You’ve Decided to Go Green. Now What?
Three things you don’t have
Break it Down and Embrace the Fundamentals
Fundamental Tenants of Sustainable Operations

Energy

Water
STATEMENT OF ENERGY PERFORMANCE

Office Sample Facility

Building ID: 1526006
For 12-month Period Ending: July 31, 2008
Date SEP becomes ineligible: November 28, 2008
Date SEP Generated: November 06, 2008

Facility
Office Sample Facility
1234 Main Street
Charlotte, NC 28227

Facility Owner
Sample Owner
1500 Test Avenue
Charlotte, NC 28227
555-555-5555

Primary Contact for this Facility
Jane Smith
1500 Test Avenue
Charlotte, NC 28227
555-555-5555
jsmith@jsmith.com

Year Built: 2000
Gross Floor Area (ft²): 53,232

Energy Performance Rating² (1-100) 86

Energy Star Portfolio Manager
- Benchmarks your building against other buildings across the US
- Based on the EPA’s Commercial Building Energy Consumption Survey (CBECS)

Gap Analysis:
Benchmark
Energy
Performance

- The performance rating is normalized based on building type, location size, number of occupants, and other inputs.

http://www.energystar.gov
Gap Analysis:
Water Fixture Inventory

- Conduct a water fixture inventory
- Compare fixture flow and flush rates to UPC/IPC standards
- Can use LEED submittal template to assess performance

<table>
<thead>
<tr>
<th>Fixture</th>
<th>UPC and IPC Standards</th>
<th>U.S. EPA WaterSense</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water closets (gpf)</td>
<td>1.60</td>
<td>1.28</td>
</tr>
<tr>
<td>Urinals (gpf)</td>
<td>1.00</td>
<td>0.5</td>
</tr>
<tr>
<td>Showerheads (gpm)</td>
<td>2.50</td>
<td>1.5-2.0</td>
</tr>
<tr>
<td>Public lavatory faucets and aerators (gpm)</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Private lavatory faucets and aerators (gpm)</td>
<td>2.2</td>
<td>1.5</td>
</tr>
<tr>
<td>Kitchen and janitor sink faucets</td>
<td>2.20</td>
<td></td>
</tr>
</tbody>
</table>
### Sample Fixture Assessment Results

<table>
<thead>
<tr>
<th>Fixture Type</th>
<th>Units</th>
<th>Pre-LEED Conditions</th>
<th>Upgrade Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Closet Full Flush</td>
<td>GPF</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Water Closet Low Flush</td>
<td>GPF</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Urinal</td>
<td>GPF</td>
<td>1.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Public Lavatory</td>
<td>GPM</td>
<td>1.22</td>
<td>0.5</td>
</tr>
<tr>
<td>Shower</td>
<td>GPM</td>
<td>2.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Kitchen Sink</td>
<td>GPM</td>
<td>2.2</td>
<td>1.6</td>
</tr>
</tbody>
</table>

GPF = gallons per flush  
GPM = gallons per minute
Anticipated Annual Water Savings: 802,485 gallons
Anticipated Annual Cost Savings: $1,700
First Costs: $4,500
Simple Payback Period: 2.6 years
High-Efficiency Toilets
Added to Capital Plan
Fundamental Tenants of Sustainable Operations

Waste Purchases
To find out what is leaving your building, conduct a waste audit.

Gap Analysis

What are the opportunities for purchasing?

Waste Audit & Sustainable Purchasing
Annually, nearly 34 percent (639 pounds per thousand square feet) of all materials disposed could be diverted through expanded paper recycling programs.

California Integrated Waste Management Board Study
Fundamental Tenants of Sustainable Operations

Green Cleaning

Ventilation
- Test actual outside air introduction
- Compare to ASHRAE 62.1 standard
- Coordinate with commissioning services

Gap Analysis:
Ventilation Testing
Northland Executive Office Center

- Service contractor adopted green cleaning SOPs to match LEED criteria
- Very willing to adopt green cleaning practices
- No additional cost for green cleaning services
Goal Setting

What do we want out of our green initiative?

- Operational cost savings
- A better workplace environment
- Trying to meet a larger corporate initiative
- The right thing to do
- Building to tell a green story

Element Houston Vintage Park debuts as green hotel

11:59 AM CDT on Wednesday, March 25, 2009

By JESSICA ELLIOTT / The Dallas Morning News jelliott@dallasnews.com

Texas’ coastal powerhouse got a high-wattage shot of green last month when new eco-chic hotel ELEMENT HOUSTON VINTAGE PARK made its debut. A well-matched mix of Westin’s attention to detail and W Hotels’ urban-mod vibe (parent company Starwood Hotels and Resorts owns all three), Element has a do-good goal: It’s the first hotel in the state to pursue the U.S. Green Building Council’s standards for Leadership in Energy and Environmental Design (LEED).

While we love Plano’s eco-friendly Nylo Hotel, Element’s green mission extends beyond the usual low VOC paints and Energy Star appliances, to recycled-content carpets and cushions, recycled-tire art mountings, and low-flow toilets and rain showers. The hotel punctuates 123 guest rooms with a few unexpected spaces – a library, chlorine-free swimming pool (you read that right), and fully-equipped kitchens in every room. A pantry stocked daily supplies healthy, ready-made meals, along with pasta, sauces, and artisanal meats and cheeses if you prefer to play chef.
Leadership in Energy & Environmental Design
Setting the standards for

- Maximized operational efficiency
- Minimized environmental impacts
- Recognized, performance-based benchmark
- Consistent metrics for building improvements and maintenance

LEED-EBOM
Continuous Improvement

Actual Performance

Benchmarked Against Average Buildings

LEED-EBOM
Embrace the LEED Fundamentals so take care of your prerequisites first
LEED =

LEED EBOM =
**EAc1** - Reap the benefits and rake in major LEED points

**EAc2.3** – Ensure continuing performance

**EAc2.2** - Implement low – no cost savings

**EAc2.1** - Tease out operational and capital improvements

**EAp2** - Benchmark our performance

**EAp1** - Gather basic building documentation
MRc7-9 – Implement the waste management plan and get points for performance

MRp2 – Develop the waste management policy and plan

MRc6 – Conduct a waste audit to determine what’s in your waste stream
YRG sustainability

- Green Building / LEED Coordination
- Corporate Sustainability
- Green Operations and Living
- Greenhouse Gas Management
- Sustainability Education

www.yrgconsultants.com