aikencountysc.gov Website: srsheritagefoundation.com