NEW LIFE FOR THE FORMER CHRYSLER SITE

By Lindsay Hall, Wendy March and Christina Wirtz

D NREC’s Brownfields Development Program has been very busy of late. It has helped transform a major icon in Delaware’s manufacturing history, jump started the local economy and addressed environmental cleanup concerns. The proverbial phoenix rising from the ashes, with the assistance of the Brownfields Development Program, the former Chrysler Newark Assembly Plant site is being cleaned up by piece to piece to make way for new technology and research facilities as well as a new transportation hub. On a short time table to make way for high-tech redevelopment, even more new businesses are waiting to move into the high profile center. Delaware’s Brownfields Development Program has met these kinds of complex challenges with redevelopment has required in the past, and is doing so as part of the Chrysler site renewal today.

“In the Brownfields Program, environmental stewardship and revitalization go hand-in-hand,” said Marjorie Crofts, Director of DNREC’s Waste and Hazardous Substances Division. “DNREC designed the Brownfields Program to be able to work with developers, such as the University of Delaware, to make redeveloping contaminated sites a viable alternative to developing on greenfields.”

Redevelopment of the former Chrysler Newark Assembly Plant site is part of Governor Jack Markell’s vision for “Building Delaware’s Future Now.” It is a cornerstone of the Governor’s plan to lay a strong foundation for Delaware’s future, ensuring jobs, economic growth and a healthier environment now and in the future.

The former Chrysler site had been an integral part of Delaware’s manufacturing and social fabric for decades. Along with auto assembly, the site was used to put together military tanks in the 1950s. However, decades of operations resulted in soil and groundwater contamination. This is where DNREC’s Division of Waste and Hazardous Substances’ Site Investigation and Restoration Section (SIRS) and Tank Management Section have stepped in, working closely together to meet the numerous challenges occurring throughout the ongoing remediation of the site.

A flurry of activity

Adjourning the University of Delaware’s main campus, the 272-acre site was purchased by UD for $24 million in November 2009 to make way for the university’s new Science, Technology and Advanced Research (STAR) Campus. The site is currently owned by 1743 Holdings, LLC, a wholly-owned subsidiary of UD.

“Although the remediation of brownfields sites can pose significant environmental issues, which need to be addressed, the benefits can be seen in the rebirth of a new site from the rubble,” said Wendy March, who, along with Lindsay Hall, is one of DNREC’s two project managers for the site. “We have both enjoyed our work assisting UD in their positive growth from the former Chrysler plant. On a site this size, coordination poses the greatest challenge for those involved in managing site activities,” March said.

Over the past two years, there has been a flurry of coordination activity at the STAR Campus, with redevelopment preparation activities ranging from building demolition, to the installation of sediment and stormwater controls, to the relocation or installation of utilities. While dissolution of aboveground site features was started early in the project, SIRS continues to work with 1743 Holdings’ environmental consultant, Duffield Associates, in advance of other construction activities. This is to ensure that contaminated materials present on-site are first identified, and then managed in a manner that is protective of human health and the environment. The Duffield sampling team planned and executed the soil and groundwater sampling in the midst of chaos, or the “organized demolition derby,” as the team referred to the demolition of the buildings.

“We’ve designed the Brownfields Program so that removal of contaminated materials can be done in conjunction with construction, saving both time and equipment mobilization costs,” said Crofts. “And all this is done while protecting the health and safety of both construction workers and future users of the site and improving Delaware’s environment.”

Big plans for the new site

Redeveloping the new STAR Campus represents the largest-ever expansion of UD’s Newark Campus. Work began with general site preparation for demolition work in 2009, when UD first purchased the site. Once complete, the site will also accommodate a transit-oriented project with both retail and residential space.

In fact, this past June, the U.S. Department of Transportation awarded Delaware a $10 million federal grant to help build the Newark Regional Transportation Center on the northeastern portion of the site. Delaware competed
Looking northeast from former back of Main Assembly building into remaining high bay area with copper wire and other recycling piles.

with 700 applicants to snag a slice of the $500 million offered from the Transportation Investment Generating Economic Recovery Program. The new rail and transportation center will include expanded Amtrak and SEPTA service, with future plans to link SEPTA and Maryland's MARC commuter lines.

Plans have also been finalized to bring the first tenant, Bloom Energy, to the site. Bloom Energy plans to manufacture solid oxide fuel cells at the site, which will form the basis for a new, high-tech manufacturing hub in Delaware.

“The exciting news is to see our new Bloom Energy Manufacturing Center in Delaware where we will benefit from an outstanding workforce and utilize lean, efficient manufacturing practices to build Energy Servers that deliver clean, reliable, affordable power to Delaware, and the East Coast,” said Barry Sharp, Bloom Energy's senior director of operations and first Delaware employee.

Although fuel cells were invented over a hundred years ago and have been used for NASA missions and applications, they are typically very expensive to manufacture. But not "Bloom Boxes," which utilize low-cost ceramic materials, high electrical efficiencies and a new, high-tech engineering design to deliver a clean, reliable, and affordable, solid-oxide fuel cell, as noted on Bloom Energy's website.

Recycling old materials

Over the past two years, work at the new STAR Campus has moved forward quickly. 1,743 Holdings has coordinated various types of contractors to complete tasks ranging from asbestos abatement to HVAC system relocation, which required the use of a massive crane. The crane was so big it had to be transported in pieces and constructed on site.

Contractor URS Corporation decommissioned and demolished various buildings at the site. Throughout the decommissioning and demolition process, huge amounts of materials were generated. To date, more than 3.7 million square feet of structures, in excess of 70,000 tons of recycled material, have been cleared. Fortunately, approximately 85 percent of the materials from the site have been recycled, including 140 million pounds of ferrous steel, 40,000 fluorescent and high-intensity discharge (HID) light bulbs, and 56,000 tons of concrete.

Although underground and above ground storage tanks, as well as air emissions at the Chrysler facility fell under

DNREC's regulatory programs when it was operational, the site first came to DNREC's Brownfields Development Program in 2009. The program is recognized for its streamlined and expedited cleanup process, community involvement and planning, and availability of financial assistance in investigating and cleaning up contaminated properties. UD received $1 million in brownfields grant funding plus smaller grants for investigations and cleanup costs in 2009.

“In addition to providing grants to address the contamination, in this case $1 million, developers are also given a release from liability so that they are not legally liable for the existing contamination,” said Coffin.

To find out more

Investing in brownfields and environmental cleanup projects has provided beneficial returns. After cleanup and redevelopment, brownfield sites can once again become powerful engines for economic stability, growth, jobs and community pride. However, the process of cleanup and construction at brownfields sites can be challenging for surrounding communities.

In consideration of the potential impacts to neighboring businesses and residents, 1,743 Holdings hired a second environmental contractor, BrightFleks, Inc., to perform perimeter air monitoring for dust, asbestos, and lead during all site demolition and concrete-crushing activities.

The results of the monitoring have been posted on UD's project website on a weekly basis at www.udel.edu/star. Dust suppression methods, such as wetting, have been used onsite during dust-generating activities. Data indicated that there were no air quality exceedences above action levels from the site.

In April 2012, the area where the Bloom facility is to be constructed was issued a Certification of Completion of Remedial Action, meaning that all of SIRS' remediation requirements have been completed and Bloom may proceed with site redevelopment activities.

The University of Delaware College of Health Sciences, along with the Delaware Health Sciences Alliance, will be among the first tenants at the STAR Campus and will occupy part of the former administration building, which will be renovated and expanded to accommodate its new tenants. In May 2012, UD announced it formed a partnership with Delle Donne & Associates, Inc. and Bancroft Construction for the development of the former administration building with plans to attract additional occupants, which will include classrooms, offices and retail spaces. Construction began this summer.

The public can readily monitor the progress of the project. In 2010, UD created another website also at www.udel.edu/star to document and share the ongoing redevelopment activities. In addition to the dust monitoring results, UD also posted bi-weekly aerial photographs of the site as the building demolition progressed. The public may visit the website and view progress as well as future events at the site. DNREC and UD also continue to host public workshops and community meetings to provide updates to area residents and other interested parties.

The cleanup of the large manufacturing site will continue to pose a unique challenge as the redevelopment will be done in phases, in step with the growth and development of the STAR Campus. However, the completion of the long-term project will provide great benefits to UD, the state and the public in the form of enhanced academic and research facilities, added professional and academic partnerships, and new technology and job creation. DNREC will continue to play a major role in the redevelopment of the former Chrysler site, providing new opportunities for generations to come.

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