# Got Green?

March 25<sup>th</sup>, 2010
Pete Otteni, VP – Development
Steve Morken, VP - Construction



Premier Properties. Core Markets. Experienced Leadership.



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### **Outline**

### **Democracy Tower – Reston Town Center**

- Project Introduction
- LEED Objectives
- Specific LEED Strategies
- Cost of Certification
- Marketing Impacts
- Operations Impacts
- Certification Process
- Lessons Learned



### **Project Introduction**

#### Democracy Tower – Reston Town Center

- 235,000 rsf
- Delivered August 2009
- Achieved LEED GOLD February 2010
- Unique site attributes
  - ✓ Elevated building site
  - ✓ Urban setting
  - ✓ Transit adjacency
- 100% leased to College Entrance Examination Board
- Project Team
  - Duda Paine Architects, Durham, NC
  - TOLK, Inc. Consulting Engineers and LEED Commissioning Agent
  - HITT Contracting
- College Board currently seeking LEED CI GOLD Certification





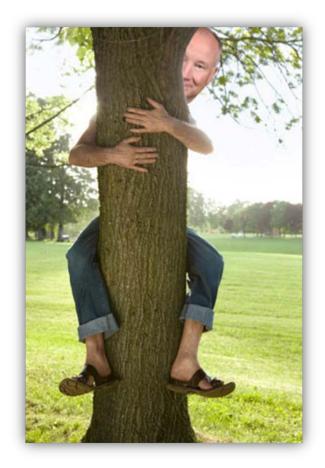
## **LEED Objectives**

### **Corporate Philosophy**

- Boston Properties corporate stance on LEED
  - ✓ Environmental stewardship
  - ✓ Market expectations/demands
- LEED Accredited Professionals

### **Democracy Tower**

- Target certification level
- Project characteristics
- Cost vs. market analysis



## **BP LEED Buildings (New Construction)**



One Annapolis Junction Existing Bldg., LEED Gold



Democracy Tower Existing Bldg., LEED Gold



Two Annapolis Junction Proposed, LEED Gold

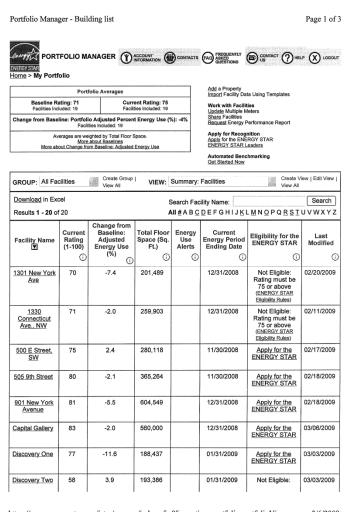


2200 Pennsylvania Ave. NW Under Construction, LEED Gold



## **BP LEED Buildings (Existing Buildings)**

- The Greenest building is the one that is already built.
- Reviewing entire portfolio for opportunities for LEED-EB
- Several buildings already being pursued for LEED-EB
- Energy Star benchmark every building monthly
- Have implemented corporate policies regarding
  - Green Cleaning
  - Solid Waste Management
  - Water Conservation
  - Energy Efficiency



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### **BP LEED Buildings (Existing Buildings)**





## Green Between The Lines

ARTICLE HEAD

#### What is Green Cleaning?

Green Cleaning is a term used to describe a sustainable approach to cleaning and maintaining a facility using environmentally friendly products and procedures.

#### What are the Benefits?

- · A healthier indoor air quality environment
- Improved occupant comfort /satisfaction
- Reduced impact on earth's resources and energy

#### So what has changed in my building as a result of Green Cleaning?

- · Sustainable cleaning "chemical" products
- High filtration vacuum equipment (HEPA filters)
- Microfiber mops and cloths that capture more dust while reducing paper waste and conserving water
- Restroom paper products contain 20%-40% post consumer recycled content
- Re-evaluation of cleaning crew procedures for efficiency and effectiveness

Is Green Cleaning really as effective as regular cleaning? Yes. But because Green Cleaning has little or no odor, people often inaccurately think it is not as effective.

#### **BOSTON PROPERTIES GREEN INITIATIVE**

"At Boston Properties our goal is to increase awareness of energy savings and sustainability practices through partnership with our tenants." - Laura McNulty, Senior VP, Property Management



Sitting in your office environment, it's hard to visualize how our business activities are impacting the natural environment "out there". Issues such as air pollution, global climate change, deforestation, landfills, water availability, biodiversity, chemical pollution, and soil erosion seem very distant and unrelated to the activities we undertake at work.

In the coming months, Boston Properties wants to partner with you to make a difference. Our objective is to supply you with information and tools so we can work together to protect our environment by conserving resources and recycling whenever possible.

> We can all contribute. Let's start now!

#### GREEN TIPS

- Avoid placing televisions, computers and lamps near thermostats. The heat from these and other appliances/ equipment may affect the thermostat readings and can lead to increased energy consumption for cooling.
- Plug all electronics into a power strip so everything can be turned off at once.
- Make sure your refrigerator is out of direct sunlight. Heat makes it work harder causing more power to be used.
- Put your computer on "hibernate" mode. Every 30 minutes that you are away from the computer, it will turn off but not to the point where you have to restart everything.

#### RECYCLING CORNER-

#### WHAT HAPPENS TO OUR RECYCABLES?

- When paper is recycled, it is converted to pulp which makes it easy to strain out all staples, spiral bindings, plastic windows from envelopes, etc.
- When Plastic is recycled it is sorted, washed and shredded into flakes that are melted to make new shapes.
- When Glass is recycled, it is sorted by color, cleaned and crushed, and the manufacturer melts the glass into new shapes.
- When Aluminum is recycled, scrap processors condense it into larger bales, aluminum companies melt it down and can makers create new shapes.

**■** Boston Properties

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### **LEED Strategies – Democracy Tower**

#### **Sustainable Sites**

Urban, transit-adjacent site, with white roof

### **Water Efficiency**

Low-flow fixtures and irrigation system

### **Energy & Atmosphere**

- Highly efficient mechanical and lighting systems
- Innovative curtainwall design

#### **Materials & Resources**

Meticulous design and construction management

### **Indoor Environmental Quality**

Meticulous design and construction management

### **Innovation and Design Process**

Transit proximity, density



### **LEED Scorecard**

### **Democracy Tower:**

Sustainable Sites 6 pts.

Water Efficiency 3 pts

Energy & Atmosphere 8 pts.

Materials & Resources 5 pts.

Indoor Environmental Quality 9 pts.

<u>Innovation and Design Process</u> 3 pts.

Total 34 pts.

## **LEED GOLD**





### **LEED Cost**

- Boston Properties long-term hold developer
- Boston Properties' standard design guidelines
- Analysis framework
- Difficulty in identification/calculation
- Data sources
  - Design fees
  - General Contractor additional overhead
  - Subcontractor direct costs
  - Commissioning costs





### **LEED Cost**

#### **Significant Line Item Costs:**

### **Design**

- LEED administration premium
- MEP design premium



#### Construction

- Additional showers and bicycle racks
- White roof
- Filters and filter management during construction
- GC management premium
- Commissioning fees



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**RESULT – Approximately a 1% premium over BP Standards** 





### **Marketing & Operations Impacts**

#### Marketing

- College Board lease timing
- "Distinguisher" vs. "Qualifier"
- Ratings levels
- Rent Premium?

#### **Operations**

- Energy costs
- Reduced complaints
- Improved health/reduced absenteeism
- Employee pride (i.e. attraction/retention)



Building Valuation: higher cash flow = <u>HIGHER VALUATION</u>...

### **Certification Process**

- Administrative LEED "project manager"
- Team member participation
- Attempted points vs. achieved points
  - √ "Stretch" points
  - ✓ Periodic updates and monitoring
- Duration and timing of certification
  - ✓ Focused attention
  - ✓ Tenant submission impacts (LEED CI)



### **Lessons Learned**

- Targeted certification level
- Cost implications
- Team member focus









