Rarely does one project contain all the elements for a Build Alabama Award.

The parent company, Maryland Paper, sells unsaturated base paper to roofing felt companies nationwide. The paper is manufactured from recycled waste paper and a special blend of sawdust. For years, they had been shipping large rolls of paper to a number of companies in Tuscaloosa and around the Southeast.

Alabama Paper Products, LLC was born when several paper mills in the Northeast went bankrupt and their equipment went up for auction. The concept was to buy various portions of the bankrupt mills and construct a plant in Tuscaloosa to serve Maryland Paper's existing southeast customers. This in turn would allow Maryland Paper to sell the "southeast" capacity in other markets to grow their overall business.

Time became the overriding factor. In order to make the owner's schedule of 1 year start-to-finish, the project had to be fast tracked. WAR assembled a design/build team and started jobsite work in less that one month after our initial meeting.

We generally started each of the six buildings on site without knowing the final solution. As Maryland Paper obtained equipment at auction or through new purchases, they e-mailed the drawings to WAR. WAR then acted as a hub and sent the drawings out to the various engineers. As design drawings were completed, those elements were priced, bid and scheduled into jobsite work on the project.

The Raw Materials Building (#1) was completed first and became a staging area for the next building. The Production Building (#2) is all concrete construction, precast in Atlanta and trucked to the site. The continuous concrete pit below Building #2 was built after the above ground construction was complete and in the dry. The Finish Products Building (#3) was next and became the staging area for Buildings #4 & #5. Building #4 provides the power, water, vacuum and exhaust for all buildings. Building #5 contains the hydro-pulper and process equipment that creates the pulp that is pumped to building #2, to be rolled into paper. Building #6 is the office and support areas for the plant. Buildings #7, #8, and a second production building south of building #1 area planned for the future. WAR started sitework on the jobsite in late October 2001 and finished our work at the end of August 2002. Alabama Paper is completing their final assembly and will run paper in November 2002.

This project merits consideration for the Build Alabama Award because it contains all of the following elements:

- A true partnering trust between the Owner & Contractor - cost plus with no guaranteed max.
- Fully utilized project management techniques such as fast track, design/build, electronic AEC communication and team solutions to construction problems
- A very aggressive schedule, mainly over winter months, and completed ahead of schedule
- Provided another diverse industry and 60 new jobs for the Tuscaloosa area
- Produces a product that recycles waste paper from Tuscaloosa, Birmingham, and Atlanta
- No noise, pollution or smell generated by the process - Benefits the environment
Alabama Paper had a number of initial challenges to overcome: a marginal site, a tight schedule, construction over the winter months, and design issues that could not be resolved at the beginning of the project.

Building #2 was the most challenging portion of the project. This building was precast in Atlanta and installed on perimeter footings during November and December 2001. During this phase of construction, the production line and the service pit below were being conceptually designed.

After this building was in the dry, we returned during the winter and excavated for a continuous pit down the middle of the 385' long building. The poured concrete service pit was built over the winter to match equipment that had been bought during the fall at auctions.

Once the pit was complete, we installed underslab MPE and poured the floor, which allowed access for the equipment to be installed.

Building #2 was truly a team effort. As components were purchased, the design and construction partners had to quickly respond to the needs of the equipment and place all construction prior to delivery of the equipment.
WAR Construction, Inc. became the "hub" of the project management team. Our project manager coordinated the efforts of the owner's engineers and directed them to our architects and engineers to create working drawings that could be implemented by our field staff, subcontractors and suppliers. Weekly jobsite meetings with all team members and a predetermined protocol for problem solving became the cornerstone of our fastrack operation.
Innovation in Construction Techniques or Materials

Each building in this project is of a different type of construction. This was in part due to the owner's tight time frame and the specific program needs of each building. Building #1 has 40'x50' bar joist bays, precast concrete walls and a single ply roof. Building #2 is all concrete, due to the acid content of the paper during the rolling process. Building #3 clear spans 100' has 8' high structural concrete walls to rack store the large rolls of paper and a standing seam roof to protect the finished product. Building #4 is a lean-to and has a removable roof to allow heavy equipment such as boilers to be installed and changed with an outside crane. Building #5 is a multi-level metal building designed to cover the hydro-pulpers, water tanks and sawdust silos. The office is steel stud, with wood I-joists and brick veneer. While each of these are common building types, bringing all of this together on one site proved to be a challenge.
State of the Art Advancement

Alabama Paper was truly an "E-Job". Conceptual AutoCAD drawings were created in Maryland by the owner and e-mailed to WAR. WAR adapted the concept drawings to the actual building systems to be used and spun the drawings out to each engineering disciple. Once the contract drawings were created, a confirming copy was e-mailed back to the owner for approval. With about one half of the design team outside of Tuscaloosa, this rapid movement of drawings would have not been possible without e-mail.

Once drawings were approved, they were downloaded into total station systems for jobsite layout. During the course of construction, weekly jobsite photos were sent back to the owner in Maryland for review. Because of the vast distance between the owner and the project, most construction issues were resolved electronically using digital photos and drawings.

Sensitivity to Environment and Surroundings

Alabama Paper’s main raw material is recycled paper. Bundled newsprint, cardboard and other paper products, obtained from Tuscaloosa, Birmingham and Atlanta markets, become the principal ingredient to form the base sheet for roofing felt. This reduces the space required in landfills, and no trees are harvested to create this product.

Careful attention was given to the 18 acre site since it naturally drains to a creek which feeds directly to the Black Warrior River. Most of the rainwater that falls on the buildings and in the west parking lot is captured, pumped into a series of 50,000 gallon holding tanks, and introduced into the paper making process. Process water is re-circulated until it is completely consumed in the paper. No process water is wasted or discharged off the site.

The by-product sawdust used in the process is kiln-dried before it arrives at the site. This processed sawdust does not give off the typical sulfur odor during cooking as with most paper mills. The entire paper making process is essentially odorless.

Manufactured paper that does not pass quality control is recycled back through the plant; therefore, all products leaving the plant have not produced any waste in their creation.

The site design includes landscaped green areas on the front three sides. All of the shipping, receiving and process work occur in the back to minimize noise and activity that would disturb neighbors in the Airport Industrial Park.
Contractor's Contribution to the Community

WAR Construction, Inc. is involved at every level in our community. Many of our officers serve on local civic, industry and governmental boards. We are a "sustainer" level supporter for both city and county school systems. We have donated our services to construct the new Hospice of West Alabama facility. We are a corporate sponsor for the American Heart Association, Boy & Girl Scouts, and numerous other agencies. Our employees are active in church, Little League, and other community based organizations.

Alabama Paper Products, LLC