

37%

water use reduction

48%

projected utility cost savings

78%

reduction of potable water use for irrigation

## The Allison Inn & Spa

Newberg, Oregon

Completion: September 2009  
Project Size: 32 acres, 150,000 sf, 85 Guest Rooms  
Statistics: Inn, Spa, Conference & Restaurant  
Owner: Springbrook Properties, Inc.  
Architecture: GGLO  
Landscape Architecture: GGLO  
Interior Design: GGLO  
Contractor: Lease Crutcher Lewis  
Civil Engineer: CardnoWRG  
Structural: KGA  
Enhanced Commissioning: BEA Consulting  
Electrical Engineer: Glumac  
Mechanical and Plumbing Engineer: Glumac

**LEED® Gold**



LEED for New Construction  
Certification awarded April 1, 2010

| Total LEED® Points           | 49       |
|------------------------------|----------|
| Sustainable Sites            | 09 of 14 |
| Water Efficiency             | 03 of 05 |
| Energy & Atmosphere          | 15 of 17 |
| Materials & Resources        | 07 of 13 |
| Indoor Environmental Quality | 10 of 15 |
| Innovation & Design          | 05 of 05 |



# SUSTAINABLE DESIGN CASE STUDY

## The Allison Inn & Spa

| LEED® POINT HIGHLIGHTS       |   |
|------------------------------|---|
| Sustainable Sites            |   |
| SS 4.2<br>4.3<br>4.4         | Alternative transportation for guests & employees including bicycling, low-emitting vehicles, & carpooling are encouraged                                     |
| SS 5.1<br>5.2                | Native & adaptive planting maximize open space & provide habitat  |
| SS 6.1<br>6.2                | Vegetated roof, swales & permeable paving filter & mitigate stormwater  |
| SSc7.2                       | Planted roof & low sloped roofing materials reject solar heat buildup to minimize the building's microclimate impact  |
| Water Efficiency             |   |
| WE 1.1                       | Drought tolerant landscape utilizing high efficiency irrigation reduce potable water use by over 78%  |
| WE 3.1<br>3.2                | High efficiency toilets, low-flow showerheads and faucet aerators reduce water use by 37%   |
| Energy and Atmosphere        |   |
| EA 1.1<br>thru<br>1.10       | Envelope improvements combined with digital controls, high efficiency mechanical systems, equipment and lighting provide a projected 48% energy costs savings |
| EA 2.1<br>2.2<br>2.3         | 56 kW photovoltaic array and 3,800 sf solar water heating reduce energy consumption   |
| Materials & Resources        |   |
| MR 2.1<br>2.2                | 90% of construction waste diverted from landfill  |
| MR 4.1<br>4.2                | 28% of total building materials contained recycled content  |
| MR 5.1<br>5.2                | 24% of materials regionally sourced & manufactured  |
| MR 7.0                       | 55% FSC certified wood products   |
| Indoor Environmental Quality |   |
| EQ 6.1<br>6.2                | Controllability of lighting and HVAC systems promote comfort and well-being for guests and staff  |
| EQ 7.1<br>7.2                | Quality HVAC systems provide thermal comfort  |
| EQ 8.1                       | Daylight is provided in 75% of the guest, public and staff areas  |

### Background

The Allison reflects the bounty of Willamette Valley and demonstrates that luxury, comfort and quality do not have to be compromised for energy efficiency and sustainability.

### Better Site Design:

- Vegetated swales, vegetated open-cell pavement, +10,000 sf of planted roof, and settling ponds slow down and remove potential pollutants from stormwater run-off
- Extensive native and adaptive vegetation used throughout and restored woodland along northern property boundary promote biodiversity

### Conserving Water:

- Drought tolerant vegetation & high efficiency irrigation reduces potable water use
- Irrigation system will accept future City of Newberg reclaimed water supply which will eliminate potable water use for landscape irrigation in the near future
- Low-flow showerheads, faucets, urinals, and high efficiency toilets reduce water use in public areas and guest rooms
- High efficiency kitchen equipment reduces potable water & water heating demand

### Conserving Energy:

The Allison consists of many uses which ordinarily would categorize this project as a high energy consuming property. However, incorporation of energy efficiency was a high priority throughout the design process. This focus resulted in an anticipated energy cost savings of almost 50% relative to a conventionally designed building:

- Solar Power: 56 kW photovoltaic array on southern rooftops produces electricity on-site to reduce the need for fossil fuels
- Solar Hot Water: rooftop collectors reduce the large need for heating water related to the kitchen, laundry, guest rooms, and spa
- Thermally broken, double-pane, low-e windows and south facing orientation reduce heating loads
- Variable Refrigerant Volume (VRV) heating and cooling provide superior efficiency in comparison to typical hospitality HVAC system



- Energy efficient lighting & controls reduce electricity usage

### Better Materials and Indoor Environment:

Materials were selected for their durability, promotion of healthy indoor air quality, recycled content and location of harvest and manufacturing:

- Low emitting paints, sealants, carpeting, and cabinetry combined with natural daylighting contribute to the health of the indoor environment
- 55% of total wood based materials are harvested from FSC certified forests.
- Rapidly renewable aspen fiber flooring enriches the spa while reducing the demand on old growth timber

