

Homes of the Past...for the Future!

2910 Brickhouses Road, Urbana, IL 61802

Features

Full brick exterior

Wrap-around covered porch with beadboard ceiling (Haint Blue) (<https://www.sherwin-williams.com/architects-specifiers-designers/inspiration/styles-and-techniques/sw-article-pro-the-whys-behind>)

All cedar or fir painted trim soffits and millwork on exterior

Motion sensor, "dark sky" exterior lighting

Pella aluminum clad wood windows with spectrally selective glass

All hard flooring - Natural WOCA oil finished Tennessee hickory T&G solid wood (<https://www.wocadirect.com/>)

Ceramic, marble and slate mosaic and embossed tiles, brick floor

Solid core 5 panel Shaker interior doors, Baldwin hardware antique pewter with crystal knobs
12" baseboard and 12" crown in main living areas

Minka-Aire gyro fans

Reclaimed barnwood (heat treated and sealed), white beadboard

Built-in china cabinet with carved shell top, crystal chandelier

Built-in Murphy bed

Mendota gas fireplace with double mantle, rustic walnut, brick and barnwood

Woodstock soapstone gas stove (hand made in New Hampshire, <https://www.woodstove.com/>)

Art Nouveau hooks and cubbies, crystal chandelier in front entry, full glass pocket door

Stained glass window in sunroom, 2 pair of full glass French doors, belly bar black iron balcony railing

9 foot rustic walnut bar between kitchen and dining, opening can be closed with the addition of a wood tambour shutter.

White shaker kitchen with integrated open shelves, white beadboard, crystal knobs.

4 levels of LED lighting - under counter, upper shelves and cabinets, ceiling panels, bell lights over sink and bar.

Natural Soapstone countertops - unoiled

KitchenAid appliances - white, 25 cf French door refrigerator with interior water dispenser, white, 44 DB dishwasher with dynamic wash arms, 36" dual fuel 6 burner cobalt blue commercial style range, slide out range hood stainless steel and glass, apron front deep single bowl sink with rack SS, stainless steel topped teal kitchen table, walk-in pantry with wood shelves. Small scale white subway tile backsplash walls, Van-Gogh tile mural behind stove - "Wheat Fields and Cypress Trees"

Desk Alcove with white shaker cabinets and under cabinet LED lighting

Motion sensor LED lighting in back hall and garage entry.

Drop zone with 22 hooks, high, low and bench cubbies with white beadboard in garage entry

Laundry counter height bath tub with sprayer, tile and rustic walnut counters, 2 hanging racks, rustic cubbies, white shaker cabinets, dark embossed tile floor, space for a second refrigerator.

Coat closet and broom closet (with outlet) in back hall.

Central vac with 2 floor outlets, 4 wall outlets, tools

Rear concrete covered patio

Half bath with built-in open shelves, blue painted furniture vanity with marble top, pump handle faucet

First floor Master Bedroom suite with accessibility features – roll-in shower, slate mosaic floor tile, rustic walnut countertops, 2 sets built in wall shelves, convertible vanity, industrial pulley lighting, corrugated galvanized backsplash, grab bars.

Stairway handcrafted by Illinois' elite Country Stairways, hand turned balusters in “open barley twist” pattern, hickory stair treads.

Switched stained glass nightlight on stair, white beadboard walls with display ledges, pewter and crystal wall sconce. Second floor hallway lights on motion sensor

Second floor rear balcony

Loft with flat screen location

Ceiling fans in all bedrooms and living areas throughout the house

Large Master bedroom with windows on 3 sides

Master bath with white and grey marble basketweave mosaic tile, 8 foot vanity, double sinks and shaped, framed mirrors, chocolate shaker cabinets, crystal knobs, white granite top, 3 crystal chandeliers, 6 foot double slipper cast iron claw foot tub, tiled shower with blue penny tile floor, integrated ledge and wall shelves

“Harry Potter” closet under the stairs

Master closet with second laundry location, white shaker cabinets and hanging rod

All closets equipped with solid wood, white painted shelves and gas pipe clothes poles

Sliding barn door between laundry closet and hallway – Handcrafted in Tennessee from reclaimed barnwood.

Double wide hallway with two large linen closets, built in shelving unit. This hallway is part of the natural air circulation pattern of the passive solar design. With both sets of doors in the sunroom open and because of the location of the stairway on the opposite side, air is naturally drawn throughout the first and second floors, allowing the radiant first floor to heat all levels of the house, on sunny days, the natural solar heat also circulated. In summer, the windows on the north side, allow for similar cooling. With both master closet doors open, cross ventilation from east to west is also very effective in natural cooling

2 second floor hall baths with antique craquelé wall tiled tubs, rustic walnut countertops, rectangular white ceramic drop in sinks, pump handle faucets, white furniture vanities

Third floor room accessed by bookcase hidden door

All bedrooms have windows on 2 sides (better natural light and ventilation)

All bathrooms have an operable window

Basement:

Unfinished basement with half bath, daylight windows (no window wells!) exterior entrance

The basement ceiling is insulated due to the radiant floor upstairs, which incidentally adds sound deadening.

The HVAC system consists of two geo-thermal units (Geo-Comfort – the best!

<https://geocomfort.com/>) One unit supplies the hydronic radiant floor heat. All of the first floor has a Warmboard subfloor (<https://www.warmboard.com/>) with radiant tubing. There are 2 thermostatically controlled radiant zones on the first floor, the front living area and a smaller zone that is the rear hall and first floor master suite. On the second floor only the bathrooms

have radiant floor; the master bath and 1 hall bath are one zone (thermostat in the master bath) and the second hall bath is a separate zone.

Throughout most of the winter, just running the floor heat is sufficient to keep the whole house warm. Set it and forget it, no setbacks, the temperature in the living areas on the first floor will always be comfortable, and the rooms on the second floor, benefitting from rising first floor heat will be 1-3 degrees cooler.

The second HVAC geo-unit is forced air. Sized appropriately for cooling, it produces cool, DRY, air conditioning in the summer. Illinois has a greater heating load than cooling load, using the same size unit for cooling usually makes it harder to remove humidity, which is what makes the summer air uncomfortable, not the temperature. This is the most comfortable air conditioning you will experience. The forced air unit will also supply back-up heat in the winter. On very cold nights (below 10 degrees) you most likely will run the second floor and third floor forced air systems in addition to the radiant system. There are three thermostatically controlled forced air zones.

The geo-systems contain a desuperheater, which allows for waste heat from operating the system to be used to pre-heat the water supplying the domestic hot water tank (80 gal). Free-heat, when the systems are running. There is a re-circulating pump on the hot water system, so the water at the tap is always hot.

The house is designed with a large roof surface facing the ideal direction and pitch for solar panels. All roof penetrations have kept to other parts of the roof, so an uninterrupted array of solar panels can be installed. There is conduit from the attic to the basement for wiring the system. There is a 55 panel (19.25kW) SunPower PV system installed on the roof with individual microinverters which is estimated to provide 27,196kWh of electricity. This is sufficient to provide all the electric power the house requires plus extra. There is a 220 line in the garage for electric car charger.

The planned landscape is sustainable. The driveway is dyed black concrete to make it less visually prominent, to help melt snow in winter, and to help hide the darkening and staining that can occur as concrete ages. The driveway is only one car wide and located to the side of the house as it approaches the 42x42 pad that accesses the two-two car garages. The pad can accommodate a nice sized basketball court, or three additional parking places or lots of room for chalk drawings, skating or other outdoor play. The pad is screened by edging with "Emerald Green arborvitae shrubs, which will also help prevent snow from accumulating in front of the garage doors. The low area between the garage and sidewalk is the rain garden, the geo wells are located below this area. The wells are most effective if the soil remains moist. Two downspouts from the gutters will be directed here, soil remains moist, runoff is prevented. The lot has received a fall seeding of a fine fescue sustainable lawn.

"Built Differently"

Full brick exterior: The brick on second story over wings is supported by steel beams and columns on concrete footings, just like construction methods of the past. In modern day construction, steel lintels are bolted to wooden framing members, but wood shrinks and

swells with the seasons, this can cause the brick or mortar to crack, the old methods are better.

The floor system between the first and second floor consists of 24" deep open web floor trusses, if you desire to add additional wiring, or other infrastructure, there is easy access.

Gaps between wall panel framing during construction were sealed

Attic insulation is R-76, the third floor room is insulated with foam board to prevent thermal bridging. Duct work is sealed metal piping dropped below the attic in drop ceilings on second floor to be sure to remain covered with insulation over the years.

Care was taken to not inadvertently create nesting sites for the local abundant wild life in the house.

Accessible:

Not only ADA accessible (and not all ADA features are included) but accessible to all sizes and ages. No step entry from the garage, the whole first floor is accessible for wheelchair or walker assisted persons. The step from exterior doors is only 4 inches, much more comfortable and safer for all ages. Bathroom toilets (6!) are of 3 different types throughout the house, so small persons (young children) will not need to struggle with larger "right height toilets". Bathroom sink heights vary. The kitchen provides a table for 30" counter height, more comfortable for stirring or chopping for shorter people, or a place to sit while working, while the standard 36" counter height and 42" bar height are available counter heights for taller people.

"Near Zero-Net-Energy" With the addition of solar panels the electric bill for this house is reduced to just the connection fee every month - about \$15. The gas bill is negligible, the only the gas used is for cooking on the stove top and fireplace, and mini-franklin, a connection fee of \$20 per month and a few cents for the gas. It is *near zero* (not completely zero) and *near carbon-free* because of the natural gas.

The solar panel system consists of 55 Sunpower Equinox black panels with integrated microinverters. The system has a 25 year warranty and an expected lifetime of 40 years, with power production at 85% still at 40 years.

THE NEW HOMEOWNER WILL RECEIVE A FEDERAL INCOME TAX CREDIT

for the geothermal HVAC and Solar panel installations. If purchased before December 31, 2019, the tax credit for each is 30% of the cost - approximately \$40,000. If purchased between Jan 1, 2020 and December 31, 2020 the tax credit drops to 26%. And for the first 5 years - income payments to you for tax credits and SREC payments for being green - totaling \$70,000.