

SCOPE OF WORK		October 2nd, 2009	
City of Milwaukee: 2812 W. Wells St.		<i>Rehab Specialist:</i>	
() Home	Prior version dates:	Hamid Sarlati	286-5657
() Work		<i>Loan Officer:</i>	
First inspection date: Friday, September 25th, 2009			
Both the "Rehabilitation and Technical Specifications and Performance Standard for the City of Milwaukee - February, 2006" and the "NIDC Addendum to Specifications," dated 7/9/09, 8/23/07 & 5/13/08, are incorporated into this scope by reference. These items provide an of materials requirements & performance expectations. Updated copies can be obtained from NIDC @ 809 N Broadway-Room 104-1st Flr.			
Standard Window Treatment: Any task that disturbs a previously painted surface shall be performed by properly certified personnel and requires Milwaukee Health Department notification. Standard window treatment and window replacement shall be performed by properly certified personnel and requires a Milwaukee Health Department permit.			
Miscellaneous: The contractor is responsible to field verify all measurements, the amount of materials needed, and the number of windows in the building. If any item in this scope calls for a certain manufacturer, model number, or approved equivalent of a particular item, and that item is to be substituted, both NIDC and the owner must approve the substitution in writing as a part of the contract.			
1	GENERAL EXTERIOR	Code	Cost Est
2	SITE		
3	Install asphalt for driveway and garage approach approximately 200 sq yards (common with 2808 W. Wells)	PR	
4	GARAGE (Common with 2808 W. Wells)		
5	Repair the wood siding as needed	PR	
6	Paint the wood surfaces include soffits and fascia	PbN	
7	PORCHES		
8	Replace side porch skirting	PR	
9	Repair front porch skirting	PR	
10	Repalce side porch Deck with wood (East)	PR	
11	Rebuild rear entry steps per code, include landing, gardrails, skirting and concrete foundation (permit)	PR	
12	Repair rear steps to basement	PR	
13	HOUSE		
14	Repalce door bells with cordless door bells	PR	
15	Remove the side door (east) canopy	PR	
16	Re-roof (tear off), include porch roofs and required flashings flashing	PR	
17	Tuckpoint chimney and insptall chimney cap	PR	
18	Remove asphalt siding, repair original siding as needed, include all trims, soffits, fascia boards etc.	PR	
19	Insert screen windows where missing	PR	
20	Replace gutters and downspouts	PR	
21	Seal downspouts to receivers	PR	
22	Tuckpoint foundation as needed	PR	
23	Paint exterior wood siding and trims, include soffits, fascia, trims, porches etc.	PbN	
24	Install entry door (west) after modifying the rough opening	PR	
25	Replace one window with vinyl replacement window	PbA	
26	Treat all painted interior window sills for lead	PbA	
27	Install closer for front storm door.	PR	
28	Repair front entry door, insptall missing hardwares	PR	
29	GENERAL INTERIOR (Aternate #1, Single Family)		
30	Provide all the required architectural drawings and permits, include certificate of appropriateness from the Historic preservation department	PR	
31	Demo the defective parts as needed	PR	
32	Install new framing for all required walls	PR	
33	Install drywall and/or repair plaster as needed	PR	
34	Paint all interior	PbN	
35	Repair all electrical to working condition, include all the electrical fixtures. Check the existing electrical work for code compliance	PR	

SCOPE OF WORK		October 2nd, 2009	
City of Milwaukee: 2812 W. Wells St.			
36	Repair all plumbing to working condition. Check the existing plumbing for code compliance, eliminate all the code violations	PR	
37	Repair and/or replace defective mill work	PR	
38	Replace one boiler with gas boiler	PR	See Energy Report
39	Check the water heater for proper functioning	PR	
40	Install floor covering for the entire interior areas.	PR	
41	Provide and install plumbing fixtures as needed	PR	
42	Terminate the second floor kitchen, and convert it to a bedroom	PR	
43	Install wall and base cabinets in the kitchens as needed	PR	
		Sub-Total	53,740
ENERGY PERFORMANCE PROGRAM			
44	ENERGY PERFORMANCE PROGRAM		
45	Please see the attachment	PR	9,100
46	Energy Performance Program Refund		-3,000
47		TOTAL*	59,840
48			
49	GENERAL INTERIOR (Alternate #2, Duplex)		
50	Provide all the required architectural drawings and permits, include certificate of appropriateness from the Historic preservation department	PR	
51	Demo the defective parts as needed	PR	
52	Build a separate stair case to access the second floor	PR	
53	Install new framing for all required walls	PR	
54	Install drywall and/or repair plaster as needed	PR	
55	Paint all interior	PbN	
56	Repair all electrical to working condition, include all the electrical fixtures. Check the existing electrical work for code compliance. Separate the first and second floor electrical service, install required electric service box	PR	
57	Repair all plumbing to working condition. Check the existing plumbing for code compliance, eliminate all the code violations. Separate the first and second floor plumbing and install	PR	
58	Repair and/or replace defective mill work	PR	
59	Replace one boiler with gas boiler. Install a furnace for the second floor, include all the required duct work	PR	See Energy Report
60	Check the water heater for proper functioning. Install a water heater for the second floor	PR	
61	Install floor covering for the entire interior areas.	PR	
62	Provide and install plumbing fixtures as needed	PR	
63	Install wall and base cabinets in the kitchens as needed	PR	
		Sub-Total	65,760
ENERGY PERFORMANCE PROGRAM			
	Please see the attachment	PR	9,100
	Energy Performance Program Refund		-3,000
		TOTAL*	71,860
NOTE: *The (TOTAL) is the total of the exterior and the required interior work for each alternate.			
PR	Program Requirement		
PbA	Lead Abatement Permit Required		

	SCOPE OF WORK	October 2nd, 2009
	City of Milwaukee: 2812 W. Wells St.	
PbN	Lead Abatement Notification.	
None	Not required per program and/or code	
	Prepared by:	Date:
	Owner Approval:	Date:



Badgerland Home Consultants, LLC

23 Park Ridge Dr.

Stevens Point, WI 54481

888-229-0488

WISCONSIN



September 30, 2009

On September 25th, 2009 I conducted an energy audit on the home located at 2812 W Wells Street, Milwaukee, WI. I found that by doing the following energy efficient upgrades to the property, the home would qualify for the \$3000 Home Performance Reward for each of the living units by achieving a ratings score of less than 80.

1. Install a set back thermostat for the heating system.
2. Changing out the old inefficient oil fired boiler with a gas fired unit at least 85% efficient would be required.
3. Spray foaming the sill box areas for insulation and air sealing value would be needed.
4. Replacing the windows with windows that are rated at least .31/.29.
5. Air sealing various air infiltration areas will be necessary. The home would need to be improved to an air infiltration number of 2079 cfm. Air sealing the areas in the basement where the plumbing lines go up into the home and the area around the chimney in the basement that is seen in the attached photos will be needed.

As per requirements of this program, an additional switch for the quiet bath fan that is recommended, wired in parallel with the switch located in the bathroom must be installed. The water heater must be either direct vent or power vented.

An additional \$500 in Cash Back Rewards may be available from Home Performance with ENERGY STAR if all of the recommended measures are completed.

Refer to the attached Rem Report for more detailed information regarding cost estimates and potential pay back numbers.

Please keep in mind that the enclosed cost estimates may not be

close to the actual bid numbers that contractors may submit for this project. Going forward, when bids begin to come in for this and other projects, I will be able to provide better and more accurate estimates from reviewing these submitted bids.

Please call if you should have any questions and let me know when the work is completed and I will be out to retest the home.

Sincerely,

Dale Bates
Badgerland Home Consultants

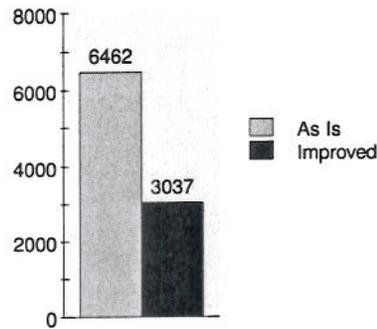
IMPROVEMENT ANALYSIS REPORT

Date: September 29, 2009	Rating No.: 105-0960	
Building Name: 105-0960	Rating Org.: Badgerland Home Consultants	
Owner's Name: City of Milwaukee NIDC	Phone No.: 715-254-0886	
Property: 2812 W Wells	Rater's Name: Dale Bates	
Address: Milwaukee, WI 53208	Rater's No.: 105	
Builder's Name:		
Weather Site: Milwaukee, WI	Rating Type: As Is	
File Name: 105-0960 Milw NIDC.big	Rating Date: 9/28/09	

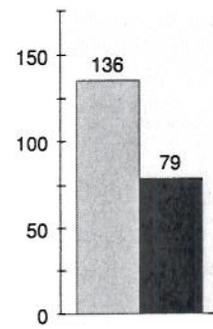
Energy Costs (\$/yr)

End-Use	As Is	With All Improvements	Savings
Heating	4866	1462	3405
Cooling	0	0	0
Hot Water	325	284	41
Lights and Appliances	1034	1054	-20
Photovoltaics	-0	-0	0
Service Charge	239	239	0
TOTAL	6464	3040	3425

Total Costs (\$/yr)



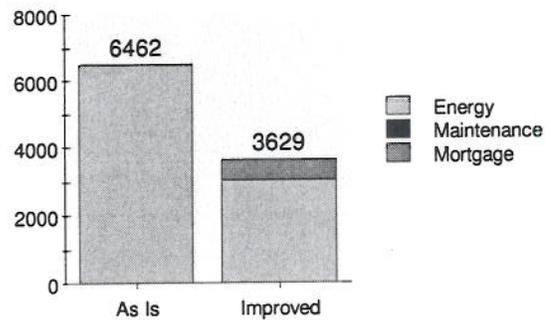
HERS Index



Information For Lenders and Appraisers

Installed Cost of Improvements (\$)	9100
Cost Weighted Life of Measure (Years)	22
Mortgage Term (Years)	30
Discount/Mortgage Rate (%)	5.000
Present Value Factor	13.1
Expected Annual Energy Savings (\$)	3425
Expected Annual Maintenance Costs (\$)	0
Expected Annual Savings (\$)	3425
Increased Annual Mortgage Costs (\$)	592
Present Value of Savings (\$)	44787
Expected Annual Cash Flow (\$)	2833

Cost Comparison (\$/yr)



IMPROVEMENT ANALYSIS REPORT

105-0960

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Recommended Improvements

Component	Life	Cost	Yr Savings	SIR	PV	SP	Index
1. Infiltration: Existing: 2826-4240/2826-4240 CFM50 Proposed: 2079.0/0.0 As Specified Measure: Reduce 1000+ CFM50	25	600	882	20.7	11827	0.68	118
2. Equip 1: HEAT: Existing: OLBL 80-100K 60%AFUE Proposed: 85AFUE Gas Boil 80k Measure: NG Boil 70-100k 94%	18	4000	2332	6.8	23265	1.71	88
3. Thermostat: Existing: FALSE/FALSE Proposed: TRUE/TRUE Measure: Programmable Thermostat	18	110	25	2.6	180	4.43	87
4. Rim/Band 1: RJ1 Existing: R-0.0 / R-0.0 Proposed: R-0.0 / R-20.0 Measure: Spray R20 Foam	30	2190	163	1.1	311	13.46	82
5. Equip 2: DHW: Existing: NG WH .52EF 40Gal R0 Proposed: NG WH .65EF 40Gal RO Measure: Power Vented Water Heater	15	900	41	0.5	-473	21.89	79
6. Door 1: D1 Existing: Wd Solid 2.25" w/St Proposed: St 1.75" R7.5 Measure: Insul Steel Door	25	450	5	0.1	-385	97.02	79
7. Door 2: D2 Existing: Wd Solid 2.25" w/St Proposed: St 1.75" R7.5 Measure: Insul Steel Door	25	450	4	0.1	-392	109.01	79
8. Ventilation: Existing: Exhaust - 75.0 CFM Proposed: Exhaust - 80.0 CFM Measure: Quiet bath fan**	18	400	-27	0.0	-712	99999.90	79

Criteria

Ranking Criteria: SIR	Maximum \$ Limit: No Limit
Cutoff: 0	Measures: Interactive

IMPROVEMENT ANALYSIS REPORT

105-0960

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The home's energy efficiency is rated using the HERS Index as defined in the RESNET "Mortgage Industry National Home Energy Rating Systems Accreditation Standards," 2006. An Index of 100 represents a home that meets current energy codes. A lower Index indicates the home uses less energy than a code home, a higher Index indicates the home uses more energy than a code home. The rating considers all energy use in the home. The rating should be used only for comparison, since it assumes average climate and thermostat settings, quantities of hot water, and internal loads for a typical household. Energy costs are based on local energy prices at the time of rating. If energy efficiency improvements are made to the home, or energy prices change significantly, the rating and annual energy costs may change. Although every effort has been made to provide accurate information, this rating does not constitute a warranty, expressed or implied, about the energy efficiency or operating costs of the house. Estimated savings are calculated assuming that the improvements are implemented in the order listed, and in accordance with all local codes and standards. The cost estimates for improvements are established by the local HERS provider.

Home Energy Retro-Fit

City of Milwaukee NIDC
2812 W Wells
Milwaukee, WI 53208

by:
Dale Bates
Badgerland Home Consultants
715-254-0886
September 29, 2009

Home Energy Retro-Fit

The Home Energy Retro-Fit report lists changes, or retrofits, that you can make to your home to save energy and money. Acting on the energy retrofit recommendations will make your home more comfortable, more valuable, and more affordable.

Badgerland Home Consultants recommends these retrofits, based on data gathered in a detailed inspection of your home. If you desire more detail on the retrofits or the cost estimates, contact Badgerland Home Consultants, which provided you this service.

Energy Retro-Fit Table

The Energy Retro-Fit table shows a package of energy retrofits for you to consider. Both the individual and total annual savings are based on the whole package. You can see how good of a financial choice these measures are by looking at the last column.

Feature to improve	Change from	Change to	Estimated cost	Annual savings	SP*
Infiltration:	2826-4240/2826-4240 CFM50	2079.0/0.0 As Specified	\$600	\$882	0.68
Equipment:	OLBL 80-100K 60%AFUE	85AFUE Gas Boil 80k	\$4000	\$2332	1.71
Thermostat:	FALSE/FALSE	TRUE/TRUE	\$110	\$25	4.43
Rim/Band:	R-0.0 / R-0.0	R-0.0 / R-20.0	\$2190	\$163	13.46
Equipment:	NG WH .52EF 40Gal R0	NG WH .65EF 40Gal RO	\$900	\$41	21.89
Door:	Wd Solid 2.25" w/St	St 1.75" R7.5	\$450	\$5	97.02
Door:	Wd Solid 2.25" w/St	St 1.75" R7.5	\$450	\$4	109.01
Ventilation:	Exhaust - 75.0 CFM	Exhaust - 80.0 CFM	\$400	\$-27	99999.90
Total			\$9100	\$3425	
Monthly Finance Cost**, Monthly Savings			\$49	\$285	

* SP is Simple Payback: the number of years until the retrofit has paid for itself.

** The monthly finance cost is the monthly payment, including interest, that will pay for all the tabulated improvements when financed with a 30-year mortgage at 5.00%.

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Energy Costs by End-Use

The Energy Costs table compares the "before" and "after" annual energy costs to show energy cost savings. It groups retrofits by "end-uses," which are broad categories of how energy is used (or generated) in a home. Note that Photovoltaic panels (PV) generate energy, so as a result this "end-use" shows negative costs, if present.

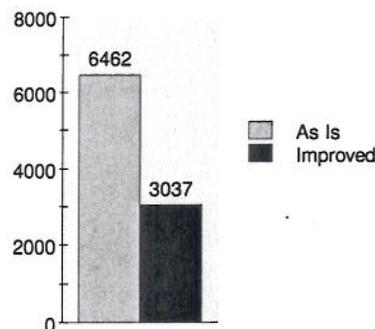
The Total Costs bar chart gives a visual sense of how the annual operating costs of your house could change by incorporating all the listed energy retrofits.

The HERS Index bar chart provides a snapshot of your home's energy efficiency before and after retrofits. The HERS Index shows the energy efficiency rating of your home, similar to the way a miles per gallon rating shows the efficiency for a car.

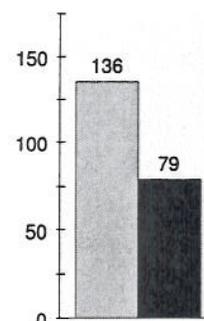
Energy Costs (\$/year)

End-Use	As Is	With All Improvements	Savings
Heating	4866	1462	3405
Cooling	0	0	0
Hot Water	325	284	41
Lights and Appliances	1034	1054	-20
Photovoltaics	-0	-0	0
Service Charge	239	239	0
TOTAL	6464	3040	3425

Total Costs (\$/year)

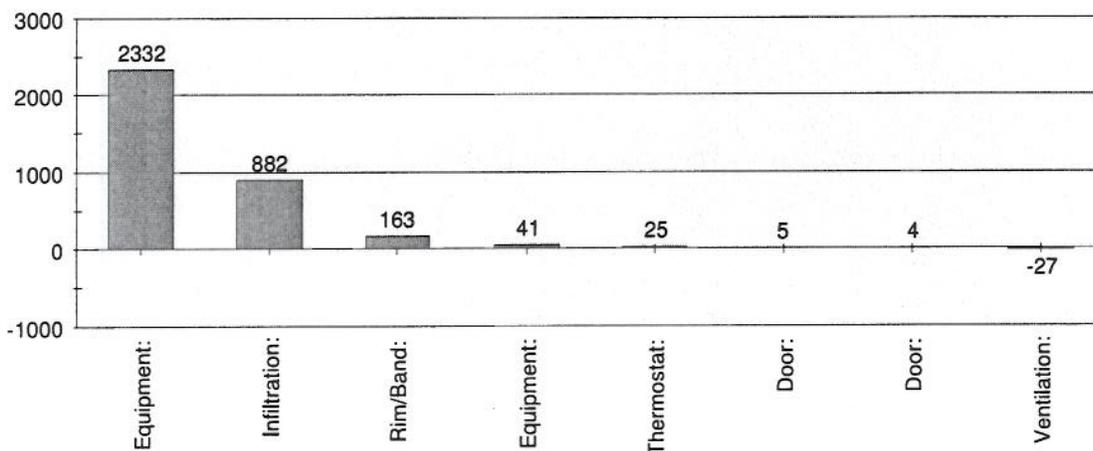


HERS Index



The bar chart below displays the annual energy cost savings (\$ per year) associated with the energy retrofits you choose. Some retrofits interact with one another, and the total savings offered by each can change if the package of combined retrofits changes. For example, if you increase the insulation of your home, the energy savings you can gain from installing a more efficient furnace will be less than if you only install the furnace. However, the total savings will be greater if you choose both retrofits.

Annual Savings for Retrofits (\$/year)



WX WORK ORDER

Building Name: 105-0960	Date: September 29, 2009
Occupant: City of Milwaukee NIDC	Cond Area (sq ft): 2997
Property: 2812 W Wells	Cond Volume (cu ft): 24975
Address: Milwaukee, WI 53208	Number of Stories: 2
Phone: 414-268-8606	Surface Area (sq ft): 5950

General Information

This section of the report can be customized by opening up the wx.def file with an editing program and adding whatever text is appropriate. The wx.def files resides in the same directory as the program executable. The default is: C:\Program Files\Architectural Energy Corporation\Rem Rate\.

MEASURE	MEASURE DESCRIPTION	AFFECTED AREA	QUANTITY
Reduce 1000+ CFM50	Seal air leaks and bypasses	Infiltration:	2997 sq ft
NG Boil 70-100k 94%	Install 70-100,000 BTU 94% efficient natural gas boiler	Equip 1: HEAT:	1 Each
Programmable Thermostat	Install programmable setback thermostat	Thermostat:	Each
Spray R20 Foam	Spray 2-part Urethane 4" into box sills	Rim/Band 1: RJ1	292 sq ft
Power Vented Water Heater	Water Heater	Equip 2: DHW:	1 Each
Insul Steel Door	Install insulated steel door	Door 1: D1	20 sq ft
Insul Steel Door	Install insulated steel door	Door 2: D2	18 sq ft
Quiet bath fan**	Install quiet bath fan with dehumidistat	Ventilation:	Each