

LEED for Homes Project Snapshot

Domain Architecture

Kenilworth Bungalow

Minneapolis, Minnesota

LEED PLATINUM

51 % Expected Energy Savings
Based on HERS Score

67 % Construction Waste
Diverted from Landfill



Photo Courtesy of: Domain Architecture

STRATEGIES AND RESULTS

A new home along the Kenilworth Lagoon - reminiscent of a modest Arts and Crafts bungalow - is scaled to fit the specific needs of the homeowner and tailored to match the scale and character of the neighborhood. Designed by Domain Architecture & Design®, Minneapolis, MN, the interior of this single-family, detached bungalow feels large and spacious, despite its small footprint. This LEED for Homes registered project also benefited from a whole-structure, whole-site, integrated design approach utilizing emerging, as well as proven, sustainable technologies and construction systems.

EXEMPLARY PERFORMANCE

A distinguishing feature of the home is its construction from structural insulated panels (SIPs). These panels, which were custom built off-site, sandwich insulation between a structural skin of two sheets of OSB (oriented strand board) structural skin. This eliminates on-site waste common with typical wood framing, increases construction efficiency, and creates a high performance building that is stronger, quieter and considerably more energy efficient than homes of traditional construction. The plumbing system utilizes a central-manifold plumbing system to conserve water.

LEED™ Facts

Kenilworth Bungalow



LEED for Homes
Certification Awarded February 2010

Platinum	100*
Innovation in Design	7 / 11
Location & Linkages	10 / 10
Sustainable Sites	19.5 / 22
Water Efficiency	7 / 15
Energy & Atmosphere	21.5 / 38
Materials & Resources	13 / 16
Indoor Environmental Quality	20 / 21
Awareness & Education	2 / 3

*Out of 136 possible points

PROJECT BASICS

Project Type	Single Family
Conditioned Space	3633 sq ft
Bedrooms	2
Bathrooms	2
Lot Type	Previously Developed
Construction Type	New Construction

KEYS TO SUCCESS

Lighting	80% CFL
Lighting	Dimmable
Registers	pneumatically controll
Wall Insulation	SIPS
FSC & urea-formaldehyde free wood products.	
Fly Ash (recycled from coal power plants)	
The landscape design retains and infiltrates 100%	

THE LEED FOR HOMES DIFFERENCE

Construction Waste Management Plan	<input checked="" type="checkbox"/> YES!
On-Site Performance Tests	<input checked="" type="checkbox"/> YES!
Custom Durability Planning Checklist	<input checked="" type="checkbox"/> YES!
Third-Party Verified Documentation	<input checked="" type="checkbox"/> YES!

About the Project Team

Design Team: Domain Architecture & Design®, Inc., Minneapolis, MN
LEED Consultant / Project Team Leader: Mike Everson, LEED AP BD+C
Landscape Architect: Brubaker Landscape Designs
General Contractor: Reuter Walton Construction.

2748 Hennepin Avenue South
Minneapolis, MN 55408 p:
612.870.7507 www.domainarch.com

LEED for Homes Provider

AES

About LEED for Homes

LEED for Homes is a voluntary, third-party certification program developed by residential experts and experienced builders. LEED promotes the design and construction of high-performance green homes, and encourages the adoption of sustainable practices throughout the building industry.



www.usgbc.org/homes

The information provided is based on that stated in the LEED® project certification submittals. USGBC does not warrant or represent the accuracy of this information. Each building's actual performance is based on its unique design, construction, operation, and maintenance. Energy efficiency and sustainable results will vary.

Kenilworth Bungalow

Minneapolis, MN

LEED-H Platinum



Design Team: Domain Architecture & Design®, Inc., Minneapolis, MN

LEED Consultant / Project Team Leader: Mike Everson, LEED AP BD+C

Landscape Architect: Brubaker Landscape Designs

General Contractor: Reuter Walton Construction

A new home along the Kenilworth Lagoon - reminiscent of a modest Arts and Crafts bungalow - is scaled to fit the specific needs of the homeowner and tailored to match the scale and character of the neighborhood. Designed by Domain Architecture & Design®, Minneapolis, MN, the interior of this single-family, detached bungalow feels large and spacious, despite its small footprint. This LEED for Homes registered project also benefited from a whole-structure, whole-site, integrated design approach utilizing emerging, as well as proven, sustainable technologies and construction systems. Sustainable design strategies were integrated in ways that harmonize cutting-edge technologies with a traditional aesthetic.

In September, the Project's strengths were acknowledged through its selection to the prestigious '09 AIA-MN Homes By Architects Tour.

A distinguishing feature of the home is its construction from structural insulated panels (SIPs). These panels, which were custom built off-site, sandwich insulation between a structural skin of two sheets



of OSB (oriented strand board) structural skin. This eliminates on-site waste common with typical wood framing, increases construction efficiency, and creates a high performance building that is stronger, quieter and considerably more energy efficient than homes of traditional construction.

The use of SIPs, as well as high-efficiency windows, appliances, fixtures, and heating and air conditioning systems, will drastically reduce energy use and energy bills. In fact, with a HERS Index of 49, this home is projected to be 51% more energy efficient than its built-to-code-standard analogue would be. Moreover, the indoor air quality of the home should far exceed that of a conventional home, thanks to the use of low-VOC paints, formaldehyde-free cabinetry, and integrated moisture control measures that will limit mold and mildew build-up.

The landscape design retains and infiltrates 100% of an 'average' rainfall onsite, allowing the owner to defray costs via municipal stormwater abatement credits and minimizing use of the site's high efficiency irrigation system. This is the result of utilizing only no-mow turf; non-invasive, drought-tolerant, native flora; numerous infiltration devices; and pervious-concrete 'trapping' strategies in the driveway. For every square foot of impervious concrete hardscape found within the site, there is a square foot of pervious (permeable) concrete offsetting it.

Domain is committed to green building, with designers that are LEED accredited, and completed projects that have been recognized for excellence in sustainable design - such as the renovation of the Pillsbury Library in Northeast Minneapolis (LEED-NC v2.2 Gold). For more information on building a new home or renovating your existing home in a way that reduces energy use, limits waste, and provides a healthy indoor environment, please go to the Domain website at www.domainarch.com

Project Particulars

Total Property Area: (in Square Feet) 5570

Gross Home Square Footage: (in Square Feet) 3633

Total Home Footprint: (in Square Feet) 1337

Surface parking spaces: 0

Structure Parking Spaces: 2

Undisturbed Site Area: 0

Site Context/Setting: Urban

Site Conditions: Previously Developed

Green features and highlights:

- Fly Ash (recycled from coal power plants) used to strengthen the foundation concrete.
- SIPs (Structural Insulated Panels) used for the exterior envelope (walls and roof).
- Interior walls constructed with finger-jointed studs; and floor trusses are open-web type.
- Cabinetry & moldings constructed from FSC (Forest Stewardship Council) and urea-formaldehyde free wood products.
- Project's waste management plan facilitated a 67% landfill diversion rate for construction waste removals.
- Appliances, ceiling fans, and bathroom fans are Energy Star rated.
- Lighting circuits are dimmable, and 80% of the lamps are Energy Star CFL's.

- The plumbing system utilizes a central-manifold plumbing system to conserve water and to equalize pressure throughout system.
- Plumbing fixtures (lavatories, showerheads, and toilets) are all high efficiency fixtures.
- A heat recovery system provides continuous ventilation of fresh exterior air into the home.
- Individual forced-air registers are pneumatically controlled from the furnace room to balance airflow throughout the home.
- The fireplace and energy efficient furnace are direct-vented, and the energy savingr water heater is power-vented.
- Landscaping includes three rain gardens, drought resistant flora, and no-mow turf.
- The driveway's outer concrete bands slope inward, directing water to the permeable center section, with a crushed rock field below. Water then percolates into the lower rain garden.
- The irrigation system includes a zone controller, drip irrigation, and a rain delay controller.

Exterior General Information:

Roof Shingles: Barkwood by GAF-ELK

Front Door: TruStile

Front Door Hardware: Baldwin

Garage Doors: 9700 Series by Wayne Dalton

Exterior Material: James Hardie Lap Siding

Mechanical System: Paul Stafford Electric

Structural Insulated Panels (SIPs): Extreme Panel Technologies

Interior General Information:

Floors: Hickory by Schaefer Hardwood Floors

Cabinets/Millwork: Timber Creek Cabinets

Paint Colors: BEN by Benjamin Moore

Fireplace: Sweet Dreams by Lopi

Fireplace Surround: Meredith Tile

Interior Door Hardware: Baldwin

Tile - Fireplace Surround and Kitchen Backsplash: Meredith Tile

Tile - Entry Hall, Mud Room, and Bathrooms: Baoding Slate, Copper Rust slate, Jinshan Bone, Jinshan Caramel Baoding Crème Yuma, and Banning Listello by Tile Shop

Bathroom Fixtures: Kohler

Toilets: Karsten by Sterling Kitchen

Range: Kenmore

Hood: Vent-A-Hood, Stainless Steel

Microwave: Kenmore

Dishwasher: Bosch Integra 500 series

Ref/Freezer: Kenmore

Kitchen Sink: Blancowave Plus by Blanco

Countertops: Maple Butcherblock by John Boos

Laundry Washer/Dryer: Epic by Maytag

Countertop and backsplash: LG, Confetti Quartz