

LEED STORIES FROM PRACTICE

CASE STUDY

LIBERTY CENTRE










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CASE STUDY

Liberty Centre

Prepared for the U.S. Green Building Council

Case Study Lab
Center for Housing Innovation
University of Oregon

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2		O+M					
PATH HOURS	 Site	 Water	 Energy	 Materials	 Indoor Environment	 Stakeholder/ Innovation	 Surrounding/ Outreach
	NA	.5	.5	.5	.5	NA	NA

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Written permission has been obtained from all participants in this project, following an extensive edit and approval process, to include their interviews and videos in this document.

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Cover Photo and Project Photographs @Josh Partee 2009

Original design drawings on pages 6, 41, and 42 by GBD Architects, Portland, Oregon

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ISBN: 978-1-932444-43-8

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USGBC Case Study Project

The U.S. Green Building Council, in conjunction with the University of Oregon, initiated this pilot program of five case studies to gather information on green building practices. Through a series of interviews, selected project team members from the Biodesign Institute at Arizona State University tell their stories in this case study. The interviews were recorded, transcribed, edited, and compiled to form the narratives on the following pages.

The USGBC intends to use these narratives as educational content for instructor-led workshops, podcasts, webinars, books, magazines, articles, and other research-oriented and curriculum products. The University of Oregon will use the material for educational purposes only, in classes and conferences. The five pilot case studies comprise a cross-section of certification levels, building types, and themes that occur in practice. The USGBC plans to expand its case study database with more project stories covering different themes, to enhance case-based teaching methods.

LIBERTY CENTRE

PORTLAND, OREGON



A light rail stop is visible just beyond the windows of this tenant lobby.

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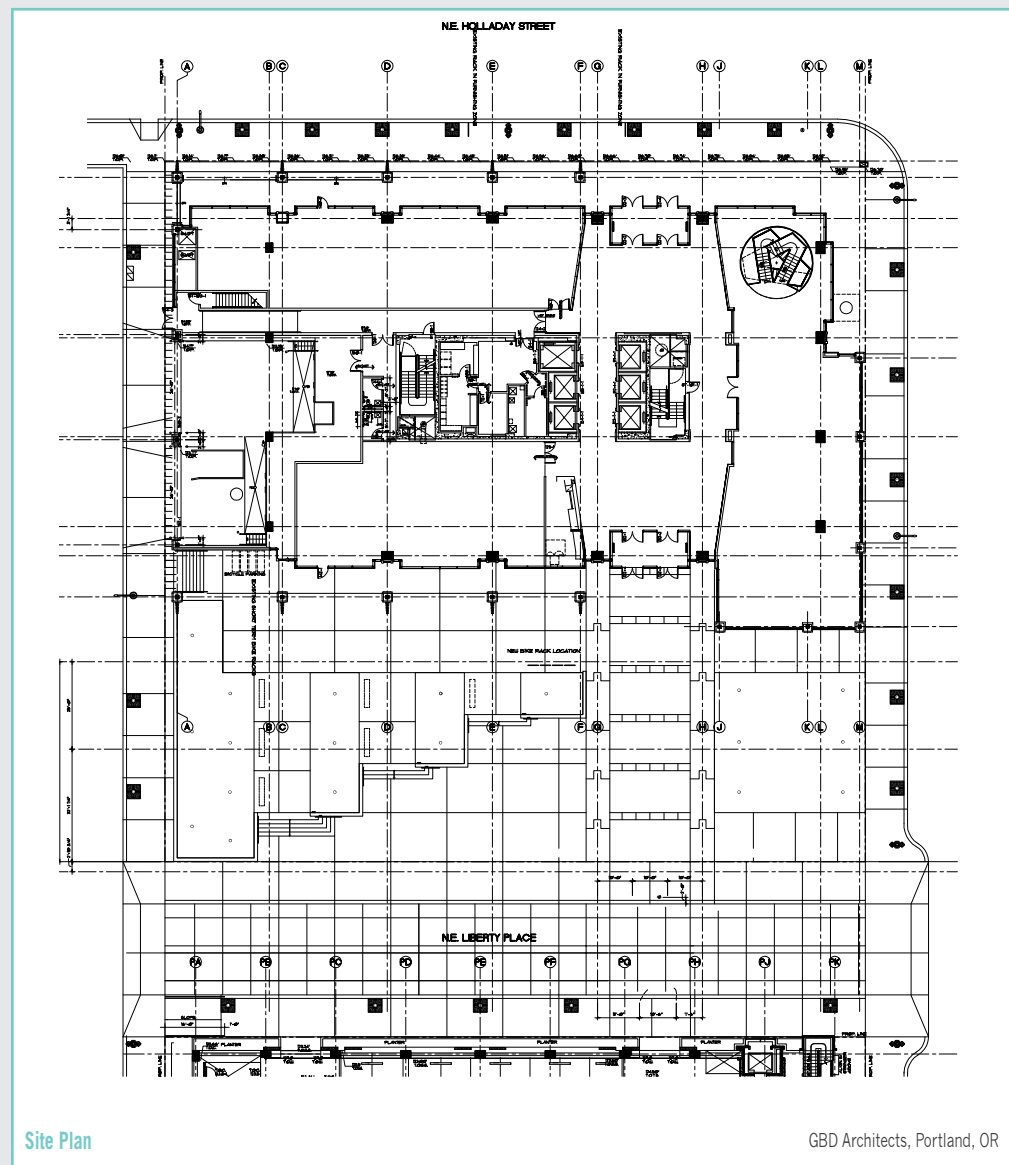
PROJECT TEAM MEMBERS

<i>Building Architects:</i>	GBD Architects, Portland, OR
<i>Developer/Owner:</i>	Ashforth Pacific, Inc., Portland, OR
<i>Property Operations:</i>	Ashforth Pacific, Inc., Portland, OR
<i>Sustainability Consultant:</i>	Green Building Services, Portland, OR
<i>Commissioning Agent:</i>	Green Building Services, Portland, OR
<i>Consulting Engineer:</i>	Glumac, Portland, OR

University of Oregon Professor Alison G. Kwok, Advisor Nicholas B. Rajkovich, and research assistants Rachel B. Auerbach, Kristen B. DiStefano, Britni L. Jessup, and Amanda M. Rhodes prepared this narrative. © 2009 U.S. Green Building Council and the University of Oregon. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the permission of the USGBC.

PROJECT DESCRIPTION

"Liberty Centre is a 17-story office building [originally designed by GBD Architects], housing a variety of tenants. Located in the heart of Portland's Lloyd District, the building site is easily accessible by public transit, including a light rail stop just outside its doors. By providing educational information to tenants regarding the environmental features of the building, such as the inclusion of recycling containers throughout the space, Liberty Centre aims to encourage its tenants to make sustainable business choices."¹



- ¹ This information taken from the Green Building Services website.
- ² The climate data is from the website of the National Oceanic and Atmospheric Administration.
- ³ The EUI, or Energy Utilization Intensity, estimates given here are based on electricity consumption data provided by Ashforth Pacific, Inc.

PROJECT DATA

LIBERTY CENTRE

LEED-EB v.2.0 Silver

Building Completion: 1997

LEED Completion: 2008

LEED Hard Cost: \$25,000

LEED Soft Cost: \$90,000

Area: 277,552 ft²

LOCATION

City: Portland, OR

Latitude: 45.53 North

Longitude: 122.66 West

CLIMATE²

HDD65: 4457

CDD50: 2972

Annual Precipitation: 36.3"

Solar Radiation: 405 kBtu/sf/year

ENERGY METRICS

Measured EUI:3

80.5 kBtu/sf/year (2007)

74.5 kBtu/sf/year (2008)

NOTABLE GREEN FEATURES

Ashforth Pacific sought LEED for Existing Buildings certification after taking a strong stand on encouraging sustainability through a company-wide program entitled E-Initiative. The program had four goals: increase the service to the tenancy and the retention rate within the buildings, increase the positive impact on the local community, increase the efficient use of human and natural resources, and reduce the impact on the environment. The company saw the pursuit of LEED certification as a way to quantify the E-Initiative program's success, reaffirm the firm's guiding principles, and distinguish Liberty Centre from the competing office space in the area.



Canopy at Entrance

© Josh Partee 2009

Ashforth Pacific used the certification process to address heating, cooling, water, and lighting issues that had been present since the building's opening. For example, before the certification, water closets did not work effectively on the first flush because there was no expansion tank. Because of LEED certification efforts, a large expansion tank was added, which provides a buffer during periods of high demand. With the installa-

tion of the tank, two of the three original water pumps can be shut down, helping to save water and energy. The project also received LEED points for its building systems and thermal comforting monitoring, commissioning efforts, enhanced metering and staff education.

At the time, LEED for Existing Buildings certification was in its pilot stage and no one had used the rating system to certify a multi-tenanted office building. Ashforth Pacific decided to focus its efforts and investments on the elements that they, as the property owners, could influence without adversely impacting tenant activities. In a changing economic climate, and as capital became tighter, Ashforth Pacific felt that involving existing tenants to attain a higher level of certification was an unjustifiable risk. Therefore, Ashforth Pacific pursued LEED certification behind the scenes and took control of the elements within its immediate control: water consumption, HVAC system energy performance and maintenance practices. The janitorial staff was also tapped to assist. They changed their habit of cleaning the entire building at night and began using a floor-by-floor method, which reduced night-time electricity consumption. Through their own initiation, the janitorial staff made cloth bags instead of disposable trash bags, which decreased the overall waste and lowered the cost of disposable bags. Ashforth Pacific used financial incentives for its staff as well as manpower in the form of student interns to promote the new operational strategies.



Janitor's Closet

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The Liberty Centre management team did look for simple ways to influence tenant behavior by implementing stronger recycling and composting programs and promoting health and fitness with signage and information in the stairwells. On future projects, however, Ashforth Pacific has involved tenants in the green building development process. The anticipated resistance to sustainability initiatives at Liberty Centre did not come to pass. In fact, many tenants are seeking ways to help fulfill their own sustainability goals and the green features of the office space provide opportunities to meet such goals.

The Liberty Centre management team did look for simple ways to influence tenant behavior by implementing stronger recycling and composting programs and promoting health and fitness with signage and information in the stairwells. On future projects, however, Ashforth Pacific has involved tenants in the green building development process. The anticipated resistance to sustainability initiatives at Liberty Centre did not come to pass. In fact, many tenants are seeking ways to help fulfill their own sustainability goals and the green features of the office space provide opportunities to meet such goals.

When reexamining its E-Initiative program, Ashforth Pacific looked at the next level of economic investment that would allow them to satisfy the company's overall goals. This required a more in-depth review of existing systems, evaluating ways to control

or decrease energy use, and deciding what strategies were acceptable and in keeping with the business model. The investment criteria required that some of the new capital investments for Liberty Centre have a three- to five-year payback period. There were some upgrades with longer paybacks, but the company reached a common agreement with its partners based on the capital needed and the strategy. With this in mind, the company installed software to access real-time building monitoring information on handheld BlackBerrys to maintain supervision even when away from a control station. They also installed an overflow water tank and retrofitted the parking garage for storm-water collection.

As a result of its green building initiatives, Liberty Centre's return on investment includes a reduction of approximately 11% of total energy consumption, a tenant retention rate of nearly 95%, and occupancy levels currently at 100%. Ashforth Pacific pursued these strategies knowing the immediate costs and expected returns for Liberty Centre, but, in the end, the pursuit of these building-specific initiatives led to an unforeseen benefit to the company's entire portfolio. The lessons learned from Liberty Centre have influenced the way all their buildings are operated and managed, even those facilities not scheduled to be LEED certified. The energy savings and comfort improvements have increased the market viability of several buildings in the portfolio.

BEST PRACTICES AND LESSONS LEARNED

- LEED for Existing Buildings certification provides a framework and operating template. Multi-state, national or international companies can uniformly apply to all their projects to this framework to ensure the buildings are energy efficient and green operations and maintenance best practices and policies are implemented.
- LEED for Existing Buildings certification helps to differentiate a building in an increasing competitive rental market. The certification can also aid in retaining tenants as the demand for green buildings and sustainable features rise.



Reserve Water Tank

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- The process to secure LEED certification shed light on new strategies to accomplish the company's goal to lower energy consumption. The majority of methods did not require purchasing new equipment, but rather, adopting new operational procedures and adjusting criteria, such as changing the timing on when fans and lights were turned on and off.
- Implementing the principles of the LEED for Existing Buildings rating system was relatively simple. The challenge was how to effectively and efficiently track, record and document the vast amount of data required for certification.
- Maintain open communication throughout the project. No one should or can work in a vacuum during the LEED certification process.
- Collaboration and communication are important aspects of all successful LEED projects. Involve key stakeholders, including tenants, building operations staff, facilities management and green building consultants, early on in the development process. Determine a method to gather building information and track progress in a central location, such as a spreadsheet or database, so that critical information can be accessed easily by all team members.
- A green building must be operated and maintained as designed in order to meet the energy efficiency goals; therefore, do not underestimate the importance of the facilities management staff. Note: many of the service contracts—janitorial, landscaping and procurement—will need to be adjusted to meet the LEED certification requirements.
- A dedicated engineering department is critical to running a green building. Computers can adjust temperatures as programmed, but it takes more than technology. Technology can make it easier, such as Blackberrys that can be used to control heating and cooling systems remotely, but well-trained and committed operations and maintenance staff is needed to ensure the building's systems run as intended.
- Measurement and verification instruments will capture and confirm important data that will help to ensure the systems are working as designed. Make sure the budget includes these tools.
- LEED EB v2.0 certification needs a better approach to multi-tenanted office projects. The current LEED credits apply more easily to owner-occupied and institutional buildings. The process does not acknowledge the specific complexities related to a building with a variety of tenants. Since the tenants are not employees, it is difficult to

mandate how they must manage and operate their rented space. Landlords can make suggestions, but cannot demand compliance.

- Landlords should not shy away from encouraging tenants to participate and contribute to building-wide sustainability efforts. Include tenants in the LEED process. Landlords may be hesitant to do so, assuming the LEED requirements will place un-wanted burdens on the tenants. Many tenants, however, have sustainability goals and initiatives that dovetail well with LEED, and they are seeking ways to implement green best practices. Landlords should also consider adapting current lease structures to help tenants lower energy consumption and adopt green operations and maintenance procedures.
- Incentives, such as a faster permitting process for green buildings, would encourage owners and developers to seek LEED certification.
- The time and money spent to seek LEED certification should be seen as an investment. The knowledge gained from one project can be applied to a large portfolio, so that all properties, even those not seeking LEED certification, can be managed more efficiently, sustainably and cost effectively. Develop a process to capture lessons learned and determine an internal structure to apply company wide.
- It is possible to quantify the energy and water cost savings of a green building, but it is more difficult to measure other benefits, such as greater worker productivity, less sick days and improved occupant health. To demonstrate the value of green buildings to both potential tenants and investors, it is important to be able to quantify these other benefits, so methods are needed to capture this data.
- Train key members of the project team about LEED and implement on-going education programs to keep staff up-to-date on the ever-changing green building industry. Consider company-wide programs that include all service vendors, so that green best practices are institutionalized as standard business, and not seen as add-ons.
- Develop a system to share best practices throughout the company, using such tools as video conferences, Webinars, and data sheets. Highlight the successes, but also note the failures and lessons learned.
- Consider creating an internal green building consulting group to assist with other projects and company-wide sustainability initiatives. Tap the experience and expertise of current employees and charge the group to keep informed on new best practices and to develop ways to share this information with all employees.
- It is important to define roles and responsibilities of the green building consultant. If the scope-of- work is not clearly defined, assumptions will be made. Devise a process to communicate quickly and effectively.
- The role of the landlord is changing. The long-time focus on providing quality services is still relevant, but there are more variables, such as seeking ways to reduce the impact on the environment and how to use resources more efficiently, while still maintaining a profit.



Tenant Space

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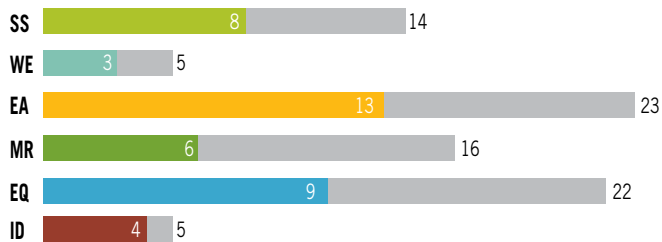
PROJECT AWARDS

- 2008 LEED-EB v2.0 Silver; U.S. Green Building Council
- 2007, 2008, 2009 ENERGY STAR Labeled; U.S. Department of Energy, U.S. Environmental Protection Agency
- 2007, 2008, 2009 Office Energy Showdown Awards; Building Owners and Managers Association (BOMA) Portland

LEED CREDIT DISTRIBUTION

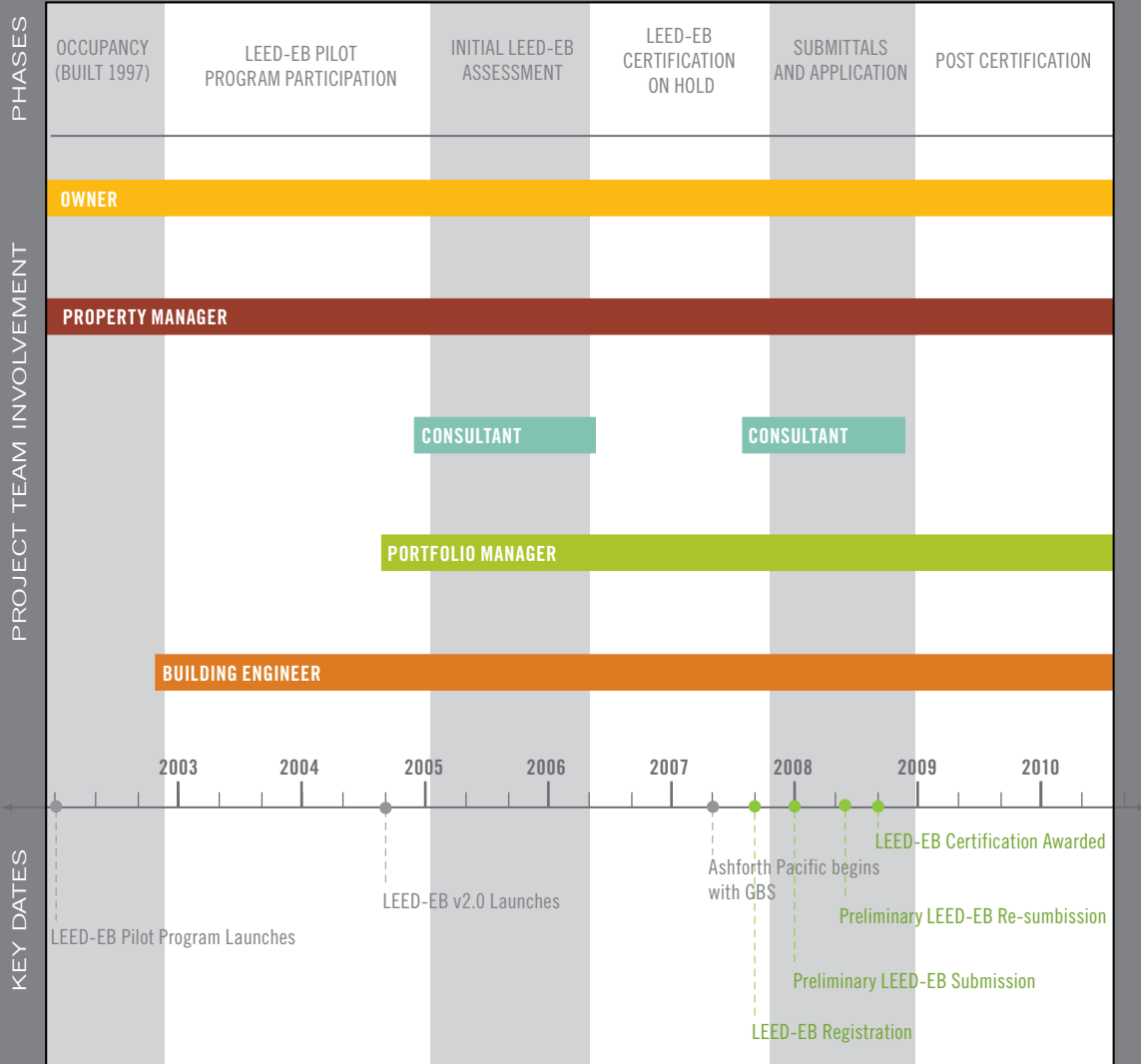
LEED CREDITS

LEED-EB v.2.0 Silver



TIMELINE

LIBERTY CENTRE LEED-EB v.2.0 Silver



* This timeline contains an approximation of key dates, project phases, and project team member involvement.

SCORE CARD: LIBERTY CENTRE



Rating System: LEED-EB v. 2.0

Silver 43 of 85 possible points



SUSTAINABLE SITES

8 of 14 possible points

x	x	Prereq 1	Erosion & Sedimentation Control
x	x	Prereq 2	Age of Building
2	2	Credit 1	Plan for Green Site and Building Exterior Management
1	1	Credit 2	High Development Density Building and Area
1	1	Credit 3.1	Alternative Transportation, Public Transportation Access
1	1	Credit 3.2	Alternative Transportation, Bicycle Storage & Changing Rooms
	1	Credit 3.3	Alternative Transportation, Alternative Fuel Vehicles
	1	Credit 3.4	Alternative Transportation, Car Pooling & Telecommuting
	1	Credit 4.1	Reduced Site Disturbance, Protect or Restore Open Space: 50% of Site Area
	1	Credit 4.2	Reduced Site Disturbance, Protect or Restore Open Space: 75% of Site Area
1	2	Credit 5	Stormwater Management, Rate and Quantity Reduction (1 to 2 points)
1	1	Credit 6.1	Heat Island Reduction, Non-Roof
	1	Credit 6.2	Heat Island Reduction, Roof
	1	Credit 7	Light Pollution Reduction



WATER EFFICIENCY

3 of 5 possible points

x	x	Prereq 1	Minimum Water Efficiency
x	x	Prereq 2	Discharge Water Compliance
1	2	Credit 1	Water Efficient Landscaping, Reduce Water Use (1 to 2 points)
	1	Credit 2	Innovative Wastewater Technologies
1	1	Credit 3.1	Water Use Reduction, 10% Reduction
1	1	Credit 3.2	Water Use Reduction, 20% Reduction



ENERGY AND ATMOSPHERE

13 of 23 possible points

x	x	Prereq 1	Existing Buildings Commissioning
x	x	Prereq 2	Minimum Energy Performance
x	x	Prereq 3	Ozone Protection
5	10	Credit 1	Optimize Energy Performance
2	4	Credit 2	On-site and Off-site Renewable Energy (1 to 4 points)
1	1	Credit 3.1	Building Operation & Maintenance: Staff Education
	1	Credit 3.2	Building Operation & Maintenance: Building Systems Maintenance
1	1	Credit 3.3	Building Operation & Maintenance: Building Systems Monitoring
1	1	Credit 4	Additional Ozone Depletion
1	3	Credit 5.1-3	Performance Measurement - Enhanced Metering
1	1	Credit 5.4	Performance Measurement - Emission Reduction Reporting
1	1	Credit 6	Documenting Sustainable Building Cost Impacts



MATERIALS AND RESOURCES

6 of 16 possible points

x	x	Prereq 1.1	Source Reduction and Waste Management, Waste Stream Audit
x	x	Prereq 1.2	Source Reduction and Waste Management, Storage/Collection of Recyclables
x	x	Prereq 1.3	Toxic Material Source Reduction, Reduced Mercury in Light Bulbs
1	2	Credit 1	Construction, Demolition and Renovation Waste Management
	5	Credit 2	Optimize Use of Alternative Materials
	2	Credit 3	Optimize Use of IAQ Compliant Products
2	3	Credit 4	Sustainable Cleaning Products and Materials
3	3	Credit 5	Occupant Recycling
	1	Credit 6	Additional Toxic Materials Source Reduction: Reduced Mercury in Light Bulbs



INDOOR ENVIRONMENTAL AIR QUALITY

9 of 22 possible points

x	x	Prereq 1	Outside Air Introduction and Exhaust Systems
x	x	Prereq 2	Environmental Tobacco Smoke Control (ETS)
x	x	Prereq 3	Asbestos Removal or Encapsulation
x	x	Prereq 4	PCB Removal
	1	Credit 1	Outdoor Air Delivery Monitoring
	1	Credit 2	Construction IAQ Management Plan
1	1	Credit 3	Increase Ventilation
	1	Credit 4.1	Documenting Productivity Impacts and Healthcare Cost - Absenteeism
	1	Credit 4.2	Documenting Productivity Impacts - Other Impacts
1	1	Credit 5.1	Indoor Chemical & Pollutant Source Control: Non-Cleaning System - Reduc...
	1	Credit 5.2	Indoor Chemical & Pollutant Source Control: Non-Cleaning - High Volume
	1	Credit 6.1	Controllability of Systems: Lighting
	1	Credit 6.2	Controllability of Systems: Temperature & Ventilation
1	1	Credit 7.1	Thermal Comfort: Compliance
1	1	Credit 7.2	Thermal Comfort: Monitoring
	1	Credit 8.1	Daylight & Views: Daylight for 50% of Spaces
	1	Credit 8.2	Daylight & Views: Daylight for 75% of Spaces
	1	Credit 8.3	Daylight & Views: Views for 40% of Spaces
	1	Credit 8.4	Daylight & Views: Views for 80% of Spaces
1	1	Credit 9	Contemporary IAQ Practice
1	1	Credit 10.1	Green Cleaning: Entryway Systems
	1	Credit 10.2	Green Cleaning: Isolation of Janitorial Closets
	1	Credit 10.3	Green Cleaning: Low Environmental Impact Cleaning Policy
2	2	Credit 10.4-5	Green Cleaning: Low Environmental Impact Pest Management Policy
1	1	Credit 10.6	Green Cleaning: Low Environmental Impact Cleaning Equipment Policy



INNOVATION AND DESIGN PROCESS

4 of 5 possible points

1	1	Credit 1.1	Innovation in Operation & Upgrades:
1	1	Credit 1.2	Innovation in Operation & Upgrades:
1	1	Credit 1.3	Innovation in Operation & Upgrades:
	1	Credit 1.4	Innovation in Operation & Upgrades:
1	1	Credit 2	LEED® Accredited Professional

HANK ASHFORTH

CHAIRMAN,
ASHFORTH PACIFIC, INC.

I. PROCESS

CHOOSING A SUSTAINABLE PATH

Ashforth Pacific was part of the initial pilot program for LEED-EB.¹ We thought that we could complete the LEED process and that it would be easy for us since we've been focused on managing our buildings in an environmentally sound way for some time. In 1999, Ashforth Pacific² decided to operate its buildings in a different way. We wanted to increase efficiency and look at how we use resources and how our buildings affect the waste stream. The mission statement that we put together said that we would be stewards of the environment and act responsibly in the community, our buildings, and our personal lives. That then led to what we call our E-initiative. The E-Initiative has four principles. The first principle is that we will increase service to our tenancy and increase the retention rate within our buildings. The second is that we will increase our positive impact on the local community. The third principle is that we will increase our efficient use of human and natural resources. Finally, the fourth principle is that we will reduce our impact on the environment. That mission statement is something that the entire company signed back in 1999. Then, LEED certification came along, and we used that process to reconfirm those principles.

LEED was the only green building certification program in existence at the time. The exercise of going through the LEED process did exactly what we thought it would, which was to reconfirm our E-Initiative principles. The LEED process was challenging on many fronts, but it did serve as an operating template for our employees and building engineers. Everyone figured out that we could run the building more efficiently and retain our tenants. Now, we're running Liberty Centre at a 95% tenant retention rate. The projects we worked on first were reducing our consumption of power and water and expanding our recycling program. Lib-



HANK ASHFORTH is the Chairman of Ashforth Pacific. Since its inception in 1999, Hank has been the driving force behind the execution of Ashforth Pacific's sustainability vision and E-Initiative mission. Hank also serves as a member of the Energy Improvement District in Stamford, CT and is Co-Chairman of The Freshwater Trust.

¹ LEED for Existing Buildings: Operations & Maintenance provides a benchmark for building owners and operators to measure operations, improvements, and maintenance.

² Ashforth Pacific, a division of The Ashforth Company, is an investor, active in the ownership and operation of office and industrial real estate. Based in Portland, Oregon, Ashforth Pacific now manages over three million square feet on the West Coast in Portland, Seattle, and San Francisco.

University of Oregon Professor Alison G. Kwok, Advisor Nicholas B. Rajkovich, and research assistants Rachel B. Auerbach, Kristen B. DiStefano, Britni L. Jessup, and Amanda M. Rhodes prepared this narrative. © 2009 U.S. Green Building Council and the University of Oregon. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the permission of the USGBC.

erty Centre is running at about an 80% recycling rate right now. We were able to instill in our own employees all the things that the LEED specifications start to spell out.

When we began the LEED process, there wasn't pressure from the market. The LEED-EB certification started in the mid-2000s. It is remarkable how the market has increased, and the awareness from both owners and tenancy has changed the operating procedures in many other buildings, as well. When we started this, I told our employees that when the brokerage community starts asking whether a building is LEED rated or what the environmental and operating policies of a building are, we'll know that a completely different market has arrived. Low and behold, we answered a Request for Proposal (RFP) just the other day that had those questions in it. We're working on one now in our building in Stamford, Connecticut, as well. I would say that market awareness of LEED in existing buildings has really accelerated in the last nine to twelve months.

II. DESIGN

ESTABLISHING PROJECT GOALS

The first goal was to reconfirm the commitment we made in 1999 to our E-initiative. We wanted to take that to another level. It's all about operating existing buildings efficiently. Existing buildings consume 72% of the electricity generated in the U.S., and the waste they produce, both in paper and organics, is 30% of this country's waste output. Those are significant numbers, indeed. The LEED process really reconfirmed our ideals, and it has helped to drive morale to new highs; we have a teamwork ethic that is exceptional. The next big goal was to save money with all the changes being made for increased efficiency and bottom-line results. We're recognized in Portland as one of the leaders of making buildings more efficient. That's important to us; we are a results-oriented company and not a marketing-initiated company. Right now, we're ahead of the game a bit. I knew that this process would prepare us well for those prospective tenants who will ask for this type of real estate. Those were the goals for Liberty Centre, and from there,

we wanted to take this LEED model and work it throughout our entire portfolio. We happen to be working on another LEED-EB project in San Francisco, and we're working on a couple of others on the East Coast.

We've always worked very hard on our recycling program. We ask our tenants to separate their waste, and that suggestion is sometimes embraced and sometimes met with a slammed door. That's one of the first things we tackled, and then we worked at lowering our power consumption. When you lease space from us, you have a right to use a certain amount of power. People don't always look at it the way we do. Yes, we're responsible for the majority of the power consumption since we operate the heating and cooling systems and manage the common area usage, but we want to challenge every tenant to focus on energy conservation as well. They're definitely running a business, but they're becoming a lot more receptive to some of our initiatives. Tenant space is the most challenging space to manage efficiently, since it's generally within four, private walls. There are other things that we can control. We're greening the landscaping, and we're changing the products that the janitorial staff uses. Those are things we can control. I can't wait for a question to come from one of our tenants again, like the one our partners asked: "What are you guys doing about this, and how can you help us?"

TOOLS AND RESOURCES

There were fewer resources that we used when we were pursuing LEED because it was a pretty young program. Our consulting firm, Green Building Services,³ helped tremendously. They definitely helped us with the application process; they put the documentation together, and once we were in the review period, they worked terrifically as well.

³ Green Building Services (GBS) is a sustainability consulting firm which emphasizes the values it calls the "triple bottom line:" Economic, Environmental, and Social Equity. GBS has offices in Portland, Sacramento, Orlando, and Houston.

SHIFTING LEASING STRATEGIES

We're absolutely thinking about how the lease structures might change in the future. Our general counsel is looking at it right now for clauses that we can change and how we can align ourselves with the tenants on power consumption and operating procedures that take place within the tenant space. We're looking at that very carefully, and we'll have a few new clauses for sure.

Lease structures differ on the East Coast and the West Coast; different markets use written language in different ways. We want to protect ourselves from the inflationary increases that happen during a fixed-rate lease, and the tenants want to make sure that we're not stepping over that boundary. We're trying to get the tenancy to see our point-of-view. As we look at power consumption and how we can each reduce it, we have to make sure we're covered from inflationary point losses, and we have to make sure they're covered from arbitrary cost increases that are not justified.

Our standard lease contract allows us to pass some of the energy savings on to the tenants. As I say, if inflation runs wild and we have a fixed-lease contract, then we need to capture some of that increase. That's standard in the industry, but I want to make sure that, through a green lease, we're looking at it the right way — the same way that the tenancy is looking at it. That's important.

As a landlord, we lease space to the tenants. It's their space. They have a business to run. We control what we have to control in order to deliver the services we promise in the contract. We're definitely engaged with the tenants, but perhaps we could have been bolder with approaching the tenancy of Liberty Centre. The timing wasn't right when we commenced the LEED-EB process, but now the timing is right. There is some very positive change in that regard.

Today the market is extremely competitive and all about the lease rate and how much the landlord is going to give the tenants in free rent and free alterations to the space. It's not a strong market right now. LEED buildings, and other



© Josh Partee 2009
Front Entrance "LEED Buildings... are being prioritized by the market right now. Those strategies are definitely market separators."

buildings which are operated in a green manner, are being prioritized by the market right now. Those strategies are definitely market separators. The growth has been astronomical over the last couple of years. LEED is about buildings running more efficiently, and it's about this country consuming less electricity, whether you're running a factory or an office building. It helps the consumer and owners.

MONITORING BUILDING PERFORMANCE

We know that we're running our buildings more efficiently than the buildings next door; that has been fascinating to watch. I'll give you an example of the interest that our operating folks have. We had a heat wave over the summer, and there was



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Tenant Space "Even during that intense heat wave, we were able to shut down some of our conditioning during the evening hours... most of the buildings in Portland were probably running 24/7 during that time."

an extended period of almost two weeks when the temperatures ranged from a low of 92°F-95°F to a high of 107°F. During the heat wave, we were monitoring the cooling load in the buildings, using both personnel in the buildings and our automated controls. When the heat wave subsided and the month ended, the staff couldn't wait to receive the energy consumption bills. They huddled around the table and said "Look at this building. Look at that building. Why this? Why that?" We saw a minor spike in our energy consumption, but it was definitely minor. However, even during that intense heat wave, we were able to shut down some of our air conditioning during the evening hours; we were monitoring it that closely. That's significant, because I know most of the buildings in Portland were probably running 24/7 during that time. The staff is extremely dedicated to saving as much energy as possible. In this particular portfolio we have twelve buildings, nine of

which are ENERGY STAR⁴ rated; one building has actually scored in the low 90s. We're really proud of that.

Small changes really do make a difference. Today, buildings — certainly Class-A⁵ office buildings like the buildings in our Northwest portfolio — are run by computers. We didn't just want to trust what the computer was doing. We actually reprogrammed the computers and their temperature set-points. So, it takes a combination of letting the computer do its thing but also letting our operators look at the system as well. That's worked extremely well for us. Plus, we have an extremely dedicated engineering department. Through their Blackberrys they can control any one of the heating and cooling systems remotely.

⁴ ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping Americans save money and protect the environment through energy efficient products and practices.

⁵ Class-A office space is the highest quality office space available and often prioritizes design and visual appearance over cost.

We anticipated some of the upcoming energy regulation changes back in 1999. There was a push toward efficiency from our team, but we also saw additional regulations headed our way. That's happened in Europe. We've studied The Natural Step,⁶ and we have been close to those folks and that process. You can see the regulations beginning to get some traction in this country. There's debate right now around climate change and cap-and-trade. We're prepared for those changes, but I think it's broader than that. It certainly would help if LEED rated buildings received some sympathy or faster permit processing with cities. We're constantly going back-and-forth with cities for building permits. Maybe they could hasten the process a bit for a LEED rated building.

LEED CREDIT CHALLENGES

There were a couple of limitations and complications to the LEED process, especially as we went through the application. Liberty Centre is a multi-tenanted office building, and we made the conscious decision of not going for the tenancy or occupancy points, because that meant going into the tenant space, looking at the lease again and changing some of the terms, from occupation hours to heating and cooling temperatures — those types of things. We chose not to enter that arena. I think the multi-tenanted office building product took the USGBC⁷ by surprise during the application process. The majority of the buildings they certify are owner-occupied or institutional buildings. So, I think that the readers of the application didn't understand that we have these tenant contracts and that this is a building that is actually built to run at a profit. There were a couple of points that we got stuck on that would have cramped our ability to obtain that profit. So, that needs a little bit of hammering out, and I know that our particular application took the readers a little bit by surprise that way.

⁶ The Natural Step is a non-profit organization founded with the vision of creating a sustainable society. The Natural Step Framework is a proven, science based model that helps communities and businesses better understand and integrate environmental, social, and economic considerations.

⁷ The United States Green Building Council (USGBC) is a non-profit organization dedicated to sustainable design and construction.

As I understand it, we were one of the first few LEED-EB multi-tenanted office buildings to get certified. As I said, we were dedicated to that process. We were going to see it through, but there are certainly ways that the process could be perfected some more, especially with the scoring.

SUCCESSSES OF THE PROJECT

In the very beginning, our partner was ambivalent about LEED certification. They wanted to know "What is LEED? How much is it going to cost? What are our paybacks?" That was during the beginning of the process, but toward the middle of the process, they actually came to us and said "What are you guys doing about this LEED thing?" They got into our E-Initiative. They said "Funny, we are doing this as a company as well, and we think this LEED certification will move us along with what we're doing as a corporation and the types of buildings in which we choose to invest." So, by the end of the process we had come together.

People are a lot more comfortable with LEED now, and in fact, in San Francisco we've approached the tenancy this time around. We wanted to see if we could pick up some of the available occupancy points. I'm not sure if it's San Francisco or whether it's the current economic and environmental time, but the tenants are certainly more receptive to LEED. We're definitely happy with that. Now, we see LEED and sustainability as best practices. That's the way we're moving forward now.

THE LEED CERTIFICATION PROCESS

The cost of LEED certification was significant in man-hours, from both our building management team and our consultants. The LEED process is extremely expensive and time consuming. It marries you with a consultant. The goal is to run these office buildings and buildings in general — homes included — more efficiently. Scalability is very important. When you're starting at a large cost, not all building owners will be able to do it. Each building is different, and each building is run differently in a different climate. I'm fascinated to see how the LEED process goes at our building in San Francisco. As a



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South Elevation “We were one of the first few LEED-EB multi-tenanted office buildings to get certified.”

company, we’re committed, but the LEED process is complicated and expensive. It consumes a number of hours with the consulting process, and we spend a lot of time doing all the required documentation. It begs the question, “Is this the best use of our precious capital improvement dollars?” Many on our team would say that we should use the LEED application process money and make an investment in our building instead. LEED needs to set a standard; there needs to be a better a baseline. LEED-EB needs to stand still for a while. There have been too many moving targets; there have been changing goals. Let’s set the bar and raise it, but not change where the points are awarded. It would be healthy to come out with the latest version and let it run and then gather more data about the process.

THE VALUE OF LEED CERTIFICATION

There’s not a retainable value increase for LEED certification right now. We’re the long-term owners of our buildings. We don’t own our buildings for a short period of time and then flip them to another owner. We’re dedicated to the communities in which we operate, and we’re not picking a value to meet every quarter or every year. However, we have absolutely seen an increase in the building’s value because of expense reduction. In addition, CoStar⁸ has also picked up the LEED information. They’re a national data tracking service for the real-estate industry. Their preliminary numbers, the ones that came out at Greenbuild⁹ last year, show that, yes, there’s a difference in value between a LEED rated building and a non-LEED rated building, both in terms of occupancy and value but it is important to note that there is not an overwhelming amount data to prove this right now.

As I mentioned, we are long-term owners, and have set a three to five year payback period for new capital investments to the property. The investment criteria required that some of the new capital investments for Liberty Centre have a three to five year payback period. There were some upgrades with longer payback periods, but we reached a common agreement with our partners depending on the amount of capital and the strategy. I can’t point to a return of a certain percentage right now, but I am confident that the money will be returned on multiple levels. We have been saving 11% on our energy consumption since 1999. We look at that every month. We watch that, but I can’t tell you that LEED has increased the value of our investments. We look at our investments on a very long-term basis, and we know that our tenancy is happy, that our partner is happy, and that we’re consuming less. I want to put together a statement and figure out how we can quantify that. Then, I want to set stretch goals for the op-

⁸ CoStar Group, Inc. is a provider of information, marketing and analytic services to commercial real estate professionals in the United States and the United Kingdom.

⁹ The annual Greenbuild International Conference and Expo was launched in 2002 by the U.S. Green Building Council and is the world’s largest conference and expo dedicated to green building.

erating team. We're in the midst of putting one of those statements together. That statement will deal with what we call the "3 Ps:" People, Planet, Profit. We care what we're doing in the community; there have been over 3000 hours of volunteer work clocked at Liberty Centre, from the entire tenancy. We look at the planet and what our effect on the planet is, and then we look at the profit. Those "3 Ps" are looked at minimally each year, and we're working on a statement that incorporates the "3 Ps."

OCCUPANT FEEDBACK

The only feedback we've received so far has come from our partner, Liberty Northwest, which is a major tenant in the building. They were, and still are, very grateful of our obtaining LEED-EB certification. We get requests for green strategies from our tenants all over. We currently own and manage about 6.5 million square feet in seven states. We consistently get requests like "How are you dealing with recycling? What's going on with the landscaping? Which soap and paper products are in the bathrooms?" People are a lot more conscious of their environmental impacts these days.

III. OPERATIONS

BUILDING OPERATIONS

Liberty Centre hasn't really changed the way that we manage our buildings. We've been consistent with how we operate our buildings. We have an open dialog with the tenancy about these issues. Some, quite frankly, don't care yet. They feel that since it's their business and they're paying for the office space, that they should be able to run their business how they'd like. We totally respect that approach. We've just widened our operating expertise, and I know that's valuable. As I said, we're seeing that interest in the form of Requests for Proposals from our tenants. It's just a matter of time until we renew a particular tenant and increase the retention rate that I talked about; then, those questions will be asked. We're ready. There is also a difference between our holdings in Portland, San Francisco, Seattle, and the New York area. Yes, the tenancy is different, but I also see a different attitude in my

travels between our offices. Certainly the Pacific Northwest is a little more ahead on these issues. They're a little more significant out here than in the East, but tenants and owners in the East are coming along. There's no question about that. We constantly share our best practices between the offices on the two coasts through video conferences and data. We share our successes, but we also share the failures, as well. That way we can create a more efficient operating process. The LEED framework has helped with that. The ENERGY STAR and LEED frameworks give us a national consistency — a national baseline, if you will — where we're either operating within the confines of the specifications or we're not. We keep coming back to that, and we're gaining a lot of traction in the East.

Existing buildings make up much more of the national building stock than brand new buildings. I understand why LEED focuses on new buildings; it's certainly a smaller market, but it's the existing stable of buildings that really, truly needs to be attacked on every level. Every little bit helps. We've done a small part, and I couldn't be more excited about where we stand.

SHIFTING SKILLS

I think the skills one needs to be a landlord are definitely changing. We've always concentrated on the quality of service that we provide, but now there are a number of other variables. We have to increase that service, as I said, while reducing our impact on the environment and increasing the efficient use of resources. That's a challenge. Plus, we have to do that while maintaining a profit. There are those values again — that's the third P of the People, Planet, and Profit triangle. Nothing happens without a profit. We can't open these doors without a profit. We are dedicated to providing the best service possible, and independent surveyors have scored us as outstanding in the last survey process. We hope to maintain that. We have to. We are doing great things, and that shows the value of a great team. We have a terrific team here at Ashforth Pacific.

This narrative is based on a video- and audiotaped interview conducted by Britni Jessup on September 23, 2009, at the offices of Ashforth Pacific in Portland, OR.

Owner				
Property Manager				
Consultant				
Portfolio Administrator				
Chief Engineer				

WADE LANGE

VICE PRESIDENT OF PROPERTY MANAGEMENT,
ASHFORTH PACIFIC, INC.

I. PROCESS

CHOOSING THE SUSTAINABLE PATH

We began our environmental initiative here at Ashforth Pacific¹ in 1999. We brought in a sustainability coordinator to help us work through these issues. We started by looking at what could be done within the office environment in order to be more sustainable. Then we looked at our portfolio of properties and what we could do to manage our portfolio in a more sustainable way. We were leading the pack at that time, because as far as we knew, there was no one else in real estate looking at these issues. We were blazing a trail and trying to determine best practices. The U.S. Green Building Council (USGBC)² had already begun its LEED³ certification for New Construction, but they were just introducing LEED for Existing Buildings (LEED-EB)⁴ as a pilot program. In 2002, we decided to sign up for the pilot program in order to help us learn what it meant to manage an existing building in a more sustainable way. We did this for our own education, in order to understand what we could do internally to better manage our properties.

As we pursued more sustainable practices, we looked into internal operational changes and external operational changes that could be made with our properties. We began by looking for the low-hanging fruit; we started identifying changes that could be made without huge investments in capital. During that process, we came across the LEED pilot program for existing buildings. This excited us because the USGBC had an organized method for what we were trying to do on our own. People came in and out of the process to help support it, as their expertise was needed and required. Because of our environmental initiative, everyone within the company understood our goals and what we were trying to accomplish. The thing that we didn't understand was what we would accomplish in the world of real estate by going through this



WADE LANGE is the Vice President of Property Management, and has worked for Ashforth Pacific since April 1997. He has been very active in sustainable practices including involvement with BOMA Portland's Board of Directors and as co-chair of BOMA International's Education Advisory Council. Wade also served for six years on Portland's Regional Government's (METRO) Solid Waste Advisory Committee.

1 Ashforth Pacific, a division of The Ashforth Company, is an investor, active in the ownership and operation of office and industrial real estate. Based in Portland, Oregon, Ashforth Pacific now manages over three million square feet in Portland, Seattle, and San Francisco.

2 The U.S. Green Building Council (USGBC) is a non-profit organization dedicated to sustainable design and construction.

3 The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), is a suite of voluntary standards for green buildings. It awards certifications at Certified, Silver, Gold, and Platinum levels.

4 LEED for Existing Buildings: Operations & Maintenance provides a benchmark for building owners and operators to measure operations, improvements, and maintenance.

University of Oregon Professor Alison G. Kwok, Advisor Nicholas B. Rajkovich, and research assistants Rachel B. Auerbach, Kristen B. DiStefano, Britni L. Jessup, and Amanda M. Rhodes prepared this narrative. © 2009 U.S. Green Building Council and the University of Oregon. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the permission of the USGBC.

process. At that time, nobody knew that answer, and it was an interesting experiment for us.

Before we started pursuing LEED, everybody in the office went through the Natural Step⁵ training; new hires still go through a one-day training. This training allows the entire team to start thinking about what sustainability truly means and how it fits into our day-to-day decisions. Within the office, there is a team-wide understanding of the importance of sustainability on our projects.

ROLE IN THE PROJECT TEAM

I am the Vice President of Property Management at Ashforth Pacific. I oversee the day-to-day operations throughout our portfolio. Originally, when we started pursuing LEED certification, I worked with the staff sustainability coordinator in order to give her access to my staff so that she could collect the necessary documentation. The beginning process primarily involved the coordination of internal staff members. Later, I was involved in overseeing the time that the internal staff spent on the project, and I was responsible for globally managing the project as it went through its different phases.

ASSEMBLING THE TEAM

Staff members have different duties and responsibilities that are outlined in their job descriptions. For Liberty Centre, the chief engineer was important in gathering information and working with our retro-commissioning agent. A couple of the other engineers were involved in working though the mechanical systems in order to fine tune those details. To put together an internal team for the LEED certification, we selected the people who were most educated on the property from the engineering side. In addition to the engineers, we had Carolyn.⁶ She oversees our service contracts including the janitorial, landscaping, and all additional contracts. Her role was to oversee the vendors and adjust their contracts in

order to acquire the services that were required for the LEED certification.

The entire staff had some involvement on this project at one time or another. Wayne⁷ was the one at the center of the storm. He worked closely with our consultants; he talked to them daily and provided them with all of the necessary information. Towards the end of the process, Wayne devoted all of his time to the certification process. He had access to the staff, and they helped and supported him as needed. It was a team effort, and everyone learned from doing it that way. They took their experience and used that same set of skills on other properties. There was a definite advantage in running the process in this collaborative way.

When we started the LEED certification for Liberty Centre, there was no market demand for LEED certification; LEED-EB was truly in its infancy. In this case, the market was not the main motivation to move forward; however, we felt that eventually the market would catch up and that our tenants would request these types of buildings in the future.

We own Liberty Centre in partnership with Liberty Northwest,⁸ and we mentioned that we were pursuing LEED certification at a partnership meeting. Towards the end of the certification process, the Chief Executive Officer at Liberty Northwest Insurance retired, and a new person took over that position. In a meeting with the new CEO, we mentioned that we were getting ready to file for our final certification with the USGBC. He got really excited and told us that his clients had started to ask if they were in a LEED certified building. Suddenly, at the end of this process, LEED certification became important to our largest tenant. Their clients were starting to ask questions, and they felt good about being able to tell them that they were in a LEED certified property. The project extended from 2002 to 2008, and in the end, the market did catch up.

⁵ The Natural Step is a non-profit organization founded with the vision of creating a sustainable society. The Natural Step Framework is a proven, science based model that helps communities and businesses better understand and integrate environmental, social, and economic considerations.

⁶ Carolyn Ice is the Portfolio Administrator for Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland's Central Business District.

⁷ Wayne Mezick is the Chief Portfolio Engineer for Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland's Central Business District.

⁸ Liberty Northwest, a part of Liberty Mutual Agency Markets which is a business unit of Liberty Mutual Group, has grown to be the largest regional property and casualty insurer in the Northwest, where it has been located for over 80 years.



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Elevators "Recently, there has been a lot of discussion surrounding regulations... that would involve managing and building high-rise structures to a certain standard. We've already lowered our energy consumption."

We didn't really engage our tenants at the beginning of the Liberty Centre project. We were sensitive to the tenants' time involvement and the cost of pursuing LEED, but we were trying to do as much work as we could under the radar, in order to see for ourselves what the certification process would require.

At the time, Liberty Centre was the only project in our portfolio that qualified for LEED-EB. It was built in 1997 and, because it was a newer construction, it met the pre-qualification criteria. This was primarily because the chillers in Liberty Centre did not have the chlorofluorocarbons (CFCs)⁹ that were in the chillers on our other properties. Liberty Centre was the only property with which we could pursue LEED-EB without substantial capital investment.

⁹ Chlorofluorocarbons (CFCs) are chemical compounds that have been linked to ozone depletion.

II. DESIGN

WORKING WITH THE PROJECT TEAM

We worked with two different consultants during the Liberty Centre project, and they were very helpful resources. For the first two or three years of the process, we worked without consultants. When we started, there wasn't a consultant out there who had any more information than we did about the LEED-EB process. The decision to hire a consultant was no small matter because of the investment necessary to bring them onto the team. The first consultant understood the nuts and bolts of the application process for certification, and we worked with them under a contract which outlined a particular duration of time. During that period, our company acquired five different properties in three different states, all without hiring additional staff. Our team was working long hours in a lot of different locations, and we found that we were not allocating enough of our time to the LEED certification process. We

were focused on setting up the management for the newly acquired buildings, and Liberty Centre's LEED certification was put on hold. Once we completed our final property acquisition in December of 2007, we turned our focus back toward Liberty Centre.

By that time the contract had expired with the first consultant, and we brought on a second consultant. We brought the new consultants onto the project in June of 2008. We let the consultants know up-front that we didn't have a lot of internal resources in terms of staff, and we asked them to design a contract that recognized that factor. We were also determined to complete the process by the end of the year, and we requested that the consultants achieve this goal. The consultants were extremely valuable in getting the project wrapped up for us; they understood our goals and they used their resources to push us over the finish line. Wayne had daily contact with them, and he was constantly shepherding all of the necessary information. The consultants put all of that information into the proper format for our review. This was a great help because we didn't have to create the format; we just had to approve the submittals.

We learned that it is critical that the project team and the consultant are on the same page. The consultants understand how much you can provide to the process and how much they are required to provide. It is important to define that before you go forward; if it's not defined, then there are assumptions made, and you're not going to progress as quickly. When we went through the LEED process with our San Francisco property, we carefully interviewed multiple consultants. As we go forward, we're considering the possibility of creating our own, internal consulting group. We've gained a great deal of experience on our previous projects, and we now have two LEED APs on staff. We have to look at that carefully, because it would require a reallocation of our time. Currently, our time is primarily allocated to managing properties. We'll have to explore that in more detail.

When we made the push to finish Liberty Centre, we were having weekly progress updates in addition to the LEED meetings which involved all of the team members. Throughout this entire process, there were informal conversations at

all levels. We maintained open communication throughout the project; nobody was working in a vacuum.

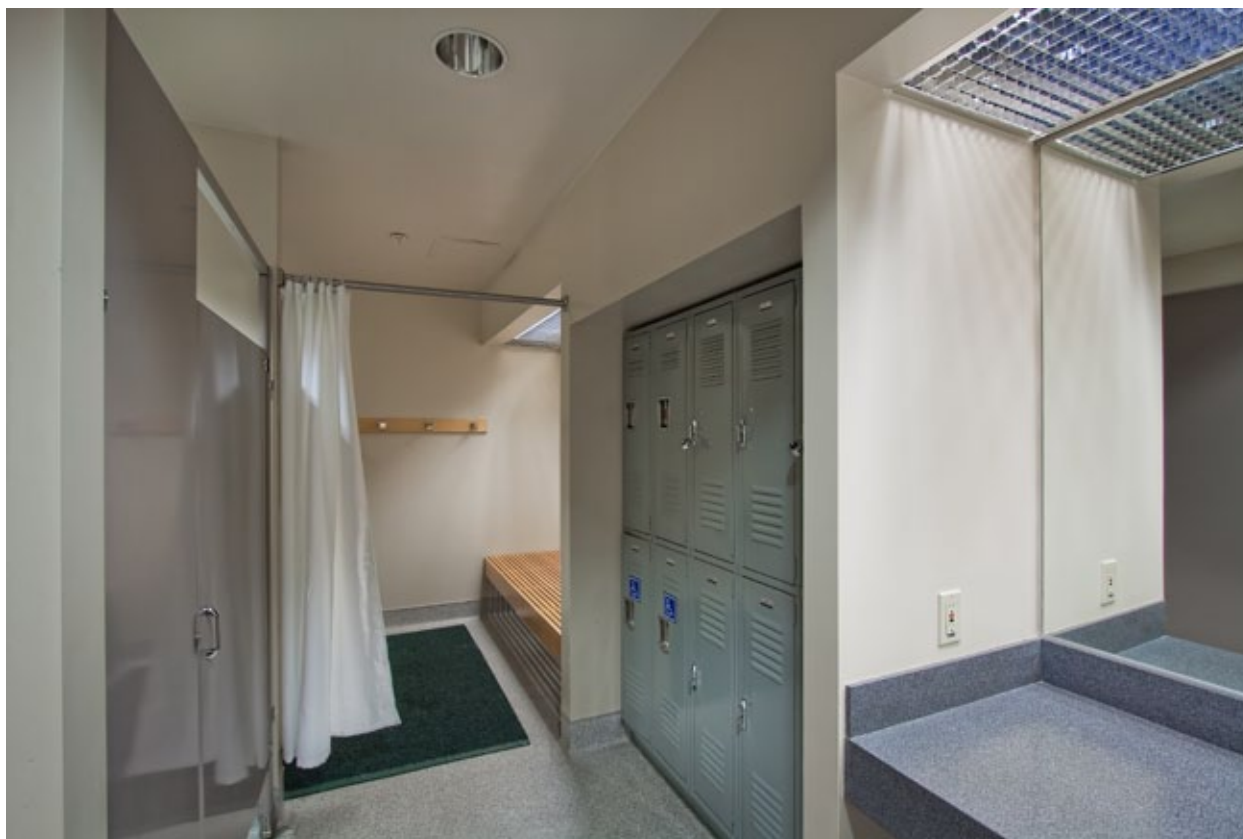
III. OPERATIONS

SUCCESSSES OF THE PROJECT

By going through the process of Liberty Centre, we've learned how to manage our properties more intelligently and more sustainably. Through that process we've been able to keep our expenses pretty flat across our portfolio. We've had less than a three percent increase in operating costs each year, which is pretty good when you look at the annual increase in energy and labor rates. We've been able to maintain small increases year to year, and a large part of that consistency is that we're managing our properties in a different way by watching our energy consumption closely. Our whole portfolio is being viewed with that same critical eye.

There are some limitations that we were confronted with in the Liberty Centre project. The existing building is already in place, and there are certain things that you just can't do. For example, the site for Liberty Centre was set from the beginning and that was something that we didn't have any control over. In addition, you may have an existing commercial office building with multiple tenants; their business isn't real estate and managing properties. We're trying to manage these properties as sustainably as possible, but that may not be the tenants' focus. One of the missed opportunities on Liberty Centre was engaging with our tenants early in the process. We have learned from that and, as a result, we have engaged our San Francisco tenants very early in the process. One thing that we have changed is the way that we communicate with our tenants.

When we started the LEED certification process for Liberty Centre, there were no regulations regarding building performance. Recently, there has been a lot of discussion surrounding regulations, mandates, and requirements for new and existing buildings. That would involve managing and building high-rise structures to a certain standard. We're listening to that discussion closely. We've worked very hard to



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Changing Room "Liberty Centre is currently 100% occupied. LEED puts us in a different tier when tenants are looking for a space, and it helps us with our marketing efforts."

lower the energy consumption in our properties, and one of the things of concern to us is the potential of blanket regulations for reductions in energy usage. We've already lowered our energy consumption over the past few years. If the city mandates a 25% decrease in energy usage based on 2009 consumption levels, then in order for us to get a further 25% reduction, we're going to have to spend a lot more money. We may not be able to achieve that even with a large investment.

LESSONS LEARNED

I don't know if there were risks involved with pursuing LEED-EB certification. We invested money into the process, but at the time, we were buying an education. That has helped us quite a bit as we've gone forward. We manage a large portfolio of properties, and we've taken the knowledge gained from going through the LEED process on Liberty Centre and transferred it to other properties. Now, we're managing all of

these properties in a more sustainable manner. There are certainly challenges with multi-tenanted buildings. If all of the tenants were our employees, then we could mandate that they abide by certain criteria in their operations. However, we have tenants who pay a great deal of money in order to run their businesses in the way that they see fit. We can make suggestions about operations, but we can't demand things. The challenge with a multi-tenanted building is to get everyone involved with the process early so they can understand the goals and benefits of LEED certification.

When we began the process, there were no incentives which would have enticed us to go forward if we had been on the fence about LEED certification. As the project progressed, there were opportunities through Energy Trust of

Oregon¹⁰ to receive incentives for energy saving projects. We took advantage of a couple of incentives late in the process, but they were not a driving force in any of our decisions.

Liberty Centre is currently 100% occupied. We have long-term leases in place, and we're managing the expenses of that building very well. That results from LEED certification. We are currently in the process of going through LEED certification with our San Francisco property. In March of next year, we will have 58,000 SF of space available on the market, and we feel that having LEED certification gives us a leg-up in the market. LEED puts us in a different tier when tenants are looking for a space, and it helps us with our marketing efforts.

Right now, we have a portfolio of existing buildings; so, we've been looking exclusively at LEED-EB certifications. If we were to develop a new property, then we would certainly look at what was available to us as a certification standard, whether through the USGBC or some other third party recognition. As far as interiors are concerned, the tenants will dictate to us whether or not they pursue this certification, and we would certainly offer that opportunity to them. A couple of our San Francisco tenants have remodeled and enlarged their spaces, but overall, we don't have a lot of control over what the tenants decide to do within their spaces.

ADVICE FOR FUTURE PROJECT TEAMS

It is important to engage the tenants early in the certification process. We didn't do that on the Liberty Centre project; LEED was such a new process, and we weren't sure where it was going to take us. Subsequently, with our project in San Francisco, we talked to all of our tenants about going forward with LEED certification. Not to our surprise, but to our delight, all of the tenants understood LEED and were very excited about being involved. As tenants of the building, they saw value in the ability to entice and retain employees as a result of the certification. They were

excited. As we go forward with these projects, we will continue to engage our tenants early in the process. Everybody has to be on-board in a multi-tenanted building. It makes the LEED-EB process easier. If we had more cooperation and support from the tenants at Liberty Centre, we could have received more points; we probably would have ended up with Gold instead of Silver certification.

I'm not sure that LEED-EB will provide incentives for tenants to remodel their spaces in a sustainable way. It could, but I haven't heard about it yet. We certainly want to be a part of that process and to help support that decision by our tenants. The tenants in San Francisco chose to pursue LEED for Commercial Interiors (LEED-CI),¹¹ but they had made that decision before we purchased the property.

Saving energy has always been a goal in managing these properties. It's a huge expense, and it's something that the tenants have the ability to control to a certain level. They can't control rate increases, but they can control consumption. The goal of any building owner is to try and keep that consumption level as low as possible. Through the LEED process, we learned some new strategies to help us accomplish that goal. We learned that we can have a large impact on energy consumption without putting a dime into equipment. All it requires is a change in habits and assumptions. At Liberty Centre, we engaged a more intelligent method of operations just by changing the criteria of when the fans and lights turned on and off. That had an impact on consumption. Establishing specific project goals would have been difficult for us because of the novelty of the process. We were participating in a pilot program with Liberty Centre; we didn't know quite what that meant, since it was a brand new experience. There were no precedents to consult, because no one else was pursuing LEED-EB for a multi-tenanted, high-rise office building. Nike¹² joined the pilot program at the same time, but that was a corporate campus. That's a whole different beast.

¹⁰ Energy Trust of Oregon is a nonprofit organization with a focus on helping Oregon residents financially benefit from conserving energy and utilizing renewable resources. This organization provides cash incentives, information, and services to various utility customers.

¹¹ LEED for Commercial Interiors is a benchmark for the tenant improvement market that gives the power to make sustainable choices to tenants and designers

¹² Nike, Inc. is an international sportswear and equipment supplier with headquarters in Beaverton, Oregon.



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Tenant Space "I think that it's too early to gauge the return on investment for Liberty Centre... but there's no question that we saw a return on our efforts."

OCCUPANT FEEDBACK

We have not received a lot of tenant feedback on Liberty Centre. When the LEED plaque arrived, we held an event in recognition of the certification, and we invited certain dignitaries to come and speak. Some of the tenants came down, and we set up informational posters to explain the process. In hindsight, they should have been as excited about that day as we were, but they weren't a part of the process. We recognized later that they should have been, and we're now trying to figure out how we can generate tenant interest and excitement about the property.

MONITORING BUILDING PERFORMANCE

When Liberty Centre opened in 1997 we had a lot of problems heating and cooling the building. Much of those were the normal system adjustments that occur when opening a new building, but there were additional areas that we struggled with. For example, we had prob-

lems with the automatic lighting. As we went through LEED certification, we specifically focused on some of these things and took care of these issues.

We have a computerized work order system so that the tenants can log a complaint if they are too hot or cold; they can email us or make a phone call and these complaints are entered into our database. Those complaint calls have certainly decreased since we've been through the LEED process. The goal for us is to save energy without infringing on tenant comfort, and it looks like we've accomplished that at Liberty Centre by tightening the building operations. Recently, we had 14 days where the temperature exceeded 90°F; the temperature was above 105°F for four of those days. Those temperatures are rare for Portland, and buildings aren't designed to deal with those temperatures without an impact on tenant comfort. However, our complaints didn't go up. We were able to run the building and satisfy tenant comfort. During that



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Janitorial Practices “No decision we make will be sustainable if it’s not also a good business decision. Any decision that we make has to run the parallel path of being sustainable and being good business.”

time, many buildings were running 24 hours a day in order to maintain that cooling load; we didn’t have to do that. We had to shut down our systems later in the evening, but we were able to shut them down and start them up earlier without impacting tenant comfort. We were still saving energy over a 24-hour run period during that time. That’s an example of what our engineers learned by going through the LEED process. They learned how that building could be managed and operated more efficiently.

MAKING IMPROVEMENTS FOR THE FUTURE

As a company, we’re looking into what we can in-

clude in our leases to promote sustainable practices among the tenants. Currently, there aren’t government mandates requiring that we meet certain criteria, but in time, that could very well happen. If it does, then our legal documents will have to address those changes. The Building Owners and Managers Association (BOMA)¹³ has come out with a green lease, and we’re looking into incorporating that language into our own leases. Initially, it was the owners who were talking about this inclusion into leases, but now we’re starting to see tenants who want green practices written into their leases.

The process we went through with Liberty Centre was difficult and frustrating. It took a long time, and there were a lot of starts and stops and changes in personnel. Midway through, we lost our sustainability coordinator, and it was very hard to manage without a single person overseeing all aspects of the project. Ultimately, Wayne became the individual who oversaw all the different components. Once we lost our coordinator, we began to communicate directly with the USGBC in order to get clarification, but in some cases this didn’t happen because they were still learning, too. We were frustrated with the process, and there were times when we didn’t think that we would finish. We didn’t understand what the value would be at the end of the process. Hank¹⁴ felt very strongly about this; he was the driving force. The motivation really had to come from the top and Hank kept us on task. Ultimately things started changing in the real estate world, and sustainability started to become common in conversation. That market pressure helped us to seal the deal and complete the project.

Now we’re looking at our portfolio to see if we can do more with our properties. For example, we’re looking at our property in Seattle that has a lot of vacancy. We think that a LEED certification might give us an edge and bring in certain tenants who have an interest in occupying a LEED certified building. All of our buildings

¹³ The Building Owners and Managers Association (BOMA) International Foundation is an independent, tax-exempt organization dedicated to sponsoring and encouraging innovative research and educational activities that advance the commercial real estate industry and profession.

¹⁴ Hank Ashforth III is the Chairman of Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland’s Central Business District.

were registered to get the LEED-EB, but because of the substantial investment in time, we can't pursue LEED on all of our properties next year. We don't have that level of staffing, and under current market conditions, we can't pay the money to get a consultant to take us through that process. We're making those decisions based on what we understand to be important in the real estate market.

We're also looking into other certifications. Green Globes¹⁵ has a certification program, and we're looking at that to see the value of that certification when compared to a LEED certification. We're also watching what's happening in government and what will be required at the local, state and federal level in terms of the existing buildings. We hope that we stay well ahead of whatever mandates finally come. That's not our motivation now, but we understand that there will be requirements down the road. It always comes back to a question of value. What is the value of Liberty Centre with a LEED certification over a similar building that doesn't have a LEED certification?

At Liberty Centre, we meet with our tenants on a regular basis, and we mentioned to them that we were pursuing LEED certification. We told them that this would give them some control over operating expenses; it would keep them from escalating as quickly as they normally do. We also told them that our goal was to provide a better environment for the employees. This was very early in the process for LEED-EB; so, the tenants weren't really that interested. Now let's fast-forward to our property in San Francisco; we're in the performance period for the LEED certification on our building there. About two months ago, I went down for a lunch meeting with all of our major tenants. In that lunch meeting, we told them that we were applying for LEED, and we outlined the project schedule, our goals, and our expectations for the tenants' involvement. All of the tenants were already familiar with LEED; two of the tenants had LEED certified interiors. All of them were extremely excited about the process and couldn't wait to

participate. We got the sense that they may come back to us and challenge us in areas that we had not yet considered. Getting the tenants engaged in the process opens up a whole other door for us, and it will make our job a lot easier in getting that certification. We have a large group of motivated people in our buildings, and we should engage them early in the process and draw on them and their expertise. Some of our tenants in San Francisco are environmental engineers and architects who fully understand the value of LEED certification. They jumped on-board, and I'm sure that our property manager will be challenged in keeping them all updated on our progress. I imagine that our certification event down there will be well attended by some very excited people. This will be much different than what we saw at Liberty Centre. Our San Francisco property was actually built with LEED certification in mind, but it never went through the process; so, we think that we've got a very good opportunity to get Gold.

I would like to be able to find more statistics on LEED-EB. You can go to the USGBC website to see how many projects are certified and how many are registered, but I want to see how many LEED-EB multi-tenanted, commercial high-rise buildings have been certified. I want to know the age of those buildings and have access to more data and information involving those projects. We frequently hear that a LEED certification results in greater worker productivity, but we're interested in how you quantify that statement. If we had raw data that speaks specifically to those issues then we would be able to sit down with a tenant and directly discuss those benefits. We would like to see the sick day records for all of our tenants, but that's not something that a tenant will easily turn over to you. So, this information would be difficult to gather. In the end, it would be great to outline all the benefits for the tenants and have them backed up by quantitative data from other projects. Having the information to facilitate those conversations would be huge.

I don't think that LEED has changed our company's direction or our philosophy. We didn't migrate to USGBC and LEED certification because we were looking for a new direction as

¹⁵ Green Globes is a rating system that addresses both design guidelines and assessment protocol for the integration of green building principles.

much as we recognized that USGBC and LEED certification fit our existing goals. We are trying to understand what LEED means in terms of market value for our properties.

When we go out to look at a new property, we generally look at all aspects of that property to understand its management costs. During that process, we may start to look at the time required to get a LEED certification for that property. If we look at that during the acquisition period, then we know what we need to do in order to get LEED certification; we fully understand what that means to the property value.

THE VALUE OF LEED CERTIFICATION

We've been gathering data for quite a while, but I think that it's too early to gauge the return on investment for Liberty Centre. One of the true indicators of the value of LEED will come when a tenant renews a contract or when a new tenant comes into the property. At that point, we will see if LEED brings value to the rental rate or the duration of their lease. Because of our existing lease structures, it's too early to say what we've gained from our investment. The education that the entire staff has gained by going through the process has been enormously valuable to us; it has really helped us understand the ins and outs of the process. We understood what we were getting into with our San Francisco property, and we made sure that we had people focused on the project who knew what their role was from the very beginning. Going through the first LEED process elevated our education level; we can't put a number on it, but there's no question that we saw a return on our efforts on Liberty.

No decision we make will be sustainable if it's not also a good business decision. Any decision that we make has to run the parallel path of being sustainable and being good business. The two things are not mutually exclusive; they're joined at the hip. A good business decision can be sustainable, but a sustainable decision that doesn't make good business sense can't sustain itself. You have to look at it as two pieces of a whole decision. When they line up, it's a win.

This narrative is based on a video- and audiotaped interview conducted by Britni Jessup on September 23, 2009, at the offices of Ashforth Pacific in Portland, OR.

ELAINE AYE

PRINCIPAL, SUSTAINABILITY CONSULTANT
GREEN BUILDING SERVICES

I. PROCESS

GETTING INVOLVED WITH THE PROJECT

With Liberty Centre, we were actually contacted while we were still at PGE.¹ We were still working for them, as opposed to Green Building Services.² Green Building Services became a standalone company in 2005, and it was roughly in 2004 when LEED³ for Existing Buildings came out. We were contacted to provide a quote for the project, and we came in second place. We were not accepted as the consultant of choice for the project, but then about three years ago, we were contacted again.

An architectural firm that was familiar with our work and experience in the LEED-EBOM⁴ market referred us for the project. They had contacted us and asked that we speak with the owner. At that point, Ashforth⁵ was still struggling with getting the certification together. They wanted to know if we would be able to help them. So, we met with the owner, looked at the documentation, and started to guide them down that process. We gave them a quote, and we were able to pick up the work from a previous consultant. We really started to understand the project. So, that's how we got started with the project.



ELAINE AYE is a principal at Green Building Services, Inc. She is a member of the USGBC LEED-CI Core Committee, and co-developed the training module for LEED for Products Manufacturers. As a member of the USGBC Training Faculty, Elaine is a frequent speaker at national building conferences and trainings, including Greenbuild, NeoCon, and IFMA World Workplace.

¹ PGE stands for Portland General Electric, the local utility which has provided power to northwest Oregon since 1889.

² Green Building Services (GBS) is a sustainability consulting firm which emphasizes the values it calls the "triple bottom line:" Economic, Environmental, and Social Equity. GBS has offices in Portland, Sacramento, Orlando, and Houston.

³ The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), is a suite of voluntary standards for green buildings. It awards certifications at Certified, Silver, Gold, and Platinum levels.

⁴ LEED for Existing Buildings: Operations and Maintenance (LEED-EBOM) is part of the 2009 suite of LEED certification ratings and is a newer version of LEED-EB.

⁵ Ashforth Pacific, a division of The Ashforth Company, is an investor, active in the ownership and operation of office and industrial real estate. Based in Portland, Oregon, Ashforth Pacific now manages over three million square feet in Portland, Seattle, and San Francisco.

University of Oregon Professor Alison G. Kwok, Advisor Nicholas B. Rajkovich, and research assistants Rachel B. Auerbach, Kristen B. DiStefano, Britni L. Jessup, and Amanda M. Rhodes prepared this narrative. © 2009 U.S. Green Building Council and the University of Oregon. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the permission of the USGBC.



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Bioswale "The Ashforth Pacific team works in a collaborative manner and understands how to get the best performance out of their buildings, whether it is around energy efficiency, water reduction, reduction of their site impact, or education of the tenants and employees."

WORKING WITH THE PROJECT TEAM

One of the things that Green Building Services brings to the table is a really thorough, in-depth understanding of the LEED-EB rating system.

The process that we implemented was effective and efficient LEED project management. Based upon their past experiences Ashforth Pacific wanted a qualified firm to provide the necessary technical assistance to get Liberty Centre certified as quickly as possible under the current LEED-EB rating system. We explained the process to them, which was to gather their current building information including whatever work had been completed in the past, verify if the building met all of the prerequisites, determine which credits they wanted to pursue, establish a performance period, track their performance and document the findings.

Ashforth Pacific is a leader in building operations and maintenance. They have been going down the

path of sustainability for quite some time now. They're very involved in The Natural Step⁶ program and follow the four guiding principles. What they've tried to do is look at that program within the organization and apply those principles. Ashforth Pacific understands sustainability. They know that if they invest money into their buildings they're going to reduce their operations and maintenance costs. They've done a variety of different things to demonstrate and prove that.

When a client starts with an understanding of sustainability, then we work with them within those guidelines; it makes it much easier for us, as a consultant, to guide them down that path of certification. The other thing that Ashforth Pacific has going for them is that they have all of the team in place. They have a property management team that

⁶ The Natural Step is a non-profit organization founded with the vision of creating a sustainable society. The Natural Step Framework is a proven, science based model that helps communities and businesses better understand and integrate environmental, social, and economic considerations.

understands how to position the building, and they have an in-house engineer who knows how to operate and maintain that building.

The Ashforth Pacific team works in a collaborative manner and understands how to get the best performance out of their buildings, whether it is around energy efficiency, water reduction, reduction of their site impact, or education of the tenants and employees.

They're just being a good owner, and for their tenants, they are one of the best in the market. We see a lot of different building owners, building structures, and property management structures, and they really are a leader in that area. So, working with them was a pleasure; we were able to see what it's like when someone does it really well. They are a good example of that. Our role in the project was really to document the good practices that they're already doing.

Implementing the principles of LEED for Existing Building's rating system was relatively simple. It was about coming together in a collaborative manner to assist them in organizing their building information. One of the challenges that LEED for Existing Buildings has, is how to effectively and efficiently track, record and document a vast amount of data. GBS has successfully created a series of topic modules or tools to help building owners track their building operations and maintenance activities in a way that aligns with the daily activities of the vendors or facilities staff. This process helps to educate the staff while still meeting the ongoing performance requirements for the building. That's the issue that we solve. We help them develop the tools and the processes, so that they can track the performance of the building on an ongoing basis.

ROLE IN THE PROJECT TEAM

My role was principal-in-charge to provide leadership and guidance throughout the process. I did have a project manager who was guiding the ship on a daily basis. My role was to make sure that the process and the communication was happening effectively; I also verified that the information and the data gathered were accurate and correct. They got the janitorial staff

to clean floors one floor at a time, as opposed to sporadically throughout the building. They were able to install meters that, in turn, reduced their operating costs, and the janitorial staff actually received financial incentives for reducing their overall operating costs. That's a pretty big thing, and that's shows leadership. They changed to cloth bags, and they've shown a benefit of savings from those bags as opposed to plastic liners. They have a building automation system that can be read by any of the engineers on a BlackBerry phone. They can automatically adjust things from a BlackBerry, as necessary. That's pretty innovative. Again, my job was really to guide the sustainability of the project and the LEED process.

II. DESIGN

ESTABLISHING PROJECT GOALS

There are a couple of things that we always do with our clients. The first thing that we want to do is turn each client into a long-term client for us by providing the value and technical support that an organization such as ours can offer. The second thing is to help educate and teach them how they can operate and maintain the building in a more sustainable manner so that they can communicate sustainability goals to their tenants and staff. The third thing is to provide the resources, tools and infrastructure so that they can successfully continue to track, record and document their buildings performance for the life of the building and for LEED re-certification.

Again, it's that data collection, and it's the ongoing tracking and performance with that data in an ongoing manner. That way they can organize all pieces of the project, from integrated pest management to vendor contracts to the ENERGY STAR⁷ score. They're able to collect and organize that in a concise manner that allows them to track the whole project for future re-certification.

⁷ ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping Americans save money and protect the environment through energy efficient products and practices.



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Janitorial Practices "They changed to cloth bags, and they've shown a benefit of savings from those bags as opposed to plastic liners."

DESIGN STRATEGIES AND TECHNOLOGIES

When we received the project information, it was in a fairly incomplete format. There was inconsistency with the data gathering, and there were some challenges. There are a lot of LEED APs⁸ running around out there, but only a small percentage who really understand how to apply the principles of LEED to a project and guide a project down that path. We were able to

⁸ A LEED Accredited Professional (LEED AP) is an individual who has passed the LEED Accredited Professional exam and is designated by the USGBC as a knowledgeable professional in sustainable design and can, therefore, be called a LEED AP. The LEED certification process requires that a LEED AP be involved in a project for an additional point under the LEED-NC rating system.

start communication among the right people within the organization: the building engineer, the property managers, the contractors, and the outside vendors. Typically, we go into a project and assess the situation and the building. We do a gap analysis of where the building is and where it needs to be to meet the LEED requirements. We talk to the owner about some areas where he or she may need to invest additional money.

Liberty Centre achieved Silver certification under the LEED-EB 2.0 rating system. We discussed the importance of engaging the tenants so that we could track materials purchasing, but Ashforth wasn't willing to get that level of commitment from the tenants at that time. Since then, we have compared the building's scorecard with the new LEED 2009 Version 3 and it would easily achieve Gold certification today, because the building is in a dense urban location and has an ENERGY STAR score of 90. It also has highly efficient plumbing fixtures.

We gathered the information, and established our three-month performance period — we were really doing training prior to that — when we were able to get everyone on the same page and create an infrastructure.

I talk a lot about developing the internal infrastructure, because it's so critical in my mind to the success of a LEED-EBOM project. Providing the tools for the internal team to gather the necessary building information in one central location is critical to the success of the project. This building has an exceptional team and management. The owners are committed to learning and committed to the best facilities practices available; they just need the right tools to continue to track, record and report their ongoing performance. That is why GBS has invested in the development of a software program that does just that. The web-based software is a tool for building owners to gather, track, record and report their ongoing building performance for LEED certification and re-certification.

WORKING WITH THE PROJECT TEAM

We approach each project in a very holistic manner. We pull all the team members together. We

have in-house engineers. We have different disciplines that approach a project, and we have a team that supports each other. We provide the training, we have regular meetings, and we have regular conference calls. Our job is to guide that process, to make it as painless as possible for them, and to make sure that they understand our emphasis.

The challenge with LEED for Existing Buildings: Operations and Maintenance for the building industry is that what we are asking building owners, property managers, and facility teams to do is something that is not part of their daily practice. Our goal, as a consulting firm, is to educate and train their entire organization, including service vendors, so that they learn to internalize these processes. Then, it is not an add-on project but part of what they are trained to do on a daily basis. That process becomes intuitive in nature. The way that buildings were managed and operated in the past is not the way that they will be managed and operated in the future. If a building is to maintain its competitive edge and value in the marketplace, then it must address its overall carbon footprint and sustainability. It is exciting to see companies such as Ashforth Pacific leading the way in this movement towards better building performance.

Our role is to provide that information and to support their efforts and keep them on track. Sometimes that's giving reminder calls and just staying in front of the process. The other piece is that when we're gone and they get the buildings certified, they need to continue that process. We feel that we're successful when we can get them to continually think about what isn't yet done and how they can continue down this road.

DESIGN TOOLS AND TECHNOLOGIES

Green Building Services has created what we call tool kits. These tool kits are broken out by discipline, as opposed to LEED credits. An integrated pest manager with a contract with the building doesn't want to think about energy or water efficiency. All he or she wants to know is what the owner wants him or her to do for the building. We've put a lot of time and attention into

developing processes and tool sets that give the most information with the least effort. By doing that, we're able to go into a project and provide the necessary tool sets to track and record all the information that's needed to get a project certified. We can do that in a very efficient manner by using an integrated software tool that we've designed.

Once an owner engages in the LEED process, they've made a substantial time commitment, as well as a financial commitment, to the overall process. So, most owners are reasonably committed.

The challenge that owners have is a lack of time and resources to be able to get in there and do what needs to be done. Many building teams are just troubleshooting and being reactive. The team at Liberty Centre is actually very proactive in how they address issues within their building.

I keep coming back to the tool sets and the tool kits. Having a system in place where they are forced to go in and put information regarding their ENERGY STAR or their water performance is important. They'll know if they have checked the meters on a regular basis. It's all the kind of tracking that LEED requires. They're forced to do that while we hover and do verification on a month-to-month basis. We make sure they have collected and input the right information. We check their status and success. It forces changes in behavior, because it's a reminder that we're here to make sure that they're going down the right path. That's the best approach that we have found, is to show them the way, provide them with tools, and then reinforce positive behavior when they do implement protocols the way they should.

DESIGN RESOURCES

Our industry is changing so rapidly that I look for all sorts of resources. I look to the USGBC⁹ to provide good educational forums; I look

⁹ The U.S. Green Building Council (USGBC) is a non-profit organization dedicated to sustainable design and construction.

to BOMA¹⁰ and IFMA.¹¹ I look to all of the professional organizations within the industry for support. We also have fairly robust internal resources, and we do our own internal training around building efficiency. We have a full staff with eight, licensed Professional Engineers (PE) in-house. We're able to work collaboratively within our firm and hash out ideas, issues, and challenges that come up. We do that in addition to looking to our peers and industry professionals for knowledge and resources.

LEED CREDIT CHALLENGES

There were not many challenges with achieving any specific credits, but I do think that if we had engaged the building tenants and pursued the material credits, then we would have achieved Gold for this building. We waited too late in purchasing green power, so it was not included in the performance period. We provided building commissioning and the one thing that stood out to our commissioning agent is that Ashforth Pacific and the building engineering staff were a pleasure to work with. If all buildings were managed at least half as good as they manage their buildings, then we'd have a huge carbon reduction in our country today.

We would have liked more time to work on the project. We were able to document and submit the project within a three to five month time period. That's pretty quick, but we were able to thoughtfully go in and do it. By the time we got involved, their experience with LEED was not as desirable and optimal as one would like. At that point, the goal was just to get it done for them. With Liberty Centre, we had to get it documented and get out. It would be nice to redo some of that.

¹⁰ The Building Owners and Managers Association (BOMA) International Foundation is an independent, tax-exempt organization dedicated to sponsoring and encouraging innovative research and educational activities that advance the commercial real estate industry and profession.

¹¹ Formed in 1980, the International Facility Management Association (IFMA) certifies facility managers, conducts research, provides educational programs, recognizes facility management certificate programs, and produces World Workplace, the world's largest facility management conference and exposition.

III. OPERATIONS

SUCCESSSES OF THE PROJECT

The building is performing excellently, as far as I can see. I'm guessing that their current ENERGY STAR score is in the low 90s or high 80s. They've won several awards regarding their ENERGY STAR score. They have implemented better janitorial practices. They have integrated storm water management onsite, in partnership with the city of Portland that they didn't have previously.

We've done an assessment of four LEED buildings in the city of Portland. The study shows the total water and energy reductions, and converts that information so that you can understand those savings in terms of CO₂ offsets from 2006 to the present. We've created metrics and gone to city leaders to demonstrate that building owners and operators can shift the overall carbon footprint by starting conservation measures now. We're seeing state mandates starting to roll out that force buildings to share their utilities and ENERGY STAR data. I believe that there is an alternative approach to this. Should we be forced as an industry, especially in these challenging economic times, to expose our buildings' inefficiencies in a public forum or is it best to provide the industry with tools, education and resources so that the industry can begin to shift and implement sustainability and conservation strategies to reduce operational costs?

THE COMMISSIONING PROCESS

As stated earlier, the commissioning process went smoothly. The building engineer, Wayne Mezick,¹² is an incredibly talented and capable building engineer who understands his trade and craft. One challenge, not necessarily for this building, but for the industry as a whole, is that we're losing the Wayne Mezicks of the world; we do not have a talented pool of young building engineers who are moving into facility management or building engineering positions. In all of the well-run buildings that we go into, the senior

¹² Wayne Mezick is the Chief Portfolio Engineer for Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland's Central Business District.



Main Lobby "Liberty Centre is definitely in the top 95% of the market, in terms of energy performance."

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building engineer is just that, a senior building engineer. We need to train, educate and inspire a younger work force to grow into these important careers of running sustainable buildings.

The reason people come to us to get their building certified is that they want to stand out; they know that it is a market differential, and they know that tenants want to find green buildings. If they can better position themselves, especially now when the market is down, then when the market turns and there's tenant activity again, then they are going to be better positioned to get those tenants through the door. The other thing is that it's just good, common business sense to reduce the operations and overall operating costs in a building. You will save money. If you use less electricity, it will cost less. If you use less water, it will cost less. It's just logical. It's common business sense to do these measures. The framework of the LEED-EBOM rating system provides the necessary guidance for the building industry to operate and maintain a sustainable building.

MAKING IMPROVEMENTS FOR THE FUTURE

If we help make our clients more successful in their building operations by providing the tools, resources, and infrastructure then everyone can be successful. Wade¹³ and I are both active members in our local building community and by sharing our stories, we can help drive the industry towards better building performance.

One of the lessons that we have as consultants in the industry is to continually work with our clients and provide them value and resources, even when the project is completed. It's that ongoing communication and long-term investment in our clients that helps them be successful. That's something that we can continue to perfect with all of our projects. Working with Ashforth Pacific was great, because we could help position

¹³ Wade W. Lange is Vice President of Property Management for Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland's Central Business District.

them as leaders within Portland, and that was a key element as well. Wade is very active with BOMA. I'm very active with BOMA. So, together we've been able to work with the organization to guide and steer them through what sustainability means to the building management world. There's a lot of growth in that area. If we can provide some of that education through leading by example, then it helps the industry as a whole.

As consultants, our role is to advocate for the industry as a whole. Our job, whether the client pursues LEED or not, is for us to go into a building and assess the existing building performance and then provide a baseline or benchmark for that building. Consultants who are able to do that cost-effectively while still providing an in-depth technical knowledge to the building owners are the consultants who will survive. As consultants, we need to be very nimble and to look into the future and see where the trends are going, and when I say that we create tools and processes, part of that is just that; we look to the future and make the process easier for the owners.

THE LEED CERTIFICATION PROCESS

Liberty Centre was certified under the LEED 2.0 rating system. I think that with the new rating system there have been a lot of improvements to the overall process and it's pretty good right now. We're using it a lot on a lot of different projects; it fits and it makes sense.

The new LEED-EBOM rating system requires a building to complete an ASHRAE¹⁴ Level One audit and benchmark its building on the ENERGY STAR Portfolio Manager website. When we go into a building we often find that the necessary documents may not exist and that our engineers need to work with the building engineers to obtain this information. After the process has been completed, the majority of the facility managers and engineers are grateful that they have been able to spend some quality time working with an experienced engineer whose goal it is to help them operate their building better.

Liberty Centre is definitely in the top 95% of the market, in terms of energy performance. We have other buildings that are also in the top 95% of the market. We have buildings that are only 50% of where they should be, and again, it's the value. Often, the buildings that are at the top want us to help prove that they have a really great building and that they run a very efficient building. It's a competitive market out there, and they need the certification and the plaque to say that they're doing great. We're able to go in and provide case studies, data, analytics, and the metrics to help justify that, but they're already doing all the right things. The percentage of the market of buildings that are in that position is very small.

It was really a pleasure to work on Liberty Centre with Ashforth Pacific, because they do things so well. I look at buildings that do things well, and I look at buildings that don't do things so well, and it gives me a model to help guide those other buildings to do better.

This narrative is based on a video- and audiotaped interview conducted by Britni Jessup on September 24, 2009, at the offices of Green Building Services in Portland, OR.

¹⁴ ASHRAE stands for The American Society of Heating, Refrigerating and Air-Conditioning Engineers.

CAROLYN ICE

PORTFOLIO ADMINISTRATOR,
ASHFORTH PACIFIC, INC.

I. PROCESS

GETTING INVOLVED WITH THE PROJECT

I got involved with the Liberty Centre LEED project when I was hired by Ashforth¹ five years ago. I knew about recycling from home, but I was never involved with anything like this in my business life. I previously worked for Liberty Northwest² as their Facilities Coordinator at the Liberty Centre building. That was before all the green strategies had been implemented. We were only recycling paper and batteries in that building. When I came to Ashforth I began managing the janitorial contract, and at that time, our janitorial vendor was purchasing the supplies. That's when I found out we were not as green as we could be. I took over the purchasing and jumped in with both feet. I tried many janitorial green systems, and it came down to the one we felt would best meet our needs. I took the janitorial supplies out to bid, and that's when I came up with my first green system. A green system is using the chemicals, microfiber products, mops, rags, and vacuums with HEPA³ filters. The janitorial night crew conducts all the recycling and compacting of cardboard and clean paper. We are also beginning to compost in our buildings.

ROLE IN THE PROJECT TEAM

At Ashforth Pacific, my role is Portfolio Administrator for the Lloyd District⁴ properties on the East side of the river. I manage the landscaping and janitorial contracts, as well as a portion of the security contract and the daily operations of our buildings. I coordinate all the life safety, blood drives, and flu shots.



CAROLYN ICE has been the Portfolio Administrator for Ashforth Pacific since she was hired in 2004. She oversees all aspects of contract services with an emphasis on creating more sustainable practices within those services.

¹ Ashforth Pacific, a division of The Ashforth Company, is an investor, active in the ownership and operation of office and industrial real estate. Based in Portland, Oregon, Ashforth Pacific now manages over three million square feet on the West Coast in Portland, Seattle and San Francisco.

² Liberty Northwest, a part of Liberty Mutual Agency Markets which is a business unit of Liberty Mutual Group, has grown to be the largest regional property and casualty insurer in the Northwest, where it has been located for over 80 years.

³ HEPA stands for "high efficiency particulate air." HEPA filters trap a large amount of very small particles which a traditional vacuum would recirculate into air. True HEPA filters have a serial number attached to them if they are able to trap at least 99.97 percent of particles of 0.3 microns.

⁴ The Lloyd District is a primarily commercial neighborhood in the North and Northeast sections of Portland, Oregon.

University of Oregon Professor Alison G. Kwok, Advisor Nicholas B. Rajkovich, and research assistants Rachel B. Auerbach, Kristen B. DiStefano, Britni L. Jessup, and Amanda M. Rhodes prepared this narrative. © 2009 U.S. Green Building Council and the University of Oregon. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the permission of the USGBC.

ESTABLISHING PROJECT GOALS

I wasn't only interested in Ashforth achieving LEED⁵ Silver with Liberty; I wanted those improvements for the good of the project and the environment. That's the most important thing. If we can have one person go home and implement green strategies in their home, that would be a wonderful thing. I want everyone to learn something from this.

II. DESIGN

COMMUNICATION AND DESIGN STRATEGIES

Being a multi-tenanted building is both an advantage and a disadvantage. Since the Liberty Centre building is occupied by two major tenants, our points of contacts were more manageable. Some of our other buildings are dotted with different tenants. We were lucky with Liberty Centre; towards the end of our process Liberty Northwest came on-board. They brought in two interns from Oregon State⁶ in assisting with exercising opportunities like walks at lunchtime where they provided free water. They went over and above the call of duty. Each of the stairwells now has big recycling and exercising signs in it. It's fairly easy to get our message out to the point-of-contact of each tenant, but it's hard to get it out to each employee of the tenants. Visuals are a great learning tool.

The composting system is working great. I take back everything I said about composting. I didn't know how in the world we could do that, but it's just too easy. There's no reason for anyone not to do this in a business structure.

Approaching the tenants in a positive manner is the key. You can't go up to them and say, "I know the compost is going to smell." Be positive; tell them what good this is doing for our environment. I haven't had an issue to date.

MANAGING THE PROJECT

Currently we use only chlorine-free paper products, LEED certified cleaning products, and three

filter vacuum cleaners. I'm involved with these decisions, as I do the research and then I bring my findings to the team. Ultimately, the decisions are based on my researched recommendations.

SHARING INFORMATION AND RESOURCES

Collaboration was the key to completing this project. We have a centralized spreadsheet, where we enter decisions and information. I would add it to the spreadsheet, and then Wayne Mezick⁷ would take it from there according to LEED instructions. That's how we communicated through the spreadsheets.

I've learned so much through the LEED certification process and that's helping me with the green systems in my landscaping and security and office products purchasing.

III. OPERATIONS

THE LEED CERTIFICATION PROCESS

LEED-EB has had an impact on me, personally, because the main word in my vocabulary lately has been "green." It's taught me so much about the chemicals and everything that's out there now. I've learned about corn paper products and it's also been a great learning process because I manage the landscaping contract. I've learned that we don't want to use gas engines. We certainly don't use any toxic weed or grass killers. Everything now is enzyme based. Whenever I'm on a new or old project in any of our buildings, green is right in front of my face. Always.

OCCUPANT FEEDBACK

I was expecting complaints from the tenants when we switched to the brown paper towels, but everything I've heard has been positive. I was also prepared for negative feedback when we brought in the compost containers, but I heard not a word. We're just thrilled that everybody's on-board with this. The tenants know we are doing our best. In all the suites, we also have battery recycling bins. Under every desk, there are cardboard recycling containers. They all know what we're aiming for, and I think in this day and age, nobody can complain about it. This

⁵ The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), is a suite of voluntary standards for green buildings. It awards certifications at Certified, Silver, Gold, and Platinum levels.

⁶ Oregon State University, located in Corvallis, Oregon, is the only Oregon university to hold the Carnegie Foundation's "very high research activity" designation. OSU is also Oregon's land, sea, sun and space grant university.

⁷ Wayne Mezick is the Chief Engineer for Ashforth Pacific, Inc. the largest owner of Class A commercial office space in Portland's Central Business District.

is our planet and we have to take care of it, even if it's just with a brown paper towel. Every little bit helps.

THE VALUE OF LEED CERTIFICATION

I've learned so much, and I'm helping the environment; it's a win/win situation. It's been a positive process with the tenants. They were extremely proud when we got LEED Silver. We had a big event at Liberty Centre with cameras, lights and fancy people. Congressman Blumenauer⁸ was there. It was pretty impressive. This was a big effort, and again, not just because of the pretty reward that we got — the plaque. To me, none of that matters. What matters to me is that it's working, and all the tenants are seeing that's it's not that hard to change their ways. If one tenant can take that home and just do a little. I hope they're learning. That's the most important thing that they're learning.

It's hard for me to talk about the lessons we've learned by doing a LEED project, because I've learned so many. It's been a lot of work, but it's also been such a positive process with very positive rewards. I don't see any particular challenges. It was a lot of work, but worth every minute of it. It's wonderful. I don't have any complaints.

This narrative is based on a video- and audiotaped interview conducted by Britni Jessup on September 23, 2009, at the offices of Ashforth Pacific in Portland, OR.

⁸ Congressman Earl Blumenauer, elected to the U.S. House of Representatives in 1996, represents the 3rd district of Oregon and is a lifelong resident of Portland, Oregon.

WAYNE MEZICK

CHIEF PORTFOLIO ENGINEER,
ASHFORTH PACIFIC, INC.

I. PROCESS

GETTING INVOLVED WITH THE PROJECT

I became involved with this project when it initially began, sometime around December 2002. My position has evolved to the point where I am able to apply the principles I've learned from Liberty Centre to our other properties, whether or not we're trying to achieve LEED certification.¹ The principles are still useful.

The company went into an acquisition mode where we started purchasing many properties. At that point, the LEED-EB² certification went on the back burner for a little while. When we picked it back up, I was designated as the a coordinator or the “go-to guy” for the project until the end.

ASSEMBLING THE TEAM

We started out with Brightworks³ as our LEED consultant, but when we went into acquisition mode the project went on hold for a bit. Brightworks's contract had expired, so when we restarted the LEED certification, we worked with GBS⁴ as the LEED consultant and we worked with Glumac⁵ as the engineering representative. Sharing information with GBS in a speedy manner and getting a quick, efficient response was very important to the success of this project. That's what kept the momentum going. It would have been easy for delays to occur; once we ensured that there would be no delays, we were able to work toward completing this task within the initial timeframe.



WAYNE MEZICK, Chief Portfolio Engineer, was hired in September 1995 when Ashforth Pacific purchased the Lloyd District properties. Wayne's primary responsibilities include tracking daily energy consumption and identifying and analyzing energy saving projects. Wayne was instrumental in the LEED process, from beginning to end, for Ashforth Pacific.

¹ The Leadership in Energy and Environmental Design (LEED) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), is a suite of voluntary standards for green buildings. It awards certifications at Certified, Silver, Gold, and Platinum levels.

² LEED for Existing Buildings (LEED-EB) provides a benchmark for building owners and operators to measure operations, improvements, and maintenance.

³ Brightworks is a sustainability consulting firm with offices in Portland, San Francisco, Los Angeles, and Seattle.

⁴ Green Building Services (GBS) is a sustainability consulting firm which emphasizes the values it calls the “triple bottom line:” Economic, Environmental, and Social Equity. GBS has offices in Portland, Sacramento, Orlando, and Houston.

⁵ Glumac is an engineering firm with offices in Portland, Seattle, Sacramento, San Francisco, Silicon Valley, Las Vegas, Los Angeles, and Irvine. They provide services in electrical and mechanical engineering, commissioning, sustainability, and technology integration.

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Reserve Water Tank “We have three pumps that supply the building, but as soon as we installed the expansion/reserve tank, we were able to shut down two of the three pumps”

II. DESIGN

SUCCESSES OF THE PROJECT

As a company, Ashforth Pacific⁶ has a sustainability initiative that encourages us to constantly upgrade our operations and equipment. We’ve installed new low-flow flush kits on the toilets, low-flow aerators on the sinks, and we’ve replaced the light fixtures in the parking structure. We’ve also added a domestic water expansion/reserve tank and bioswale⁷ system, that is

⁶ Ashforth Pacific, a division of The Ashforth Company, is an investor, active in the ownership and operation of office and industrial real estate. Based in Portland, Oregon, Ashforth Pacific now manages over three million square feet in Portland, Seattle, and San Francisco.

capable of handling storm water runoff for Liberty Centre’s parking structure. Many of the improvements to Liberty Centre took place during the LEED certification, but all of our properties are being constantly upgraded and improved. Although I wasn’t a part of the bioswale strategy, I was part of the other changes done for the project. I find myself more involved with environmental issues within the company; there are many available opportunities to expedite improvements in order to achieve our environmental goals.

CHALLENGES OF THE PROJECT

Originally, the building did experience some water shortages such as the occasional problem with the water closets, because they wouldn’t work effectively on the first flush. It turns out that the water system didn’t have an expansion tank. We decided to install the expansion tank in order to eliminate the problem, but we also took it a step further and added a larger than usual expansion tank. That created a reserve tank, which is important, because when there is a greater demand for water, the expansion tank buffers a lot of that demand. We have three pumps that supply the building, but as soon as we installed the expansion/reserve tank, we were able to shut down two of the three pumps. They used to run 75 percent of the time during the day, and now they run minimally if at all during the day. As a result we’ve had significant electricity savings because of the improved pump operation. We’re also saving water.

THE VALUE OF LEED CERTIFICATION

LEED added another filter to our already existing sustainability process; it gave us a couple more parameters that we could use to make decisions about energy saving opportunities and conservation and renewable options.

⁷ Bioswales are landscape elements designed to remove silt and pollutants from surface and stormwater runoff water.

III. OPERATIONS

LEED CERTIFICATION

Liberty Centre was our first LEED project. It was probably also the hardest one. We hope that our next one will go a lot smoother. We are applying the principles that we've learned from LEED to our other properties, but we aren't necessarily pursuing LEED. However, the principles are solid; they're really best practices and we use them. We definitely rely on the resources we found during the project and the contacts we made during that process. We don't rely on them heavily, but they are a valuable resource.

THE COMMISSIONING PROCESS

We use a post-certification tracking system where we make sure that everything is still in place and functioning. We also use energy monitoring, a service which is provided by our utility company that allows us to track our consumption of energy on a daily basis and also look at historic patterns. Using this tool gives us a feel for how the building, how each of our buildings, is performing. We also monitor the building through our participation in the ENERGY STAR⁸ program. Our building is listed and monitored by ENERGY STAR; the ratings are given out monthly, and those are given to the property managers and owners as necessary. Everybody has a better understanding of where the building stands with its ENERGY STAR rating. It also helps us to understand greenhouse gas emissions.

MONITORING BUILDING PERFORMANCE

We didn't make a lot of changes to Liberty Centre. So far, there haven't been any major obstacles in the performance or maintenance of the systems. We do want to improve some strategies that LEED brought to our awareness, things that would make it easier for reporting and recording. An example is outside air measurement; that has always been a high-priority topic. If there isn't a specific instrument in place for measurement, then a lot of engineering work has to be done

to confirm the data. If you have something in place that's accurate, verifiable, and calibrated, then that's a very handy tool. We've made room in our budget for those tools.

There was a lot of concern during the project submittals about a possible conflict between preventive maintenance and tenant comfort. However, with our preventive maintenance system, the staff knows the systems very well and is able to synchronize and take advantage of opportunities as they arise.

OCCUPANT FEEDBACK

The tenants are glad we achieved LEED certification for Liberty Centre. They're excited about the measures they've taken since then and we hope to receive more positive feedback as time goes on. LEED did seem to have an impact on the tenants' perspectives on sustainability. However, we don't train the occupants. We do have information that we give out, but we have not fully incorporated occupant training yet. Since Liberty Centre is a multi-tenanted building, it's hard to project our wishes for change onto the tenants. It's possible, but it's still a challenge. However, we do hope to do some training in the future.

MAKING IMPROVEMENTS FOR THE FUTURE

It's definitely beneficial to have a basic training session on some type of sustainability. There are a lot of sustainability movements out there that will lessen the building's environmental impact. LEED is one of those. If you can get LEED training prior to working on a LEED project, that's great. At the minimum, some basic knowledge or training in sustainability is necessary for working in the field. A more transparent application process and a quicker response time would have made the process a lot easier. We would have pushed harder to get a higher certification if we'd had more time. Fortunately, we had GBS as our partner. They helped with the transition and made our interactions easier.

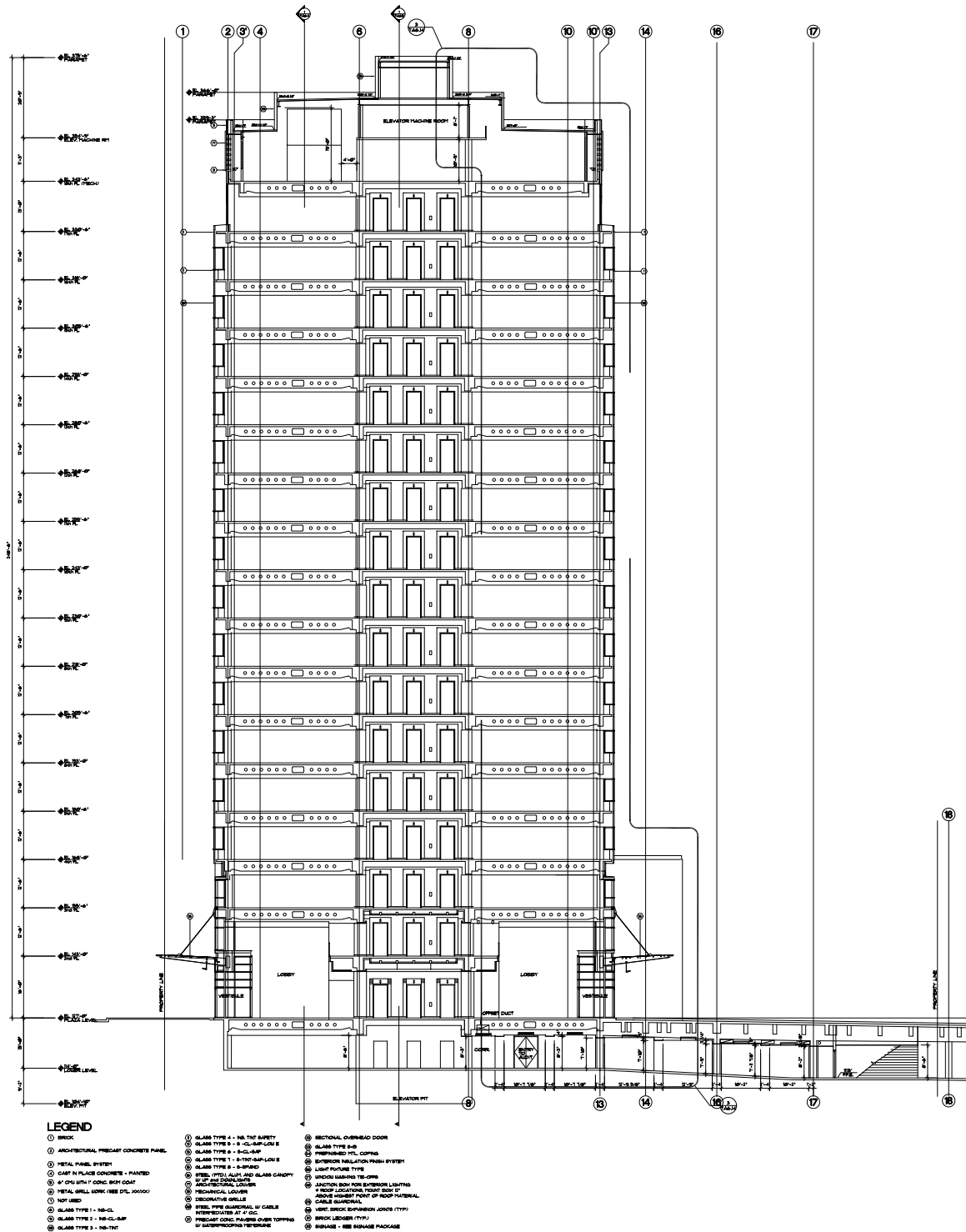
⁸ ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping Americans save money and protect the environment through energy efficient products and practices.

SHIFTING SKILLS

My job has gone to a new extreme, since I’ve essentially gone from an engineering focus to a full sustainability and environmental focus. All the engineers on staff have increased their awareness of sustainability issues such as energy and water conservation. They have each increased their knowledge.

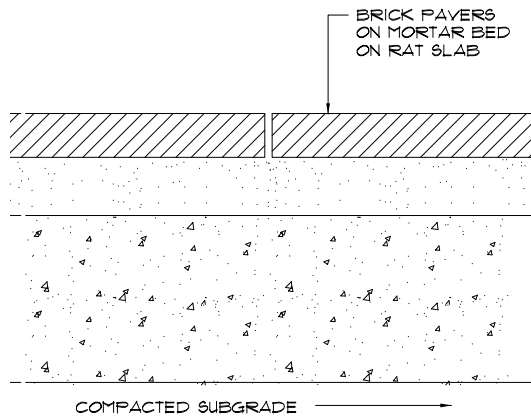
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APPENDIX A: IMAGES

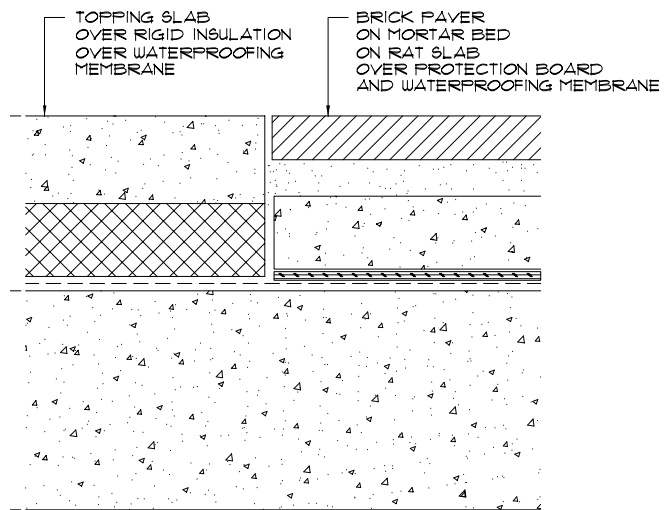


Section

GBD Architects, Portland, OR



BRICK PAVING DETAIL



THIS DETAIL APPLIES ONLY TO THE 2'-0"X2'-0" AREAS OF BRICK IN THE PLAZA

BRICK PAVING DETAIL

GBD Architects, Portland, OR



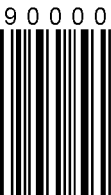
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"Liberty Centre is a 17-story office building [originally designed by GBD Architects], housing a variety of tenants. Located in the heart of Portland's Lloyd District, the building site is easily accessible by public transit, including a light rail stop just outside its doors. By providing educational information to tenants regarding the environmental features of the building, such as the inclusion of recycling containers throughout the space, Liberty Centre aims to encourage its tenants to make sustainable business choices."
– *Green Building Services Website*

Prepared for the U.S. Green Building Council by the Case Study Lab of the Center for Housing Innovation at the University of Oregon, this book documents the visioning, design, construction, and operation of the Liberty Centre in Portland, Oregon.



ISBN: 978-1-932444-43-8



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