

Participant information

Structures NW llc
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Vancouver, WA 98685
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Category

Single Family Homes (under 3,000 sq ft.)

Project information

Hagen-Niehaus Net Zero
289 Liberty Street
Ashland, OR 97520
Date Completed: March 2013
Total cost of project (exclusive of land): \$250.000
Dimensions of building (all floors of multi-story building): 1254 Sft
Asking price/purchase price (Affordable Housing only):
Total sq. ft. of conditioned space: 1254

Built By (if different than applicant)

Dorris Construction
Gary Dorris
PO Box 241
Talent, OR 97540
Phone: 541-821-4199

Panels Manufactured By

Company Name (members only): Premier SIPs

Designed By (if different than applicant - SIPA will only recognize members)

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15206 NW 29th Court
Vancouver, WA 98685
Phone: 360-576-6311

Describe the end use of the building: Single Family Residence

How did SIP construction help you get this job? Client wanted to build the shell especially energy efficient so they could go Net Zero

SIP wall thickness and core material: 6" EPS with 2x4 non bearing interior wall for additional insulation and ease of installing mechanical.

SIP roof thickness and core material: 12" EPS

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy? SIPs were a great fit for this job not only for the energy efficiency. But because it was a tight infill lot it got the building up and closed in Very quickly. The walls went up in six hours including lunch. The roof went on in six hours a day latter.

Describe any innovative design elements or structural engineering involved: The floor is a full floating R-20 insulated slab.

The walls are a 6" SIP wall with 2x4 non bearing interior wall to break thermal bridging and allow more insulation. Total wall R-Value is R-45.

Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, or local green building programs. Only list certifications that are completed: Energy Star and Earth Advantage

HERS Index (residential projects): 22

Blower door test results (ACH50) (residential projects): 125

Energy use intensity in kBtu/ft² (commercial projects):

Additional Information or Explanation: HERS is -22 with the PV

Blower door is 1.25 ACH

Describe the HVAC system used on the project: Mini split Heat Pump

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the R-value of any insulation materials: The windows were U.30

The insulation in the inner wall is denspack R-4 per inch

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar: The Home is sited on an East West axis to allow passive solar gain as well as aligning the roof for both Solar thermal and a PV system. The client installed ALL LED light except the oven. And that only because they could not find one designed for the oven heat. All appliances are Energy Star.

Were any solar panels installed on the project? If so, indicate the size of the system: A 12 KW PV system was installed. Ashland Oregon is unique in that they have their own electric utility and will buy back all the Solar power you do not use. This system gives the home 10-Watts per Square Foot

Please list any sustainable materials or design features not listed in the previous pages, such as recycled materials, low-VOC finishes, landscaping, etc.: The client installed a rain water catchment system in the backyard to use for irrigating their garden and a grey water system to water the plants in the front yard.

Any additional comments on the project: The collaboration between the owners, builder and the designer is what made this such an outstanding project

CITY OF ASHLAND

Building Airtightness Test Form

Customer Information:

Name: BRAD HAZAN / LINDA NICHAS

Address: 289 Liberty

City: ASHLAND

State/Zip: OREGON 97501

Phone: _____

Email: _____

Building and Test Conditions:

Date: 2/20/13

Time: 1:30 PM

Indoor Temperature (F): 68

Outdoor Temperature (F): 47

Volume (ft³): 12040

Floor Area (ft²): 1204

Surface Area (ft²): _____

Bedrooms: 2

Occupants: 2

Wind Shielding: MODERATE

Building Address: (if different from above)

Street: _____

City/State: _____

Comments:

GARY DORRIS CONSTRUCTION - NEW HOME

SIPS CONSTRUCTION - DESIGN BY STRUCTURES NW LLC

TIGHT HOME!

Don S

Test #1 Depress Press _____

Pre-test Baseline Pressure: 0 (Pa)

Bdlg Press. (Pa)	Flow Ring Installed	Fan Press (Pa)	Flow (cfm)
<u>50</u>	<u>Ring C</u>	<u>122</u>	<u>251</u>

Post-test Baseline Pressure: _____ (Pa)

Fan Model/SN: MODEL 3

Results:

CFM50: 251

ACH50: 1.25

CFM50/ft²: 0.21

Mpls Leakage Ratio: _____

Test #2 Depress _____ Press _____

Pre-test Baseline Pressure: _____ (Pa)

Bdlg Press. (Pa)	Flow Ring Installed	Fan Press (Pa)	Flow (cfm)

Post-test Baseline Pressure: _____ (Pa)

Fan Model/SN: _____

Results:

CFM50: _____

ACH50: _____

CFM50/ft²: _____

Mpls Leakage Ratio: _____





DORRIS CONSTRUCTION
541-821-4199







2x4 Non Bearing Double Wall
Minimal Thermal Bridging
R-21 SIP R21 Batts

