“This has been another exciting year for the Stamford 2030 District and we want to thank all of our members and partners for their support. We were honored to be recognized with two state-wide awards including the GreenCircle Sustainability Award from the Connecticut Department of Energy and Environmental Protection and the Alexion Award of Excellence from the Connecticut Green Building Council. We onboarded two of Stamford’s largest building owners this year, and started making progress, with the help of Aquarion Water Company, on our water benchmarking in the face of one of Connecticut’s worst droughts.

Our new approach to community resiliency and ongoing partnerships should make 2017 one for the books!”

Megan Saunders, Executive Director

The Stamford 2030 District

2030 Districts are local partnerships forming throughout North America. Each district commits to reduction targets set forth by Architecture 2030 in the 2030 Challenge for Planning and Buildings. These districts offer local building owners, property managers, and developers the tools to achieve reduced energy, water, and transportation (CO2) emissions.

Founded in 2014, as a joint effort between Connecticut Fund for the Environment and The Business Council of Fairfield County, the Stamford 2030 District is a partnership of building owners, service professionals, and community stakeholders. Sharing best practices and providing unique opportunities in the areas of energy, water, transportation, and resiliency allows building owners to learn from each other and assist in achieving these national goals at a local level.

The Business Council of Fairfield County

For nearly 50 years, The Business Council of Fairfield County has mobilized regional business, political and community leadership critical to Fairfield County. Key issues include infrastructure, talent retention, economic and professional development, and wellness.

The Connecticut Fund for the Environment

Connecticut Fund for the Environment aims to protect and improve the land, air, and water of Connecticut and Long Island Sound. Combating climate change, pollution, and habitat loss are among the organization’s top priorities.
District Goals and Progress

The goals of the 2030 Districts include a 50% reduction in energy and water usage as well as transportation emissions by the year 2030. The goals for new construction are even more demanding.

Energy

The District as a whole is performing 7% better than the baseline and Stamford 2030 District member buildings are performing 21% better.

The Stamford 2030 District’s energy goals and targets are measured using site Energy Use Intensity (EUI), the number of kBtus used per square foot over the course of a year. Generally, more efficient buildings have lower EUIs. Each building’s actual EUI is compared to a baseline developed from a national database of comparable buildings.

After analyzing the collected energy data, we found that Stamford 2030 District members are collectively operating 21% better than the baseline – enough energy to power 2,467 homes for a year (equal to an annualized energy reduction of 113,428,183 kBtus).

To determine the progress and outlook of the Stamford 2030, all buildings in the District (including non-member buildings) were assessed based on performance or assumed performance. The District-wide energy consumption is estimated to be 7% lower than the identified district energy baseline.
Although still the largest water users per square foot, Single Family buildings downtown have collectively reduced their water usage more than any other building type over the past five years.

Water Use Intensity (WUI) Estimates
Annual Gallons per Square Foot (Average of 2011-2016)

- **Single Family**: Although still the largest water users per square foot, Single Family buildings downtown have collectively reduced their water usage more than any other building type over the past five years.
- **Industrial**: Office buildings make up over 40% of the District’s square footage.
- **Multifamily**: Commercial buildings use less water per square foot than most other building types with an average WUI of 26.6.
- **Public Auth/Gov**: Commercial buildings use less water per square foot than most other building types with an average WUI of 26.6.
- **Commercial**: Water Use Intensity (WUI), similar to Energy Use Intensity (EUI), is the annual gallons of water used per square foot in a building. Using annualized aggregated water data for five categories of buildings for the years 2011 to 2016, we were able to better understand water usage in downtown Stamford.

**Methodology:** Monthly aggregated water data was obtained from Aquarion Water Company for a subset of over 700 buildings in the district boundary in five broad building type categories (listed above). We matched each provided address to buildings in the local assessor’s database to estimate an aggregated square footage for the all 700+ buildings in each of the five building use categories. The aggregated annual water use for each of the five building type category was averaged from 2011 to 2016, and the annual gallons were divided by the total square footage in each of the five building use category (based on the subset of 700+ buildings) to create the estimated annual gallons per square foot for these broad building types. Annual gallons per square foot is what we call Water Use Intensity (WUI).
The 2nd Annual Change Makers Awards

Stamford 2030’s second annual awards reception was held at the Stamford Museum and Nature Center on October 5th. We recognized ten outstanding awardees in the categories of building sustainability and innovative projects. Our keynote speaker of the evening was Michael Berkowitz, President of The Rockefeller Foundation’s 100 Resilient Cities. 100 Resilient Cities works to help cities address physical, social and economic challenges across the world.

Case Study: THE ATLANTIC

New Neighborhoods renovated The Atlantic building at 50 Bell Street during 2015 and 2016. The renovation included replacement of the building’s entire envelope, upgrades to unit and common area mechanical systems, and replacement of common area vinyl flooring.

Energy Conservation Measures:

- Energy Star-rated windows with fiberglass frames
- New EIFS exterior wall insulation increased from R12 to R20
- New membrane roof insulation increased from R42 to R57
- Unit air conditioners changed from through-the-wall units to energy efficient PTAC units
- Replacement of common area HVAC equipment (roof top units) with energy-efficient equipment
- Replacement of all common area lighting with LED fixtures

Savings:

- Although the number of air conditioners in the buildings doubled, energy consumption in July 2016 was reduced 25% from July 2015.
- Electric consumption in common areas has been reduced by 38%.

Next Steps:

- The building’s two boilers will be replaced by new 85% efficient boilers piped in a lead/lag configuration. Each will be able to produce both domestic hot water and building heat. This eliminates the need for both boilers to fire simultaneously, except on extremely cold days.
- Insulation will be installed on all exposed heating system piping.
- Each unit will receive new Danfoss valves, which will enable each tenant to regulate heat in the apartment within a pre-set temperature range.

Platinum Award Winners

New Neighborhoods Inc. recently completed major renovations on its downtown property, The Atlantic, including the replacement of HVAC equipment and installation of LEDs, with an energy reduction of 25 percent since July 2015.

Diamond Properties designed a regional Seven Building Solar Project that has, to date, produced seven mega watts of solar-generated power across seven buildings, including the largest rooftop solar energy array in Westchester County, N.Y. The final project is expected to provide more than 10 megawatts from panels across 44 properties, including 1351 Washington Blvd. in Stamford (a Stamford 2030 member) and the LaQuinta Inn in Danbury.

Gold Award Winners

Earthplace - Earthplace Energy Efficiency Project (Westport)

The Ashforth Company - Energy Efficient Indoor Air Quality System Installation at Greenwich Plaza (Greenwich)

Hayes House Condominium Association Inc. - Hayes House Condominiums (Stamford)

Silver Award Winners

Charter Oak Communities - Clinton Manor (Stamford)

Taubman Properties - Stamford Town Center Lighting Project (Stamford)

Honorable Mentions

Building and Land Technology - Harbor Point Bike Share Pilot (Stamford)

JHM Group of Companies - Crescent Crossings (Bridgeport)
District Members

American Institute of Architects, CT Chapter
Aquarion Water Company
Bartlett Arboretum & Gardens
CBRE
Charter Oak Communities
Connecticut Fund for the Environment
Connecticut Green Bank
Construction Management Group, LLC
CT Green Building Council
CT Sustainable Business Council
Deloitte
Diamond Properties
Downtown Stamford Special Services District
Empire State Realty Trust
Eversource Energy
Fairfield University
First County Bank
Institute for Sustainable Energy at ECSU
Interfaith Council of Southwestern CT
Jonathan Rose Companies
Jones Lang LaSalle
McKenney Mechanical
NAIOP Connecticut & Suburban New York
New Ecology, Inc.
New Neighborhoods, Inc.
Perkins Eastman
Progressive Solutions, Inc.
Purdue Pharma
Reckson, Division of SL Green Realty Corp.
RFR
SoundWaters, Inc.
Stamford Hospital
Stamford Museum and Nature Center
Starwood Hotels and Resorts Worldwide
Steven Winter Associates, Inc.
Sustainable America
The Ashforth Company
The Business Council of Fairfield County
The City of Stamford
The Ferguson Library
The Landis Group
Unitarian Universalist Congregation
Venbrook
Vidaris, Inc.

Founding Members listed in bold

Steering Committee

Hank Ashforth (Co-Chair), Executive Vice President, The Ashforth Company
Andrea Pinabell (Co-Chair), President, Southface
Caroline Vary (Vice Chair), Managing Director, Connecticut Office, Jonathan Rose Companies
Jessica Bailey, CEO, Greenworks Lending
Thomas Madden, Director of Economic Development, City of Stamford
Joseph McGee, Vice President, Public Policy and Programs, The Business Council of Fairfield County
Donald S. Strait, President, Connecticut Fund for the Environment
Vin Tufo, Executive Director, Charter Oak Communities

Stamford 2030 District Steering Committee Members: Megan Saunders, Caroline Vary, Thomas Madden, Andrea Pinabell, Hank Ashforth, Jessica Bailey, Joseph McGee, Donald Strait, Vin Tufo
(Photo Courtesy of Donna Callighan's PHOTO Designs)