Participant information

Extreme Panel Tech., Inc.
Perry Penske
P.O. Box 435
Cottonwood, MN 56229

Phone: 800-977-2635

Email Address: perry@extremepanel.com

Website: extremepanel.com

Category

Affordable Housing

Project information

St. Croix Valley Habitat for Humanity - Eco Village
Apollo Road
River Falls, WI 54022

Date Completed: 2013

Total cost of project (exclusive of land): N/A

Dimensions of building (all floors of multi-story building): approx. 30' x 39'

Asking price/purchase price (Affordable Housing only): $150,000

Total sq. ft. of conditioned space: Depends on plan -- approximately 1200 sq.ft. per level.
1100 sq.ft. for single level/1000 sq. ft.for two-level units

Built By (if different than applicant)

St. Croix Valley Habitat for Humanity - volunteers
James Cooper
--
--, -- --

Phone: 800-977-2635

Panels Manufactured By

Company Name (members only): Extreme Panel Tech., Inc.

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

Extreme Panel Tech., Inc.
P.O. Box 435
Cottonwood, MN 56229

Phone: 800-977-2635

Describe the end use of the building: Affordable housing for those who fit the criteria for Habitat for Humanity

How did SIP construction help you get this job? Energy efficiency is key. The panels are user friendly for volunteer labor. Speed of construction

SIP wall thickness and core material: 12 1/4" Expanded Polystyrene, 7/16" OSB on both sides

SIP roof thickness and core material: --

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy? Save time -- labor is volunteer -- one day to erect walls
Energy savings -- (See data sheets)

Describe any innovative design elements or structural engineering involved: Have put windows on outside, middle and

inside of building to test condensation issues.

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: LEED Platinum Rating - pre-rated based off energy
Energy Star V3
Habitat International has nominated SCVHFH for a "Champions of Change" award to be given out at the White House

HERS Index (residential projects):

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

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

Additional Information or Explanation: CAN'T GET THE NUMBERS TO WORK IN ABOVE AREAS __

HERS Index -- -4 to 24 range
Blower Door -- 1.55 down to .6 ACH @ -50-

Describe the HVAC system used on the project: Radiant slab - heated floors. Mini-split air source heat pumps for cooling and supplemental heating.

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: R-30 under slab foam. ICF foundations with additional insulations (R30)
Ceiling insulation -- 3" Polyurethane spray foam & 20" of cellulose (R99)
Anderson Windows .38-.39

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar: Solar thermal systems to supplement hot water heating -- 60-70% of solar of water.
60% of electricity by solar photovoltaics
Energy Star appliances
90% of lighting is LED
Passive solar was utilized as much as possible with orientation of building, overhangs, etc.

Were any solar panels installed on the project? If so, indicate the size of the system: 5.5 to 6.5 KW depending on roof

Please list any sustainable materials or design features not listed in the previous pages, such as recycled materials, low-VOC finishes, landscaping, etc.: Metal roofs to eliminate need for replacement. Rain water collection system. All non-potable uses exterior.
Pervious pavers for sidewalks, no Portland cement, made from fly-ash.
Landscaping -- edible landscaping -- miniature fruit trees, low water requirement plants.
LP smartside, highly durable. Minimum maintenance.

Any additional comments on the project: Low VOC
LED or CFL lighting
Locally sourced interior finishing
Ceramic tile on floor - heat transmission and durability
Air Exchange system -- Sprinkler system

Home Energy Rating Certificate

144 South Apollo Road
River Falls, WI 554022

5 Stars Plus
Projected Rating

Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

Energy Efficient

HERS Index: 17

General Information

Conditioned Area:	1968 sq. ft.	HouseType:	Single-family detached
Conditioned Volume:	17710 cubic ft.	Foundation:	Conditioned basement
Bedrooms:	4		

Mechanical Systems Features

Air-source heat pump:	Electric, Htg: 10.0 HSPF. Clg: 22.0 SEER.
Heating:	Electric hydronic distribution, Electric, 100.0 % EFF.
Water Heating:	Conventional, Electric, 0.94 EF, 50.0 Gal.
Duct Leakage to Outside:	NA
Ventilation System:	Balanced: HRV, 125 cfm, 50.0 watts.
Programmable Thermostat:	Heating: Yes Cooling: Yes

Building Shell Features

Ceiling Flat:	R-100	Exposed Floor:	NA
Vaulted Ceiling:	NA	Window Type:	U:0.27, SHGC:0.21
Above Grade Walls:	U-0.018	**Infiltration:**	
Foundation Walls:	R-34.0	Rate:	Htg: 0.75 Clg: 0.75 ACH50
Slab:	R-22.0 Edge, R-30.0 Under	Method:	Blower door test

Lights and Appliance Features

Percent Interior Lighting:	100.00	Range/Oven Fuel:	Electric
Percent Garage Lighting:	0.00	Clothes Dryer Fuel:	Electric
Refrigerator (kWh/yr):	551.00	Clothes Dryer EF:	3.01
Dishwasher Energy Factor:	0.46	Ceiling Fan (cfm/Watt):	0.00

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

REM/Rate - Residential Energy Analysis and Rating Software v12.99

This information does not constitute any warranty of energy cost or savings.

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Registry ID:
Rating Number: BKI_B135_H0876
Certified Energy Rater: Patrick O'Malley
Rating Date: 6/20/12
Rating Ordered For:

Estimated Annual Energy Cost
Projected Rating

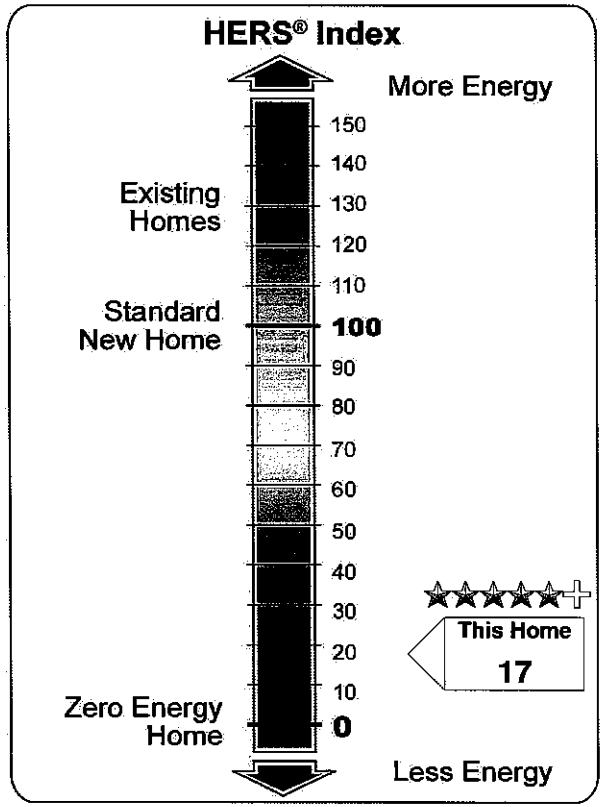
Use	MMBtu	Cost	Percent
Heating	8.0	$229	37%
Cooling	1.4	$40	7%
Hot Water	6.1	$174	28%
Lights/Appliances	21.0	$601	98%
Photovoltaics	-19.2	$-551	-90%
Service Charges		$120	20%
Total		**$613**	**100%**

This home meets or exceeds the minimum criteria for all of the following:
EPA ENERGY STAR Version 2.5 Home
2009 International Energy Conservation Code

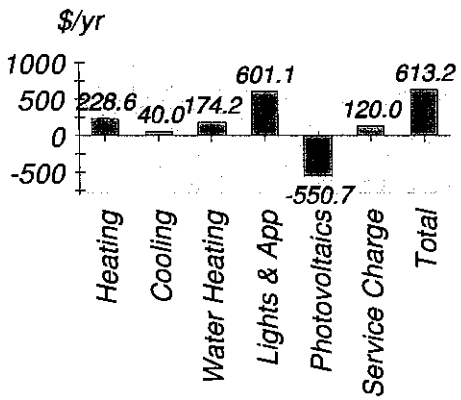
Building Knowledge, Inc.
PO Box 1376
Burnsville, MN 55337
952-944-5605
www.buildingknowledge.com

HOME PERFORMANCE WITH ENERGY STAR

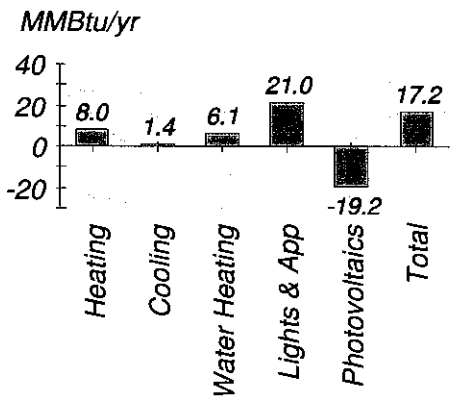
ENERGY RATING CERTIFICATE



Estimated Annual Energy Cost



Estimated Annual Energy Consumption



Address: 144 South Apollo Road
River Falls, WI 554022

House Type: Single-family detached
Cond. Area: 1968 sq. ft.
Rating No.: BKI_B135_H0876
Issue Date: July 10, 2012
Certification: Verified

Annual Estimates*:
Electric(kWh): 5054
C02 emissions(Tons): 4
Annual Savings**: $3134

** Based on standard operating conditions*
*** Based on a HERS 130 Index Home*

Building Knowledge, Inc.
PO Box 1376

Certified Rater: Patrick O'Malley
Rater ID: MN_001
Registry ID:
Rating Date: 6/20/12

REM/Rate - Residential Energy Analysis and Rating Software v12.99

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Thrivent Builds
with Habitat for Humanity
St. Croix Valley
Habitat for Humanity
NICOLE ERICKSON

Thrivent
Builds
T500J