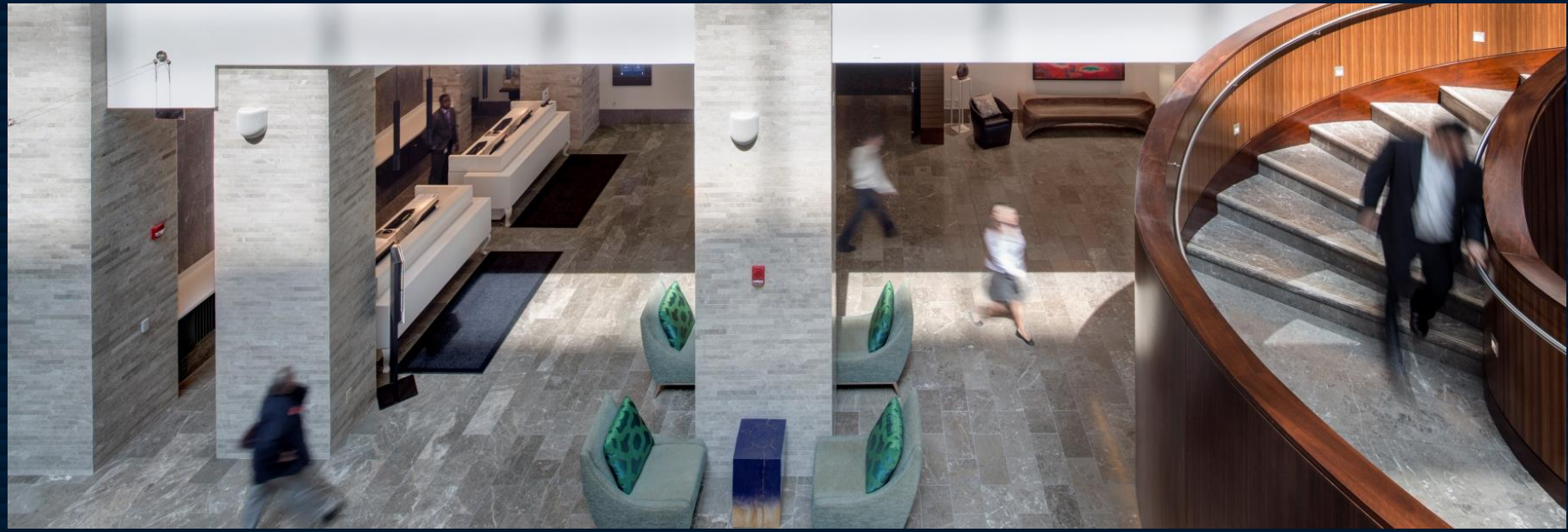
BUILDING-WIDE SUSTAINABILITY EFFORTS

HILTON COLUMBUS DOWNTOWN



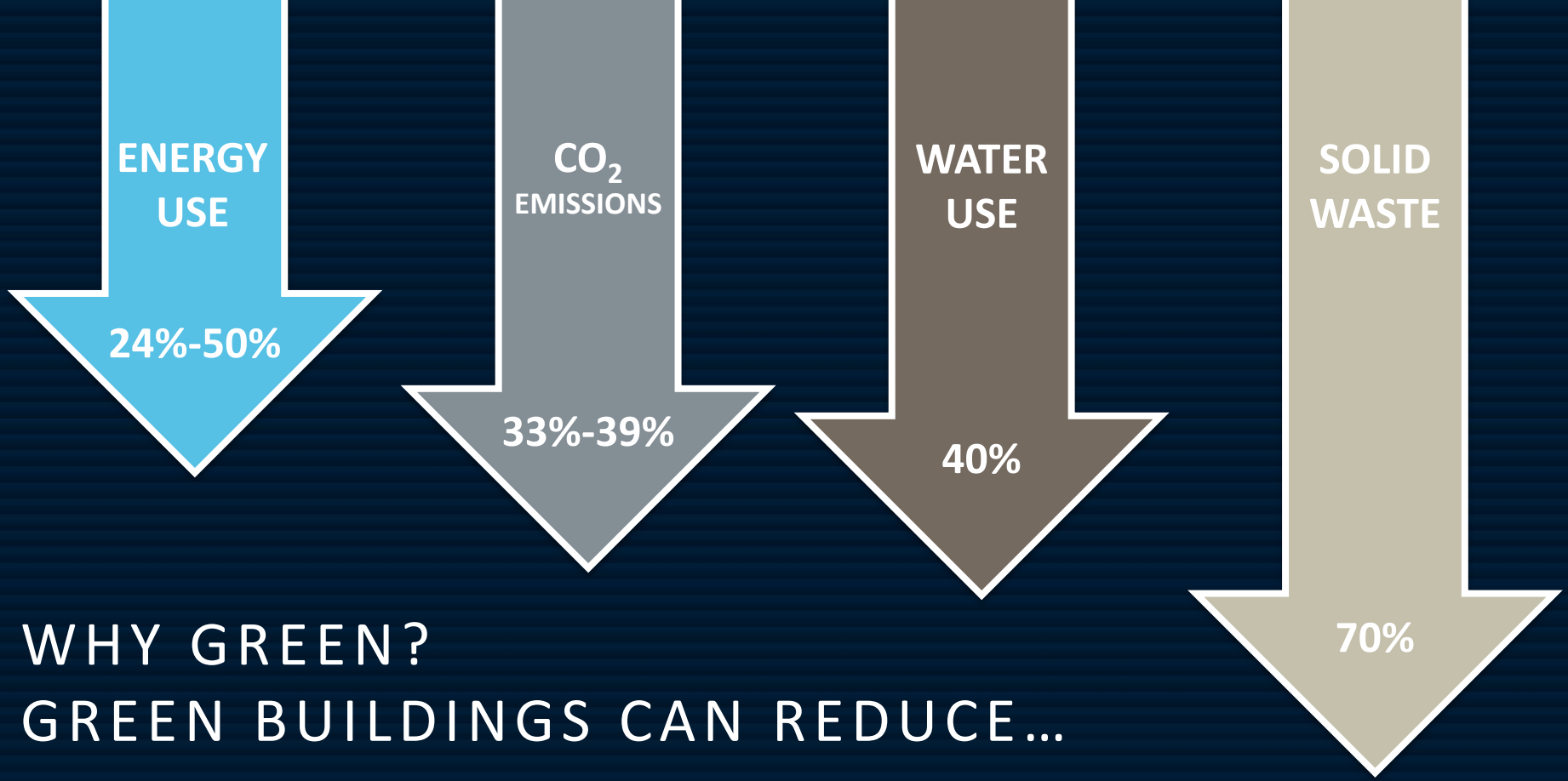
Hilton
COLUMBUS DOWNTOWN

LIGHTSTAY

Hilton Worldwide uses the proprietary LightStay system to calculate and analyze energy and water use, waste and carbon output at all Hilton properties.

DOES IT WORK?

2009 ESTIMATED SAVINGS ADJUSTED FOR WEATHER AND OCCUPANCY



WHY GREEN?
GREEN BUILDINGS CAN REDUCE…

BENEFITS OF GREEN BUILDINGS

LONG TERM BENEFITS

Green buildings can save money through reduced energy and water consumption and lower long-term operations and maintenance costs.

OCCUPANT BENEFITS

Evidence shows that green design attributes such as increased fresh air, natural daylight, views and control of lighting and thermostats can improve occupant productivity, health and well-being.

COST BENEFITS

Incentives such as grants, tax credits, and expedited building permits.

LEED CERTIFICATION

LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN

The Hilton Columbus Downtown is LEED Gold New Construction Certified.

The LEED Rating system is based on:

- Innovation in Design
- Indoor Environmental Quality
- Materials & Resources
- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere

ENERGY USE

BUILDINGS USE 41% OF THE ENERGY CONSUMED IN THE UNITED STATES

50-75% of energy use in commercial buildings is attributable to occupant consumption.

The impact of user behavior can affect energy consumption by 20-30%.

TEAM-WIDE EFFORT

Implementing sustainable design features in this building was a coordinated effort that began early in the design process, including people such as:

- Owners
- Operators
- Architects
- Engineers
- Lighting Designers
- Interior Designers
- Food Service Consultants
- Landscape Architects
- Commissioning Agents
- Contractors

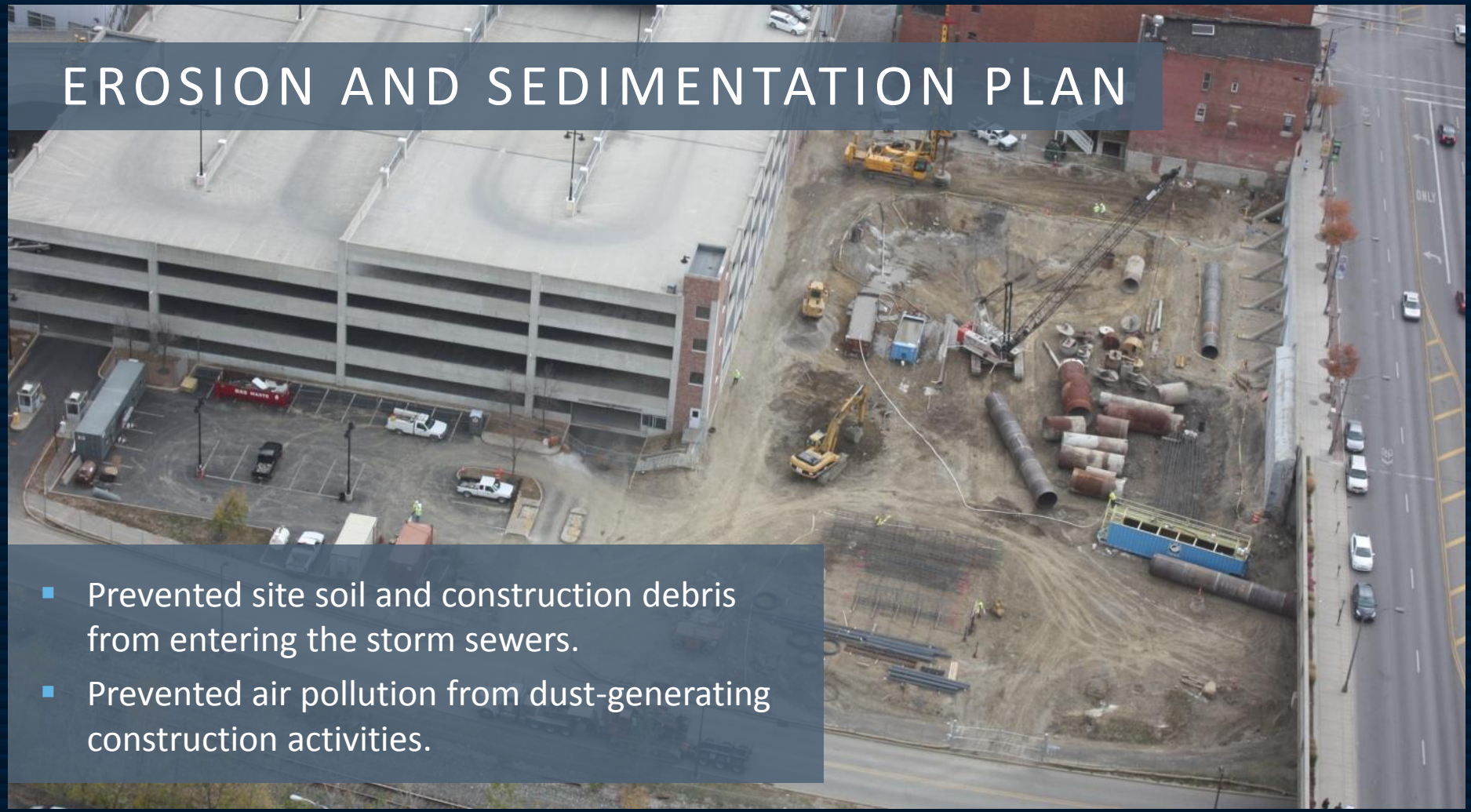
An energy model was created early in the design process in order to evaluate strategies and influence design decisions.

COORDINATED EFFORT, BUILDING-WIDE RESULTS

Through effective team-wide coordination efforts, the Hilton Columbus Downtown boasts a wide variety of sustainably-conscious features, such as:

- Onsite Stormwater Treatment
- Native Landscaping Design
- Reduced Transportation Effects
- High Efficiency Water Fixtures
- Commissioned Building Energy Systems
- Computerized Building Automation System
- Efficient Mechanical Systems and Wall Construction
- Energy Recovery Chiller Recaptures and Reuses Heat Energy
- Efficient Hot Water and Boiler Systems
- Hotel-wide Occupancy Triggered Lighting Systems
- Daylight-Maximizing Design Features
- Efficient Energy Star-Rated Appliances
- Recycled Materials and FSC-Certified Wood Throughout

EROSION AND SEDIMENTATION PLAN



- Prevented site soil and construction debris from entering the storm sewers.
- Prevented air pollution from dust-generating construction activities.

SITE AND DENSITY

This hotel was built on a previously-developed surface parking lot.

Building new construction in existing urban areas protects greenfield sites (or previously undeveloped land) for farmland and wildlife habitat.

alternative TRANSPORTATION

Location reduces the need for car transportation, within walking distance of:

- *the Convention Center*
- *Downtown*
- *Various amenities and restaurants*

3 city bus stops serving 7 routes are located within 1/4 mile of the hotel

alternative TRANSPORTATION

Bicycling is encouraged to reduce car transportation and pollution.

- *Bicycle racks are located on High Street and Wall Street.*
- *Shower and changing facilities are provided for staff.*

alternative TRANSPORTATION

5% of the adjacent parking garage spaces are reserved for low-emitting and fuel efficient vehicles.

Which vehicles qualify?

- *The California Air Resources Board identifies Zero Emission Vehicles*
- *The American Council For An Energy Efficient Economy rates vehicles annually with a green score*

STORMWATER

Where storm sewer systems are separated from sanitary sewers, the stormwater is often released into area rivers and streams without being treated.

This stormwater can contain oil, detergents, chemicals, bacteria, construction debris, cigarettes and litter.

Here, 80% of the stormwater sediments are removed by an onsite stormwater treatment device.

HEAT ISLAND EFFECT

Urban areas with asphalt paving, surface parking lots and black roofs retain more heat than undeveloped land.

An asphalt-paved surface parking lot was demolished on the hotel site.

Multi-story construction with a light colored roof reduces the heat island effect. This hotel roof is covered with a highly-reflective white surface.

WATER CONSERVATION

- Utilizes resilient plant species native to the region.
- These plants do not require irrigation systems, which conserves drinkable water.

WATER CONSERVATION

HOTEL FIXTURES USE ESTIMATED 30% LESS WATER THAN STANDARD OPTIONS

1,000,000 gallons of water saved per year

- Low-flow showerheads, faucets, toilets and urinals implemented throughout the building.
- Efficient showerheads conserve both water and energy that is used to heat the water.

WATER + ENERGY

The kitchen refrigeration system combined with a cooling tower, enables water to be reused to remove heat again and again, rather than sending it down the drain.

MAXIMUM EFFICIENCY

A third party Commissioning Agent performed rigorous energy commissioning procedures to ensure that the building systems are properly calibrated and operating as designed for maximum efficiency.

POSITIVE RESULTS

Commissioning the HVAC systems, lighting systems and controls, and domestic hot water systems can:

- Reduce Energy Use
- Lower Operating Costs
- Improve Occupant Comfort and Productivity

ENERGY EFFICIENCY

A computerized Building Automation System (BAS) monitors how the building equipment is operating in real time.

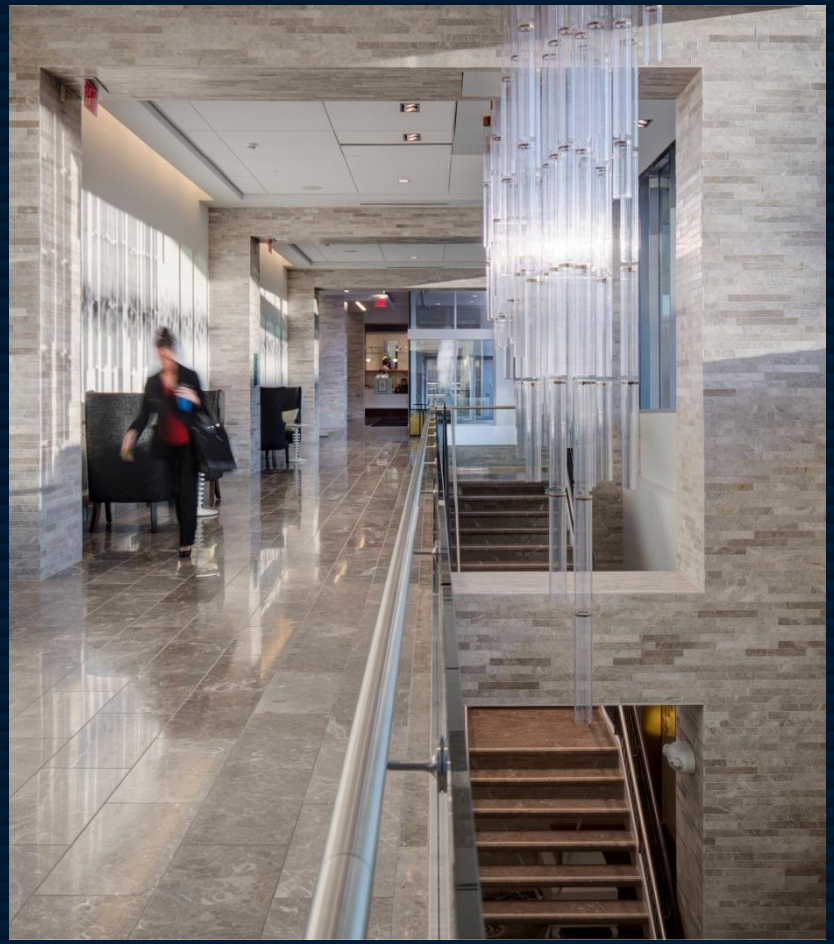
- *Equipment is automatically scheduled to adjust operating levels based on space occupancy.*
- *The BAS is monitored by an outside vendor to ensure that systems are running at their maximum efficiency.*

ENERGY EFFICIENCY

32% Annual Energy Reduction and $300,000 Savings/Year

Annual Energy Usage is reduced by:

- Innovative Lighting Design
- Efficient Mechanical Systems
- Considerate Exterior Wall Construction



CO_2 REDUCTION

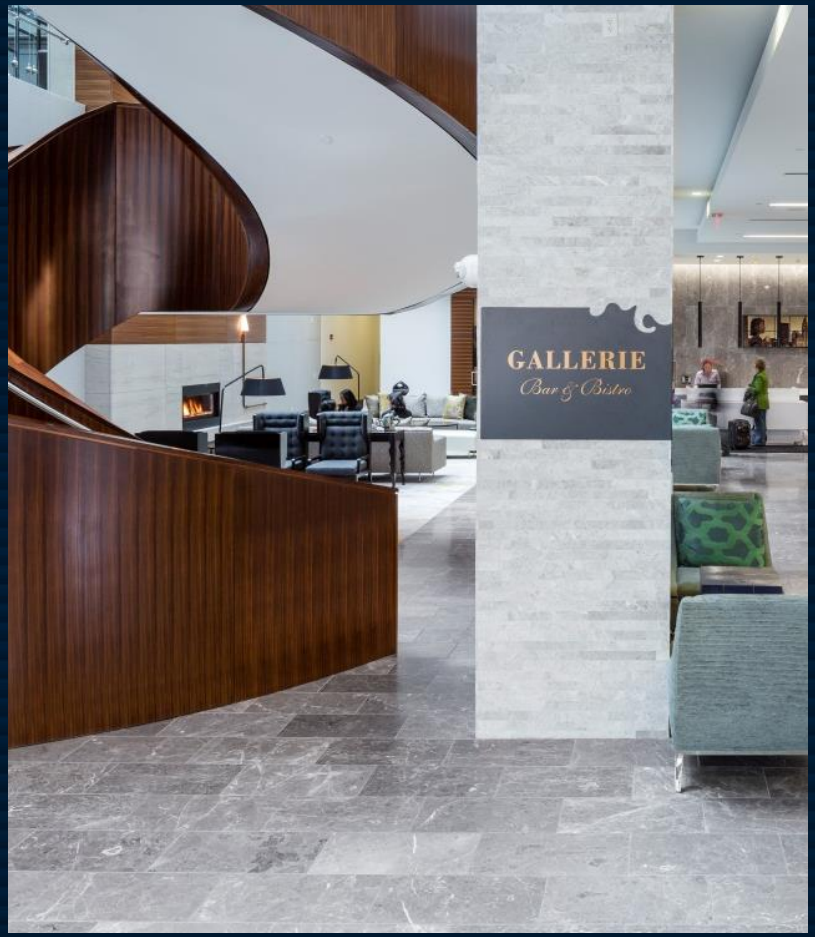
32% Estimated Energy Use Reduction =
A Reduction of 7,870 metric tons of CO_2 per year

EQUIVALENT OF THE GREENHOUSE GAS OR CO_2 EMISSIONS FROM:

1,640 Cars	OR	*18,305 Barrels of Oil*	OR	*33.8 Railcars Worth of Coal*	OR	*1,178 Homes' Electricity Use*

ENERGY

- A heat recovery chiller repurposes excess heat from the cooling loop for other purposes
- Heat rejected from the refrigerators and freezers is used to heat the swimming pool



ENERGY

The hotel utilizes 95% efficient hot water heaters and heating boilers.

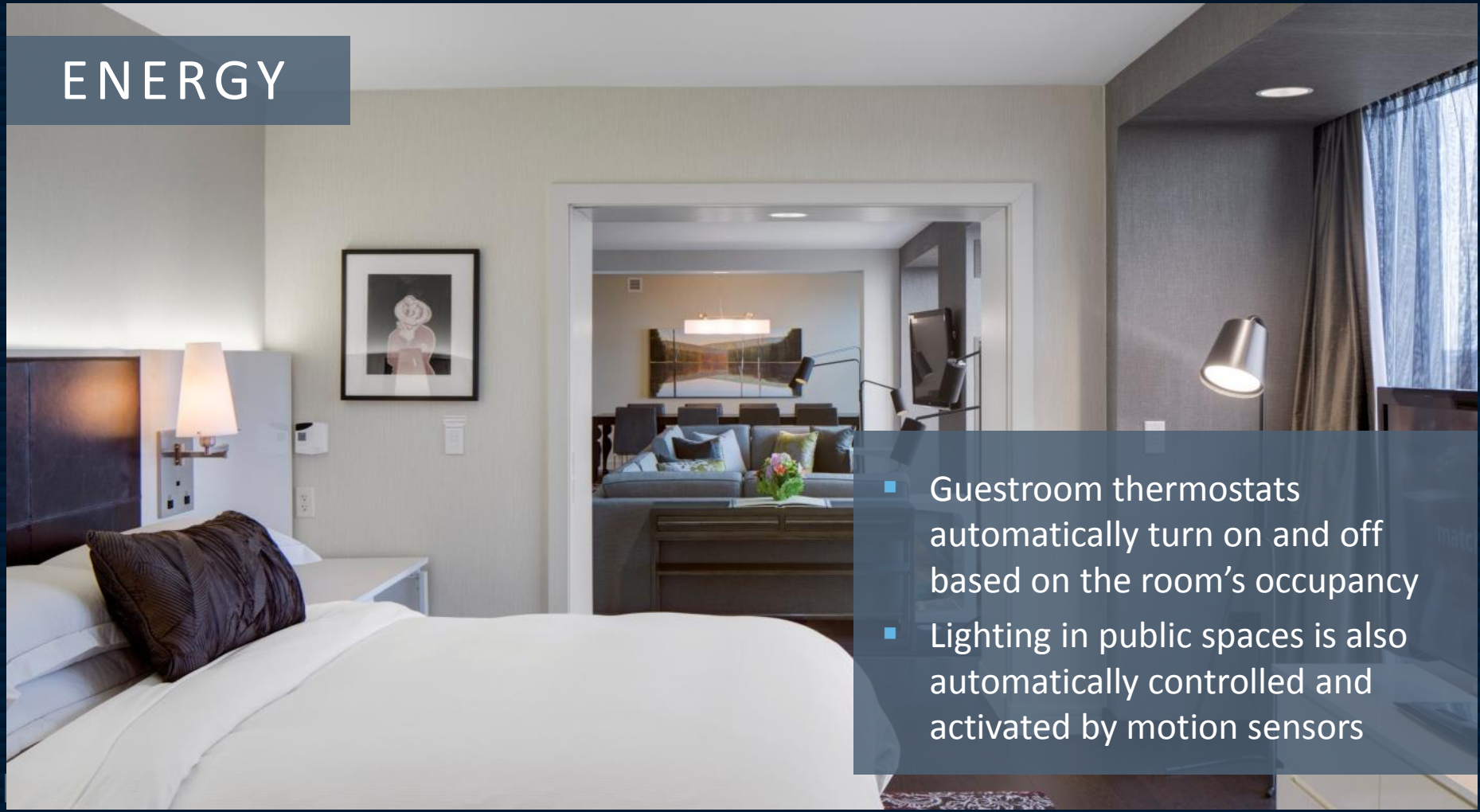
- *This surpasses the industry standard of 80% and 85% efficiency.*
- *Hot exhaust from natural gas is reused to pre-heat the water through a heat exchanger.*
- *8 hot water heaters and 6 smaller boilers are turned on or off based on demand, rather than 1 large device*
- *Both utilize advanced automatic controls*

ENERGY

MECHANICAL & ELECTRICAL EQUIPMENT

- Highly efficient water cooled chiller
- Energy recovery wheels
- All motors have Variable Frequency Drives, allowing them to run on demand rather than at 100% all the time
- Kitchen equipment exhaust fan speed varies based on heat and smoke quantity, rather than running at 100%

ENERGY



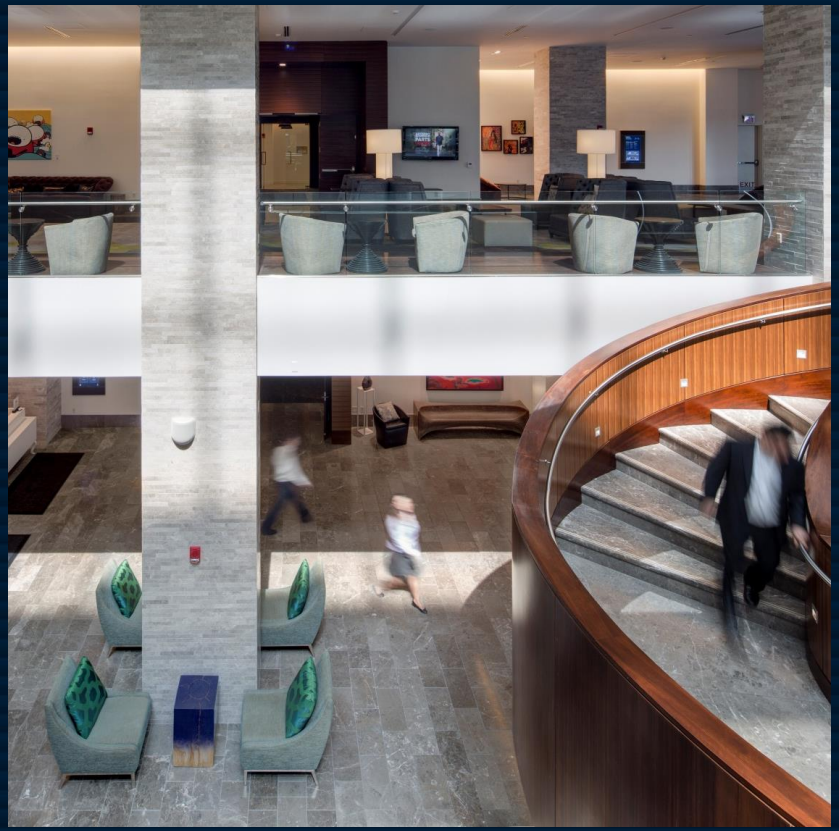
- Guestroom thermostats automatically turn on and off based on the room's occupancy
- Lighting in public spaces is also automatically controlled and activated by motion sensors

ENERGY STAR EQUIPMENT

87% of appliance power usage is from Energy Star rated devices

Energy Star rated devices are used throughout the building when available, including:

- Guest Refrigerators
- Televisions
- Alarm Clocks
- Ice & Beverage Vending Machines
- Kitchen Fryers
- Dishwasher
- Washers & Dryers
- Copiers & Printers
- Computers & Monitors



EXTERIOR MATERIALS

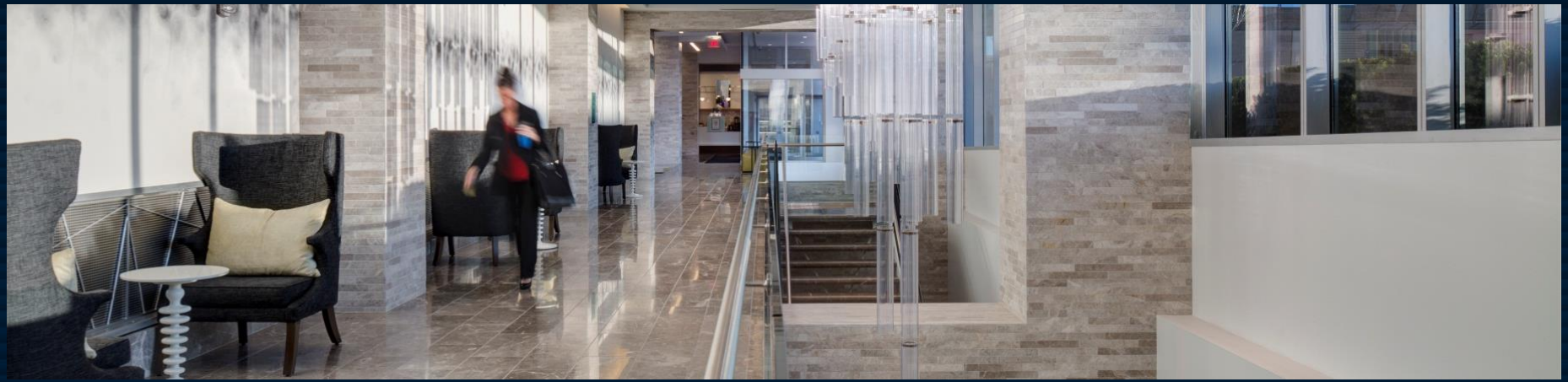
The efficiency of the exterior walls and roof surpasses standard code requirements.

- *Low-e insulated glass reflects heat*
- *Energy loss caused by air movement through walls is prevented by an air barrier*
- *Solid brick and metal panel areas provide greater insulation than all-glass walls, requiring less energy to heat and cool the building*
- *Ceramic frit on the atrium skylight reflects heat and maintains internal temperatures*

LIGHTING

DESIGNED TO USE 39% LESS ENERGY THAN BUILDING CODE REQUIREMENTS

- 95% of lamps are high efficiency, including low-wattage types such as Halogen, Ceramic Metal Handle, LED and Fluorescents.
- Occupancy Sensors in public spaces, offices and storage rooms are estimated to reduce lighting energy use by 10%.



LIGHTING

LIGHTING FIXTURE ENERGY USE REDUCED FROM CODE-REQUIRED MAXIMUMS:

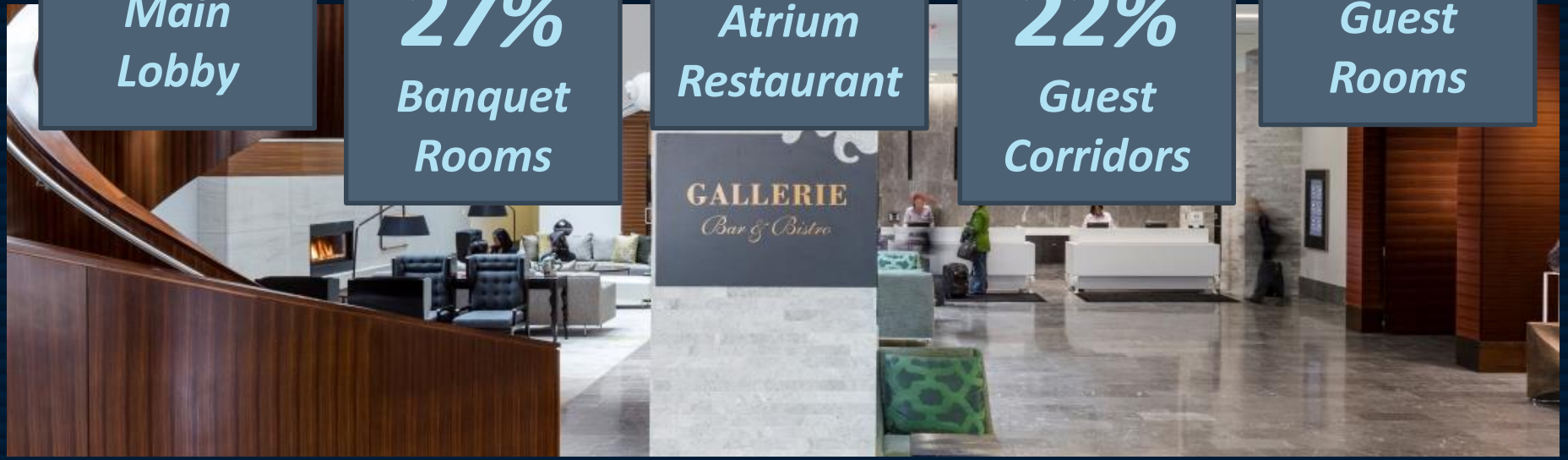
20% Main Lobby

27% Banquet Rooms

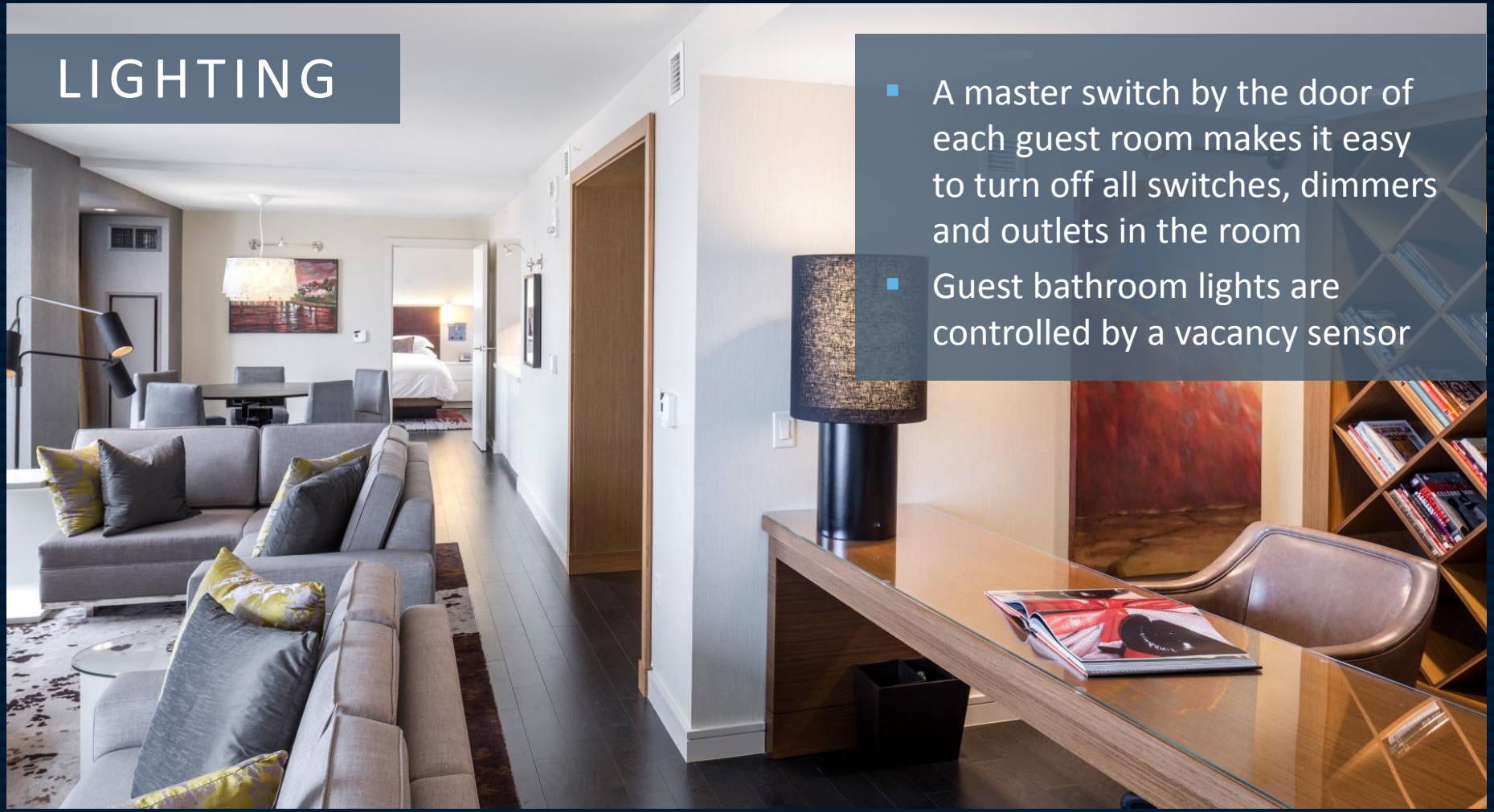
10% Atrium Restaurant

22% Guest Corridors

20% Guest Rooms



LIGHTING



- A master switch by the door of each guest room makes it easy to turn off all switches, dimmers and outlets in the room
- Guest bathroom lights are controlled by a vacancy sensor

LIGHTING

73% Energy Reduction in Hotel Stairwells

Because stairwells are occupied only 1% - 7% of the time, some lights are designed to be set to Off normally.

The lights automatically turn on when someone enters the space, due to an occupancy sensor.

25% Energy Reduction in Staff Corridors

Half of the lights in the staff corridors are set to be on, 24 hours a day. The other half are off unless they are triggered by an occupancy sensor.

DAYLIGHTING

The Central Atrium and Pedestrian Bridge have sensors to dim or shut off light fixtures to take advantage of natural daylight when available.

0 CFC REFRIGERANTS

Were used in the hotel's heating, ventilating, air conditioning and refrigeration systems

CFCs (chlorofluorocarbons), historically used as refrigerants in equipment, damage the ozone layer when released into the atmosphere. Refrigerants can leak during the operating life of the equipment or when the equipment is de-commissioned.

All construction waste was co-mingled in a single dumpster and sorted off-site.

Materials Diverted from the Landfill:

- Concrete
- Metals
- Wood
- Paper
- Cardboard
- Drywall

RECYCLING

Throughout the hotel, glass, plastic, metal, paper and cardboard are collected to be recycled.

RECYCLED CONTENT

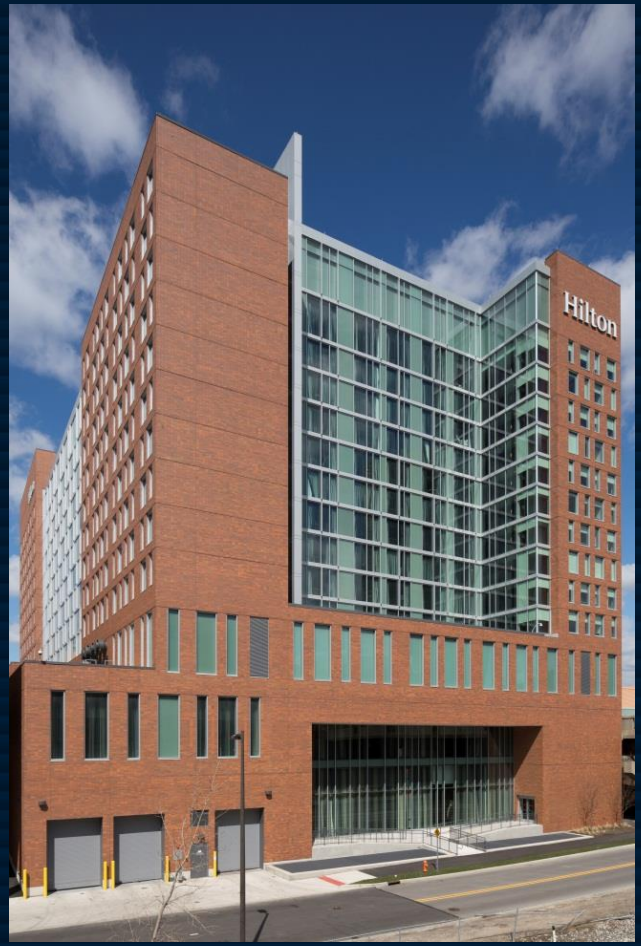
REDUCES USE OF VIRGIN MATERIALS AND AMOUNT OF WASTE TO LANDFILLS

11.3%	Percent of Total Construction Materials Recycled Content
89%	Rebar made of Recycled Steel
95%	Recycled Drywall Components
85%	Recycled Content of Fitness Center rubber floor

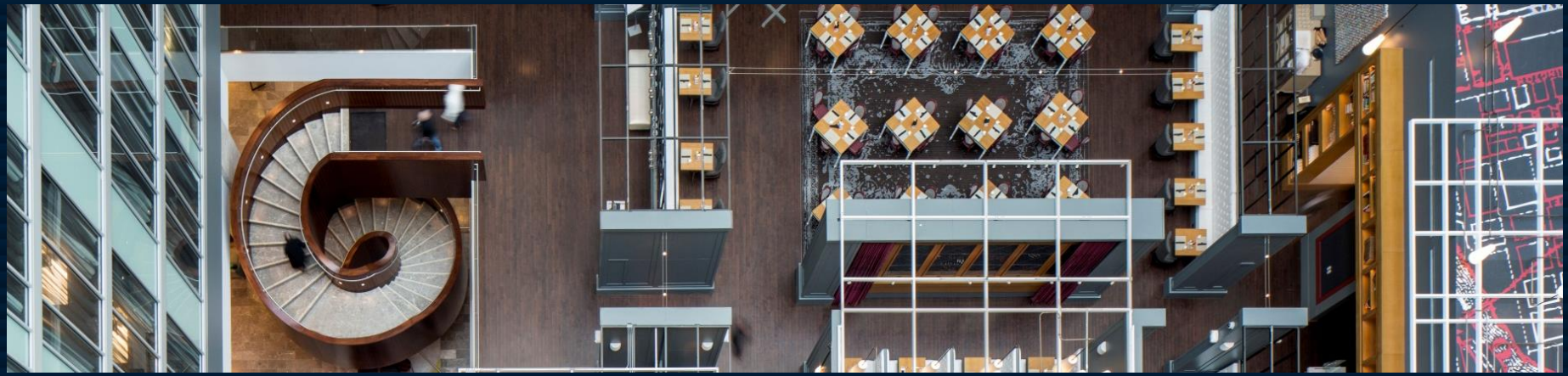
22% LOCAL MATERIALS

The environmental impact of long-distance materials transport was reduced by using materials that were extracted from, and manufactured within, 500 miles of the hotel.

- Brick from Sugarcreek, Ohio
- Concrete from OH, IL, MI, PA, and WV
- Steel from OH, IL, NC, IN, AR, and VA
- Concrete blocks from Columbus, OH & MI
- Mortar from Fairfield & Harrison, OH
- Drywall from North Carolina



57% of the permanently-installed wood products in this hotel are from FSC certified forests.



The Forest Stewardship Council (FSC) implements responsible harvesting practices including:

- Growing new trees to equally replace the timber that is cut down
- Preserving wildlife habitat and biodiversity often destroyed by logging
- Conservation of endangered and old-growth forests

INDOOR AIR QUALITY

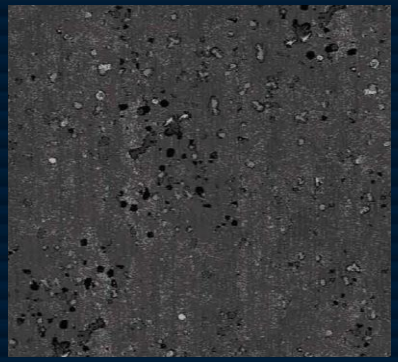
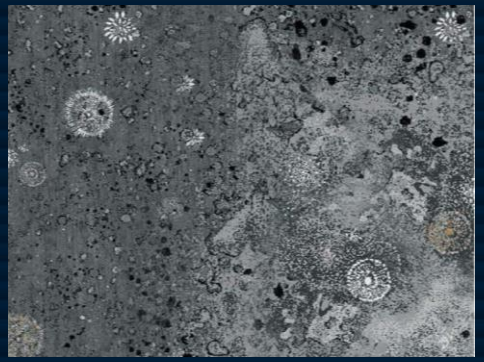
CARBON DIOXIDE SENSORS ARE INSTALLED IN ALL MUTLI-OCCUPANT PUBLIC SPACES.

The sensors monitor air quality to ensure that sufficient quantities of outside fresh air are being brought in, and alert the occupants if a high level of carbon dioxide is detected.

INDOOR AIR QUALITY

ALL PAINTS, COATINGS, ADHESIVES, SEALANTS AND CARPETS IN THE HOTEL ARE LOW-VOC.

- Volatile Organic Compounds, or VOCs, are carbon compounds that are emitted as gases from solids or liquids at room temperature.
- Many VOCs have adverse health effects and remain in the air long after the product is used.
- VOC concentrations can be up to 10 times higher indoors than outside.

OCCUPANT CONTROLS

- Each meeting space has individual heating and cooling controls, including each smaller breakout room
- 4-pipe fan coil units give guest rooms individual heating *and* cooling controls year round, instead of one or the other

GREEN CLEANING REDUCES EXPOSURE

ENVIRONMENTALLY PREFERABLE CLEANING PRODUCTS AND PRACTICES ARE USED AT THIS HOTEL TO REDUCE OCCUPANTS' EXPOSURE TO POTENTIALLY HAZARDOUS CHEMICAL, BIOLOGICAL AND PARTICULATE CONTAMINANTS.

- Cleaning products meet third-party environmental standards, such as Green Seal or Environmental Choice
- Vacuums are certified by the Carpet & Rug Institute's "Green Label" Testing Program