











Table 5.1: Criteria Matrix

Criterion	1	2	3	4
 1. Ecosystems impacts	Code compliance: No particular requirements.	Some environmentally preferred products <i>Applicable standards:</i> LEED certified/silver, NGBA bronze/silver, R-2000, Active House minimum thresholds.	Majority environmentally preferred products <i>Applicable standards:</i> LEED gold/platinum, NGBA gold/emerald, Active House mid-range thresholds.	All environmentally preferred products <i>Applicable standards:</i> Living Building Challenge, Active House high thresholds.
 2. Embodied carbon	Code compliance: No particular requirements.	Reduced carbon: Footprint 25–50% lower than conventional standard. <i>Applicable standards:</i> Active House minimum threshold.	Low carbon: Footprint 50–90% lower than conventional standard. <i>Applicable standards:</i> Active House mid-range thresholds.	Ultra-low, net zero, or negative embodied carbon <i>Applicable standards:</i> Living Building Challenge, Active House high thresholds.
 3. Energy efficiency	Code compliance: Meets minimum local standard.	Reduced energy use: On-site energy use 25–50% less than code. May incorporate on-site renewable energy and/or renewable primary energy sources. <i>Applicable standards:</i> Energy Star, LEED certified/silver, NGBA bronze/silver, R-2000, Active House minimum thresholds.	Low energy use: On-site energy use 50–75% less than code. Likely to incorporate on-site renewable energy and/or renewable primary energy sources. <i>Applicable standards:</i> LEED gold/platinum, NGBA gold/emerald, R-2000, Active House mid-range thresholds.	Ultra-low, net zero, or net positive energy use: On-site energy use 75–100% less than code. Incorporates on-site renewable energy and/or renewable primary energy sources. <i>Applicable standards:</i> Living Building Challenge, Passive House.
 4. Indoor environment quality	Code compliance: No particular requirements.	Some low-emissions and non-toxic options <i>Applicable standards:</i> LEED certified/silver, NGBA bronze/silver, R-2000, Active House minimum thresholds.	Majority low-emissions and non-toxic options <i>Applicable standards:</i> LEED gold/platinum, NGBA gold/emerald, Active House mid-range thresholds, WELL silver/gold, IBN principles followed.	No emissions, fully non-toxic <i>Applicable standards:</i> Living Building Challenge, Active House high thresholds, WELL platinum, IBN tested.
 5. Waste	No measurement.	Basic management plan and sorting; minimal reduction targets <i>Applicable standards:</i> LEED certified/silver, NGBA bronze/silver, Active House minimum thresholds.	Comprehensive management plan; 25–50% reduction <i>Applicable standards:</i> LEED gold/platinum, NGBA gold/emerald, Active House mid-range thresholds.	Comprehensive management plan; 50–100% reduction <i>Applicable standards:</i> Living Building Challenge, Active House high thresholds.
 6. Resilience*	Code compliance: No particular requirements.	Minimal resilience targets: 3–7 days of potential self-reliance; siting accounts for major flooding/storms.	Moderate resilience targets: 7–28 days of potential self-reliance. <i>Applicable standards:</i> Resilient Design Institute principles inform some design decisions.	Complete resilience targets: Continuous potential self-reliance. <i>Applicable standards:</i> Resilient Design Institute principles and strategies fully employed.

*The number range for this criterion does not represent a quantitative value, only a preference for a more or less resilient design. The answer range will have a major impact on the complete range of design considerations. ➔

Table 5.1: Criteria Matrix (continued)

Criterion	1	2	3	4
 7. Occupant Input and Durability*	No regular input required: Homeowner does not intend to be involved with systems or material maintenance.	Annual or bi-annual input may be required: Homeowner willing to engage in some minimal regular involvement.	Seasonal input required: Homeowner willing to engage in seasonal chores or maintenance.	Daily or weekly input required: Homeowner willing to engage in chores or maintenance as part of regular functioning of home.
<p>*The number range for this criterion does not represent a quantitative value, only a preference for a more or less active involvement in the operations of the building. The answer range will have a major impact on mechanical systems and some material and finishes decisions. Frequency of occupancy, response times from HVAC equipment, and adaptability to changing life circumstances can all be important factors here.</p>				
 8. Building code compliance*	Code compliance: Full use of prescriptive pathways.	Use of referenced standards: Code compliance includes some or full use of recognized standards, prescriptive pathway.	Some alternative compliance: One or more major elements of the building require an alternative compliance pathway.	Alternative compliance: A large number of building elements require an alternative compliance pathway.
<p>*The number range for this criterion does not represent a quantitative value, only a preference for a more or less prescriptive approach to code compliance. There may be time and cost impacts for the answer range at the higher end of the spectrum.</p>				
 9. Material costs*	Less than conventional production costs (<\$100/sq. ft.): Project likely to use site-harvested, local, and/or recycled materials. Cost will be a factor in all material decisions.	Equal to conventional production costs (\$100-150/sq. ft.): Project will use conventional materials or will balance use of lower-cost materials with higher-cost.	Equal to conventional custom costs (\$150-250/sq. ft.): Project will incorporate custom design elements and some higher cost materials.	High end or luxury costs (\$250/sq. ft. and up): Project will consider most or all other criteria before cost.
<p>*The number range for this criterion represents a general quantitative value based on current North American market averages for construction costs (not including property costs, but including development fees, permits, and profit margins). These costs are based on conventional construction models, and they reflect common priorities (such as full basement foundations and standard kitchen cabinetry). It may be possible to employ strategies that lower costs compared to conventional figures in some areas to support higher costs in other areas. The number range should be used for evaluative purposes only, and full budget estimating must be undertaken to ensure the desired budget targets will be met.</p>				
 10. Labor costs and sources of labor*	Entirely owner built: Project organized by owner and uses no or minimal paid labor.	Owner is general contractor; some hired labor: Project organized and built by owner; certain trade work contracted to professionals.	Owner is general contractor; most or all labor hired: Project organized by owner; professionals hired for build.	General contractor hired: Project is initiated by owner; general contractor responsible for all construction work and coordination.
<p>*The number range for this criterion does not represent a quantitative value. There are likely to be higher costs associated with more hired labor; however, this does not account for lost income/productivity for the owner-builder, or the potential for extended construction times, errors and omissions, or other costs that are not uncommon for inexperienced project coordinators and builders. This criterion should be thoroughly considered and calculated to ensure desired budget targets and outcomes will be met.</p>				

Note Observant readers may notice that "Aesthetics" is not represented on this matrix. This is not to diminish its importance as a criterion in project decision-making, but rather to reflect the reality that aesthetics is not quantifiable in any way that would be informative on this matrix. It is suggested that Aesthetics be a meta-criteria, to which all decisions in all other criteria areas are held accountable.