

# MATERIALS GUIDE TO THE JEAN VOLLUM NATURAL CAPITAL CENTER

The Jean Vollum Natural Capital Center has been awarded gold-level Leadership in Energy and Environmental Design (LEED) certification under the strict standards developed by the U.S. Green Building Council. It is — nationwide — the first restoration of a historic building to earn the LEED gold rating. The certification considers such factors as water efficiency, energy performance, siting, materials, and indoor air quality.

Originally constructed as a warehouse in 1895, the Natural Capital Center building was acquired by Ecotrust in 1998 with the help of an extraordinary gift from philanthropist and founding board member Jean Vollum.

Ecotrust's renovation of the brick and timber building respects the character of the original 1895 structure while incorporating environmentally-innovative materials and techniques. The redevelopment contractor, Walsh Construction, has estimated that more than 98 percent of the construction waste has been recycled or reclaimed, a Portland city record. The building also features an "ecoroof" that, together with street-level land-scaping, filters and absorbs almost all of the site's rainwater, eliminating contaminated runoff to the Willamette River.

# **BUILDING TEAM**

**OWNER** (503) 227-6225 Ecotrust Properties, LLC, Spencer Beebe and Bettina von Hagen (503) 228-0272 Heritage Consulting Group, Robert Naito (503) 233-9856 HOLST Architecture P.C., Jeffrey Stuhr GENERAL CONTRACTOR (503) 222-4375 Walsh Construction Co., Dan Snow and Carrington Barrs STRUCTURAL ENGINEER (503) 227-3251 KPFF Engineers, Blake Patsy MECHANICAL ENGINEER (503) 659-6394 Interface Engineering, Andy Frichtl CIVIL ENGINEER (503) 227-3251 KPFF Engineers, Susan VanDyke INTERIOR DESIGN (503) 228-5122 Edelman Sojaga Watson, Carol Edelman SUSTAINABILITY CONSULTANT (503) 823-7725 Greg Acker Architecture, Greg Acker LANDSCAPE ARCHITECT (503) 227-5802 Nevue Ngan Associates, Bo Nevue LEED CONSULTANT (503) 603-1661 PGE Green Building Services, Ralph DiNola PROPERTY MANAGEMENT (503) 233-4048 Ashforth Pacific, Inc., Wade Lange



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#### **ECOCOLORS CABINET FACES**

MANUFACTURER:
VIDA, a division of
Architectural Forest Enterprises
3775 Bayshore Blvd.
Brisbane, CA 94005
(415) 467-4800
(800) 483-6337
www.4VIDA.com

#### 2ND FLOOR KITCHEN & SUPPLY ROOM

The cupboards in the kitchen and supply room consist of Ecocolors FSC certified particle board, with a certified maple core, supplied by Collins Pine for manufacturing by VIDA. The finishing process, which gives the cupboards a smooth, shiny surface, involves running the panels under ultraviolet light, which produces zero emissions and very little waste.

#### FSC CERTIFIED WOOD CABINETS

Twenty-Four Seven Incorporated 425 NE 9th Ave. Portland, OR 97232 (503) 222-7999 www.twentyfour7.com

# 3RD FLOOR RECEPTION, 2ND FLOOR CONFERENCE CENTER

The lobby 'Piazza' wetbar and CFPC reception casework cabinets include FSC certified hardwood and UV finished particleboard panels. Materials were donated by VIDA from the Bay area and the casework manufactured by Portland's own Twenty-Four Seven. VIDA also manufactured the FSC certified table, credenza, and media cabinet in the conference room.

#### **COMPOST**

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#### **VERMICULTURE BINS**

VERMICULTURE SUPPLIER: Earth Angel Worm and Garden (503) 234-WORM

WORM BINS, COCONUT COIR: Portland Nursery (503) 231-5050

#### 3RD FLOOR PATIO

Food scraps from offices in the building are composted in the worm bins on the 3rd floor patio. Vermiculture is fast becoming a widely used method for small-scale, well-contained composting in urban areas. The red worms live in dark, well-ventilated bins filled with shredded newspaper, coconut coir, and kitchen scraps, where they eat and digest food rapidly and produce castings, which are an excellent, nutrient-rich organic fertilizer.

#### **COUNTERTOPS**

#### COTDUCT D

# ECOTRUST RECEPTION DESK

SUPPLIER:
Creative Concrete Co.
4038 SW Garden Home Rd.
Portland, OR 97219
(503) 293-6998
www.willcareystudios.com

# 2ND FLOOR, MAIN ENTRANCE

Will Carey from Creative Concrete Co. combined precast concrete with glass marbles from Hippo Hardware, cast-off glass scraps from Bullseye Studios and Klein Glass in Portland, and ceramic aggregate to create the mix for the Ecotrust reception countertop. He then hand cast the mix with metal objects he had collected from the floor of the old warehouse, along with pulleys he'd salvaged and cleaned that had originally supported sliding doors on the second floor. The recycled artifacts, each representing a moment in the building's history, are sealed in place with a gloss acrylic.

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#### KITCHEN COUNTERTOP TILE

SUPPLIER:
Crossville Porcelain Stone
P.O. Box 1168
Crossville, TN 38557
(931) 484-2110
www.crossville-ceramics.com

DISTRIBUTOR: United Tile 3435 SE 17th Ave. Portland, OR 97202 (503) 231-4959

# 2ND FLOOR KITCHEN

The Eco-Cycle porcelain stone tiles in the 2nd floor kitchen consist of 95% unfired raw materials. The ingredients are the by-products of other firing processes, creating a use for materials that would otherwise leave the manufacturing plant to contribute to a landfill.

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#### MARMOLEUM COUNTERTOPS

SUPPLIER:
Environmental Building Supplies
819 SE Taylor St.
Portland, OR 97214
(503) 222-3881
www.ecohaus.com

MANUFACTURER: Forbo Linoleum, (800) 842-7839 www.forboLinoleumNA.com

### THROUGHOUT

The marbleized linoleum in the 2nd floor bathrooms, supply room, and on various countertops throughout the building, is made from all natural, renewable resources. The primary ingredients in Marmoleum, as it is commonly called, include: Linseed oil (pressed seeds from the flax plant), wood flour (from controlled forestry practices, no tropical hardwoods used), pine rosins (mixed with the oxidized linseed oil), and jute fiber (spun into yarn and applied as backing).

ARTWORK

FOR MORE INFORMATION
ON THE ARTISTS:
PDX Contemporary Art
(503) 222-0063
www.pdxcontemporaryart.com

The large-scale paintings hanging in the Natural Capital Center reflect the work of an eclectic group of successful contemporary artists, many of which are from the Pacific Northwest.

I'm Very Well Protected, Gregory Grenon, 1991

2ND FLOOR ECOTRUST RECEPTION AREA

Mother Earth watches closely and takes note of the latest ideas and activities generated in her honor.

Anapurna, Nancy Lorenz, 1998

2ND FLOOR STAIRWAY

Working in the style of the optical artists, Nancy Lorenz has created in *Anapurna* a scene of the natural world. Mother-of-pearl inlays shift colors with the passing light from the skylights overhead. They are stars shining in a night sky or reflecting onto deep blue waters, which perhaps harken back to the artist's youth in Japan.

Like Rain, James Lavadour, 1995

2ND FLOOR CORRIDOR

James Lavadour, a member of the Walla Walla Tribe, lives on the Umatilla reservation in eastern Oregon. He is a self-taught artist who started painting landscapes in the 1970's. His paintings explore the relationships between earth, flesh, air, and water, and they are a response to the terrain in which he has lived his entire life, the Blue Mountains of eastern Oregon.

Mandala, Mary Henry, 1969

2ND FLOOR CORRIDOR

Mary Henry has been painting for decades out of her home in Whidbey Island, north of Seattle, WA. Now in her eighties, she has recently built a new art studio, and continues to paint every day. Her work is also on display at the Portland Art Museum.

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MOOSE DONATION The Beebe Family 2ND FLOOR ATRIUM

The moose is a donation from Spencer Beebe, Ecotrust founder and president. It was shot by his great grandfather in Alaska near the turn of last century, about the same time the Natural Capital Center was built. "It is a relic of a former age, an heirloom, art, a ghost of the past," says Beebe, and a reminder of a time when many people came here to hunt and fish. It is a reminder that today many people in parts of the Coastal Temperate Rainforest with whom Ecotrust works continue to subsistence hunt and fish.



SIGNAGE

Architectural Signage Northwest 2121 NW York St. Portland, OR 97210 (503) 227-2121 Anstey Healy Design

1231 NW Hoyt St. Suite 204 Portland, OR 97209 (503) 295-1979 www.ansteyhealy.com

Lee's Better Letters (503) 232-1448 THROUGHOUT

The goods, ideas, and services created within the walls of the Natural Capital Center leave their mark on the physical space through the signage, stenciled with careful detail by Lee Littlewood and Lee's Better Letters.

The list of donors at the 10th Avenue entrance is encased within the old cover to the McCraken warehouse boiler.

Tenant signage is engraved on Douglas Fir salvaged from the warehouse demolition, and Anstey Healy Design created the template for the additional signage.

#### **ENERGY**

APPLIANCES

REFRIGERATOR:
Arctic Air Co.
Broich Enterprises, Inc.
6440 City West Parkway
Eden Prairie, MN 55344
(925) 941-2270
www.arcticarico.com

DISHWASHER: Kenmore, www.kenmore.com 2ND FLOOR KITCHEN

**THROUGHOUT** 

The refrigerator in the 2nd floor kitchen is certified by the California Energy Commission as an energy-efficient model. Its daily energy consumption is 1.3 kWh.

The dishwasher in the 2nd floor kitchen is a Kenmore Elite Energy Star model. The normal cycle, which varies between 70-90 minutes, 6.5-10.8 gallons, depending on need, meets the energy efficiency standards as defined by the federal Energy Star program.

Both the dishwasher and refrigerator are shared by all tenants on the 2nd floor. Their efficiency contributes greatly to the building's overall energy savings of 23%, as compared to the ASHRAE national energy code.

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**GREEN POWER** 

The Natural Capital Center purchases twenty-two blocks, at 100 kWh/block, of Clean Wind and Salmon Friendly power each month through Portland General Electric Company's Renewable Power program. One half of the monthly payment supports construction of new wind power facilities or salmon habitat restoration projects, while the other half supports the higher costs associated with renewable power acquisition.

Portland General Electric P.O. Box 4404 Portland, OR 97208-9581 (800) 542-8818 www.PortlandGeneral.com

ENROLLMENT INFORMATION:

HOT LIPS PIZZA OVEN CONTACT: Dave Yudkin, Hot Lips Pizza (503) 817-5116 www.hotlipspizza.com

1ST FLOOR

The oven in Hot Lips Pizza is a bread oven typically found in bakeries. At twice the size of a conventional pizza oven, the bread oven consumes half as much energy to bake large volumes of pizza. The oven is equipped with a heat exchanger, which uses heat from the oven to warm water that feeds into the hot water heater in the basement. To further maximize heat efficiency, the oven is lined with over 1000 pounds of insulation.

**HVAC SYSTEM** CONTACT: Hunter Davisson, Inc. 3410 SE 20th Ave. Portland, OR 97202 (503) 234-0477 www.hunterdavisson.com **THROUGHOUT** 

The HVAC system for the Natural Capital Center is a variable air volume model, which allows the percentages of fresh and recycled air to vary depending on the existing conditions in the building. It is equipped with carbon dioxide sensors that trigger a flush of fresh air through the building when the air has grown stale. The space temperatures are set at more efficient levels, summer/winter at 76 deg F/68 deg F rather than 74/70, putting less strain on the energy requirements for the building. Consequently, the Natural Capital Center's energy costs are 23% lower than ASHRA's specified standard.

#### **EXTERIOR**

**ASPHALT** PAVERS SUPPLIER: Mutual Materials

P.O. Box 333 Tualatin, OR 97062-0333 (503) 624-8860

ASPHALT SUPPLIER: Morse Brothers www.morsebros.com

INSTALLATION: Tom Fischer Trucking 53990 W. Lane Rd. Scappoose, OR 97056 (503) 543-7979

PARKING LOT

The concrete pavers and semi-permeable asphalt in the Natural Capital Center parking lot are two important components of the Natural Capital Center's stormwater management system.

While traditional concrete is often designed with little to no permeability, sending stormwater runoff into city drains and eventually the closest waterways, these pavers and asphalt are designed to reduce or eliminate stormwater runoff by absorbing the water and returning into the ground below. This recharges the groundwater supply and diverts stormwater from the city's already overloaded stormdrains. Permeable asphalt is best suited for large expanses. In small applications, as is the case here, the material is not applied evenly, leading to premature breaking and crumbling of the material.

**BIOSWALES** 

LANDSCAPE ARCHITECT: Nevue Ngan Associates Bo Nevue, Landscape Architect 1006 Grand Ave., Suite 250 Portland, OR 97214 (503) 239-0600

INSTALLATION: Cedar Landscape, Inc. 14145 SW Galbreath Dr. Sherwood, OR 97140 (503) 625-3700

PARKING LOT

The long, narrow strips of landscaping in the parking lot are part of the Natural Capital Center's stormwater management system. The swales are bottomless; all of the rainwater they receive from the parking lot and the roof's downspouts will filter through the vegetation and soil to then either evapotranspirate into the atmosphere or seep into the groundwater. The native plants were carefully selected for their ability to tolerate seasonal fluctuations between inundations of water and intense heat. Once established these plants require little maintenance, and will receive irrigation from rainwater alone.

**GRANITE BENCHES** 

POLISHING AND ENGRAVING: Great Northwest Granite & Marble 1921 SE Hawthorne Portland, OR (503) 238-1905

**10TH AVENUE SIDEWALK** 

The polished and engraved granite benches on 10th Avenue were originally the curbs in between the sidewalk and street on NW Johnson. They are inscribed with the words of various harbingers of a conservation economy, such as Wendell Berry, Jane Jacobs, and the Haisla Nation of British Columbia.

**RELIC WALL** 

DECONSTRUCTION: Walsh Construction Co. Center's Deconstruction Services 3625 N. Mississippi Ave. Portland, OR 97227 (503) 331-1877 www.rebuildingcenter.org

**10TH AVENUE SIDEWALK** 

At a close distance from the Natural Capital Center's 10th Avenue entrance stands all that remains of the McCraken warehouse annex. At the time of breaking ground for the Natural Capital Center, the annex was with training from The Rebuilding not structurally sound, leaving no other option but to painstakingly deconstruct and recycle all of the annex's building material. Salvaged Douglas Fir columns and framing material moved from the annex to the third story penthouse, which was re-engineered to support the historic wood. The annex also provided material for the atrium, where the original timbers coexist with salvaged, re-milled wood. Approximately 98% of the deconstructed material was reused or recycled, a record for the city.

FLATSCREENS 1st floor atrium

TECHNICAL ASSISTANCE: Concept to Reality, Tim Canfield 14316 SE River Rd. Milwaukee, OR 97267 (503) 805-5284 The Tidepool.org computer and its counterpart, the flatscreen, both located in the atrium, are fueling stations for visitors and tenants seeking inspiration and education about the ideas and actions of a conservation economy. Here one can catch up on the bioregion's latest news stories, carefully selected and updated daily by the editors at Tidepool.org. Opposite the Tidepool computer one can view the flatscreen's newest slide show, featuring images and text on various themes of a conservation economy.

FIREPLACE 3RD FLOOR PATIO

Fireside Dist. of Oregon, Inc. 18389 SW Boones Ferry Rd. Portland, OR 97224 (503) 684-8535 Tenants and visitors can enjoy the city views and fresh air year round thanks to the warmth and comfort of the 3rd floor patio's outdoor fireplace. The fireplace builds on a long tradition in the Pacific Northwest of gathering around the fire to share stories and resolve conflicts.

#### **FLOORING**

CARDECKING REFINISHING: Bachelor Hardwood P.O. Box 852 Welches, OR 97067 (503)-622-7642

The floors on the main level of the Natural Capital Center are the original Douglas Fir planks that were milled for the warehouse over a century ago. In order to restore the wood without jeopardizing its historical integrity, the planks were sanded and refinished with Glitsa Infinity Non-Flat Water Based Finish for wood floors, used in conjunction with Glitsa Infinity Color Control Sealer, products that are low in volatile organic compounds. The joints are filled with colored cork shavings.

CARPET AND CARPET TILE SUPPLIER: Interface, Inc.

www.ifsia.com

2ND FLOOR THROUGHOUT

1ST FLOOR PUBLIC AREAS

All of the carpets on the 2nd floor are manufactured by Interface, Inc., and meet the requirements of the Carpet and Rug Institute Green Label Indoor Air Quality Test Program. Interface, Inc. is striving to become the world's first sustainable industrial corporation, a goal the company established worldwide in 1994. To achieve their goal, Interface defined a seven-step process: Eliminate waste; Release only benign emissions; Use renewable energy; Close the loop of materials flow; Create resource efficient transportation strategies; Provide a "sensitivity hookup"; Redesign commerce. As a corporation with offices and manufacturing plants worldwide, Interface Inc. is fast becoming a powerful voice for the promotion of a conservation based economy.

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#### COCO-MATS NATURAL FIBER FLOOR COVERINGS

1ST FLOOR INTERIOR ENTRYWAYS

1ST FLOOR, PATAGONIA; 3RD FLOOR, SUITE 300

SUPPLIER: Alison T. Seymour, Inc. 5423 W. Marginal Way S.W. Seattle, WA 98106 (206) 935-5471 (800) 227-5471 Coco-Mats are made from 100% coconut coir with solid PVC backing. Coconut coir consists of the shredded outer shell of the coconut, which is a widely available, renewable resource that is gaining in popularity in the United States.

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CORK FLOORING
SUPPLIERS:
Natural Cork LLC
1825 Killingsworth Rd.
Augusta, GA 30904
(800) 404-2675
Built-e, Inc.

www.built-e.com

The flooring in the Patagonia reading room and the conference and supply rooms in Suite 300 comes from the bark of the cork tree, Quercus suber, which grows in Mediterranean climates. The cork is harvested from live trees every 10–15 years, which is the length of time necessary for the bark to regenerate. When done responsibly, cork can be harvested from the same tree for up to ten to fifteen cycles.

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#### GUARIUBA HARDWOOD FLOOR

3RD FLOOR LOBBY

SUPPLIER: Colonial Craft Specialties 2772 Fairview Ave. N. Roseville, MN 55113 (800) 727-5187 www.colonialcraft.com The 3rd floor lobby greets visitors with a colorful guariuba (Clarisia racemosa) hardwood floor. FSC certified Guariuba is a "lesser known species" and was selected specifically to encourage responsible forest management. While hundreds of species proliferate in the forest where these trees grow, barely a dozen prosper in the marketplace. Until consumption more closely parallels the diversity of outputs from the forest, there is little incentive to maintain forests in their natural condition. The selection of a lesser-known species sends a signal to the forest land manager that diversity in the forest is a valuable asset.

IPE DECKING

SUPPLIER: EcoTimber/Hayward Lumber 1020 Heinz Ave.

Berkeley, CA 94710 (510) 549-3000

IMPORTER:

Sylvania Certified LLC (800) 468-6139

www.certifiedwood.com

MARMOLEUM FLOORING

SUPPLIER:

**Environmental Building Supplies** 819 SE Taylor St. Portland, OR 97214 (503) 222-3881

www.ecohaus.com

MANUFACTURER: Forbo Linoleum, (800) 842-7839 www.forboLinoleumNA.com

RUBBER FLOORING

SUPPLIER:

Atmosphere Recycled Rubber Flooring West Coast Services (800) 465-4605

3RD FLOOR PATIO

The wood for the 3rd floor patio is Ipe, an Amazonian hardwood that was grown and harvested sustainably from an FSC certified forest in Bolivia. The decking came in shorter lengths to increase the log utilization, a process which overcomes a serious problem in many Latin American milling operations: wood waste. The decking is an intermediate size in-between the typical 4" and 6" nominal width, which also reduces waste at the mill level. Its sturdiness is such that it does not require any protective finish; the visible color is its natural hue.

#### 2ND FLOOR RESTROOMS & SUPPLY ROOM

The marbleized linoleum in the 2nd floor bathrooms, supply room, and on various countertops throughout the building, is made from all natural, renewable resources. The primary ingredients in Marmoleum, as it is commonly called, include: Linseed oil (pressed seeds from the flax plant), wood flour (from controlled forestry practices, no tropical hardwoods used), pine rosins (mixed with the oxidized linseed oil), and jute fiber (spun into yarn and applied as backing).

2ND FLOOR PUBLIC AREAS

The black and blue interlocking rubber tiles on the 2nd floor are made from post-consumer, single-ply, nonlaminated recycled rubber tires with colored rubber granules. The flooring emits little to no volatile organic compounds and requires no adhesive for installation, further reducing the potential for toxic emissions. Style: Impact; size: 4mm x 38" square.

# FURNISHINGS & UPHOLSTERY

ADIRONDACK CHAIRS

SUPPLIER: LWO Corporation Arboria Garden Furniture P.O. Box 17125 Portland, OR 97217

(503) 286-5372 www.lwocorp.com

CEDAR BENCHES

SUPPLIER: Sarita Furniture Box 1269

Port Alberni, BC CANADA V9Y 7M1 (888) 472-7482

www.sarita.net

www.maharam.com

3RD FLOOR PATIO

3RD FLOOR PATIO

The Adirondack chairs on the 3rd floor patio are made from the South American hardwood Eucalyptus grandis, and are FSC certified. The wood is pre-finished with a rich mahogany colored oil for protection against weathering. The chairs are manufactured for LWO Corporation's Arboria line of garden and patio furniture. LWO Corporation is a Portland-based company "dedicated to seeking out sources of high quality lumber which is grown and harvested using sustainable, environmentally responsible forestry techniques."

Sarita Furniture in British Columbia provided the FSC certified Western Red Cedar benches on the 3rd floor patio. Sarita Furniture products are certified through SmartWood, and were the first forest products in

British Columbia to receive certification through the SmartWood Forest Certification Program.

ECOTRUST WAITING AREA ARMCHAIRS

2ND FLOOR ATRIUM

SUPPLIER: The fabric for the armchairs in the Ecotrust waiting area contain 78% post-industrial recycled polyester. Maharam (800) 645-3943

SUPPLIER: Herman Miller Zeeland, Michigan (800) 851-1196 www.hermanmiller.com

HERMAN MILLER FURNISHINGS CONFERENCE ROOM TABLES AND CHAIRS [STYLE: CAPER] ECOTRUST OFFICE SYSTEM STYLE: RESOLVE SUITE 300 OFFICE SYSTEM [STYLE: PASSAGE]

2ND FLOOR 2ND FLOOR 3RD FLOOR

The furnishings for the Ecotrust and CFPC offices, and the 2nd floor conference center, are from Herman Miller. Herman Miller's corporate environmental goal is, "To become a sustainable business by manufacturing products without reducing the capacity of the environment to provide for future generations." As a manufacturer of office furniture, Herman Miller has taken great strides to achieve their goal. Much of their furniture contains between 40-100% recycled content (by weight) and all steel, aluminum, and polypropylene components are 100% recyclable. The wood desks included in the office system in Suite 300 are FSC certified and include cherry, red and white oak, sugarpine, and hard and soft maple veneers.

#### THE JOINERY TABLES AND CHAIRS

The Joinery 4804 SE Woodstock Blvd. Portland, OR 97206 (503) 788-8547 www.thejoinery.com

1ST FLOOR ATRIUM; 2ND FLOOR RESOURCE LIBRARY The maple for the tables in the first floor atrium comes from the Collins Companies' forests in Pennsylvania, which have been certified by the Forest Stewardship Council to be sustainably harvested. Sustainably managed forests like these provide most of the wood used at The Joinery. Readily renewable materials: limestone, cork and wood flours, resin and jute comprise the marmoleum surface that tops the tables.

RESOURCE LIBRARY SEATING

SUPPLIER: Pendleton Woollen Mills (800) 760-4844 www.pendleton-usa.com The benches in the Natural Capital Center Resource Library are upholstered with textiles from Pendleton Woollen Mills. In the early 1900's, as the McCraken warehouse first began to flourish, Pendleton blankets were primarily known as a standard of value for both trade and credit amongst the Nez Perce, Navajo, Hopi, and Zuni nations. Today, as the Natural Capital Center brings new life to the old warehouse, Pendleton Woollen Mills continues to thrive as a family-run business, expanding its products list to include men's and women's clothing, accessories, and upholstery. Style: Sioux Belt fabric

#### ROBLE & IPE TABLES AND CHAIRS

3RD FLOOR LOBBY

2ND FLOOR

SUPPLIER: Sylvania Certified LLC (800) 468-6139 www.certifiedwood.com The tables and chairs in the 3rd floor lobby and patio are FSC certified roble and ipe, imported from Bolivia by Sylvania Certified LLC. The roble and ipe trees are both very slow growers; they are harvested after reaching at least 120 years in age, resulting in a naturally durable, stable wood ideal for outdoor conditions. Styles: Julia, Cassatt, Cézanne



SALVAGED MATERIALS CARPENTERS: Arlo Manion 6108 SE Stark Portland, OR 97215

Terry Tebeau 939 SE Alder Portland, OR 97214 (503) 236-9441

**THROUGHOUT** 

Independent fine furniture makers built several furniture pieces for the Natural Capital Center from salvaged wood. Terry Tebeau, applied artist/designer, made the STOOLS in the atrium, the EVENT CENTER PEDESTALS and PODIUM, 2nd floor BUILDING DIRECTORIES, free-standing COATRACKS and COAT HOOKS, and the TIDE-POOL WORKSTATION, all from salvaged Douglas Fir trusses, scrap plywood, and wainscoting. He also designed the space and built the furniture for the Progressive Investment office, Suite 250. Arlo Manion built the inserts for the CONFERENCE TABLE in the Ecotrust Alder Room and the KITCHEN TABLETOP from salvaged Douglas Fir. The COFFEE TABLE in the Ecotrust waiting area and the stands for the kitchen table were originally gears for the old warehouse freight elevator. Carrington Barrs of Walsh Construction Co. salvaged some old Douglas Fir floor joists for the WOODEN BENCHES in the parking lot and basement locker rooms.

# INSULATION

**ICYNENE** SUPPLIER:

Icynene Insulation System (800) 758-7325 www.icynene.on.ca

3RD FLOOR In order to better insulate the building, walls and ceilings were sealed from draft and moisture with

Icynene, a polyicynene expanding foam insulation. It is applied as a spray foam but does not contain ozone-destroying gases or formaldehyde, making it the only insulation material on the market certified by the Envirodesic Certification Program for healthier indoor air quality. It does not contain any detectable volatile organic compounds.

JANITORIAL SERVICE **BASEMENT OFFICE** 

Corporate Building Maintenance 16055 SW Walker Rd., Suite 129 Beaverton, OR 97006

CLEANING SUPPLIES: The Leaf Project (877) ECO-LEAF www.leafproject.com Corporate Building Maintenance, Inc., which provides the janitorial service for the Natural Capital Center, is "committed to eliminating the use of environmentally hazardous products and chemicals associated with the maintenance of commercial facilities." Their cleaning materials, supplied by The Leaf Project, are biodegradable, all natural, phosphate free, and without any animal by-products or perfumes. The proceeds from The Leaf Project cleaning products support environmental education in schools and the work of various environmental organizations. Their work is supported by Rainforest Action Network and the Earth Island Institute.

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#### CONFERENCE CENTER DECORATIVE FIXTURES

2ND FLOOR

SUPPLIER: Louis Poulsen www.louispoulsen.com (954) 349-2525 The lighting fixtures in the conference center were custom fabricated to use compact fluorescent lamps with a dimming ballast. These fixtures work as part of a two-tiered lighting design, in conjunction with the fluorescent lamps that hang one level above. The two-tier design provides a wide array of efficient lighting levels, for the multiple needs of a diverse space. Style: PH6 maxi.

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FLUORESCENT FIXTURES

SUPPLIER: Prudential Lighting (213) 746-0360 www.prulite.com 2ND FLOOR THROUGHOUT

The fluorescent fixtures visible throughout the building are designed with a dual circuit switch for use of one or two lamps, as needed.

OCCUPANCY SENSORS

THROUGHOUT

Several of the lights throughout the building have occupancy sensors, which turn lights off automatically when a space is not in use, while lights in the atrium brighten or dim automatically depending on the amount of natural light available from the skylights. Such measures have significantly reduced the building's total energy consumption, which is 23% less than that of a conventional building of the same size.

#### PAINT

METRO PAINTS

PAINT DROP-OFF/
FACTORY DIRECT PRICES:
METRO Household Hazardous
Waste Facility
METRO South Station
2001 Washington St.
Oregon City, OR 97405
(503) 650-1384
www.metro-region.org

RETAIL LOCATION:
Environmental Building Supplies
819 SE Taylor
Portland, OR 97214
(503) 222-3881
www.ecohaus.com

The interior paints used throughout the Natural Capital Center came from used cans of latex paint that were collected by METRO, Portland's regional government. METRO's latex paint recycling program strives to keep hazardous waste out of Portland's landfills and waterways. Their recycling facility in Oregon City

to keep hazardous waste out of Portland's landfills and waterways. Their recycling facility in Oregon City accepts partially used and unwanted latex paints from homeowners and small businesses. The paints are remixed and re-sold in a variety of colors, many of which can be seen throughout the Natural Capital Center.

Lead content: 25 ppm (acceptable maximum: 600 ppm)

Volatile Organic Compounds: 30-100 g/l average (acceptable maximum, 150 g/l).

(Limits set by the Consumer Product Safety Commission.)

# **ROOFING**



DISTRIBUTOR:
W.P. Hickman, Inc.
www.wphickman.com

REGIONAL SALES REP: W.P. Hickman, Paul Fannin (253) 841-7654

ROOFER: McDonald & Wetle Roofing 2020 NE 194th St. Portland, OR 97230 (503) 667-0175

SOIL AND PLANT INSTALLATION: Green Seasons Landscaping P.O. Box 583 West Linn, OR 97068 (503) 263-4567 OVER THE 2ND STORY

The ecoroof roofing membranes consist of two layers of modified bitumen at a total thickness of 8.2 mm. The bottom membrane provides waterproofing for the roof, while the top layer of bitumen, inlaid with a thin copper film, provides root resistance and drainage. The membranes support two inches of soil and several species of native grasses, wildflowers, and succulents. The ecoroof is an important component of the Natural Capital Center's stormwater management system, through which the majority of the building's stormwater is treated, diverting the water from the city's overloaded stormdrains.

DOORS SALVAGED

#### 2ND FLOOR THROUGHOUT

Several doors were salvaged from the warehouse demolition and reused throughout the building. The steel and wood barn-style track doors that divide the conference room originally hung beneath the brick archways on the ground floor. Walsh Construction Co. employees and subcontractors certified their work on the restoration project with their signatures, which cover the old steel door to the catering kitchen in the conference center. ShoreBank Pacific's office space on the 2nd floor is defined by a door-wall, which consists of various hinged doors that were found throughout the warehouse.

 $\blacksquare$ 

FURNISHINGS
CARPENTERS:
Arlo Manion
6108 SE Stark
Portland, OR 97215

Terry Tebeau 939 SE Alder Portland, OR 97214 (503) 236-9441

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WOOD SALVAGED THROUGHOUT

Independent fine furniture makers built several furniture pieces for the Natural Capital Center from salvaged wood. Terry Tebeau, applied artist/designer, made the STOOLS in the atrium, the EVENT CENTER PEDESTALS and PODIUM, 2nd floor BUILDING DIRECTORIES, free-standing COATRACKS and COAT HOOKS, and the TIDE-POOL WORKSTATION, all from salvaged Douglas Fir trusses, scrap plywood, and wainscoting. He also designed the space and built the furniture for the Progressive Investment office, Suite 250. Arlo Manion built the inserts for the CONFERENCE TABLE in the Ecotrust Alder Room and the KITCHEN TABLETOP from salvaged Douglas Fir. The COFFEE TABLE in the Ecotrust waiting area and the stands for the kitchen table were originally gears for the old warehouse freight elevator. Carrington Barrs of Walsh Construction Co. salvaged some old Douglas Fir floor joists for the WOODEN BENCHES in the parking lot and basement locker rooms.

THROUGHOUT

Builders used reclaimed wood for STRUCTURAL MEMBERS, CONCRETE FORMWORK, FLOORING, TRIM, FURNITURE, and ARTWORK. Framing for the third story penthouse came from wood salvaged during the deconstruction of the original warehouse annex, the northwestern wall of which still stands at the end of the parking lot. Wood for 60% of the penthouse post and beam structure, and 50% of its purlins, came from the demolition of a site across the street, sold at \$.55 per board foot. The handrail around the mezzanine consists of solely reclaimed wood, as does its flooring structure. The vertical wainscot in the 2nd floor hallway was originally 1 x 6 subflooring from the area of the building that is now the atrium. It was refinished with Miller Acriclear, a water-based sealant.

#### STRUCTURAL STEEL

WESTERN EXTERIOR, THROUGHOUT BUILDING INTERIOR

SUPPLIER: Seaport Steel Seattle, WA (206) 343-0700 www.seaportsteel.com

Cascade Steel Rolling Mills
3200 N. Hwy 99
West P.O. Box 687
McMinnville, OR 97128
(503) 472-4181
www.schn.com
INSTALLATION:
G.T.E. Metal Erectors, Inc.

All of the structural steel beams in the Natural Capital Center contain 97.5% recycled steel scrap, while the steel rebar contains 95.5% recycled content. Recycling has always been an integral part of the steel manufacturing process. In the year 2000, 70 million tons of steel scrap were recycled. The scrap is re-milled into new steel products which can, in turn, be recycled at the end of their lifespan. For the steel mills, re-using steel scrap greatly lowers manufacturing costs. For the environment, recycling steel reduces the strain on energy and natural resources. When one ton of steel is recycled, 2,500 pounds of iron ore, 1,400 pounds of coal, and 120 pounds of limestone are conserved. (Statistics: www.recycle-steel.org)

# TRANSPORTATION

**BICYCLE RACKS** 

P.O. Box 877 Canby, OR 97013 (503) 266-6433

SUPPLIERS:
Huntco Bike Racks
St. James, OR.
(800) 547-5909
www.huntco.com
Bike Track, Inc.
P.O. Box 235
Woodstock, VT 05091

(888) 663-8537

PARKING LOT, BASEMENT

The Natural Capital Center offers over fifty parking spaces for bicycles as one way of promoting the use of alternative transportation. While the racks in the parking lot are a standard, locally manufactured design, the Bike Track Mini-Mum racks in the basement are designed for space-efficient, vertical bike parking.

**BIKE-SHARE** 

Community Cycling Center 1700 NE Alberta Portland, OR 97211 (503) 288-8864

www.communitycyclingcenter.org

#### ELECTRIC VEHICLE REFUELING STATIONS

PARKING LOT

PARKING LOT

BASEMENT

11839 Industrial Court Auburn, CA 95603 (530) 823-8077 www.evii.com

Electric Vehicle Infrastructure, Inc. The parking lot is equipped with the infrastructure to support two electric vehicle charging stations, each designed for charging two vehicles simultaneously. The DS-200-DL Dual Power Control Stations are compatible with vehicles from Ford, Mazda, and Honda.

The Natural Capital Center also has a bike-sharing program, through which tenants may check out one of

three bicycles, donated by Walsh Construction Co. and the Community Cycling Center, for day use.

**FLEXCAR** Flexcar Portland 620 SW Main St., Suite 228 Portland, OR 97205 503-328-FLEX (3539) (Portland) 360-823-FLEX (Vancouver) www.flexcar.com

Flexcar purchased and placed two Toyota Prius hybrid sedans specifically for the Natural Capital Center location. Tenants of the building are encouraged to commute to work via bicycle or public transportation, and use Flexcar for any errands or trips taken during the day. The cars are also available for use by all Flexcar members.

WALLS

AQUARIUM

SUPPLIER: Classic Aquariums, Inc. 5809 NE 100th Circle Vancouver, WA 98686 (503) 231-9577

**CORK TACK PANELS** SUPPLIER: ContempoCork 175 Dorchester Rd. River Edge, NJ 07661 (201) 986-7915



DIAMOND PLATE Salvaged

2ND FLOOR CORRIDOR

The aquarium next to The Wild Salmon Center contains several juvenile salmon and steelhead that were born in area hatcheries. Although The Wild Salmon Center's goal is to proactively protect wild populations of salmon and steelhead, the Endangered Species Act prohibits the removal of listed wild or native species from their native habitats, even for educational purposes such as this. While viewing the aquarium, you may see examples of Chinook or Coho salmon, steelhead, cutthroat trout, or sturgeon. The array of species in the aquarium may be predator and prey, with roles shifting quickly. Some of the interactions between the creatures reflect behavior used to partition or maintain habitat. Some of the behavior reflects interactions between prey and predator. You may witness one creature hunting and eating another - do not be alarmed!

2ND FLOOR INTERPRETIVE CORRIDOR; 2ND FLOOR RESOURCE LIBRARY

Various bulletin boards throughout the 2nd floor are made from dyed cork. Cork comes from Quercus suber, the cork oak tree, which grows in Mediterranean climates. The cork is the actual bark of the oak, and it is harvested from live trees every 10-15 years, which is the length of time necessary for the bark to regenerate. When done responsibly, cork can be harvested from the same tree for up to ten to fifteen cycles.

2ND FLOOR ENTRY TO CONFERENCE ROOM

The steel diamond plate panels that frame the entrances to the conference center were salvaged from the warehouse demolition. The diamond plate was a later addition to the warehouse, installed on the ground floor to distribute the weight of forklifts and heavy machinery evenly over the surface of the wood floors. The diamond plate was cleaned, without any coats of sealer, before reinstallation in the new building as wall covering.

**GYPSUM DRYWALL** SUPPLIER: **USG** Corporation 125 S. Franklin St. Chicago, IL 60606-4678 (800) 874-8870

INSTALLATION: The Finishers Corp. 19450 SW Mohave Court Tualatin, OR 97062 (503) 692-4485

3RD FLOOR

The drywall in the Natural Capital Center consists of Sheetrock Brand gypsum, 25% of which is recaptured rather than mined material, sandwiched between sheets of 100% recycled unbleached newsprint. The gypsum used in drywall is either mined or recovered as a byproduct of removing polluting gases from the smoke stacks at fossil-fuel burning power plants. This process is called flue-gas desulfurization. Recapturing gypsum reduces the amount of harmful materials emitted into the atmosphere and cuts back on the mining activities necessary to extract raw gypsum.

#### **IISAAK PANELING**

SUPPLIER:

Iisaak Forest Resources Ltd. P.O. Box 639, 2395 Pacific Rim Hwy. Volvelet, BC Canada VOR340 (250) 726-2446 www.iisaak.com

#### 2ND FLOOR CONFERENCE ROOM

The wall panels in the conference center are made of Western Red Cedar from the ancient rainforest of Clayoquot Sound on Vancouver Island. The timber was selectively harvested by Iisaak Forest Resources Ltd. Iisaak is a First Nations led company and a joint venture between the Nu-chah-nulth First Nations of Clayoquot and the Weyerhauser Company. Iisaak Forest Resources is pioneering a new kind of forestry based on ecologically sensitive practices and the protection of treasured First Nations' cultural areas. Their forest management practices have been FSC certified.



INTERPRETIVE NICHES TO RESERVE SPACE CONTACT: **Ecotrust** Kara Orvieto

2ND FLOOR CORRIDOR

The interpretive niches dispersed throughout the 2nd floor were constructed with wood and piping salvaged from the warehouse demolition. Equipped with adjustable cork tack panels and electrical outlets for the use of televisions and flatscreens, the interpretive niches are positioned as a simple and effective method for public outreach and education. Topics displayed thus far have included salmon-friendly wine, organic and fair trade coffee, and certified wood. The displays change every two months, and are available to building tenants or other interested organizations in the region.

LODGEPOLE PINE PANELING

SUPPLIER:

(503) 227-6225

The Collins Companies 1618 SW 1st Ave., Suite 500 Portland, OR 97201 (800) 329-1219 www.collinswood.com

ASSEMBLY:

Twenty-Four Seven Incorporated 425 NE 9th Avenue Portland, OR 97232 (503) 222-7999 www.twentyfour7.com

3RD FLOOR, SUITE 300

The wall paneling in the Certified Forest Products Council office area is FSC certified CollinsWood lodgepole pine, harvested sustainably in Southern Oregon from the 75,000-acre Collins Lakeview Forest.

PANEL PAVILION

SUPPLIER:

Columbia Forest Products

ASSEMBLY:

Twenty-Four Seven Incorporated 425 NE 9th Avenue Portland, OR 97232 (503) 222-7999 www.twentyfour7.com

3RD FLOOR SUITE 300

3RD FLOOR RECEPTION

The Panel Pavilion in the CFPC office area consists of an array of hardwood ply panels from FSC certified EuroPly. Veneers visible on the panel pavilion include cherry, rotary and sliced red and white oak, teak, www.columbiaforestproducts.com black walnut, ash and hickory.

RADIUS WALL

(229) 227-3556

SUPPLIER: Red Hills Lumber Company 709 Campbell St. Thomasville, GA 31792

www.redhillslumberco.com

The radius wall behind the reception station is made from heritage grade FSC certified Longleaf Pine donated by Red Hills Lumber in Georgia. Longleaf Pine forests have been systematically replaced by the more commercially viable Southern Yellow Pine species, and concerted efforts are underway to conserve Longleaf Pine forests by establishing greater value its products in the marketplace.

WATER

FLOW FIXTURES

Symmons (800) 796-6667 Zurn Industries, Inc. P.O. Box 2767 Sanford, N.C. 27331. (800) 997-3876

RESTROOM FAUCETS AND BASEMENT SHOWERS

The Natural Capital Center has taken several steps to reduce water consumption. Measures include: Single Handle Lavatory Faucets fitted with 0.5 gallon per minute (gpm) aerators [S-20 series by Symmons]; Flowrestricting washers on shower heads, emitting 2.0 gpm [Symmons part # T-44-2.0]; Exposed Flush Valve on toilets for low consumption, 1.6 gallons per flush [Zurn Z-6000XL-WS1]; Kohler toilets, 1.6 gallons per flush; and Kohler urinals, 1.0 gallons or less per flush. As a result, the building has achieved a 33% overall reduction in water consumption compared to a conventional building of the same size.

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"XERIGATION" SYSTEM

14145 SW Galbreath Dr.

Rain Bird , www.rainbird.com
INSTALLATION:
Cedar Landscape, Inc.

Sherwood, 0R 97140 (503) 625-3700 PARKING LOT LANDSCAPING

"Xerigation" is a term used to describe water-efficient irrigation. The Natural Capital Center landscaping uses a xerigation system that is a temporary landscape dripline, with pressure compensation, designed for irrigating ground cover, mixed plantings, slope plantings, and hedge rows. The system will be removed once the native plants are established. The flow rate is 0.61–0.92 gallons per hour.

#### **WINDOWS**

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**CUSTOM WINDOWS** 

Colonial Craft Specialties 2772 Fairview Avenue N. Roseville, MN 55113 (800) 727-5187 www.colonialcraft.com

The Collins Companies
1618 SW 1st Ave., Suite 500
Portland, OR 97201
(800) 329-1219
www.collinswood.com

The H Window Company 1324 E. Oakwood Dr. Monticello, MN 55362-9965 (800) 843-4929 www.h-window.com 3RD FLOOR THROUGHOUT

H Windows in Minnesota custom-built the operable windows on the 3rd floor with manufactured parts from Colonial Craft Specialties using FSC certified pine from Oregon's own Collins Companies. The window trim is FSC certified pine, as are the window blinds, both sourced from The Collins Companies.



RESTORED WINDOWS
RESTORATION:
Portland Sash & Door
16460 SW 72nd Ave.
Portland, OR 97224
(800) 660-2905
www.portlandsashanddoor.com

2ND FLOOR THROUGHOUT

Throughout the Natural Capital Center there is evidence of a compromise between old and new building strategies. The operable windows on the second floor, for example, are of the original design, many still with 1895 glass panes. Several of the window sashes had to be restored or repaired with lumber salvaged from the warehouse demolition before re-installing them in the existing frames. The windows were then weatherized with a ribbed-zinc interlock weatherstrip used in conjunction with neoprene compression pieces to ensure a tightly sealed, energy efficient building. The building team chose to retain these single-pane restored windows to conserve both materials and the historical integrity of the building.



WINDOW DRAPERY SUPPLIER: Maharam (800) 645-3943 www.maharam.com 2ND FLOOR CONFERENCE CENTER; ECOTRUST ALDER ROOM

Made from 78% post-industrial recycled polyester, the Apricot-colored curtains create a high-performance space for showing slides, presentations, and films.



JEAN VOLLUM NATURAL CAPITAL CENTER
721 NW 9TH AVENUE, SUITE 200
PORTLAND, OREGON 97209
TEL 503.227.6225 | FAX 503.222.1517
WWW.ECOTRUST.ORG