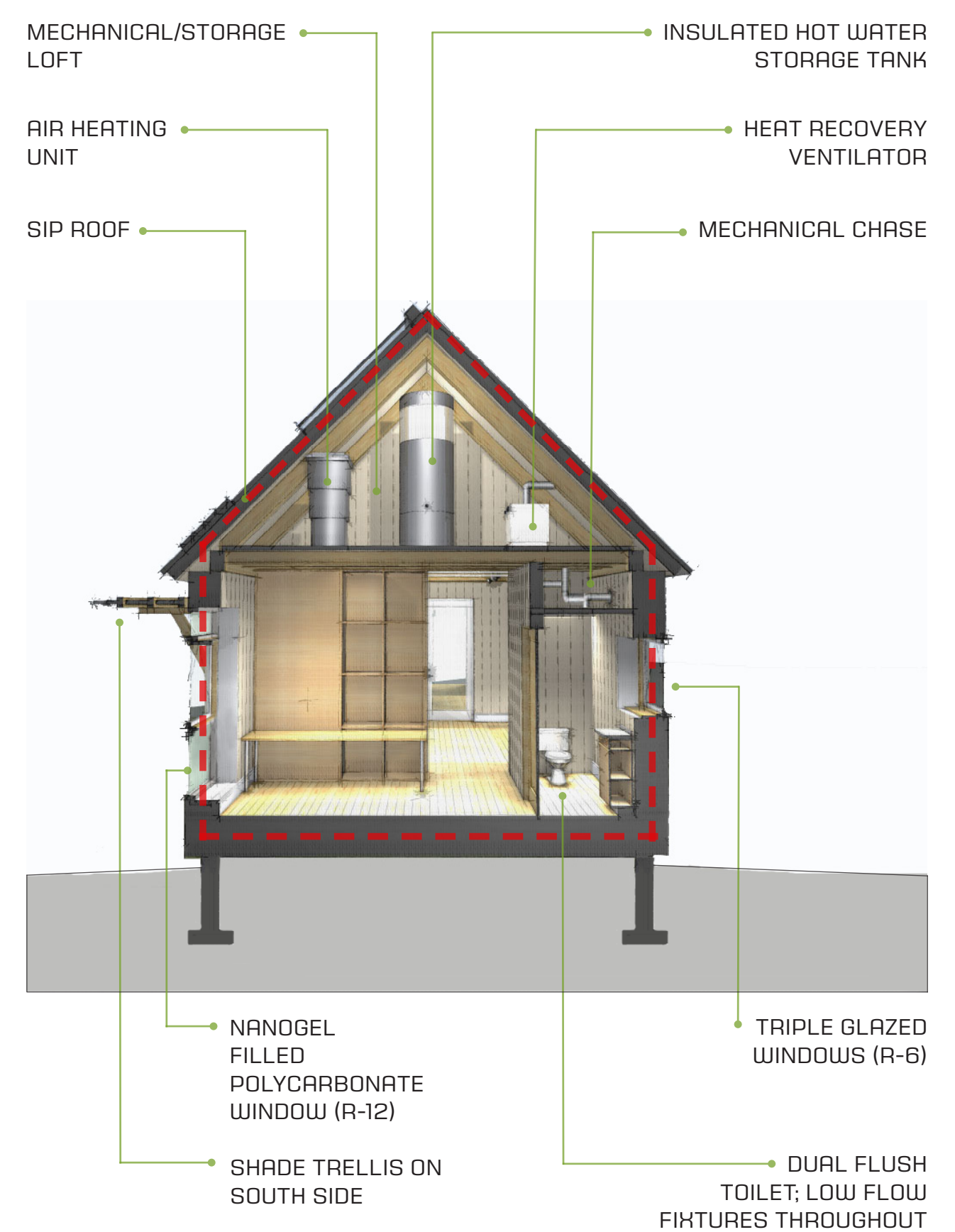
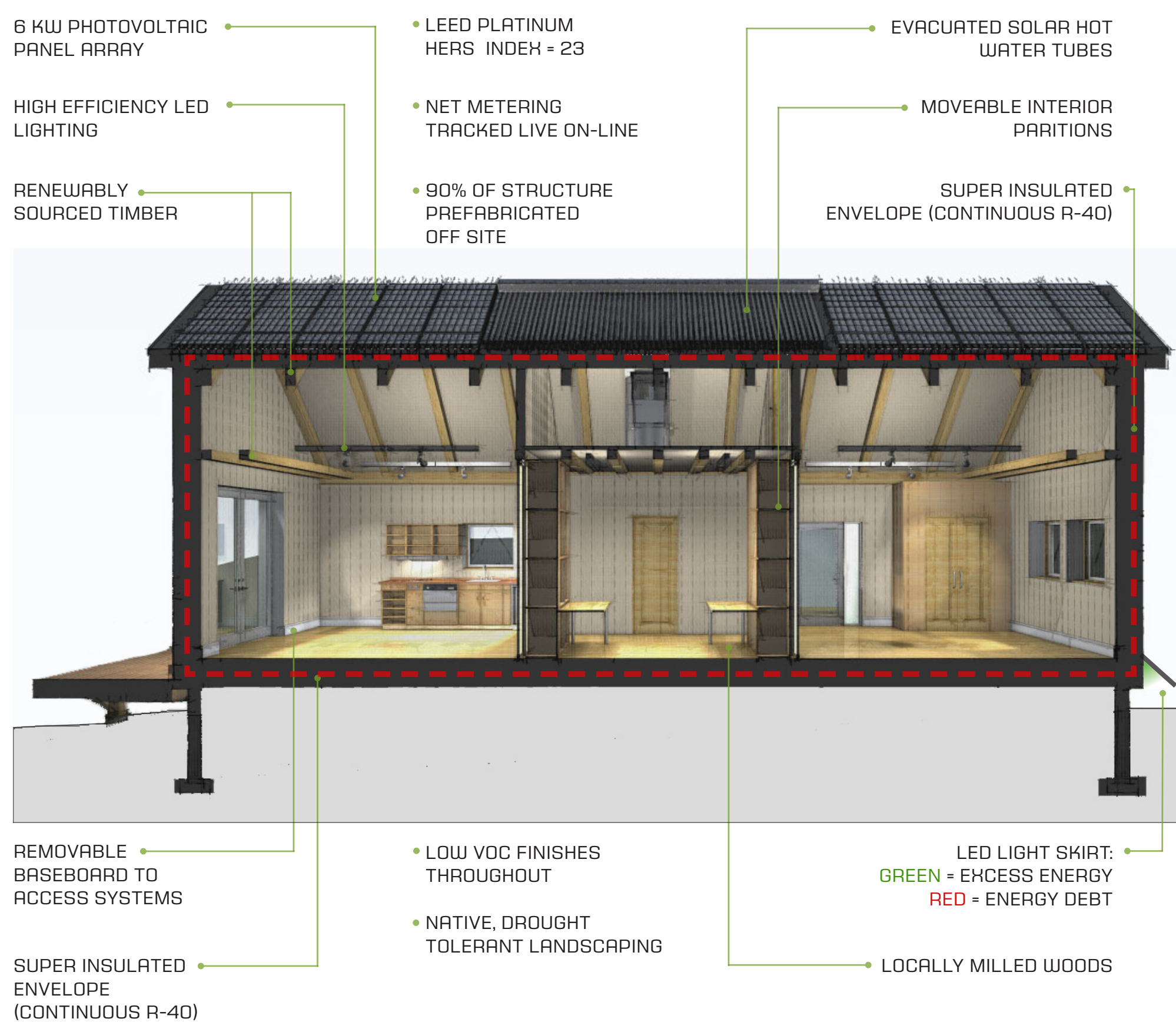


1. PHOTOVOLTAIC SOLAR PANELS AND SOLAR HOT WATER EVACUATED TUBES
2. ROOF: STRUCTURAL INSULATED PANELS
3. TIMBER RAFTER
4. COLLAR TIES
5. TIMBER PLATE
6. ARBOR TRELLIS / SUNSHADE
7. 25mm POLYCARBONATE PANELS WITH TRANSLUCENT INSULATING AEROGEL
8. THERMOTECH FIBERGLASS WINDOWS, TRIPLE GLAZED, HIGH SHGC
9. STRUCTURAL C-CHANNEL WITH URETHANE INSULATION
10. 25mm POLYCARBONATE PANELS WITH TRANSLUCENT INSULATING AEROGEL
11. BUILT-IN MECHANICAL/SERVICE CHASE
12. WALL CONSTRUCTION: 5.5" CELLULOSE INSULATION, 4" HPS RIGID INSULATION
13. FLOOR CONSTRUCTION: 12" CELLULOSE INSULATION
14. LIGHT SKIRT: INTEGRAL LED LIGHTING INDICATING ENERGY USE
15. FOUNDATION WALL
16. FOOTING



The BrightBuilt Barn is an attempt to push the envelope of sustainable design. It is the practical outcome of an in-depth collaboration between designers, building fabricators, high performance building experts and solar energy professionals from all over the northeast. The result is a prototype for the sustainable house of the 21st century – a practical, affordable, beautiful structure that is one of the only buildings in the world to be designed to be truly carbon neutral: By making more clean energy than it consumes, over its lifespan, the BrightBuilt Barn will actually offset all the atmospheric greenhouse gases produced by its construction.



From conception to construction, **five guiding principles** were integrated into the BrightBuilt Barn:

1. **Livability:** Does the solution fit the need?
2. **Sustainability:** Is this building environmentally responsible?
3. **Replicability/Affordability:** Can we build this building affordably?
4. **Disentanglement:** Can this building change over time?
5. **Education:** How will this building teach and influence subsequent generations?