505.2.2 Regional materials. A minimum of 40 percent of building materials or products used, based on cost, shall be regionally extracted/harvested/recovered and manufactured within a radius of 500 miles (800 km) of the project *site*. If only a fraction of a product or material is extracted/harvested/recovered and manufactured locally, then only that percentage (by weight) shall contribute to the regional value.

Exception: For building materials or products shipped in part by rail or water, the total distance to the project shall be determined by weighted average, whereby that portion of the distance shipped by rail or water shall be multiplied by 0.25 and added to that portion not shipped by rail or water, provided that the total does not exceed 500 miles (800 km).

505.2.3 Biobased products. A minimum of 5 percent of building materials used, based on cost, shall be *biobased* products. *Biobased products* shall:

1. Comply with the minimum biobased contents of the USDA's BioPreferred Program;
2. Contain the "USDA Certified *Biobased Product*" label; or
3. Be composed of solid wood, engineered wood, bamboo, wool, cotton, cork, agricultural fibers, or other biobased materials with at least 50 percent biobased content.

505.2.3.1 Wood building components. Wood building components, including but not limited to structural framing, sheathing, flooring, subflooring, wood window sash and frames, doors, and architectural millwork, used to comply with this requirement shall contain not less than 60 percent certified wood content tracked through a chain of custody process, either by physical separation or percentage-based approaches, or wood that qualifies as a *salvaged material*. Certified wood content shall be certified by the Forest Stewardship Council. Wood building components from a *vendor* shall be permitted to comply when the annual average amount of certified wood products purchased by the *vendor*, for which they have chain of custody *verification* not older than two years, is 60 percent or greater of their total annual wood products purchased.

505.3 Whole building life cycle assessment. Life cycle assessment shall conform to the requirements of ASTM E2921. The requirements for the execution of a whole building life cycle assessment shall be performed in accordance with the following:

1. The assessment shall demonstrate that the building project achieves not less than a 20 percent improvement in environmental performance for global warming potential and at least two (2) of the following impact measures, as compared to a reference design of similar usable floor area, function and configuration that meets the minimum energy requirements of this code and the structural requirements of the *Building Code*. For relocatable buildings, the reference design shall be comprised of the number of reference buildings equal to the estimated number of uses of the relocatable building.
   1.1. Primary energy use.
   1.2. Acidification potential.
   1.3. Eutrophication potential.
   1.4. Ozone depletion potential.
   1.5. Smog potential.
2. The life cycle assessment tool shall be *approved* by the *code official*.
3. Building operational energy shall be included. For relocatable buildings, an average building operational energy shall be estimated to reflect potential changes in location, siting, and configuration by adding or subtracting modules, or function.
4. For relocatable buildings, average transportation energy, material and waste generation associated with reuse of relocatable buildings shall be included in the assessment.

505.4 Multi-attribute material declaration and certification. Not less than 25 percent of the total building materials used in the project, based on cost, shall comply with Section 505.4.1 or 505.4.2. Where a material complies with both Sections 505.4.1 and 505.4.2, the material value shall be multiplied by two.

505.4.1 Environmental product declaration. A building material with a Type III environmental product declaration that is verified by a program operator. The environmental product declaration shall comply with the provisions of ISO 14025 and ISO 21930 and be externally verified.

505.4.2 Multi-attribute standard. A material specific assessment that is verified by an approved agency shall be submitted for each product in accordance with the following standards, as applicable. The assessment shall be verified as meeting the minimum performance level specified in each standard, which focuses on the life-cycle stages from development to end of life. These stages shall include material selection, energy and water use during development, performance, human and environmental impact, and end of life.

1. NSF/ANSI 140 for carpet.
2. NSF/ANSI 332 for resilient floor coverings.
3. NSF/ANSI 336 for commercial furnishings fabric.
4. NSF/ANSI 342 for wall coverings.
5. NSF/ANSI 347 for single-ply roofing membranes.
6. NSC 373 for natural dimension stone.
7. TCNA ANSI/A138.1 for ceramic tiles, glass tiles, and tile installation materials.
8. UL 100 for gypsum boards and panels.
9. UL 102 for door leafs.