



Architectural Resource

Headed by Michael Klement A.I.A., N.C.A.R.B., is a full-service, national award-winning, architectural design firm specializing exclusively in residential design of high-performance homes, cottages, additions, remodels, and renovations. "Green" since the firm's inception in 1991, creating healthy and energy efficient buildings is a fundamental aspect of its core mission.

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MEADOWLARK BUILDERS

Meadowlark Builders

A full-service design/build firm specializing in "deep green" building techniques and custom finish work in all media. Meadowlark Builders offers several in-house capabilities that greatly reduce the carbon footprint of homes and make more beautiful spaces for living. Experience the best in customer service, creative craftsmanship, and energy-efficient construction all under one roof.

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A PLAN FOR THE AGES

A CLASSIC REINVISIONED FOR THE FUTURE.

Architectural Resource and Meadowlark Builders have teamed with the homeowners to transform an archetype from another era into an icon of future homes. This "deep green" whole house remodel is pending LEED Platinum level certification with the USGBC's LEED for Homes program, the third Platinum level remodel in Michigan. This home is built to address some key elements of the new era of housing - energy efficiency, low maintenance and durability, healthy indoor air quality, and smaller but better designed homes."



CREATIVITY • HARMONY • SUSTAINABILITY • QUALITY • INTEGRITY
MEADOWLARKBUILDERS.COM



IMAGINE INSPIRED DESIGN®
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FUTURE READY FOR "EVERY MAN"

The special thing about this project is the "every man's home" aspect of its design. Although projected to achieve the lofty level of Platinum certification, it does not present as something extreme appearing like a wild high school science experiment, something from Mars, or a yurt! It looks like, lives like, and is experienced like any other home. The difference is what truly makes for a deep green home: what is inside.

NOT SO BIG® DESIGN STRATEGIES

Sarah Susanka, in her ground breaking 1998 book *The Not So Big House*, introduced to the world the concept of building a home that favors the quality of space over the quantity. Since then, due to economic and energy cost pressures, we have actually seen for the first time in recent history a decline in size of new homes being built. More and more people are rethinking soaring atriums and five gables to the street as being what a home has to be. A "rightsizing" of the American Dream perhaps? Many of the Not So Big® design principles are exhibited in this home including rethinking "room"; using the diagonal; the third dimension; indoor/outdoor connection; using light to expand space; shelter around activity; away space; movement toward light; and framed interior views. When we build for how we really live, a house that is inspired by our informal lifestyles and what is important to us, we build a house that is more than just square footage. We build a home.

"FUTURE READY" STRATEGIES

This home has been made "future ready" with features such as the new geothermal system being designed to provide future domestic hotwater as well as radiant heat to the pre-piped superinsulated floor slab at the sunroom and the master suite; conduits being installed from the roof to the basement for future renewable energy harvesting.



OLD PLAN

ADVANCED FRAMING TECHNIQUES

Advanced framing promotes a variety of building methods and engineering approaches that minimize material use and waste in the construction of a wood-framed house. Simply stated this approach can potentially reduce up to 20% - 30% of the wood in a typical wall and replaces it with insulation.

WATER CONSERVATION

From ultra low-flow fixtures in the bathrooms to an efficient PEX manifold delivery system, this home is constructed to use far less water than the average home. The exterior features complete the picture with rain barrels, rain gardens, and a permeable site plan that keeps and re-uses the water that falls on the site.

LOW FLOW FIXTURES

By installing good quality low-flow fixtures, this home will use approximately 40% less water than a home with standard fixtures with no noticeable decrease in performance.

GEOTHERMAL HEATING AND COOLING SYSTEM

A direct exchange geothermal system uses the stable year-round 52° temperature of the earth to provide both heating & cooling. The DX system, utilizing a highly efficient method of heat exchange, allows the system to be installed with less site disruption in a smaller footprint - ideal for urban settings! A direct exchange geothermal system can cost up to 4 times less to operate than conventional heating and cooling systems at present energy prices.

HOT ROOF

Polyurethane foam is applied directly to the roof deck to complete an air tight building shell. The attic stays cooler in the summer and warm in the winter while lowering energy bills by 20% or more.

LONG LIFE-LOSE FIT DESIGN

Designing a green home also must account for future lifestyles at different points in people's lives. By designing a home that is easy to modify or use in different ways, we build in future savings of resources and effort to change the home

PASSIVE SOLAR

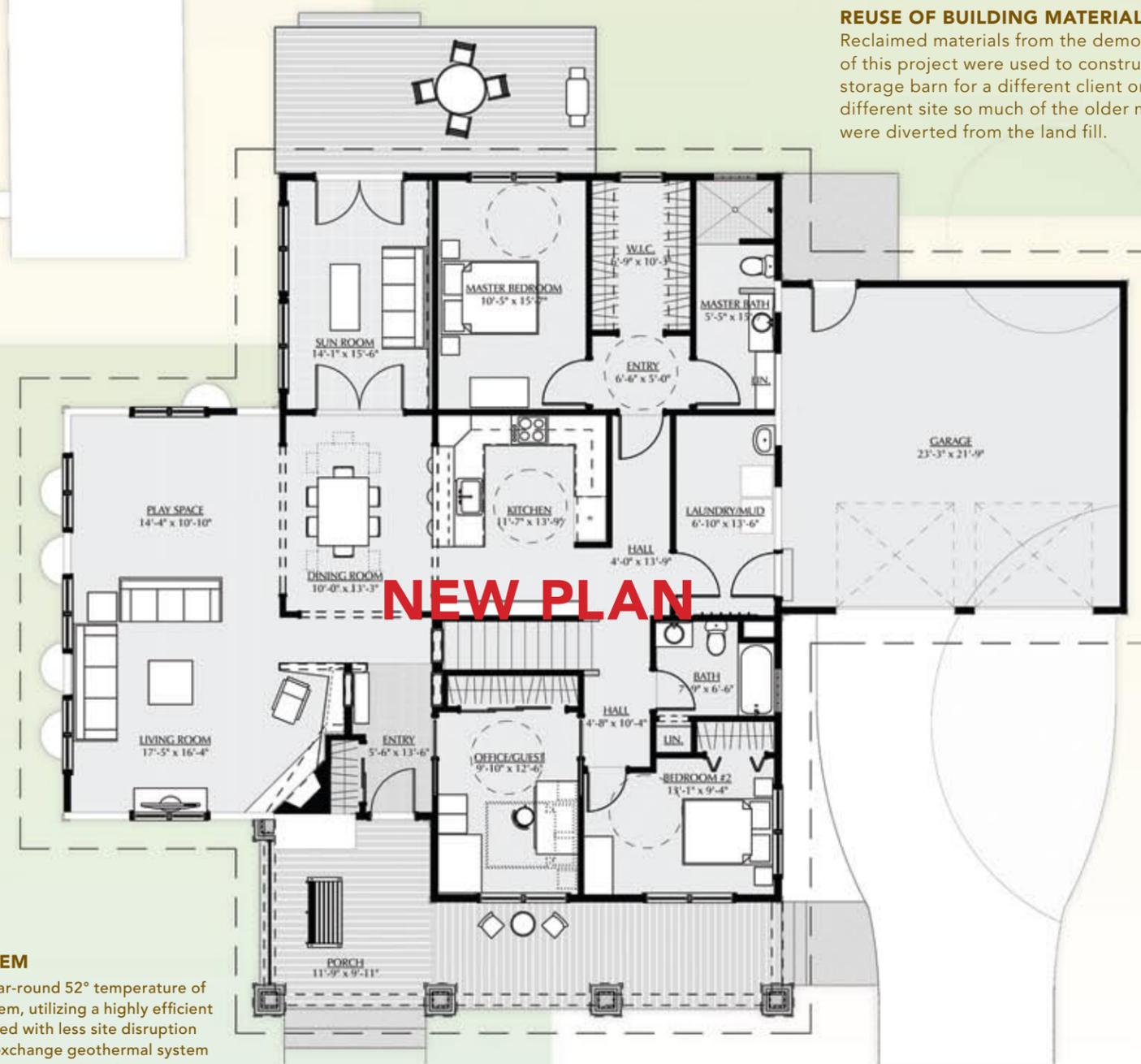
By considering where the sun shines and the orientation of the building on the site "free" energy from the sun can be harnessed using site specific window placement, 'tuned' overhangs to control the sun, and passive collection materials to hold the heat and use it in the home.

ENERGY RECOVERY VENTILATOR

ERV's recover the heat and moisture content of stale interior air to condition incoming fresh air. Large amounts of energy are saved by this exchange, while HEPA filtration further optimizes interior air quality.

REUSE OF BUILDING MATERIALS

Reclaimed materials from the demolition of this project were used to construct a storage barn for a different client on a different site so much of the older materials were diverted from the land fill.



NEW PLAN