

Practicing What You *Teach*



Radnor Elementary School

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Gilbert Architects

- Recipients of 2002 Governor's Award for Environmental Excellence in Education & Outreach
- "Green from the Ground Up" Series
- Harry Pettoni, Gilbert Studio Director & Radnor Project Designer



9 Chapters of Environmental Quality

- Recycling
- Site Preservation
- Indoor Air Quality
- Adequate Daylight
- Geothermal Heating & Cooling
- Optimal Acoustics
- Planned Flexibility
- Environmental Education
- Collaborative Use



Recycling & Site Preservation

- 1920's Mansion – Open House & Public Auction
- Corporate & Township Environmental Parks
- School Occupies only 12% of the Site
- 58% Landscaped – Tree Preservation & New Planting
- Nature Trails & Connections from the Site to Commuter Rail

Indoor Air Quality

- Building Elevation
- “Earth Fences”
- Elevated & Filtered Air Intakes
- Materials & Finishes – low VOC content
- “Out-gassing”



Day Lighting

- Learning Performance
- Energy & Economic Conservation
- Classroom Locations
- New Light Bulbs –
Eco-Smart Building
Center & Phillips
Lighting



Geothermal Heating & Cooling

- Closed-loop Pipe System – circulates water through 60 wells
- Low-wattage Electric Pump
- Pipes are plastic and encased in concrete
- Natural Dehumidification
- Environmental & Economic Benefits – as compared to traditional Boiler Systems

Structural Planning – Acoustics & Future Flexibility

- All HVAC Units in sound protected closets
- Carpeting , Fabric-covered homeosote tackboard, & Ceiling tiles
- Soundproof paneling in theater, music room, and cafeteria
- 6-Pod / 4-Classroom design for expansion



Environmental Education

- Outdoor Classrooms
- Student Gardening
- “Teachable Moments”



Specs

- 92,761 square feet
- 500 Students (without reconfiguration)
- Opened Sept. 2001
- \$13.8 million



Results

- April 2001, PA DEP undertakes case study of Radnor Elementary to document its role as the first green sustainable school in the state
- 2001 – Governor’s Award for Excellence in Energy Efficiency
- Council for Educational Facility Planners (CEFPI) Impact on Learning Award
- 2002 – Sustainable Buildings Industry Council (SBIC) Best Practices Sustainability Award
- 2002 – American School Board Journal (ASBJ) Learning by Design Outstanding Facility

Resources

- “A Smart School”
http://www.edcmag.com/CDA/ArticleInformation/features/BNP__Features__Item/0,4120,107513,00.html
- http://www.greenworks.tv/govawards2001/winners/energy_efficiency/gilbert.asp
- http://www.gbacpa.org/Resources/News/Article.asp?News_ID=8
- http://www.gilbertarchitects.com/portfolio_new.htm#radnor
- <http://www.asbj.com/lbd/2002/projects/radnor.pdf>
- www.radnor.com
- http://weblinks.schoolsgogreen.org/links/weblinks_gschoools/0001E74B-007EA7AB-0001F69F
- www.eere.energy.gov/greenpower/0303_radnor_pr.html
- <http://www.greenworks.tv/govawards2002/winners/education/gilbert.asp>
- <http://www.cefpi.org/>