



# BLUE-GREEN DESIGN INNOVATION AWARDS

TRUSSVILLE CITY SCHOOLS

MCWANE CAST IRON PIPE

OPUS SOUTH CORPORATION

## CLASSIC BLUE-GREEN DEVELOPMENT AWARD

PROTECTIVE LIFE CORPORATION

### BLUE-GREEN DESIGN INNOVATION AWARDS

The Cahaba River Society instituted these awards in 2007 to recognize leadership and inform developers, development design and construction professionals, local governments, and the public about successful examples of green building projects in our region that also conserve water resources, including low impact development (LID), storm water and rain harvesting features, and drinking water conservation. In 2008 CRS highlights three projects with this award.

### Trussville City Schools

Trussville School Board: John Floyd, President, Dr. Suzanne Freeman, Superintendent; Anthony Montalto, Director of Support Services; City of Trussville: Eugene Melton, Mayor; Davis Architects, Inc.; LBYD, civil engineers; Robert Marvin/Howell Beach & Associates, landscape architects; Doster Construction Company

For **Hewitt-Trussville High School**, which has low impact development (LID) design and care taken in the construction process that conserves the Cahaba River

- Overall, 39% of the site will remain as undisturbed open space for outdoor education and recreation, including a 100' forested buffer setback from the river (allowing minimal floodplain impact) and a forested hill
- Some parking areas were placed in areas with trees resulting in minimal clearing and designed with no curb or storm drains; others have bioswales for infiltration and overflow storm-drains that also serve as detention
- Sports fields designed with sand bases to promote rapid infiltration of rain
- Runoff is stored in a large pond for irrigation of the mostly-native landscaping
- CRS's CLEAN environmental education program has served Trussville schools for many years, and we look forward to a partnership that makes visiting the Cahaba and understanding blue-green building a highlight of student experience at the new school



CRS, the Hewitt-Trussville High School development team, and Mayor Eugene Melton enjoy a protected Cahaba River within the heart of the development.

*Photo credit - Hunter Nichols*



A river setback of native forest comes close to the high school buildings, protecting the river and providing shade and beauty

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## MCWANE CAST IRON PIPE

G. Ruffner Page, President; Tom Crawford, General Manager; Robert Busey, Plant Manager; Don Bills, Plant Engineer and system designer

For installation of a **stormwater and industrial process water filtration and reuse system** that both protects water quality and conserves drinking water

- Captures, stores and redirects stormwater into the pipe manufacturing process. This reduces stormwater flows to streams and also reduces the plant's draw on drinking water.
- Routes the industrial process water used to make pipe into a filtration system and recycles it to be used in the process again
- For any stormwater not captured by the reuse system (as during a major rainfall event), a state-of-the-art centrifugal system treats the water before it is discharged offsite, to protect water quality.

## OPUS SOUTH CORPORATION

Duane Wood, Vice President, Real Estate; Keith Hornsby, Senior Project Manager; U.S. General Services Administration, tenant; HOK, design support & interior architect

For the **LID features of the U.S. Social Security Administration Southeast Payment Processing Center**, which encourages city center revitalization by reusing an urban site and includes building/landscape design that conserves our region's water resources

- Reuse of existing urban site supports revitalization in the Birmingham city center
- Over 85,000 square feet of green roof will reduce, cleanse and slow storm water runoff; keep the building's temperature cooler; and prolong the life of the roof
- Rain-collecting system for the parking lot will help irrigate the green roof, for a 50% reduction in drinking water use for landscaping
- Energy efficiency of building also helps conserve water resources and air quality - energy usage from electric lighting reduced by almost 25%



SSA rain collection system over parking. Site plan shows green roof and courtyard that will reduce storm water runoff and save energy



# CLASSIC BLUE-GREEN DEVELOPMENT AWARD

PROTECTIVE LIFE CORPORATION

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## CLASSIC BLUE-GREEN DEVELOPMENT AWARD

This year CRS is creating a new award that recognizes and promotes past development in the region that pioneered good design to conserve water resources. The long-term success of these developments proves the financial feasibility and livability of water resource conservation approaches. There are many such projects in the region, and this year the award highlights a development known for natural beauty, but not as well known for water resource conservation.



Protective Life Corporation – Visitor parking and building entry landscaping includes green roof above parking deck

## PROTECTIVE LIFE CORPORATION

John D. Johns, Chief Executive Officer

The following firms were instrumental in the design and construction of the Protective Life complex from 1975 to 2003: Architects: Welton Becket and Associates Architects, Inc.; Giattina Aycock Architecture Studio, Inc.; Civil Engineers: Krahl & Gaddy Engineers; Sain Associates; Civil Consultants, Inc.; Landscape Architects: Zion - Breen Associates, Inc., Nimrod Long and Associates; and Contractor: Brice Building Co.

For development of the **Protective Life office complex** from 1975 – 2003 with site and building design that conserves the Cahaba River watershed



Interior landscaping of river birch reduces storm water runoff

- Minimized clearing and grading for buildings - forest comes right up to building envelope
- Used tiered parking in parking garages (rather than large surface parking lots) that fit into the landscape to minimize forest clearing, paving, and storm runoff
- Forest preservation maximizes natural absorption of rain to protect water supply
- Green roof prototype doubles as parking garage roof and as building entry landscaping, to reduce and filter some stormwater runoff – there are no other large landscaped/grassed areas
- River birch forest created as central space within the buildings, which reduces stormwater runoff