



# **Our Sustainability Commitment**

"Sustainability is embedded in all we do, from our human resources policies and corporate governance to the planning, construction and operations of our properties."

- Robert S. Taubman



## Our Sustainability Goals

The material impacts our shopping centers have on the environment fall into four primary categories: energy use, water consumption, greenhouse gas emissions and waste handling. We have set goals to reduce our use of energy and water, reduce greenhouse gas emissions and increase our recycling efforts. Our commitment is to meet or exceed the following goals:



# The Commitment of Our People

Our people are the heart of Taubman's sustainability initiatives. Their efforts and innovations keep us on track to fulfill our commitments and achieve our goals. Our sustainability story is best told through their stories.

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# Our Sustainability Report

This sustainability report focuses primarily on our programs and progress through the end of 2016. It is presented in four sections: Overview, People, Properties and Planet.

# Overview

#### To Our Employees, Investors, Tenants and Communities:



We are proud to publish this report on our progress toward meeting the sustainability goals we've set for Taubman. We're on or ahead of schedule in most areas, and are continually identifying new ways to lessen our impact on the environment and strengthen the long-term health and prosperity of the communities in which we do business.

In 2018, thanks to the efforts of dedicated people in our corporate office and at our shopping centers across the United States, we continued to reduce greenhouse gas emissions, increase the percentage of waste diversion and reduce overall energy use. I'm pleased to share that between 2008 and 2018, we reduced our controllable electrical consumption by 38 percent.

I congratulate all of our employees on this progress and thank them for their ongoing commitment to operational excellence and sustainable business practices.

Thank you for your interest in Taubman.

Robert S. Taubman
Chairman, President & CEO









# A Letter from the Director of Facilities, Energy and Sustainability

### Buy-In at Every Level of the Organization



No sustainability program can be successful without enthusiastic buy-in at every level of the organization. At Taubman, we are fortunate to have such buy-in, and it's great to see the innovative efforts underway to meet and exceed the ambitious sustainability goals we've set.

In our new report, we share both a statistical analysis of our progress and stories that illustrate the true commitment of our people. You'll read about our new solar installations at The Mall at Short Hills (Short Hills, NJ), Cherry Creek Shopping Center (Denver) and Westfarms (West Hartford, CT), as well as important waste diversion programs at International Market Place (Honolulu, HI), and the popular electric car charging stations at International Plaza (Tampa, FL).

Through major initiatives like these, and the everyday contributions of our dedicated people, we're making a positive difference for our business and for the communities we serve. Thank you for taking the time to read our report.

Steven D. Moore II

Director of Facilities, Energy and Sustainability

## **About Taubman**

#### Who We Are

Since our founding in 1950, Taubman (NYSE: TCO) has earned a reputation for creating extraordinary retail environments. Today, Wwe own, manage and/or lease 26 regional, super-regional and outlet shopping centers across the United States and Asia.. Our portfolio of properties, located in major markets from coast to coast, is the most productive in the publicly held U.S. regional mall industry.

**Search Taubman Properties** 

#### Our Governance

We recognize that strong governance improves corporate decision making and strengthens our company. The Board of Directors of Taubman Centers, Inc. has adopted certain corporate governance principles establishing a common set of expectations to assist the Board and its committees in performing their duties in compliance with applicable requirements.

Corporate Governance Guidelines 142 KB

Stock Ownership Guidelines 21 KB

# Our Values and Code of

In everything we do we are guided by the following values:

- We Take the High Road
- We Play For the Team
- We Respect Everyone
- We Push the Envelope
- We Pursue Excellence
- We Honor Tomorrow Today
- We Are Accountable For Our Results
- We Love What We Do

Our Code of Business Conduct and Ethics sets out basic principles to guide the actions and decisions of all employees, officers and directors of Taubman Centers, Inc. and its affiliates.



Code of Business Conduct and Ethics 612 KB

## **Our Sustainability Commitment**

## **Sustainability Mission Statement**

Consistent with our history and core values, we are committed to sustainable business practices that respect people, lessen our environmental impact, and benefit the communities we serve.

### Sustainability Task Force

A Sustainability Task Force representing all the functions of the company guides our sustainability efforts and helps set our improvement goals. Thanks in large part to the Sustainability Task Force, Taubman employees working at headquarters and in our properties are enthusiastically engaged in our sustainability programs and initiatives.

### **Our Affiliations**

Taubman is an active participant in sustainability programs in our industry and our communities.





**Urban Land** 







## 2018 Sustainability Report

# People

## **Our Corporate Family**

Taubman is a great place to work. Everyone's talents and contributions are respected. Our employee programs and benefits support our associates' physical, emotional, financial and social wellbeing. Our excellent healthcare plans and wellness programs are just two of the reasons Taubman received the 2018 Best and Brightest Award for Wellness. In addition, our employees are the reason why we received the following industry distinctions:

2018 U.S. Design & Development Awards
Gold, New Developments – International Market Place
2018 ICSC Silver MAXI for Excellence in Public Relations
International Market Place
Don Ho Statue Unveiling and Dedication Ceremony

## **Community Engagement**

Taubman strives to make a positive difference by supporting vital nonprofits that transform our communities, respect our planet, develop tomorrow's leaders and strengthen our industry. Our volunteerism and contributions help to fund schools, police forces, fire departments and public works across the nation. Additionally, our centers serve as vibrant employment centers and drivers of much-needed municipal revenue.

In 2018, Taubman corporate and shopping center associates volunteered their time to a variety of worthy causes through Taubman Community Outreach Program (TCOP) and the company's yearly Volunteer Day. Efforts included fighting blight near Detroit-area schools, feeding the homeless, collecting cereal for children, volunteering at animal shelters, donating clothes for professionals in need and a variety of other activities. In addition, the company and its centers make monetary donations to a variety of causes across the country.

# **Properties**

## Properties Built with a Long View

Since our founding in 1950, Taubman shopping centers have been developed to thrive in their respective markets for generations, and to create long-term value for investors. This long view requires a commitment to responsible stewardship of the environment and to the communities we serve. Our goal has always been to build with the best materials, operate with the most responsible business practices and conduct ourselves as good neighbors. This approach has contributed to our portfolio's long-standing position as the most productive in the U.S. publicly traded, regional mall industry.

#### Recycling, Solar Power and Smart Irrigation

Our shopping centers efficiently recycle everything from soda cans to cardboard boxes. In 2018 we diverted 17,175 tons of materials from going to a landfill, the equivalent of taking more than 5,700 cars off the road for a year. We are on track to surpass that in 2019.

Currently, solar installations are operating or are being installed at The Gardens on El Paseo (Palm Desert, CA), The Mall at Short Hills (Short Hills, NJ), Cheery Creek Shopping Center (Denver) and Westfarms (West Hartford, CT). We are studying the feasibility of additional solar energy systems installations at several other centers.

Since 2015, we have introduced smart irrigation at 12 centers, using native plants and drip irrigation to reduce the amount of water we use. These irrigation techniques will help us meet our goal of achieving a 10 percent reduction of center water use by 2025.

#### **Smart Buildings**

Through technology, we continue to improve the energy efficiency of our properties. Our Taubman Smart Buildings initiative reduced consumption and cost, while improving the shopper experience. We've installed state-of-the-art fiber-optic infrastructures in all centers, facilitating the efficient monitoring and operation of energy, life-safety, lighting and HVAC systems. We are also continuing to install energy-efficient LED lighting in the common areas of our centers. Our shoppers have also responded enthusiastically to technology-enabled offerings such as free Wi-Fi, interactive touchscreen directories, a feature-filled mobile app for their smart phones and free electric car charging stations at nine centers.

# Solar Panels Generate Clean, Renewable Energy at The Mall at Short Hills



Jamie Cox General Manager, The Mall at Short Hills

There's a new look to the roofline of The Mall at Short Hills. Capturing the rays of the sun atop portions of the shopping center's roofs and parking decks are fields of gleaming solar panels. The 3.5-megawatt (MW) installation, completed in 2018, is generating enough energy to power 50 percent of the mall's commonarea heating, cooling and lighting. That's equivalent to handling the annual energy usage of 510 homes.

"We're committed to operating our center in a sustainable manner," said Jamie Cox, general manager. "The clean, renewable energy we're generating from the 8,933 state-of-the-art photovoltaic panels here on our property advances our goal to be best-in-class in utilizing renewable resources and protecting our environment."

On the top, open-air level of the parking decks, new steel structures 16-20 feet high support canopies of solar panels. No parking capacity was lost with the installation. And thanks to support from Jersey Central Power & Light and the State of New Jersey's Solar Renewable Energy Credits program, the center's investment costs should be recovered in just a few years.

"In 2013, as part of our Smart Building initiative, we installed a fiber optic infrastructure throughout the center to help us effectively monitor, analyze and adjust all our energy systems in real time," said Cox. "And last year we completed our conversion to efficient LED lighting in the interior common areas and on all the exterior light poles. Since 2013 we have been able to reduce our annual energy use in those areas by more than 20 percent."

The Mall at Short Hills' selection of luxury, fashion retailers rivals the offerings of its nearby neighbor to the east, New York City. "We're located in the heart of a very sophisticated market, and our customers are savvy when it comes to sustainability," said Cox. "They've made responsible energy-use a part of their lives and expect the same from us. We've gotten a lot of encouragement and compliments on our ongoing recycling and energy management programs. The new solar installation is the latest and most visible demonstration of that commitment."

# Rocky Mountain Sunshine to Provide Clean Power at Cherry Creek



Mike Mueller Sr. Facilities Director, Cherry Creek

America's Rocky Mountain region is known for its majestic views, powder snow and year-round sunshine. The Metro Denver Economic Development Corporation boasts that the Mile High City enjoys 300 sunny days a year. Denver's Cherry Creek shopping center wants to put some of that sunshine to work as part of its commitment to sustainability.

"It's hard on a beautiful day here in Denver not to think about the opportunity we're missing to harness the boundless, renewable energy of the sun," said Cherry Creek Sr. Facilities Director Mike Mueller. "Environmental issues are very important to our customers, and they give us great suggestions about recycling, conservation and energy use. The recycling bins we have in the common areas were a direct result of people coming up to us with their empty water bottles asking for a better way to dispose of them. We got the message. And the subject of solar power comes up a lot."

The center's new solar installation includes seven arrays with 8,284 individual solar panels located both on portions of the roof and the parking deck's upper level. The parking deck panels are supported by a steel structure over the existing parking spaces. With the capacity to generate 2.56 megawatts (MW) of electricity, the system will cover approximately 40 percent of the operating needs of the mall's common areas — enough power to supply the annual energy needs of 246 homes.

"We've made continual improvements to our recycling and energy management programs," said Mueller, "but I think our solar installation has generated the most anticipation and excitement. There are high expectations in this market when it comes to sustainability. In fact, our utility company, Xcel Energy, who has given us strong support with our solar project, recently set their own goal to deliver 100-percent carbon-free electricity to their customers by the year 2050. It's projects like ours and the thousands of other businesses and residents who tap renewable energy sources that will make that sunny vision become a reality."

# Helping to Meet Connecticut's Renewable Energy Goals at Westfarms



Keven Keenan General Manager, Westfarms

The state of Connecticut has set an ambitious goal for its use of renewable energy sources like wind and solar power. In its 2018 Comprehensive Energy Strategy, the Connecticut Department of Energy and Environmental Protection recommended doubling the state's Renewable Portfolio Standard (RPS) to 40 percent by 2030. Westfarms mall in West Hartford is doing its part to help reach that goal.

"We've begun a \$9.2 million installation of solar panels on portions of our roofs and a parking field on the southern side of our property," said Westfarms General Manager Kevin Keenan. "After years of analyzing the evolving efficiency and reliability of the technology, we determined this is the right time for us to move forward."

Kristina Catterfeld Facilities Director, Westfarms



Westfarms Facility Director Kristina Catterfeld has been working with state and local authorities, as well as Eversource, the company that provides electricity to the mall, to finalize the plans. "The boundary between the towns of West Hartford and Farmington runs right through our center," said Catterfeld. "So, with a project like this, we work closely with both municipalities and the state. Everyone recognizes the environmental and economic benefits and has been very supportive."

In addition to the roof-mounted solar panels, in one of the center's surface parking fields a structure is being built to support a canopy of panels, under which shoppers can park their cars. No existing parking spaces will be lost. "With our prep work completed on the roof and parking surfaces and construction underway, we'll be able by early 2020 to annually produce 3.2-million kilowatt hours of clean, renewable energy — enough to power 393 homes per year," said Catterfeld. "That will reduce our energy consumption and help Connecticut meet its RPS goal."

"Connecticut has been a leader in addressing sustainability," said Keenan. "For example, we have one of the lowest rates of landfilling in the nation, and that's reflected in how we handle the waste we produce here at Westfarms. Essentially all of our discarded cardboard, paper and glass is recycled, and non-recyclables are used to generate electricity at one of the state's trash-to-energy power facilities. For sure, producing 40 percent of Connecticut's energy from renewable sources by 2030 is an ambitious goal. But I'm betting we can do it."

# Visitors Park and Plug In at International Plaza



Gary Malfroid General Manager, International Plaza

A 2018 report by Bloomberg New Energy Finance predicts that worldwide sales of electric vehicles will jump from 1.1 million in 2017 to 11 million by 2025. The Bloomberg outlook also projects that electric vehicles will make up 55 percent of all new car sales by 2040. Those dramatic growth projections, good news for the environment, are supported by trends General Manager Gary Malfroid is seeing at International Plaza in Tampa.

"Consistent with our commitment to sustainability, we'd like to help our customers lessen their dependence on carbon fuels," said Malfroid. "Our center draws shoppers from communities up and down the west coast of Florida. They drive considerable distances for our unique shops and restaurants. For those with electric vehicles, it's important to make sure there's a place to charge their car. So, in 2015 we installed four charging stations to test the demand. The initial visitor response was so strong we installed four more stations in 2018. And we're bringing 12 additional stations online in 2019, making a total of 20."

Charging your electric car at International Plaza while you shop or dine is free. The average plug-in session is approximately two hours and usage of the stations is at 100 percent of capacity about half the time. "In 2017, we logged 2,704 charging sessions, and in just the first 11 months of 2018 with the additional units we logged close to 5,000," said Malfroid.

In addition to being a popular customer amenity, the car charging stations play an important role in International Plaza's comprehensive sustainability efforts, which include the use of efficient LED lighting in interior common areas and the parking deck, availability of convenient water bottle refilling stations for shoppers to reduce the use of soda cans and bottles, and the property's retention ponds that capture rainwater runoff for reuse in the center's efficient drip-water irrigation system.

"Tampa is a very energy-conscious community," said Malfroid, "and knowing our shoppers, we expect to see more and more electric vehicles in our parking areas. That's great for our customers, our center and the environment."

# Planet

## Protecting the Planet

# Being "Pono" — Innovation and Environmental Stewardship at Hawaii's International Market Place



Breana Grosz General Manager, International Market Place

International Market Place is located in the heart of Waikīkī on the island of O'ahu and is known for its world-class surfing, sightseeing, dining and shopping. O'ahu is home to nearly one million of the state's 1.43 million residents. It's not surprising that this bustling tropical paradise takes sustainability seriously.

"Living in a precious island environment, it's our responsibility to be good stewards of the 'āina (land) including how we can innovatively think about waste disposal and recycling," said Breana Grosz, general manager of International Market Place. "Luckily, Hawai'i has always been at the forefront of conservation and sustainability. Honolulu passed the nation's first food waste recycling ordinance in 1997 requiring restaurants, hotels and grocery stores to recycle food waste. Hawai'i could even become the first state to ban single-use plastics at restaurants."

Food is a main attraction at the iconic International Market Place, which Taubman fully reimagined and reopened in 2016. The center has been an attraction for visitors and kama'aina (residents) alike since 1957. A review in Hawai'i Magazine praised the center's new third-level Grand Lānai as, "a world class collection of restaurants by some of the most esteemed names in the culinary biz."

"To help our restaurant tenants meet the requirements of the recycling ordinance, we designed a food recovery program and chilling room into the renovation plans," said Grosz. "All food waste is placed into special bins which are stored overnight in the chilling room. Every morning the bins are emptied into trucks and hauled, not to landfills, but to local pig farms on the island, where it is processed into feed. It truly is a win-win for everybody; the center, tenants, farmers and environment."

In addition to the center's food recovery program, discarded cardboard and glass are recycled, and other non-food trash is delivered to the Hawaiian Electric Company to power an efficient waste-to-energy facility.

"We are doing our part at the center to be more cognizant of our environmental impact," said Grosz. "We are especially proud of our drip irrigation system that with the help of embedded sensors keeps the extensive landscaping throughout the center thriving without using any more water than necessary. We are also analyzing the practicality of installing solar panels onsite. In marketing, some of our programs focus on sustainability partnerships and education. In some cases, these initiatives can even bring cost-savings and be revenue generating to our tenants. At International Market Place and globally, we need to be pono (righteous) with how we live, work and interact with the environment around us."



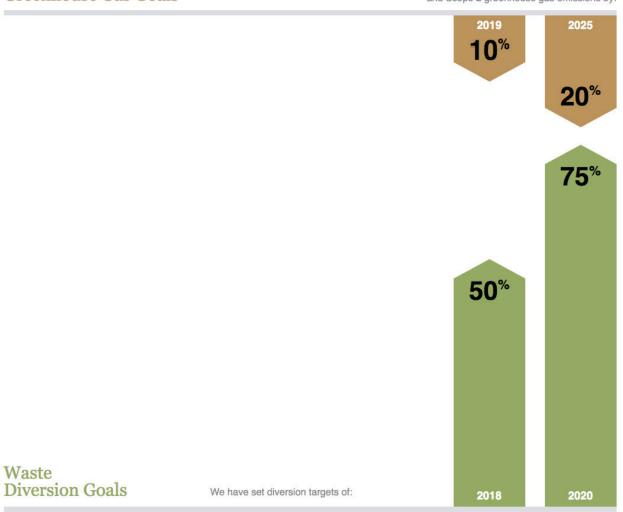
Reduction in Water Consumption Goal

From a 2015 baseline, reduce consumption by:

2025 10<sup>%</sup>

Reduction in Greenhouse Gas Goals

From a 2014 baseline, reduce controllable Scope 1 and Scope 2 greenhouse gas emissions by:



## Taubman has reduced Controllable Electrical Consumption by 38 Percent since 2008

From 2008 to 2018, reduced consumption by:

2008 Comparable Center Controllable Energy Use: 134.7 GWh

2018 Comparable Center Controllable Energy Use: 83.8 GWh

2018

38%

## Reduction in Energy Consumption

From a 2013 baseline, reduced consumption by:

2013 Comparable Center Controllable Energy Use: 108.0 GWh

2018 Comparable Center Controllable Energy Use: 83.8 GWh

2018 Total Energy Use: 337.5 GWh

<sup>2018</sup>

15%

### Renewable Energy

Achieved use from renewable energy sources by:

2018

2018 Renewable Energy Consumed: 48.1 GWh

2018 Total Electricity Consumed: 316.3 GWh

## Reduction in Water Consumption

From a 2015 baseline, reduced consumption by:

2015 Comparable Center Water Use: 1.62 million cubic meters

2018 Comparable Center Water Use: 1.54 million cubic meters

2018 Total Water Use: 2.20 million cubic meters

**5**%

From a 2014 base, achieved a reduction in controllable Scope 1 and Scope 2 greenhouse gas emissions of:

2014 Comparable Center Controllable GHG Emissions: 55.5 thousand tonnes

2018 Comparable Center Controllable GHG Emissions: 48.8 thousand tonnes

2018 Total GHG Emissions: 130.4 thousand tonnes

<sup>2018</sup>

61%

Waste Diversion

Reached diversion level of:

2018

2018 Comparable Center Total Waste: 28.4 thousand tons

2018 Comparable Center Diverted Waste: 17.2 thousand tons

# Global Real Estate Sustainability Benchmark

Taubman participated in the 2018 Global Real Estate Sustainability Benchmark (GRESB) and achieved Green Star recognition and the GRESB Five Star ranking. GRESB is the most respected measure of sustainability performance for real estate portfolios world-wide. The comprehensive survey assesses a company's performance against environmental, social and governance benchmarks.



# **ISOS Group Verification Statements**





#### **External Assurance Statement**



Provided by ISOS Group, Inc. ["ISOS"]
On selected environmental metrics included in:
Taubman Centers, Inc. Sustainability Report

#### **Scope of Assurance**

ISOS Group ["Assurer", "ISOS"] was commissioned to carry out limited assurance for Taubman Centers, Inc. ["Client" or "Taubman"] from May through the end of June 2019 for CY2018 total energy consumption, total greenhouse gas emissions (Scopes 1 - 2), total water consumption, and waste reported in non-financial disclosure platforms, such as its Sustainability Report. Verification was restricted a portion of Taubman's portfolio; twenty (20) operational properties within the United States and did not include diversion rates, year-over-year reductions and/or other performance in light of corporate goals.

#### **Objectives**

The verification process was intended to provide an independent opinion confirming that the Client has complied with procedures for data management at the company and minimizing degrees of error by adequately;

- Monitoring energy and water utility data at the site level from Yardi and Waste Management for waste;
- 2. Transferring detail into the Measurabl platform;
- 3. Enforcing quality controls;
- 4. Calculating and converting detail into greenhouse gas emissions; and
- 5. Transferring all aggregate detail correctly into reporting platforms.

#### Criteria for Assurance and Level of Assurance

ISOS carried out a limited assurance arrangement by evaluating the accuracy of the metrics, underlying management systems, limitations and the process or effective corporate environmental reporting.

For greenhouse gas (GHG) assertions, assurers were informed by the GHG Protocol: 2014 (WBCSD/WRI, Corporate Standard – Revised Edition) and ISO 14064 - 3: 2006 (Part 3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions). The assessment of underlying management procedures was informed by AA1000AS (2008).

ISOS' verification techniques aimed at a 95% accuracy rate are intended to confirm that any data discrepancies are within a threshold of 5% for total energy usage, 5% for greenhouse gas emissions, 5% for water consumption and 5% for waste. Quantitative data, underlying worksheets and original utility detail from the properties sampled, have been recalculated and compared to public disclosures to determine the level of accuracy. Similarly, narratives have been vetted to match reporting protocols and methods for transparency used by the corporation.

#### Methodology

During the initial year of engagement, the verification approach undertaken by ISOS Group was intended to determine the strength of the systems in place. Verifiers:

- Evaluated current systems for data collection, compilation, calculations, reporting, and validation;
- Determined consistency of assessing materiality, management approach and applying quality control procedures;
- Reviewed sustainability disclosures, supporting data and justification for rectifying discrepancies;
- Validated alignment to standard reporting protocols and GRESB's technical guidance;

- Verified quantitative claims, both at the aggregate level and per sample sets to test accuracy, consistency, completeness, and reliability.
  - 1. Verifiers cross-referenced results with Measurabl data to determine coverage and gaps.
  - 2. Questionnaire interviews were obtained for a deeper analysis with site managers at:
    - a. Cherry Creek (Denver, CO);
    - b. International Plaza (Tampa, FL)
  - 3. Variances were determined, while exclusions and other limitations were addressed.
  - 4. All findings were brought to the Client's attention to address.

#### **Conclusions**

Based on the assurance procedures conducted, there is no evidence that the sustainability-related data reported by the client in its Sustainability Report are not materially correct.

Parameter	Absolute 2018	Assurer calculated	Difference	% Discrepancy
Total Energy, MWh	337,500	337,726	242	0.07%
Scope 1 GHG Emissions, MT CO2e	-	3,833	-	<del>-</del>
Scope 2 GHG Emissions, MT CO2e	-	127,984	-	<del>-</del>
Scope 1 & 2 GHG Emissions, MT CO2e	130,400	131,817	1,417	1.09%
Water Consumption, m <sup>3</sup>	2,200,000	2,197,967	2,033	0.09%

#### Statement of Independence

ISOS is an independent professional services firm that specializes in sustainability reporting under the Global Reporting Initiative (GRI), CDP and GRESB as well as providing external assurance services. No member of the assurance team has a business relationship with Taubman, its Directors or Managers beyond that required of this assignment.

We conducted this assurance independently and, to our knowledge, there has been no conflict of interest. ISOS has a strong code of ethics and maintains high ethical standards among its staff in their day-to-day business activities. The assurance team has extensive experience in conducting assurances over environmental, social, ethical and health and safety information, systems and processes. Further information, including a statement of competencies can be found at: www.isosgroup.com.

Signed on behalf of ISOS Group: San Diego, California – USA, November 11, 2019