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Poured Concrete Walls; Wood-Frame Walls; Metal-Frame Walls; Curtain Walls; Choosing Between Wall Systems; Ensuring Continuity; Windows; High-Performance Windows; Daylighting; Views; Window Losses; Reducing Window Losses; Doors; Roofs; Pitched Roofs; Floors; 8 Unconditioned Spaces; Basements; Attics; Crawlspaces; Garages; Unrecognized Unconditioned Spaces
Corridors, Stairwells, and Other Spaces Further Removing Conditioning from Rooms; Locating Storage; Controlling Temperatures in Unconditioned Spaces; Unconditioned Spaces-Summary; 9 Inner Envelope; Vulnerabilities; Solutions; Thermal Mass; Finishes; Thermal and Radiant Properties of Finishes; Lighting Reflectance; 10 Thermal Zoning and Compartmentalization; Thermal Zoning; Compartmentalization; 11 Lighting and Other Electric Loads; Lighting; Space Design to Minimize the Need for Lighting; Optimized Lighting Design; Efficient Lamps and Fixtures; Exterior Lighting; Controls; Decorative Lighting
Other Lighting Issues Plug Loads; Large Electric Loads; 12 Hot and Cold Water; Reducing Use; Hot Water; New Water and Heat Sources; Water and Heat Recycling; Condensate Recovery; Rainwater Harvesting; Solar Energy; Cost of Water Improvements; Water Summary; 13 Indoor Environmental Quality; Indoor Air Quality; Ventilation Challenges; Indoor Air Quality Solutions; Community; Site; Building Shape; Near-Building; Outer Envelope; Unconditioned Spaces; Inner Envelope; Internal Gains; Ventilation; Indoor Air Quality during Construction and Preceding Occupancy; Thermal Comfort; Background
Measuring Comfort

Sommario/riassunto

"Francis D.K. Ching brings his signature graphic style to the topic of sustainable designIn the tradition of the classic Building Construction Illustrated, Francis D.K. Ching and Ian M. Shapiro offer a graphical presentation to the theory, practices, and complexities of sustainable design using an approach that proceeds methodically. From the outside to the inside of a building, they cover all aspects of sustainability, providing a framework and detailed strategies to design buildings that are substantively green. The book begins with an explanation of why we need to build green, the theories behind it and current rating systems before moving on to a comprehensive discussion of vital topics. These topics include site selection, passive design using building shape, water conservation, ventilation and air quality, heating and cooling, minimum-impact materials, and much more. Explains the fundamental issues of sustainable design and construction in a beautifully illustrated format Illustrated by legendary author, architect, and draftsman Francis D.K. Ching, with text by recognized engineer and researcher Ian M. Shapiro Ideal for architects, engineers, and builders, as well as students in these fields Sure to be the standard reference on the subject for students, professionals, and anyone interested in sustainable design and construction of buildings, Green Building Illustrated is an informative, practical, and graphically beautiful resource"--
"Provides a framework and detailed strategies to design buildings which are substantively green - Approaches design "from the outside in," first emphasizing community, then site design, and finally building shape, near-building features, outer envelope, unheated spaces, inner envelope, finishes, lighting, and heating Provides an in-depth technical exploration in an accessible style, targeting a wide audience"--