Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

Parsons Brinckerhoff

100 S. Charles St, Tower One, 10th Floor
Baltimore, MD 21201
410-727-5050
www.pbworld.com
Planning and Engineering Firm
Member since February 2011

Management and Leadership

☑ **Environmental Policy Statement**

Our corporate Environmental Policy is posted on our website: http://www.pbworld.com/services/environmental/downloads/environmental_policy.pdf

PB's commitment to sustainability was first articulated by our founder nearly a century ago. William Barclay Parsons wrote that the development of infrastructure required not only technical excellence but also the ability to devise useful solutions that "will be for the convenience of mankind in the long run." Parsons also believed that it is "not the design that governs, but its adaptability to the economic and social needs of the time." This philosophy continues to guide PB's approach to the development and operation of infrastructure.

PB endorses the following definition of sustainability: "to create and maintain conditions under which humans and nature can exist in productive harmony, while fulfilling the social, economic, and other needs of present and future generations." Achieving sustainability requires technical innovation, continuous improvement, and a willingness to question past assumptions and practices.

We pursue a comprehensive approach to sustainability in both our internal operations and our work on behalf of clients. Wherever possible, and in keeping with our clients' priorities, we seek to influence and improve local ecosystems, reduce carbon emissions, adapt to climate change, enhance public health and social equity, and promote job creation and economic growth.

Our ultimate goal is to plan and develop infrastructure with the future in mind. In doing so, we will create long-term value for our clients, improve the communities in which we live and work, and continue PB's legacy of excellence.

Our Vision

PB will be a positive and highly influential force in the development and operation of infrastructure around the world. Through service to our clients and collaboration with colleagues, we will create a lasting legacy that improves the lives of people and communities. Our vision will only be achieved by living our values.

Our Values

1. *We behave ethically, acting with integrity and respect.*
2. *We work with our clients to contribute to their success.*
3. *We care for our colleagues, encouraging their development, engagement, and achievement.*
4. *We share knowledge with our colleagues to deliver professional excellence.*
5. *We act in a socially and environmentally responsible manner, committed to high standards of safe performance.*

☑ **Environmental Team**

Our office Green Team is a volunteer group in the office. The Green Team:

- *provides educational programs (presentations, videos, on environmental topics)*
- *Organizes activities (we have participated in Project Stream Clean in Baltimore City)*
- *Supports the local office in "green" decisions and policies. For example we convinced the office manager to stop providing paper cups for coffee, and purchase ceramic mugs for use in the office. The office had been spending approximately $800 per year on paper cups (that is a LOT of cups!)*
- *Co-hosts an annual Green fair with our supply vendors on greener supplies.*

☑ **Environmentally Preferable Products and Services**

PB engineers design high-performance facilities that minimize energy and water usage and incorporate renewable energy and sustainable materials. We also perform the intricate coordination necessary to incorporate sustainable techniques and materials into complex design and construction programs around the world.

PB planning, environmental and modeling staff members regularly engage with government agencies at a variety of levels to research ways to help prevent and adapt to climate change. This work ranges from climate change

policy analysis and education to helping agencies reduce their environmental footprint and adapt infrastructure to climate change that is already happening.

PB estimates the greenhouse gases generated by the construction and operation of infrastructure projects.

These assessments enable our clients to make informed decisions, reduce their impacts, and report accurately. For example PB conducted the GHG analysis for two ***Maryland Transit Administration (MTA)*** *light rail projects. Both the Red Line and Purple Line projects underwent quantitative analyses that considered energy usage variations and changes in vehicle miles traveled associated with different transportation modes, along with the resulting impact on fuel and energy usage. PB applied GHG emission rates based on specific mobile source data and state-specific energy profile information provided by the Department of Energy.*

PB engineers explore new ways to produce energy more efficiently and power our lives without relying solely on fossil fuels. Our technical experience covers the whole range of renewable energy technologies. We work with clients to harness power from sources including wind, solar, and geothermal, often participating in feasibility studies to pioneer the next generation of energy solutions.

Throughout its history, PB has delivered infrastructure projects that accommodate the current and future needs of a community. Active, meaningful involvement of a wide range of stakeholders throughout project delivery is essential to achieving this outcome. For the ***I-270/15 Multi-Modal Corridor Study*** *located just outside* ***of Washington, D.C.****, in the Maryland suburban counties of Montgomery and Frederick, PB's environmental justice team conducted a grassroots outreach program that identified and incorporated several new immigrant communities into the transportation planning process. This made it possible to glean information on the travel patterns and transportation needs of a growing Latino and African populations.*

Repairing the environment by restoring the capacity of an ecosystem to effectively filter water is a hallmark of PB's water practice. PB also designs systems to handle water from new projects with minimum disruption to the natural environment. PB was hired by the Baltimore City Department of Public Works (DPW) to perform the ***Middle Stony Run Stream Restoration in Baltimore, Maryland****. PB provided geomorphic, hydrology and hydraulic analysis, conducted conceptual design, assisted with public involvement, and delivered final design drawings. In addition, PB assisted DPW in the construction award process and provided technical support/consultation and RFI responses during construction.*

PB's approach to urban and community design emphasizes the integration of built and natural environments. We help design livable communities that provide a high-quality of life for residents, use fewer natural

resources, and protect and restore sensitive habitats. Our transit-oriented, carbon-sensitive designs promote efficiency in infrastructure and create communities where people want to live. PB served as the prime consultant for the county and Maryland Department of Transportation for the ***TOD Strategy for West Hyattsville, Maryland****, guiding the project from concept to a final master development plan that was subsequently approved. A planned street and circulation network emphasizes walking distance from the station to commercial and residential development. With assistance from PB, the county rewrote the zoning code and development design standards to focus on sustainable development.*

☑ **Environmentally Preferable Purchasing**

As part of its normal business practices, PB selects vendors and service providers who support the company's operations, activities, and services. Recognizing that goods purchased by the company can significantly affect the environment, PB will make every attempt to obtain goods and services from vendors and providers whose products and practices meet – and even enhance – the environmental standards, targets and objectives established by the company for conducting its internal operations and providing its professional services to clients. A designated purchasing staff person works to consider the environmental aspects of the goods and services procured for internal operations. For example, we use recycled paper in our printers,

☑ **Environmental Restoration or Community Environmental Projects**

We have participated in Project Stream Clean, in the Jones Fall watershed and in Kingman Island day, a river clean-up and educational event hosted by Living Classrooms in Washington DC.

Waste

☑ **Solid Waste Reduction and Reuse**

Electronic Processes PB saves paper, along with the cost and emissions associated with shipping, as a result of making previously paper-intensive administrative processes electronic. For example, PB's E-procurement purchasing program has eliminated the use of paper in the ordering, purchasing and transmission of goods for use in PB offices. New software programs and processes are converting all of PB's accounts payable, expense reporting, and client invoicing from paper to electronic processes. In addition, PB managers in some divisions of the company now use an electronic process for employee performance reviews.

<u>Reduce Paper Usage</u> The PB Americas Environmental Management System requires all offices to use recycled content paper in their primary black and white printers. We purchase paper with at least 30 percent recycled content for basic copier paper needs, and use other paper-saving techniques such as default double-sided printing and electronic communication and deliverables.

☑ **Recycling**

- *Return printer toners and cartridges to the manufacturer for recycling.*
- *Send mobile phones and accessories to Collective Good, a company that recycles these items and donates the proceeds to a charity designated by PB.*
- *Collect and recycle used alkaline batteries.*
- *Send electronic waste such as computer disks, DVDs, audio and video tapes and cases, small electronics and rechargeable batteries to GreenDisk, an organization that recycles electronic waste.*
- *Utilize local building and community programs to recycle materials including glass, metal, plastic, cardboard, and paper types including white, newspaper, glossy magazines, and paperboard.*

Energy

☑ **Energy Efficiency**

We have motion sensor light switches to ensure that lights are not left on in empty offices.

Transportation

☑ **Employee Commute**

- *Promoting alternate ways to commute through events such as Bike-to-Work Week and International Car Free Day. PB employees have participated in Baltimore's Bike-to-Work Day for at least the last 7 years.*
- *Implementing a Commuter Benefits Program that enables transit-using employees to pay for their commute to work using pre-tax dollars.*
- *Locating offices with accessibility to lunchtime and other amenities to reduce overall employee travel.*
- *Offering employees an Alternative Work Schedule (AWS), thus requiring fewer trips to the office. This employee option reduces commuting travel and improves work-life balance. The alternative schedule allows a 9-hour workday with a scheduled day off every other week. About 30 of our staff members take advantage of AWS schedule option in our 122-person office – this means*

that about one quarter of our employees have eliminated a workday commute twice a month.

While we have not calculated the actual savings from use of the AWS – the average commute for Americans is 16 miles one way, so 32 miles per day, 26 days per year, times 30 people.

32 x 26 = 832 miles per person

832 x 30 = 24,960 miles total for 30 people

So for our Baltimore office the AWS resulted in 24,960 miles NOT driven. Assuming an average mpg of 22 for our commuters' cars the following are the amounts of emissions saved:

Total Hydrocarbons = 153.938 Lbs
Total Carbon Monoxide = 1149.04 Lbs
Total Carbon Dioxide = 22863.36 Lbs
Total Nitrous Oxide= 76.419 Lbs
Total Gas= 1134.5 Gal

Source: http://www.bikemetro.com/calculators/environment.asp

Other

☑ *PB has 176 (126 US, 50 International) LEED rating systems professionals and worldwide sustainable development professionals with 31 accreditations in BREEAM, BEAM, CEEQual, GreenStar, NABERS and Carbon Reduction Management.*