CASE STUDY

People’s Food Co-op
Portland, Oregon

This small commercial building is sited on previously developed land in the close-in Hosford-Abernethy neighborhood. The original structure built onsite was a house, which was remodeled into a small grocery co-op in the 1970s. When the co-op outgrew the space, they decided to leave the original house intact and add additional space as needed. Water is collected from the roof and runs into an underground cistern which is used for irrigation. The house is prewired for the use of photovoltaic panels in the future.

The goal was to design a community space for local farmers to sell their fresh local produce at a weekly farmers’ market. The building is not only highly efficient, but is also the first commercial building in the US entirely built of cob. It is a place that represents community, hosting several events every week.

PROJECT NAME
People’s Food Co-op

LOCATION
3029 SE 21st Avenue, Portland, OR

BUILDING TYPE
Remodeled, 2003

USE
Commercial, grocery store

DESIGNER/ARCHITECT
Dave Wadley

BUILDER
Hemmingson Construction, Inc.

LOCATION & CLIMATE
Site Description: Neighborhood residential
Climate: Pacific Marine

RATING
• N/A

AWARDS
• N/A

DESIGN FEATURES
• Two Eco-roofs
• Cob and straw bale infill walls
• Geothermal heat pump
• Passive solar design with sunspace
• Passive heating and cooling

HOME PAGE
• peoples.coop
BUILDING DETAILS

Floor Area Heated: 5,400 sq. ft.
Number of Stories: 2
New or Remodeled: Remodeled

INTERIOR ENVIRONMENT

Overview: Excellent indoor air quality is maintained with convective air flow and cross ventilation used wherever possible. A fan is provided for additional use when necessary. All windows are manually operable. Plenty of glazing allows for ample natural daylight.

Strategies: Interior materials were selected with the goal of using low VOC paints and finishes. Clay plaster wall finish is used on some interior walls. Carpet is used minimally and all wood is either salvaged or FSC-certified.

ENERGY

Overview: The building uses a geothermal heat pump system, which includes tubes for floor heating and cooling in the masonry slab. A monitor controls the temperature of the slab to avoid overcooling/overheating. A back-up natural gas water heater is used to provide domestic hot water. A sunroom located on the southside provides passive solar heat in the winter, and its glazing is blocked in the summer by deep overhangs. A vertical shaft in the center of the store allows warm air to flow up and out during the day. Perimeter openings on the ground level allow cool air to enter during the night. Low-E windows are used throughout. Framed walls have a minimum insulation value of R-22 and the ceiling reaches R-44; the strawbale walls are higher. All lighting is compact florescent.

SITE

Overview and Land Use: The urban site is located in an existing close-in neighborhood. Apart from the building itself, the entire surface of the site is impervious.

Site Strategies: The site’s proximity to public transportation and bike lanes allows its customers to shop car-free.

WATER

Strategies
- Two Eco-roofs, for a total of 246 sq. ft. with drip system
- Drought tolerant vegetation
- 1,500 gallon cistern for irrigation
- Greywater used for flushing toilets

WASTE

- Over 90% of construction waste recycled or reused
- Portland Recycling & Composting

PUBLICATIONS

- buildingdata.energy.gov/project/renovation-and-expansion-peoples-food-co-op
- The Oregonian
- www.portlandoregon.gov/bps/41950
- US Energy Efficiency and Renewable Energy