

# West Virginia University College of Physical Activity & Sports Science and Student Health Center (CPASS)

Morgantown, West Virginia

## Architect

Alpha Associates, Inc.

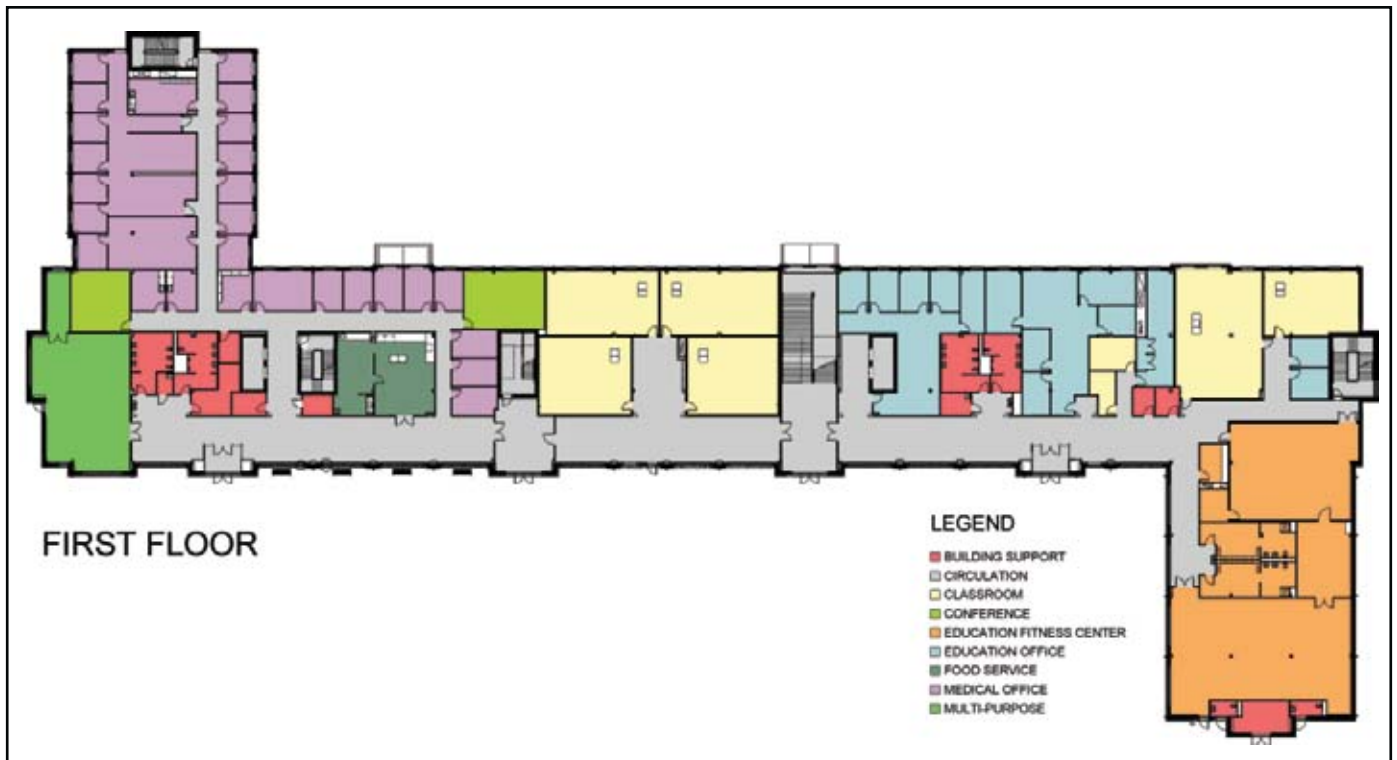


Photos Courtesy of Thorney Liberman

The West Virginia University's College of Physical Activity & Sports Science and Student Health Center, formally titled the "Health and Education Building" upon completion, is the first in a series of new facilities part of WVU's \$320 million dollar, 10-year facilities improvement program. Completed in the spring of 2014, the project brings departments and personnel from all corners of the campus to a centralized location focused on student health and fitness.

A multitude of influences developed the programmatic and logistic needs of the project. The College of Physical Activity and Sport Sciences grew out of the former physical education program and has had close ties to the intercollegiate sport programs. Classes and offices for the College were located in the University's 14,000-seat Coliseum. With ever expanding needs of college athletics and limited space available, it was decided that the CPASS students would be better served in a dedicated facility. Bringing student health services from the University hospital campus and the Carruth mental health center from the downtown campus, the central-





ized location provides a single point of treatment for all ailments. In addition to the three major building tenants, the building also accommodates a retail dining establishment, University-managed CTec classrooms, a pharmacy, and a facilities management regional campus shop.

The result is a 117,344 square foot, 3-story facility with parking for 231. The project is sited on the Evansdale campus directly adjacent to two intramural sports fields and tennis courts, also designed by Alpha Associates. The building is also closely tied to the Student Recreational Center located within the quadrangle.

The 56,000 square foot CPASS side of the building contains three tiered classrooms, general and specialty classrooms, a multipurpose room designed for ball sports, an instructional fitness room in addition to departmental and dean office spaces. The 57,000 square foot Student Health side amenities include dining, a pharmacy and multipurpose meeting rooms, as well as the traditional medical and mental health support spaces. The medical clinic is also open to the public as a joint venture with WVU Healthcare as an urgent care center. The remaining square footage is controlled by the facilities management group for offices, material storage, repair shops, and break room.

The design incorporates a long core building with two smaller wings. Two main entrances on the north side of the building define the primary tenants of the building. The southern entrances develop a rhythmic relationship with the adjacent promenade. The entrances are accentuated with smooth cast stone panels. Local natural stone creates a water table base to the building. Brick fired within the state complete the masonry composition. The mica gray standing seam roof caps the project while neutral-reflective, low-e glazing exhibits a combination of reflectance and transmittance to the exterior while controlling interior glare.

Vinyl enhanced tile and ceramic tile flooring materials were selected throughout the facility for increased durability and low life-cycle costs. Specialty roll flooring was utilized for medical areas as well as for athletic activities. Large windows provide ample daylighting for every office and meeting room throughout the facility.

Systems integration was critical to the operation of the CTec classroom audio-visual systems. WVU has developed a standard classroom configuration across the campus that allows faculty to present their lectures in the identical way, no matter where the class is held. From the lectern, lighting, projection equipment, computers, and polling systems can be controlled via touch screen. The same high-tech approach is taken with door controls. Exterior doors to the building are electronically controlled allowing a central dispatch to unlock and lock doors on pre-determined schedule. Software also tracks egress and ingress after-hours. Card readers, automatic operators, and locksets all talk to each other through the central access control system which limits the use of the masterkey system for building access and minimizes unauthorized access.

The site design integrates unique landscaping including low-maintenance wild-flower meadows and native plants. Innovative storm-water management utilizes bio-retention cells. These structures, composed of a sand/soil mix, retain runoff to slow the discharge as well as filter the water of impurities and assist in the natural irrigation of the site.

Alpha Associates Incorporated's design team, in partnership with West Virginia University, has created a facility that provides first-class educational and student services to the ever-expanding University.

### Product Information

*Building Envelope:* Continental Brick, M & S Stone, Royal Stone

*Roofing:* Dimensional Metals, FiberTite

*Entrances & Storefronts, Curtain Wall:*

Oldcastle BuildingEnvelope®

*Interior:* Armstrong, Sherwin Williams, American Olean, Crossville

*Flooring:* Johnsonite, Forbo, Gerflor, Tandus

*Lighting:* Lithonia, finelite, Gotham, Cali,

Luminaire, Focalpoint, Phillips

**Architect, Structural Engineer,  
Landscape Architect, Civil Engineer, Site Design**

Alpha Associates, Inc.  
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**Project Team**

**Mechanical & Electrical Engineer:**

Loftus Engineers, LLC  
300 Bilmar Drive, #250, Pittsburgh, PA 15205

**General Contractor:**

P.J. Dick  
225 North Shore Drive, Pittsburgh, PA 15212

**Cost Estimator**

Gilbane  
Manor Oak One, #385, 1910 Cochran Road  
Pittsburgh, PA 15220



**Project General Description**

**Location:** Morgantown, West Virginia  
**Date Bid:** Dec 2012 **Construction Period:** Jan 2013 to May 2014  
**Total Square Feet:** 117,344 **Site:** 7.37 acres.  
**Number of Buildings:** One.  
**Building Sizes:** Ground, 39,465; first floor, 39,465; second floor, 38,414; total, 117,344 square feet.

**Building Height:** Ground floor, 15'; first floor, 15'; second floor, 15'; total, 71'9".  
**Basic Construction Type:** New/II B.  
**Foundation:** Cast-in-place, reinforced concrete, slab-on-grade.  
**Exterior Walls:** CMU, brick.  
**Roof:** Metal, membrane. **Floors:** Concrete.  
**Interior Walls:** CMU, metal stud drywall.

DIVISION	COST	% OF COST	SQ.FT. COST	SPECIFICATIONS
PROCUREMENT & CONTRACTING REQ.	261,000	1.15	2.22	—
GENERAL REQUIREMENTS	2,162,162	9.49	18.43	—
CONCRETE	2,900,402	12.72	24.72	Forming & accessories, reinforcing, cast-in-place, cast decks & underlayment, grouting.
MASONRY	1,800,000	7.90	15.34	Unit, stone assemblies, manufactured.
METALS	3,765,000	16.52	32.09	Structural metal framing, decking, cold-formed metal framing, fabrications.
WOOD, PLASTICS & COMPOSITES	265,000	1.16	2.26	Rough carpentry, finish carpentry, architectural woodwork.
THERMAL & MOISTURE PROTECTION	990,000	4.34	8.44	Dampproofing & waterproofing, thermal protection, weather barriers, steep slope roofing, roofing & siding panels, membrane roofing, flashing sheet metal, roof & wall specialties & accessories, fire & smoke protection, joint protection.
OPENINGS	886,000	3.89	7.55	Doors & frames, specialty doors & frames, entrances, storefronts & curtain walls, windows, hardware, glazing, louvers & vents.
FINISHES	1,715,500	7.53	14.62	Plaster & gypsum board, tiling, ceilings, flooring, wall finishes, acoustic treatment, painting & coating.
SPECIALTIES	180,000	0.79	1.53	Information, interior, safety, storage, exterior.
FURNISHINGS	100,000	0.44	0.85	Multiple seating, shades.
CONVEYING SYSTEMS	315,000	1.38	2.68	Elevators (4 passenger).
FIRE SUPPRESSION	250,000	1.10	2.13	Water-based fire-suppression systems.
PLUMBING	901,066	3.95	7.68	Piping & pumps, equipment, fixtures.
HVAC	2,909,934	12.77	24.80	Facility fuel systems, piping & pumps, air distribution, central equipment, decentralized equipment.
ELECTRICAL	2,932,000	12.86	24.99	Medium-voltage distribution, low-voltage transmission, electrical & cathodic protection, lighting.
COMMUNICATIONS	248,000	1.09	2.11	Structured cabling, data, voice, audio-video.
ELECTRONIC SAFETY & SECURITY	212,000	0.93	1.81	Access control & intrusion detection, monitoring & control.
<b>TOTAL BUILDING COSTS</b>	<b>22,793,064</b>	<b>100%</b>	<b>\$194.24</b>	
EXISTING CONDITIONS	83,350			Mobilization, demobilization, demolition.
EARTHWORK	631,035			Site clearing, earth moving, earthwork methods, shoring & underpinning.
EXTERIOR IMPROVEMENTS	1,257,383			Bases, bollards & paving, site, planting.
UTILITIES	1,084,900			Water, sanitary sewerage, storm drainage, fuel distribution, electrical, communications.
<b>TOTAL PROJECT COST</b>	<b>25,849,732</b>			(Excluding architectural and engineering fees)

**UPDATED ESTIMATE TO APRIL 2015: \$205.74 PER SQUARE FOOT**

**Regional Cost Trends**

*This project, updated to April 2015 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	\$170.52	\$20,009,620	Dallas TX	\$164.96	\$19,357,132	Los Angeles CA	\$220.57	\$25,882,008
Pittsburgh PA	\$215.00	\$25,229,521	Kansas City KS	\$222.42	\$26,099,504	Las Vegas NV	\$202.03	\$23,707,050
New York NY	\$274.32	\$32,189,388	Chicago IL	\$231.69	\$27,186,983	Seattle WA	\$220.57	\$25,882,008

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