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REMODEL

Shoup Live/Work Space

# WAREHOUSE CONVERSION

*A run-of-the-mill warehouse is given new life as a modern live/work space*

Over the past three years, Stephen Shoup has been converting a 1923 warehouse into a live/work space for himself and his residential design/build company, Building Lab, Inc. The warehouse, which previously housed a commercial woodshop, sits on an oversized lot and now operates as home, woodshop, construction storage and office.

Determined to stay within the existing building envelope, Shoup stripped half the warehouse to bare studs and reconfigured it to accommodate the expanded uses. He added a kitchen and two bathrooms and upgraded the building with insulation, radiant-floor heating, skylights and additional windows. Two tankless water heaters serve the radiant heating system and provide domestic hot water.

The compact and efficient design makes the living spaces feel larger than they are, and the elegant modern interior—with its concrete floors and counters, and bamboo cabinets and paneling—gives few hints that this was once a woodshop. “I don’t feel like I’m living in a fabrication shop, and personally I prefer it this way” said Stephen.

Outside, Shoup reused the existing concrete yard and added gravel to create a patio that allows rainwater to soak into soil rather than running off into the storm sewer. When his company needed more office space, rather than building an addition, Shoup purchased an insulated shipping container that accommodates three workstations (see page 16 for another shipping container project). He refurbished the container with insulation, a large double-pane window, wall sheathing made from recycled paper, shelving with no-added formaldehyde, carpet tiles and efficient lighting.

*“Staying within the existing walls, and living compactly with more intensive use of an urban site are at least as important as the choice of building products in making a project green.”*

—Stephen Shoup, homeowner/designer/builder

HOME STATISTICS
<b>ORIGINALLY BUILT:</b> 1923
<b>REMODEL COMPLETED:</b> 2008
<b>ORIGINAL SIZE:</b> 2,100 SF
<b>SIZE AFTER REMODEL:</b> 2,100 SF
<b>OWNER/ARCHITECT/BUILDER:</b> Building Lab, Inc.



## GREEN at a GLANCE

### ENERGY EFFICIENCY & RENEWABLE ENERGY

- Designed for daylighting
- Recycled-content cotton insulation (UltraTouch)
- Hydronic radiant-floor heat
- 83% efficient tankless water heaters for domestic hot water and space heating (Takagi)
- Energy Star® 5.6 gal/cycle dishwasher (Kenmore Elite), and refrigerator (GE)

### RESOURCE CONSERVATION

- 60% recycling of construction waste
- 35% fly ash concrete floor (Central CMMA) and countertop
- Shipping container used for office addition
- Foundation drainage system (Propex)
- Earthquake retrofit
- Advanced framing: load sized headers
- OSB sheathing
- Finger-jointed studs and interior trim
- Framing lumber: 50% FSC-certified (Hayward Lumber), reused existing
- Rain-screen siding 50% FSC-certified ipe (PALS)
- Bamboo cabinets, shelving, wall paneling, flooring (PALS, Flooring Alternatives)
- Salvaged double-pane aluminum windows, doors (Urban Ore)
- Recycled paperboard paneling (Homasote)
- Exposed concrete as finished floor
- Carpet tiles with recycled-content backing (Flor)
- Recycled plastic/wood composite decking (Trex)
- Adaptive reuse: live/work conversion
- Reused concrete onsite for landscaping

### WATER CONSERVATION

- 100 gal rainwater collection system
- WaterSense dual-flush toilets (Toto Aquia)
- Water- and energy-efficient washing machine (Kenmore He2)
- On-demand recirculation pump (Metlund)
- Drought-tolerant, turf-free landscaping with high-efficiency irrigation
- Permeable gravel and paver hardscaping

### INDOOR AIR QUALITY

- Energy Star® bathroom fan vented to outside (Panasonic Whisperlite)
- No-added formaldehyde: fiberglass batt insulation (Johns Manville), shelving (Medite II)
- No-VOC interior paint (American Pridet)
- Low-VOC cabinetry paint (Benjamin Moore: Eco Spec, Aura)
- Low-VOC caulk and construction adhesives (Titebond, Geocel, AFM Safecoat)