



ATLANTA  
BETTER BUILDINGS  
CHALLENGE

# IMPACT FOR A SUSTAINABLE FUTURE

ANNUAL REPORT 2016





One of my proudest accomplishments as Mayor of Atlanta is the tremendous success achieved through the Atlanta Better Buildings Challenge (ABBC). The Office of Resilience has partnered with businesses and nonprofit organizations to implement a comprehensive, voluntary program to increase energy and water efficiency in our building stock. The Atlanta Better Buildings Challenge invites participating building owners to commit to a 20 percent reduction in energy and water use by year 2020. With more than 114 million square feet of building space and more than 600 buildings pledged, Atlanta has earned its spot as a leader on the efficiency scoreboard.

Since 2011, this successful public-private partnership between the City of Atlanta, Central Atlanta Progress, Livable Buckhead, Midtown Alliance and Southface has positioned Atlanta as a national leader in energy and water efficiency. We surpassed our water reduction goal five years ahead of schedule, and we're quickly closing the gap on our energy goal, having already reduced our portfolio's energy consumption by 17 percent. Through the Atlanta Better Buildings Challenge, participants are saving money on bills now, while helping to ensure a more resilient future for all Atlantans.

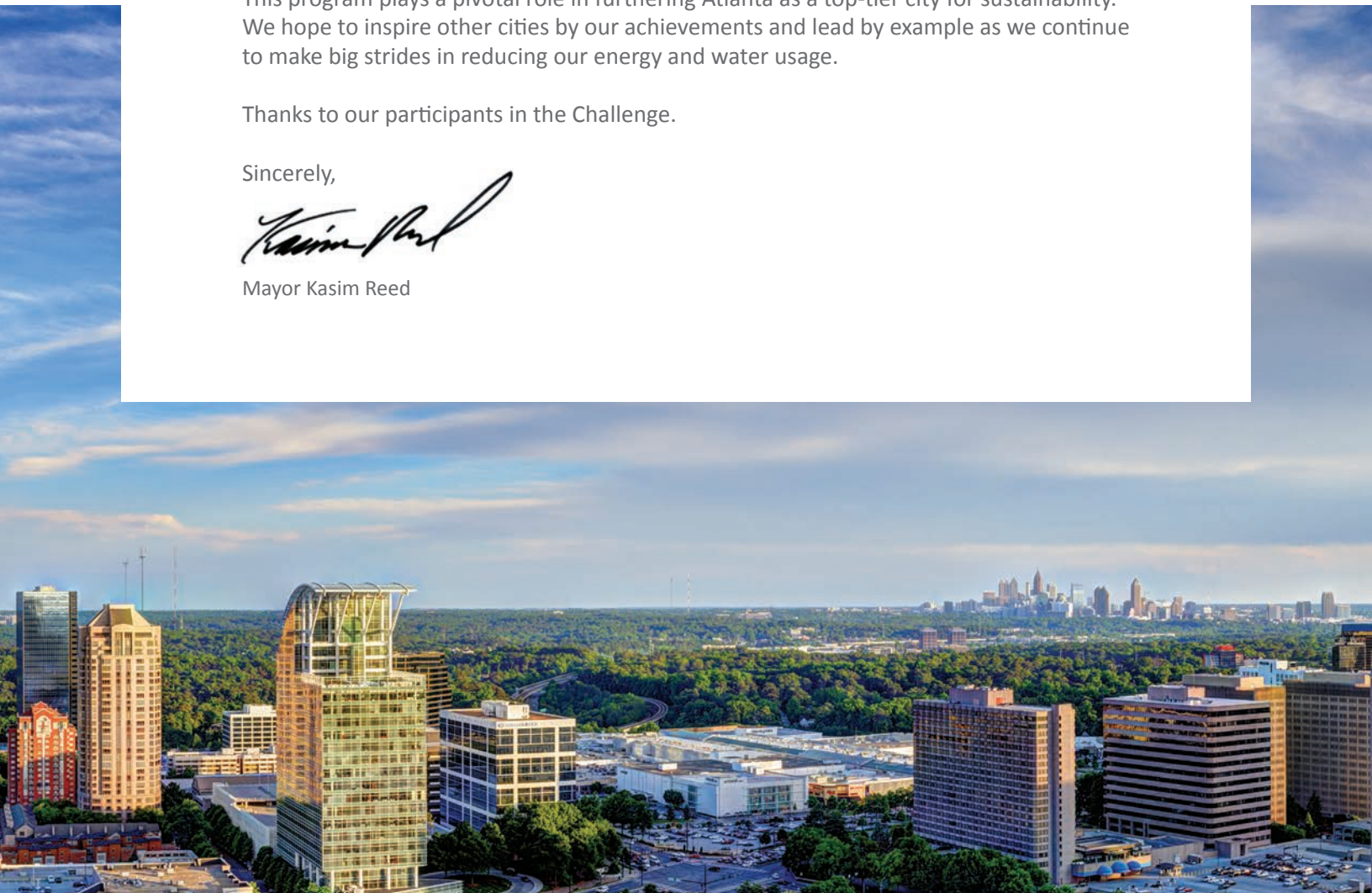
This program plays a pivotal role in furthering Atlanta as a top-tier city for sustainability. We hope to inspire other cities by our achievements and lead by example as we continue to make big strides in reducing our energy and water usage.

Thanks to our participants in the Challenge.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kasim Reed', written in a cursive, flowing style.

Mayor Kasim Reed





# IMPROVING THE EFFICIENCY OF OUR BUILDINGS 20 PERCENT BY 2020

The goal of the Department of Energy's Better Buildings Challenge is to improve the efficiency of commercial, institutional, industrial, and multifamily buildings by 20% or more by 2020. In June 2011, the Mayor's Office of Resilience, Central Atlanta Progress, Atlanta Downtown Improvement District and Southface partnered to create the Atlanta Better Buildings Challenge (ABBC). Competing against more than 75 cities and counties, the Atlanta Better Buildings Challenge quickly set itself apart through innovative partnerships and leadership from the City and business community.

Participation is now city-wide upon Midtown Alliance and Livable Buckhead joining the program. With more than **114 million square feet committed**, the Atlanta Better Buildings Challenge has proven that sustainability provides **tremendous value to Atlanta's economy, environment, and the health of its citizens.**

Resource conservation efforts not only support the City's sustainability efforts and lead to a cleaner and healthier place to live and work, but the dollar savings achieved by participating buildings frees up business capital that stimulates economic growth in Atlanta.

Organizations who commit to the challenge work collaboratively, creating public-private partnerships and sharing implementation models to help the market adopt higher efficiency standards at a quicker pace. The Atlanta Better Buildings Challenge's partnership model has been crucial to the program's success; fueled by friendly competition, this team effort has proliferated across the city and is now gaining regional momentum.



# OUR ACHIEVEMENTS ENABLE US TO TAKE OUR PLACE AS A NATIONAL LEADER IN SUSTAINABILITY

Since the Atlanta Better Buildings Challenge launched six years ago, we've made exceptional progress. Participation has grown rapidly across Atlanta's three major commercial districts, both in terms of participating buildings and public engagement. We developed an **implementation model** that allows us to share best practices and lessons learned, and provides a framework and tools for others who are interested in replicating our resource efficiency efforts. Our **Economic Impact Model** allows us to calculate the positive influence the program has had on Atlanta's economic growth and development, and our **Data Dashboard** helps participants easily track the improved energy and water efficiency of our buildings, and Atlanta's overall progress towards our goals.

## OVERALL IMPACT OF SAVINGS

The Atlanta Better Buildings Challenge has made the process of getting to the energy and water benchmark simple and straightforward. This simplicity is reflected in the remarkable savings already achieved by participants. With three years remaining in the program, we are excited to see what can be achieved; scaling above the savings targets will only bring additional value and help Atlanta become a top tier sustainable city. Beyond the direct impacts of the program, Atlanta has also seen numerous environmental and health benefits as a result of the program. Participants have also become more aware of both the community's and their own building's water and energy challenges – and how best to manage them.

## THERE IS STILL TIME TO JOIN

Much has been achieved by participants, though there is still work to be done. Over the next three years, we will continue to enroll and support participants, and work to maintain the commitment and enthusiasm we've seen en masse since 2011. Beyond energy and water savings, this will mean innovating and pushing sustainable business practices in Atlanta's built environment, facilitating the establishment of public and private partnerships, and spreading awareness on the value of sustainability for the economy and the environment. **Sign up and learn how you can save at [atlantabbc.com/about](http://atlantabbc.com/about).**

# 2016 SAVINGS



## WATER

**14%** water savings portfolio-wide since 2011. This is equivalent to the amount of water in **1,626 wave pools** at Six Flags White Water.

**38.8%** of Atlanta's portfolio (81 buildings) have met the **20% savings goal** ahead of the 2020 deadline.



## ENERGY

**17%** energy savings portfolio-wide since 2011. This is equivalent to the power needed to run Hartsfield-Jackson Atlanta International Airport for **12.7 years**.

**38.9%** of Atlanta's portfolio (161 buildings), have met the **20% energy reduction goal** ahead of the 2020 deadline.



## VALUE

**273** new jobs created or sustained since 2011.

**\$20.8** million was added to Atlanta's income since 2011. This could buy **9,952,153 chili dogs** at The Varsity.



## CARBON

**11,833** tons of CO<sub>2</sub> reduced since 2011. This is equivalent to driving an average passenger vehicle around the earth **1,313 times**.



## ACTIONS

**9,000,000** square feet of building space joined the challenge in 2016, bringing us to 114,000,000 square feet. This is equivalent to **1,116 Georgia Domes**.

**98** new buildings joined the Challenge in 2016, bringing the total up to 599.



## HEALTH

ABBC initiatives supported an **82.7%** improvement in metro Atlanta's air quality, contributing to a drop from the 9<sup>th</sup> most polluted in the nation in 2000 down to 52<sup>nd</sup> in 2016.







# ONE ALLIANCE CENTER

Since 2014, One Alliance Center (OAC) Engineers have improved preventative maintenance processes on capital equipment. Retro-commissioning HVAC equipment is now seen as being part of regular maintenance. Weather and building load factor data is built into regular building energy management system (EMS) strategies, and Live Meter Monitoring allows Engineers to see implemented changes as part of their EMS strategies. OAC completed a landscape renovation project to reduce the need for irrigation and connected to the Three Alliance Center stormwater management facility in 2014 to eliminate the use of city water for irrigation at OAC.



# GEORGIA WORLD CONGRESS CENTER

With 3.9 million square feet under one roof, the world's largest LEED certified convention center operates much like a small city and needs to maintain operations during upgrades. Before identifying specific energy conservation measures, an in-depth audit was conducted to identify opportunities for improvement. Based on these results, selected upgrades included the implementation of a new central plant to provide reliable heating and cooling performance for the next 2-3 decades, and new energy management systems and services that facilitate monitoring, analysis, alerts, reporting, tracking, and data visualization of the convention center's systems and performance. Upgrades are expected to cut utility consumption by 39% annually, saving more than \$2.5 million in the first year alone.



# RHODES HALL

Rhodes Hall has achieved exceptional water and energy savings due to its participation in three separate energy efficiency programs: The Atlanta Better Buildings Challenge, Grants to Green, and EarthCraft Sustainable Preservation. Special care is required to comply with historic preservation guidelines: for example, insulation was upgraded by placing Tyvek over the original wood sub-flooring and other original materials before spray foam insulation could be applied. The organization has shifted in a positive direction after the implementation of energy efficiency upgrades, including new policies that have been adopted for HVAC settings, lighting, recycling, and other sustainable practices.

[www.highwoods.com](http://www.highwoods.com)



**23.4%**

reduction in water usage.



**22.8%**

reduction in energy use.



**16.0%**

reduction in annual utility costs.



**20.5%**

reduction in greenhouse gas release.

ADDRESS	OWNER	YEAR BUILT	PROJECT SF	BUILDING USE	ENERGY STAR® SCORE
3500 Lenox Road NE Atlanta, GA 30326	Highwoods Properties	2001	531,897	Class A+ High-Rise Commercial Office Tower	87



## SEE HOW YOU STACK UP

Our Data Dashboard provides energy use intensity (EUI) data, ENERGY STAR® scores, and energy and water savings by building type.

Access the Data Dashboard to find buildings like yours, based on square footage, year built, and property use, to see how your energy and water use compares.

[abbcddata.com](http://abbcddata.com)

[www.gwcca.org](http://www.gwcca.org)



**41.0%**

reduction in water usage.



**5.0%**

reduction in energy use.



**39%**

reduction in annual utility costs.



**7.0%**

reduction in greenhouse gas release.

ADDRESS	OWNER	YEAR BUILT	PROJECT SF	BUILDING USE	ENERGY STAR® SCORE
285 Andrew Young International Blvd NW, Atlanta, GA 30313	Georgia World Congress Center Authority (GWCCA)	1976	3,920,000	Convention, tradeshow, sport, religious, and event facility	N/A

[www.georgiatruster.org/historic\\_sites/rhodeshall](http://www.georgiatruster.org/historic_sites/rhodeshall)



**14.2%**

reduction in water usage.



**55.7%**

reduction in energy use.



**58.5%**

reduction in annual utility costs.



**55.4%**

reduction in greenhouse gas release.

ADDRESS	OWNER	YEAR BUILT	PROJECT SF	BUILDING USE	ENERGY STAR® SCORE
1516 Peachtree St. NW Atlanta, GA 30309	The Georgia Trust for Historic Preservation	1904	11,000	Office & Event Space, Educational Tours, Museum	95



# THE CHALLENGE STIMULATED ATLANTA'S ECONOMY BEYOND EXPECTATIONS

Over the past six years, the Better Buildings Challenge has helped Atlanta's community and businesses reduce our impact on the environment, improve the health of our residents, and stimulate Atlanta's economy beyond expectations. Our city rose to the challenge and has succeeded tremendously, paving the way for other municipalities and organizations to make a measurable difference in their own cities.

## 2016: A BANNER YEAR FOR ABBC\*

**108**

additional jobs created or sustained.

**\$10M**

invested in Atlanta's infrastructure.

**~\$1M**

additional value identified in avoided social impact damages due to reduced energy generation demand and subsequent improved air quality.

**\$10M**

Gross Regional Product created, boosting Atlanta's economy.

**\$8M**

impact on income because of efforts within Atlanta Better Buildings Challenge portfolio.

### Reduction metrics:

- Carbon
- Volatile Organic Compound
- Ammonia
- Nitrogen Dioxide

\*Source: Greenlink data analysis conducted using ATHENIA Modeling Software.







## “We received \$1.5 million in work resulting from relationships built through Atlanta Better Buildings Challenge.”

“DLB Associates, a consulting engineering firm with an office in Atlanta, provides services to building owners participating in the Atlanta Better Buildings Challenge. Their participation has allowed them to expand the amount of energy efficiency engineering services that they provide. They have received approximately **\$300,000 of direct projects** through ABBC, and an additional **\$1.5 million in work** resulting from relationships built through the ABBC. The firm believes that the Atlanta Better Buildings Challenge provides them an opportunity to help the community at large by furthering the region’s sustainability goals.”

- Green, T. DLB Associates



## “ABBC-related work accounted for roughly 20% of their Energy Services Group’s revenue.”

“McKenney’s, an Atlanta-based mechanical contracting company, works closely with Atlanta Better Buildings Challenge building owners and operators to support environmentally responsible strategies that can help reduce their buildings’ energy consumption. For the past several years, ABBC-related work accounted for **roughly 20% of their Energy Services Group’s revenue**. Not only has McKenney’s gained new clients through the ABBC, their participation in ABBC as a vendor has allowed them to **expand their scope of services** to existing clients. The real-world insights McKenney’s obtained via the Atlanta Better Buildings Challenge have allowed them to discuss EE opportunities with existing clients. McKenney’s now does more building energy analyses than before to help quantify the energy savings opportunities for their customers. To help complete this extra work, McKenney’s **hired one EE professional**. McKenney’s also believes that their participation in ABBC as a vendor has provided them **good networking opportunities** and **valuable insight** into the commercial market by highlighting what energy practices various properties are putting in place, or not putting in place.”

- Bracey, J. McKenney’s

# LEADERSHIP AND LEGACY

The Better Buildings Challenge, administered through the Department of Energy, is a national leadership initiative launched by President Obama in 2011 designed to drive leadership in energy innovation and accelerate private sector investment in energy efficiency.

Atlanta responded to the Better Buildings Challenge by designing and launching a city-wide energy and water use efficiency challenge that brought together public and private businesses in a partnership to pursue the city's ambitious energy and water savings goals. Building owners and managers joined the Atlanta Better Buildings Challenge by pledging to reduce energy and water use by 20% in their buildings by 2020. In return, participants were eligible for incentives such as free building assessments, energy efficiency implementation technical assistance, education and training courses, access to project financing opportunities, and public recognition.

Atlanta was the first city to include a focus on water consumption as part of the challenge, distinguishing the Atlanta Better Buildings Challenge from many programs operating nationally or in other cities. Wise and efficient use of water is critical to becoming the city that Mayor Kasim Reed has described in his 'Power to Change' sustainability initiative, as water is a limited natural resource.

## STRONG LEADERSHIP EMERGED IN THREE AREAS

### Mayor's Office

The Mayor's office has contributed several milestones since the start of ABBC. By committing the entire city to a target of 100 percent clean energy by 2035, implementing the Commercial Buildings Energy Efficiency Ordinance, expanding the number of electric vehicle charging stations throughout the city, and adding 1.5 MW of solar energy to the city's grid, Atlanta is well on its way to becoming a top-tier sustainable city. Additionally, Atlanta has been selected as a member of 100 Resilient Cities – a group dedicated to helping cities become more resilient in the face of environmental, social, and economic change.

### Business Community

The Atlanta Better Buildings Challenge originated in the city's 400-block Downtown district, with the goal of reducing energy and water consumption in two million square feet of commercial space. Atlanta's business community responded to the Challenge with remarkable enthusiasm; since its launch, the program has expanded to Atlanta's Midtown and Buckhead districts, encompassing a major financial and commercial district in the Southeast and more than 114 million square feet.

### Knowledge & Support

Southface has been inspiring market based solutions at the nexus of the social, natural and built environments since 1978. As a founding partner to the Atlanta Better Buildings Challenge, Southface imparts the technical assistance for the program by conducting energy audits for early participants. Southface staff provides ongoing data management leadership and side-by-side planning support for participant's efficiency upgrades. Southface continues to expand support by leading monthly education sessions and programming to assist buildings in achieving their efficiency goals.



## **“Atlanta Better Buildings Challenge is a crucial effort for the Atlanta region”**

“Aligning with the Atlanta Regional Commission’s mission to steward livable, sustainable communities and foster careful management of precious water resources, the Atlanta Better Buildings Challenge is a crucial effort for the Atlanta region, one that puts economic and environmental initiatives at the forefront of the responsible development of the metro area.”

**- Douglas Hooker, Executive Director, Atlanta Regional Commission**



## **“As a source of jobs, revenue, and investment, the program continues to be an asset to Atlanta’s sustainability and development goals.”**

“In 2016, Invest Atlanta provided \$8M in grant funding to Atlanta Better Buildings Challenge participants for installation of energy systems – saving up to 30% of energy costs. As a source of jobs, revenue and investment, the ABBC continues to be a valuable asset for Atlanta.”

**- Dr. Eloisa Klementich, President & CEO, Invest Atlanta**



## **“The Atlanta Better Buildings Challenge proves that Atlanta is a national leader in resource efficiency and sustainable growth.”**

“The Atlanta Better Buildings Challenge proves that Atlanta is a national leader in resource efficiency and sustainable growth. Through ABBC, companies like McKenney’s have been able to expand the scope of their work, increase their revenue streams, and serve as key partners in the region’s energy efficiency goals, reinforcing the program’s role as a driver of economic development.”

**- Hala Modellmog, President & CEO, Metro Atlanta Chamber**



# 2016 PARTICIPANTS

100 Colony Square  
 100 Peachtree Street  
 1100 Spring Street  
 1180 Peachtree  
 260 Peachtree  
 270 Peachtree  
 270 Peachtree Parking Deck  
 3344 Peachtree – Sovereign Building  
 34 Park Tower  
 3445 Peachtree  
 3630 Peachtree  
 400 Colony Square  
 55 Ivan Allen Plaza  
 75 Marietta / 84 Walton  
 A Child's Voice Child Advocacy Center, Inc.  
 A Friend's House  
 Agnes Scott College  
 American Cancer Society Center  
 AmericasMart  
 AMLI Residential  
 Arts Clayton Administration & Gallery  
 Atlanta Community Toolbank  
 Atlanta Financial Center  
 Atlanta History Center  
 Atlanta Mission  
 Atlanta Neighborhood Charter School  
 Atlanta Plaza  
 Atlanta Public Schools  
 Atlanta Realtors Center  
 Ballethnic Dance Company  
 Bank of America Plaza & West Wing  
 Big Brothers Big Sisters of Metro Atlanta  
 Blue Heron Nature Preserve  
 Buckhead Tower at Lenox Square  
 Capital City Plaza  
 Centennial Tower  
 Center for Civil and Human Rights  
 Centergy One  
 City of Atlanta  
 Clark Atlanta University  
 CNN Center & Omni Hotel  
 The Coca-Cola Company  
 College Football Hall of Fame  
 Cox Media Group  
 Eagle Ranch School  
 Embassy Suites Downtown  
 Emory Healthcare  
 Emory University  
 Epsten Group  
 Federal Reserve Bank of Atlanta  
 Fernbank Museum of Natural History  
 FODAC  
 Frazer Center  
 Fulton County  
 Fulton County Schools  
 Gallery Condominium  
 Gateway Facilities Services, LLC  
 Georgia Dome  
 Georgia Institute of Technology  
 Georgia Pacific Center Tower  
 Georgia Power Company  
 Georgia State University  
 Georgia Tech, Technology Square Research Building  
 Georgia Tech, Centennial Research Building  
 Georgia World Congress Center  
 Grand Hyatt Atlanta

Hartsfield-Jackson Atlanta International Airport  
 Humane Society of Morgan County  
 Hyatt Regency Atlanta  
 Jerusalem House  
 Lenox Square Mall  
 Little 5 Points Center for Arts & Community  
 Loudermilk Conference Center  
 Lutheran Church of the Redeemer  
 Madison Morgan Cultural Center  
 Metro Atlanta Chamber  
 Monarch Plaza  
 Monarch Tower  
 Morehouse College  
 Morehouse School of Medicine  
 One Alliance Center  
 One Atlantic Center  
 One Buckhead Plaza  
 One Live Oak  
 One Midtown Plaza  
 One Ninety One Peachtree  
 Peachtree Center  
 Peachtree Summit Federal Building  
 Philips Arena  
 Phipps Plaza Mall  
 Piedmont 14  
 Piedmont Center Buildings  
 Ponce City Market  
 Premier Academy  
 Promenade  
 Prominence in Buckhead  
 Regions Plaza  
 Reynoldstown Commons  
 Richard B. Russell Federal Building  
 Sam Nunn Atlanta Federal Center  
 Southface  
 Spelman College  
 St. Luke's Episcopal Church  
 Steffen Thomas Museum of Art  
 SunTrust Plaza & Garden Office  
 T3 Labs  
 Technology Enterprise Park  
 Ten 10th Street  
 Ten Peachtree Place  
 Terminus 100  
 Terminus 200  
 The Forum at West Paces  
 The Fox Theatre  
 The Georgia Trust - Rhodes Hall  
 The Hurt Building  
 The Peachtree Boys & Girls Club of Greater Atlanta  
 The Pinnacle  
 The Salvation Army - William Booth Towers  
 The Westminster Schools  
 The Wren's Nest  
 Tower Place 100  
 Tower Place 200  
 Turner Building  
 Two Alliance Center  
 Two Buckhead Plaza  
 Two Midtown Plaza  
 UPS  
 Wesley Woods  
 Woodruff Arts Center  
 Woodruff Volunteer Center  
 Zoo Atlanta

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