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Architectural PRODUCTS

JULY-AUGUST 2011



MARKET OF CHOICE

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PROJECT DECONSTRUCTION

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Las Vegas

TREND LINES

Keeping Hospitals Healthier

ACHIEVING LEED ON THE WESTERN SKYLINE



LAURANCE S. ROCKEFELLER PRESERVE INTERPRETIVE CENTER: Set in the shadows of the Teton ridge, a subtle and elegant structure perpetuates a legacy of environmental stewardship, conservation and nature's restorative power. **[PAGE 96]**

ACHIEVING LEED

Set in the shadows of the Teton ridge, a subtle and elegant structure perpetuates a legacy of environment stewardship, conservation and nature's restorative power.

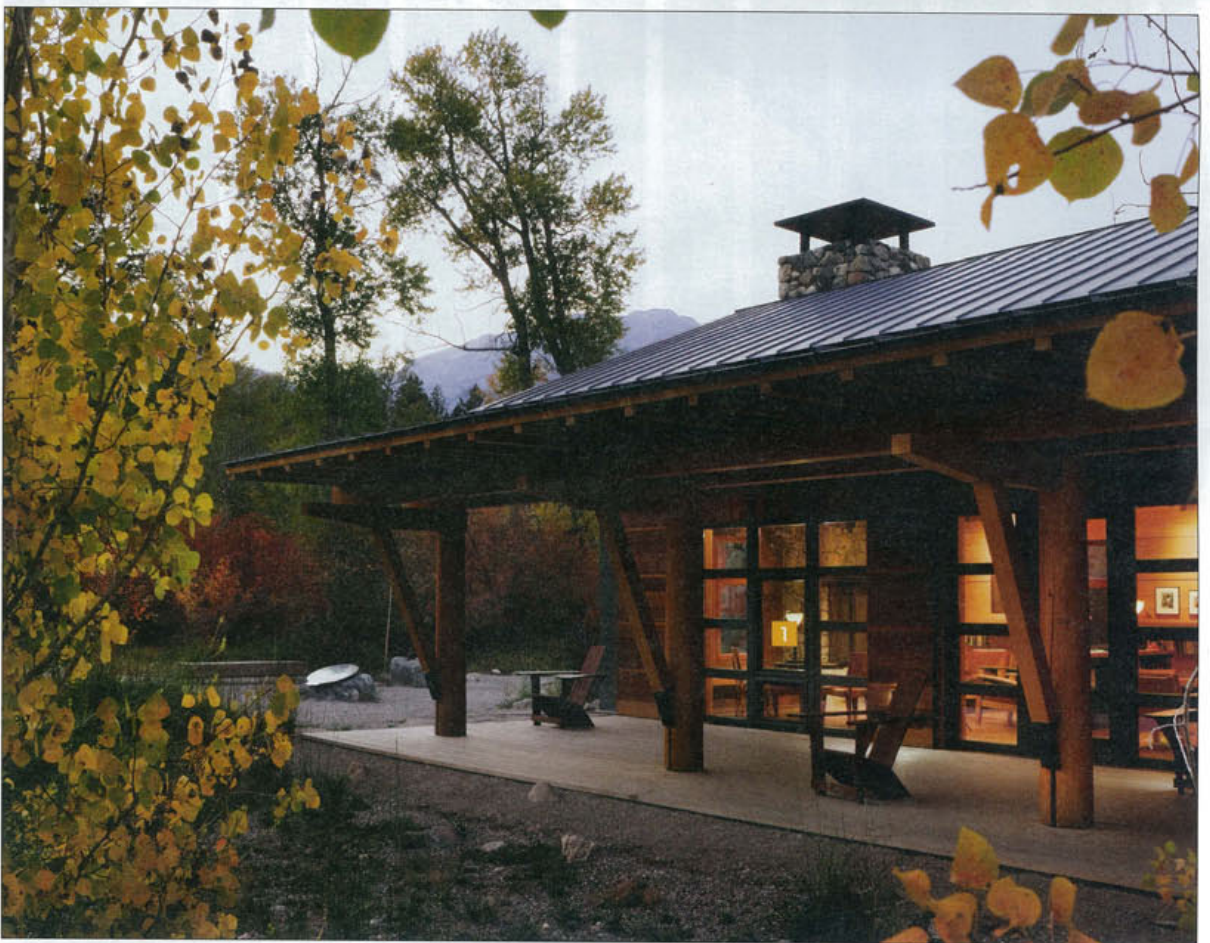
Project: Laurance S. Rockefeller Preserve Interpretive Center
Location: Grand Teton National Park, Moose, Wyo.
Owner: Grand Teton National Park
Architect, Interior Designer & LEED AP: Carney Logan Burke Architects, Jackson, Wyo.


General Contractor: GE Johnson Construction, Jackson
Size: 7,573 sq. ft.
Total Budget/Cost: \$7 million
Date completed: November 2007
LEED Rating: Platinum (LEED-NC, v2.1)
Photography: Paul Warchol and Nic Lehoux



LSR PRESERVE INTERPRETIVE CENTER: PRODUCTS

Product/Mfr./Brand:	LEED CREDIT:
<p>POROUS PAVEMENT: Brock White Construction Materials Model: GravelPaveze</p> <p>Gravel surface system creates a pervious load-bearing surface with stormwater and vehicle pollution filtration and heat energy reflective reduction qualities. Offers durable 5,721psi compressive strength for traffic and parking areas.</p>	<p>SS 6.2 (stormwater management, treatment); SS 7.1 (heat island effect, non-roof)</p>
<p>1 GLAZING: Serious Materials Model: Double Lock Standing Seam</p> <p>High-performance clear insulating glass combines an .21 U-factor (R-5 thermal resistance value) with up to a .36 SHGC and up to 63% visual transmittance. Also resists condensation and UV light damage.</p>	<p>EA 1.1 (optimize energy performance, 20%)</p>
<p>2 ROOFING & SIDING: Rheinzink Model: Graceful Collection</p> <p>Recycled-content metal roofing panels and flat lock siding tiles, both in a pre-weathered graphite gray finish, create a durable cladding that withstands extreme climates. Material also covers the building's seasonal snow shutters.</p>	<p>MR 5.1 (regionally manufactured material)</p>
<p>INSULATED CONCRETE FORMS: Rastra Model: N/A</p> <p>Composite insulated concrete form system for the exterior walls features 85% recycled-expanded polystyrene and 15% fly-ash content concrete for a durable, energy-efficient (R-22), sound-resistant, and noncombustible stay-in-place structural system.</p>	<p>MR 4.1 (recycled content, 5% post-consumer + 1/2 post-industrial)</p>



 **LEED-NC V2.1**
Rating: Platinum
Awarded: September 2007

LSR PRESERVE INTERPRETIVE CENTER, GRAND TETON NATIONAL PARK, MOOSE, WYO.

55 Points Achieved Possible Points **69**
 Certified: 21-26 Silver: 27-31 Gold: 32-41 Platinum: 42+

8 Sustainable Sites (SS) Possible Points **14**
 Mindful of its location, the center earned credits for minimal site disturbance as well as storm water management and light pollution reduction.

5 Water Efficiency (WE) Possible Points **5**
 Planting native species eliminated permanent irrigation while composting toilets and low-flow lavs reduced potable water use to a mere 3,400 gallons per year, a 96% reduction from the EPA baseline.

17 Energy & Atmosphere (EA) Possible Points **17**
 A 10kw solar array that offsets 45% of the center's electrical needs highlights a dedicated effort to optimize energy performance, protect the ozone, and support green power offsets.

8 Materials & Resources (MR) Possible Points **13**
 A construction waste management plan, reused resources, and the use of recycled-content, regionally manufactured, and certified products earned these credits.

12 Indoor Environmental Quality (IEQ) Possible Points **15**
 A pre-occupancy IAQ plan and the use of low-emitting materials, pollutant source controls, and environmental monitoring helped earn these points.

5 Innovation & Design Process Possible Points **5**
 The center was rewarded for its environmental education outreach, exemplary energy optimization, water savings and construction waste management practices.

MOUNTAIN MAJESTY

From afar, the Laurance S. Rockefeller Preserve Interpretive Center may not impress visitors the way others of its ilk attempt to do, and how could it in the shadow of the majestic peaks of the Tetons? So instead of trying to outdo the mountain ridge and surrounding timber stands, the center tucked itself into its environment, in every possible way. Upon closer review, it exudes an elegant simplicity while masterfully steering visitors through a self-guided experience of exhibits that tell the story of nature and its place while exemplifying a lighter environmental footprint. Relying on basic materials

in contemporary applications, such as structural ICFs and SIPs and zinc-coated metal roofing and siding, among a host of other specifications, the 7,500-sq.-ft. center is built to last. "We looked for materials that would be around for 200 years," says Kevin Burke, principal at Carney Logan Burke Architects in nearby Jackson, Wyo. As if the center needed validation for its stewardship, it is the first LEED-Platinum certified building in the National Park System, a model that its namesake and the project team hopes will inspire others to follow.



AT EASE IN NATURE

The L-shaped center allows visitors to find their own way and truly interpret the experience and their surroundings, though providing a subtle hint to its greater purpose of promoting environmental responsibility. The layout and features, such as a deep covered porch, welcoming resource library, and manipulation of daylight instead of mechanical fixtures delivers a residential-like comfort, scale, and familiarity that puts people at ease. In addition to promoting nature, the center promotes and educates its visitors about

its exemplary accomplishments: a 97% reduction in potable water use; an 81% savings in energy consumption; that 69% of the wood used is FSC-certified; and that almost 97% of construction waste—including the removal of 35 existing structures from the Rockefeller family retreat it replaced—was diverted from landfills for re-use or recycling, among a thoughtful integration of resource-efficient, recycled-content, low-emitting, and regionally manufactured materials and products.

LSR PRESERVE INTERPRETIVE CENTER: PRODUCTS	
Product/Mfr./Brand:	LEED CREDIT:
<p>STRUCTURAL INSULATED PANELS: R-control Model: n/a</p> <p>An R-61 rated SIPs roof system consists of proprietary EPS insulation laminated between structural OSB sheathing, for a thermally efficient and tight building envelope.</p>	MR 5.1 (regional materials)
<p>EXTERIOR CLADDING: Spearhead Timberworks Model: Flat grain clear cedar</p> <p>FSC-certified cedar—the building's primary exterior finish cladding—connects with surroundings and celebrates renewable timber.</p>	MR 7 (certified wood)
<p>WINDOWS: Albertini Windows Model: Custom</p> <p>Aluminum-clad wood windows provide daylight and views to the majority of the Center while maintaining the integrity of the thermal envelope.</p>	IEQ 8.2 (daylight & views for 90% of spaces)
<p>COMPOSTING TOILET: Clivus Multrum Model: (various)</p> <p>Composter with foam-flush toilet fixture requires only 6 oz. water and a drop of soap to flush waste and reduce water use 97%. Prevents waste from polluting surface and groundwater.</p>	WE 2 (innovative wastewater technologies)
<p>COMPOSITE WOOD PANELS: Sierra Pine Model: Medex</p> <p>Sustainable Design Fiberboard (SDF) combines moisture resistance, MDF board properties and a formaldehyde-free adhesive to create a VOC-free panel.</p>	IEQ 4.4 (low-emitting materials, composite wood)
<p>PAINT: AFM Model: Safecoat 164-A</p> <p>SCS-certified Flat Zero VOC is a premium quality, fast curing paint with almost no odor during application and no odor once cured. Tintable to thousands of colors.</p>	IEQ 4.2 (low-emitting materials, paints and coatings)
<p>ACOUSTICAL PANELS: Woodtrends Model: Toplevel SoundSeal</p> <p>FSC-certified larch-based planks combine perforated rigid materials, sound-absorptive backings, and proper spacing for superior acoustics.</p>	MR 7 (certified wood)
<p>FLOOR GRILLE: Mats Inc. Model: UltraTrack</p> <p>Flush-mounted, heavy gauge aluminum floor grille mitigates tracking of pollutants through the center; also contains 64% pre-consumer and 16% post-consumer content.</p>	IEQ 5 (indoor chemical & pollutant source control)

POROUS PAVEMENT: Brock White Construction Materials. www.brockwhite.com, Circle 403

GLAZING: Serious Materials. www.seriouswindows.com or Circle 402

ROOFING & SIDING: Rheinzink. www.rheinzink.com or Circle 401

ICFS: Rastra. www.rastra.com or Circle 400

SIPS: R-Control. www.r-control.com or Circle 399

CLADDING: Spearhead Timberworks. www.spearheadtimberworks.com, Circle 398

WINDOWS: Albertini Windows. www.albertini.com, Circle 397

TOILET: Clivus Multrum. www.clivusmultrum.com or Circle 396

COMPOSITE WOOD PANELS: Sierra Pine. www.sierrapine.com or Circle 395

PAINT: AFM. www.afmsafecoat.com or Circle 394

ACOUSTICAL PANELS: Woodtrends. www.woodtrends.com, Circle 393

FLOOR GRILLE: Mats Inc. www.matsinc.com or Circle 392