

Addition to Bryant High School

Bryant, Arkansas

Architect

Jackson Brown Palculict Architects, Inc.



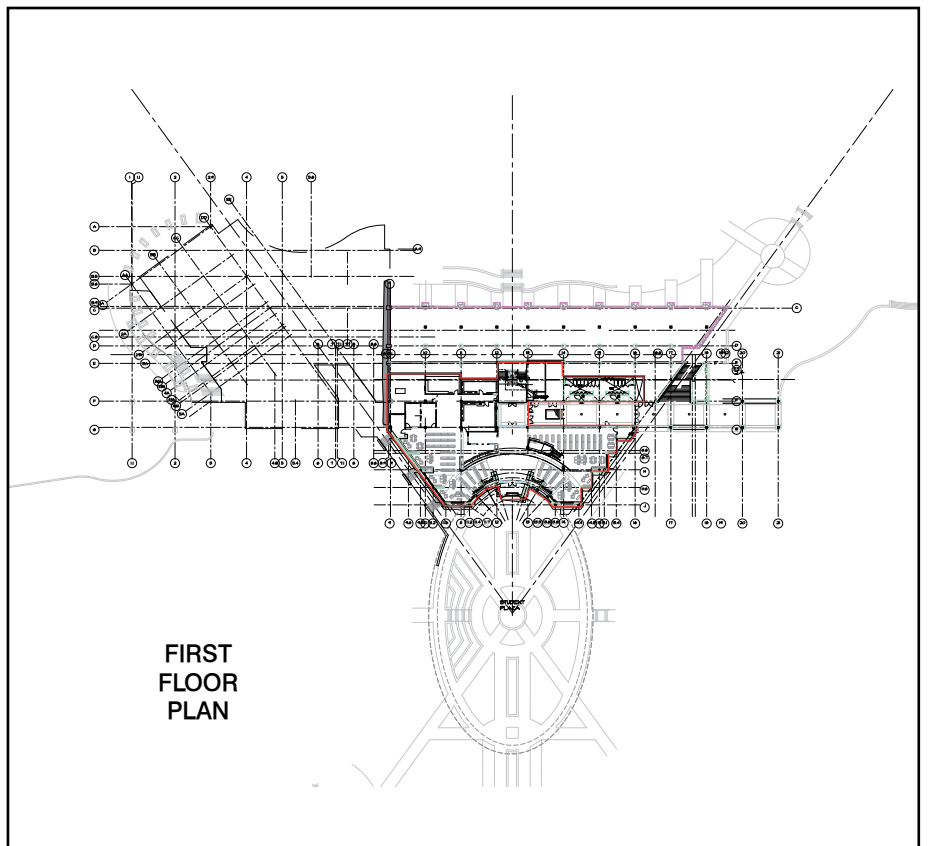
Photos Courtesy of Sifler & Henry, Inc.

This classroom and media center addition to the high school campus in Bryant, Arkansas, is in the heart of a growing community working hard to keep up with a high demand for new facilities.

The campus contains 26 buildings that sprawl across approximately 40 acres with little continuity or master planning. The design unites the discrete buildings within a centralized plan, provides a campus central focal point, and provides a front door to the community.

Not only was it difficult to situate the high school on the existing campus, the topography was such that the four-story school would have three floors with exits on grade. The building, situated on a steep slope, presents two full stories to the public face and four stories to the internal, campus face.

This project is currently pursuing LEED® Silver under Version 3. The entire school was meant to be a model of environmental design. Extensive studies on solar panels, electronic glazing, geothermal and wind were all performed on the school to determine the most cost effective strategies. The end results were large open spaces, bicycle racks, native planting, efficient HVAC systems, renewable materials, low water usage and many more



features. To illustrate this, there is an interactive dashboard in the lobby of the school that gives detailed reports of energy usage, water reduction, and highlights of the building. The design team, including LEED consultants, engineers and the contractor, met often to work out strategies to achieve all the necessary requirements, as well as to determine creative strategies to address the environmental issues. The school has become a model for what to strive for in secondary education in the State of Arkansas, and the Central Arkansas Chapter of USGBC has already had a lecture about the project.

The Bryant High School Addition was designed more to be a collegiate atmosphere than a typical high school. It has large public thoroughfares, intimate study spaces, and the latest technological systems. There are multiple technology and journalism labs that develop the students' workforce skills. The building itself serves to prepare the students for what they will find as they leave their secondary education and begin the journey to enrich their futures.

LEED® Silver Pending

Product Information

Burnished Block:

Astra Glaze by Trenwyth Industries, Inc.
 Waterproof Coating, Wall Coatings: BASF
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 R13, R11, R19 Insulation: CertainTeed
 Exterior Vapor Barrier: Tyvek
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Architect

Jackson Brown Palculict Architects, Inc.
12921 Cantrell Road, #201, Little Rock, AR 72223
www.jbparchitects.com

Project Team

Structural Engineer:

Engineering Consultants, Inc.
401 West Capitol Avenue, #305, Little Rock, AR 72201

General Contractor:

James Cone Construction
10411 West Markham Street, #300, Little Rock, AR 72205

Mechanical Engineer:

Innovative Solutions Group, Inc.
136 Apple Blossom Loop, Maumelie, AR 72113

Electrical Engineer:

Lucas, Merriott & Associates
2225 West 7th Street, Little Rock, AR 72201

Civil Engineer & Landscape Architect:

Crafton Tull & Associates
10825 Financial Center Parkway, #300, Little Rock, AR 72211

Technology Consultant:

Elert & Associates
13284 Pond Springs Road, #304, Austin, TX 78729

LEED Consultant:

Viridian
100 Gamble Road, Little Rock, AR 72211



Total Square Feet: 145,648 **Site:** 12 acres.
Number of Buildings: One; 48 classrooms.
Building Size: First floor, 21,541; second floor, 36,577; third floor, 51,453; fourth floor, 35,353; roof/penthouse, 724; total, 145,648 square feet.
Building Height: First floor, 13'4"; second floor, 15'4"; third floor, 15'4"; fourth floor, 15'4"; penthouse, 10'4"; floor to floor, 15'4"; total, 69'8".
Basic Construction Type: Type IIA/Addition.
Foundation: Cast-in-place. **Exterior Walls:** CMU, brick, curtain wall, ACM. **Roof:** Membrane. **Floors:** Concrete.
Interior Walls: CMU, metal stud drywall.

Project General Description

Location: Bryant, Arkansas

Date Bid: Oct 2010 **Construction Period:** Nov 2010 to Aug 2012

| DIVISION | COST | % OF COST | SQ.FT. COST | SPECIFICATIONS |
|--------------------------------|-------------------|-------------|-----------------|--|
| PROCUREMENT & CONTRACTING REQ. | 1,655,505 | 6.63 | 11.37 | — |
| GENERAL REQUIREMENTS | 1,868,741 | 7.48 | 12.83 | Summary, price & payment procedures, administrative requirements, quality requirements, temporary facilities & controls, product requirements, execution & closeout, performance. |
| CONCRETE | 1,890,565 | 7.57 | 12.98 | Forming & accessories, reinforcing, cast-in-place, precast, cast decks & underlayment. |
| MASONRY | 2,397,800 | 9.60 | 16.46 | Unit, stone assemblies. |
| METALS | 2,421,801 | 9.70 | 16.63 | — |
| WOOD, PLASTICS & COMPOSITES | 2,284,000 | 9.15 | 15.68 | Finish carpentry, architectural woodwork. |
| THERMAL & MOISTURE PROTECTION | 2,211,721 | 8.86 | 15.19 | Dampproofing & waterproofing, thermal protection, weather barriers, roofing & siding panels, membrane roofing, flashing & sheet metal, roof & wall specialties & accessories, fire & smoke protection, joint protection. |
| OPENINGS | 1,095,000 | 4.38 | 7.52 | Doors & frames, specialty doors & frames, entrances, storefronts, & curtain walls, windows, hardware, glazing. |
| FINISHES | 2,388,786 | 9.57 | 16.40 | Metal studs, drywall & acoustical ceilings, terrazzo flooring, tile, special concrete finishing, carpet, painting & wall covering. |
| FURNISHINGS | 29,502 | 0.12 | 0.20 | Blinds & roller shades. |
| CONVEYING SYSTEMS | 73,817 | 0.30 | 0.51 | Elevators (1 passenger). |
| FIRE SUPPRESSION | 243,000 | 0.97 | 1.67 | Water-based fire-suppression systems. |
| PLUMBING | 724,761 | 2.90 | 4.98 | Piping & pumps, equipment, fixtures. |
| HVAC | 1,559,607 | 6.24 | 10.71 | Piping & pumps, air distribution, central HVAC equipment, central cooling equipment, central HVAC equipment. |
| ELECTRICAL | 3,054,000 | 12.23 | 20.97 | Medium-voltage distribution, low-voltage transmission, facility power generating & storing equipment, lighting. |
| COMMUNICATIONS | 1,075,600 | 4.30 | 7.37 | — |
| TOTAL BUILDING COSTS | 24,974,206 | 100% | \$171.47 | Assessment, subsurface investigation, demolition & structure moving. |
| EXISTING CONDITIONS | 93,444 | | | Site clearing, earth moving. |
| EARTHWORK | 828,375 | | | Bases, bollards, & paving, improvements, irrigation, planting. |
| EXTERIOR IMPROVEMENTS | 603,975 | | | (Excluding architectural and engineering fees) |
| TOTAL PROJECT COST | 26,500,000 | | | |

UPDATED ESTIMATE TO FEBRUARY 2013: \$180.69 PER SQUARE FOOT

Regional Cost Trends

This project, updated to February 2013 in the selected cities of the United States.

| EASTERN U.S. | Sq.Ft. Cost | Total Cost | CENTRAL U.S. | Sq.Ft. Cost | Total Cost | WESTERN U.S. | Sq.Ft. Cost | Total Cost |
|---------------|-------------|--------------|----------------|-------------|--------------|----------------|-------------|--------------|
| Atlanta GA | \$210.42 | \$30,647,535 | Dallas TX | \$203.56 | \$29,648,159 | Los Angeles CA | \$272.18 | \$39,641,921 |
| Pittsburgh PA | \$265.31 | \$38,642,544 | Kansas City KS | \$274.46 | \$39,975,046 | Las Vegas NV | \$249.30 | \$36,310,667 |
| New York NY | \$338.50 | \$49,302,557 | Chicago IL | \$285.90 | \$41,640,673 | Seattle WA | \$272.18 | \$39,641,921 |

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