

Thornton Tomasetti

Building Solutions

Building Sustainability



Building Sustainability

Our sustainability specialists collaborate with clients to integrate successful green solutions into the planning, design, construction and operation of buildings in order to reduce their environmental impact at every stage of their life cycle. With three LEED Fellows on staff, we continue to expand the boundaries of sustainable design.

We develop **strategies** to integrate sustainable solutions into the design, construction and operation of buildings and communities. We use advanced analysis tools to help project teams develop performance-driven programs and select architectural forms, massing, mechanical equipment, structural systems and materials to optimize the potential for sustainability. Integrating green concepts into every aspect of the design early on achieves the greatest return on investment.

We perform whole-building environmental and **energy analysis** and modeling throughout design and into occupancy to predict and measure operational performance. Advanced analytical tools allow us to offer data-driven strategies to maximize energy savings, increase occupant comfort, reduce carbon footprints and effectively incorporate renewable energy technologies.

Our multidisciplinary staff consults internationally on the green **building certification** process for LEED, BREEAM, and country-specific rating

systems. Our services range from complete administration to special calculations, simulations and services geared toward individual credit requirements.

We support targeted, performance-driven upgrades to **existing buildings**. We analyze current conditions, identify opportunities for improvement and provide guidance on retrofits and operational policies. We also offer compliance support for energy and sustainability regulations and research into available financial incentives. And we can measure and track performance over time to verify that building performance meets sustainability goals.

Education is critical to improving sustainability in the built environment. We facilitate charrettes for community stakeholders and design teams; offer custom courses for designers, contractors and owners; and lead continuing education and LEED examination preparation courses. We are also training the next generation of green building leaders through lectures and courses at higher education institutions.

Our sustainability experts are passionate about working with building owners, managers, designers, builders and occupants to create efficient, high-performance climate-responsive buildings and communities.



From left: Lynn Simon facilitates a sustainability charrette for a LEED CI Platinum office build-out in San Francisco (photo: Brian Pobuda); Las Vegas CityCenter Block C LEED consulting for a multi-building development (courtesy CityCenter Land, LLP).

Sustainable Strategies

Energy & Environmental Programming
Concept Design Strategies
Concept Building Systems
Net Zero Services
Health-Based Materials Specification
Sustainable Master Planning

Energy Analysis

Climate/Comfort Analysis
Energy Modeling
Envelope Thermal & Hygrothermal Analysis
Daylight & Solar Radiation Modeling
Embodied Carbon Optimization
Alternative & Renewable Energy Analysis

Building Certification

LEED Rating Systems
BREEAM
GreenPoint Rated
Living Building Challenge
International Rating Systems
Passive House
Local & Regional Compliance

Existing Buildings

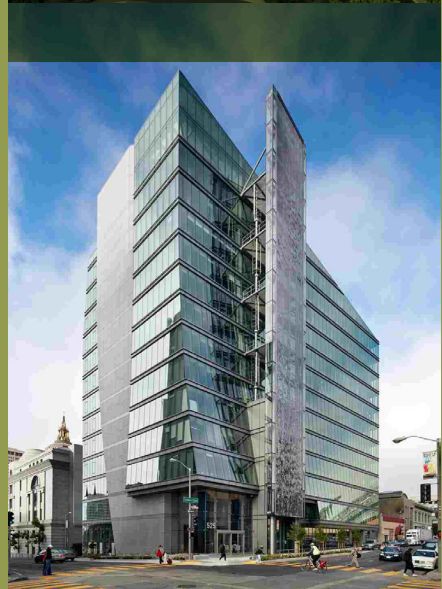
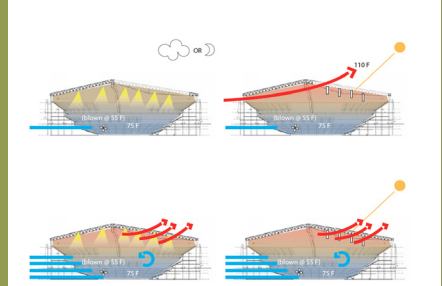
Energy & Sustainability Assessment
Regulatory Compliance
Advanced Energy Retrofit Strategies
Measurement & Verification

Education & Training

Charrette Facilitation
Continuing Education Courses
Academic Teaching
Custom Courses

Images from top:

De Anza College Media & Learning Center, certification consulting for LEED Platinum, Cupertino, Calif. (© Crodd Chin); Coastal Maine Botanical Gardens Net Zero services, certification consulting for LEED Platinum and owner's sustainability representation, Boothbay, Maine (photo: Anne Marie Rowlands French); natural ventilation study; Museum of the Built Environment sustainability programming, Riyadh, Saudi Arabia (courtesy FXFOWLE); San Francisco Public Utilities Commission Headquarters, certification consulting for LEED Platinum, San Francisco, Calif. (courtesy Bruce Damonte).



Firm Overview

Practices

Building Structure

Building Skin

Building Performance

Property Loss Consulting

Construction Support Services

Building Sustainability

Thornton Tomasetti provides engineering, design, investigation and analysis services to clients worldwide on projects of every size and level of complexity. Our six integrated practices address the full life cycle of structures.

Founded in 1956, today Thornton Tomasetti is a 750-person organization of engineers, architects and other professionals collaborating from offices across the United States and in Asia-Pacific, Europe, Latin America and the Middle East.

To learn more about our
Building Sustainability Practice:

www.ThorntonTomasetti.com/Sustainability

Contact:

building.sustainability@ThorntonTomasetti.com

Cover, from left:

Bigelow Laboratory for Ocean Sciences, sustainability consulting, East Boothbay, Maine (©Christopherbarnes.com); Vasakronan Refurbishment of Lappstiftet Phase Two, certification consulting for LEED EB: OM, Gothenburg, Sweden (courtesy Vasakronan).

