



THE KRESGE FOUNDATION

# Practicing Heat Resilience in a Hot Market: Lessons from Developers

ULI NASHVILLE BUILDING HEALTHY PLACES ACTION COUNCIL

DECEMBER 1, 2022 – PROGRAM TO BEGIN AT NOON

**This event possible thanks to a grant from**

**THE KRESGE FOUNDATION**

## Speakers:



**Erin Hatcher,  
Vice President Sustainability,  
AMLI Residential**



**Kimberly Pexton,  
Vice President Sustainability,  
JBG Smith**



# **AMLI**

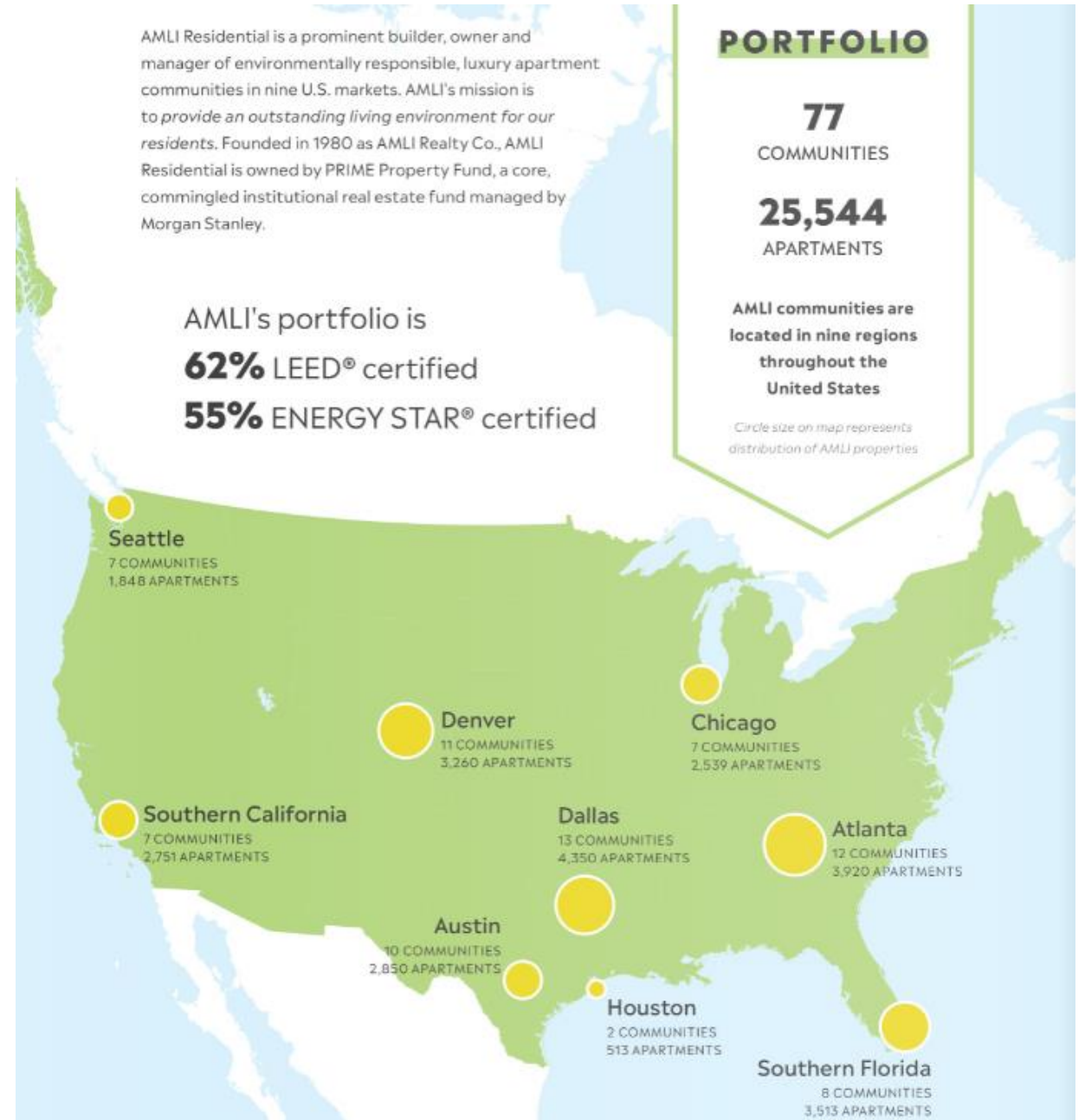
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## **RESIDENTIAL**

ULI Nashville: Practicing Heat Resilience in a Hot Market: Lessons from Developers

# AMLI RESIDENTIAL

- Developer, manager, and long-term owner of apartment communities.
- Owned by PRIME Property Fund, a core, commingled institutional real estate fund managed by Morgan Stanley.
- Located in eight U.S. markets.



# Early Sustainability Commitments to ESG

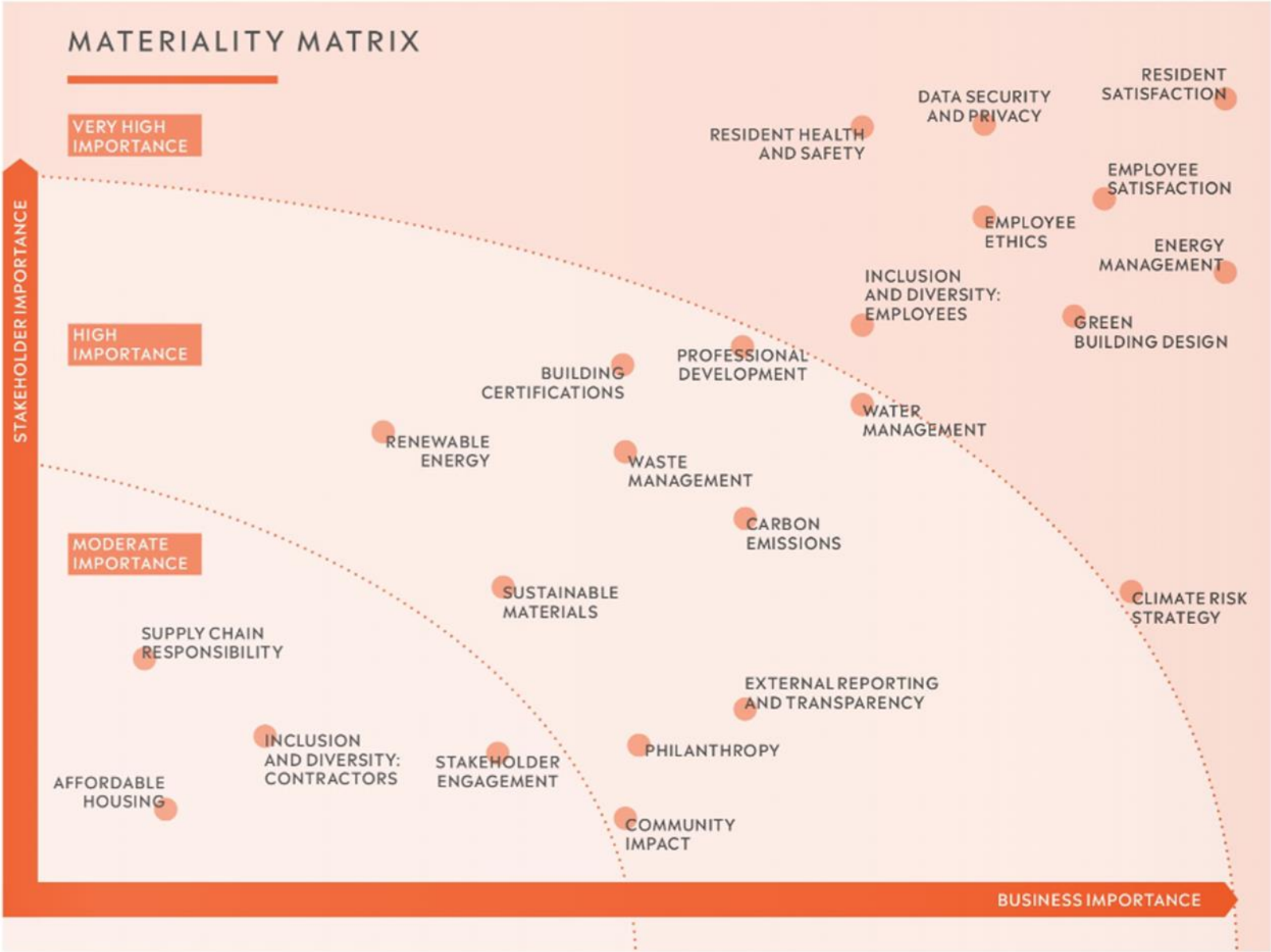


AMLI

**Impact**

# ESG Drivers

- Investors
- Residents
- Employees



# Building for climate resilience

## Development

- Regional transition risk and physical risk evaluated at land purchase. Examples:
  - Building performance requirements (transition risk)
  - Known climate risks (physical risks)
- LEED Silver minimum.
- Energy Modeling, early and often, integrated into design process.
- Heat resilience specifically focuses on windows: ratio and window values.



Integrating resilience discussions into our existing processes.



# Building for climate resilience

## **Governance**

- ESG Steering Committee
- ESG Development Policies

## **Acquisitions**

- Due diligence includes:
  - Building envelope & mechanical systems. CAPEX budget may need to be allocated to address concerns.



# What's next?

- Improve communication and reporting:
  - Portfolio building performance rankings.
  - Pilot projects.
- More education for internal teams.
- Integrating resilience tools into our processes.
- Internal standards for specific building features or an energy performance metric.





AMLI

**Impact**



JBG SMITH is dedicated to building sustainable, vibrant communities.

**100%**

DC Metro Area

**98%**

Metro Served

**50%**

National Landing



### \$7B OF CONCENTRATED SCALE & INVESTMENT

- AMAZON: \$2.5B
- JBGS: \$2.0B
- STATE & LOCAL GOVERNMENT: \$1.9
- VIRGINIA TECH: \$750M

- JBG SMITH Existing
- JBG SMITH Controlled
- Amazon
- Future Development Opportunities
- Infrastructure / Education (State & Local Funded)

EXTRAORDINARY  
SCALE & CONTROL

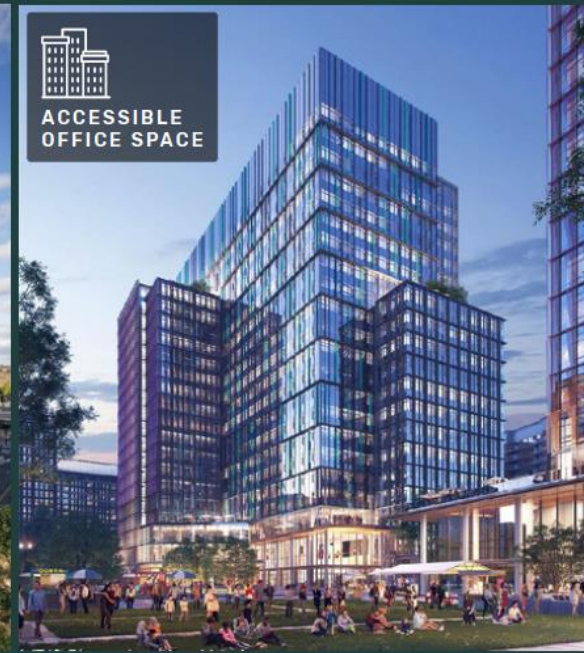
 **71%**  
OF COMMERCIAL  
MARKET (6.2M SF)

 **20%**  
OF RESIDENTIAL  
MARKET (2.4M SF)

 **65%**  
OF UNENCUMBERED  
DEVELOPMENT SITES (6.9M SF)

PLACEMAKING & DEVELOPMENT

WE'RE MAKING MAJOR INVESTMENTS  
TO FURTHER IMPROVE & CONNECT  
NATIONAL LANDING.



EVERYTHING INTELLIGENTLY,  
SEAMLESSLY, & SECURELY  
CONNECTED IN REAL TIME.

UBIQUITOUS INDOOR/OUTDOOR  
ENTERPRISE-GRADE WIRELESS

WIRELESS BROADBAND (5G) AND  
PRIVATE CELLULAR NETWORKS  
(CBRS)

MUNICIPAL & PUBLIC SAFETY  
SENSOR NETWORKS TO MANAGE  
STREET & PEDESTRIAN TRAFFIC

AUGMENTED REALITY VIA  
MOBILE DEVICES & WEARABLES

SEAMLESS, TOUCHLESS RETAIL  
THROUGHOUT URBAN PLATFORM

AUTONOMOUS DELIVERIES VIA AI-  
ENABLED ROBOTICS WITH ACCESS TO  
UBIQUITOUS SAFETY SENSOR NETWORK



## URBAN OPERATING SYSTEM

IT WILL SERVE AS THE DIGITAL FOUNDATION FOR INNOVATION, ALLOWING US TO IMPROVE OPERATION EFFICIENCY & CREATE A DIFFERENTIATED CONSUMER EXPERIENCE.

### EFFICIENCY

SMART GRID



SMART LIGHTING



SMART WATER



### PEOPLE

SMART HOMES



PERSONALIZED SERVICES



CONNECTED RETAIL



### SAFETY

FIRE SAFETY



SMART CCTV



SENSOR NETWORK



### RESOURCES

BUILDING MAINTENANCE



WASTE MANAGEMENT



RENEWABLE ENERGY



### TRANSPORT



TRAFFIC MANAGEMENT



SMART VEHICLES



ELECTRIC TRANSPORT



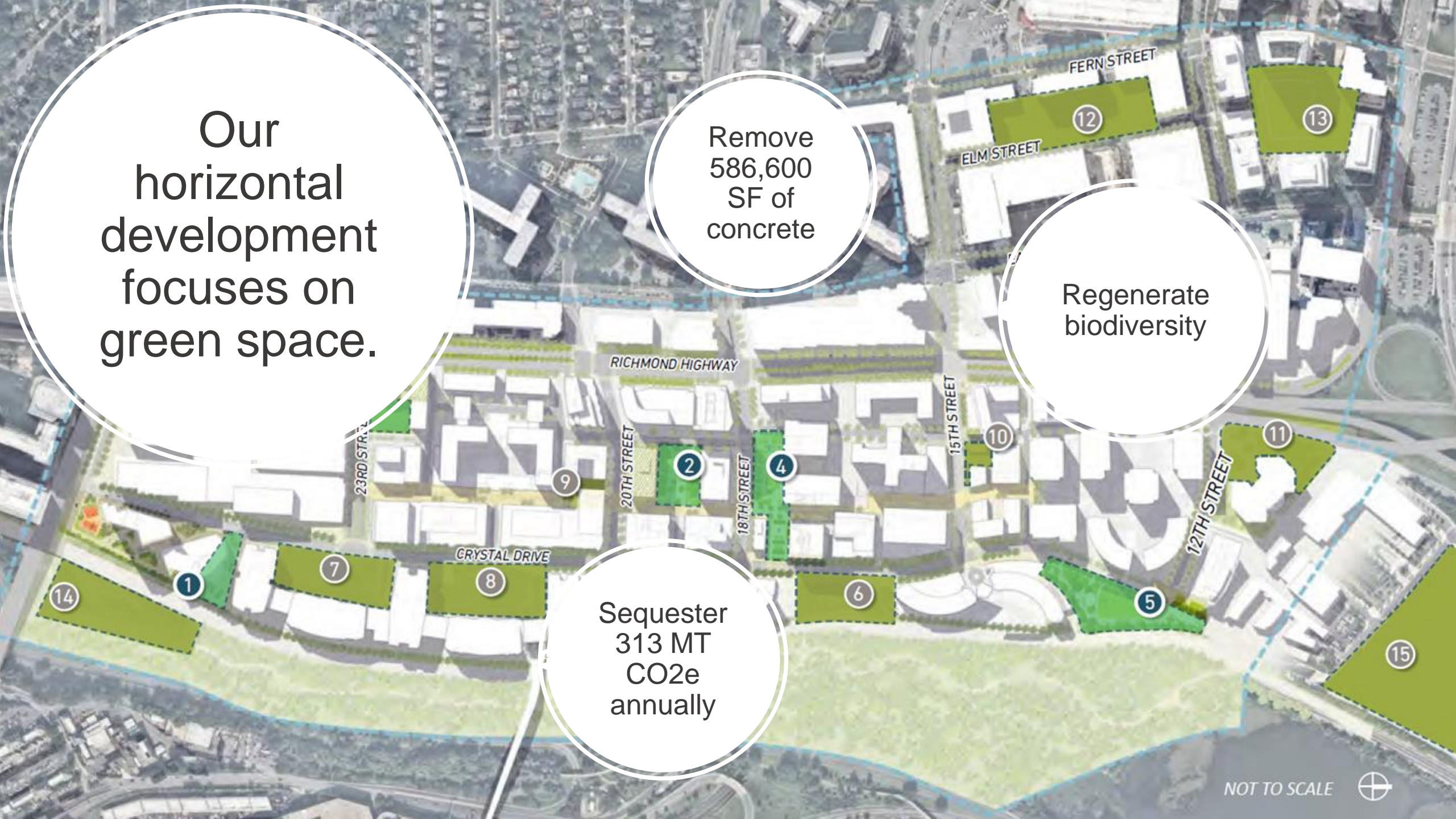


Our horizontal development focuses on green space.

Remove 586,600 SF of concrete

Regenerate biodiversity

Sequester 313 MT CO<sub>2</sub>e annually



NOT TO SCALE



Our horizontal development focuses on heat island effect.



National Landing in Arlington, Virginia. (JBG Smith)



**ENVIRONMENTALLY FRIENDLY,  
COOL PAVEMENT  
SEALCOATING PRODUCT**

CoolSeal is a solar reflective cool pavement that is



Steel SRI 39  
Grey SRI 45



CoolSeal Installation

10 degrees cooler one year later!

Our new developments focus on window to wall ratio.



# Our existing assets focus on windows.

2451 Crystal Drive:  
Uncoated Glass: 7.1-7.4  
Coated Glass: **3.9-4.4**  
Outside Temp: 41



1901 Bell Street:  
Uncoated Single Pane: 2.4-2.8  
Uncoated Double Pane: 2.0-2.4  
Coated Single Pane: **0.6-1.0**  
Coated Double Pane: **0.6-1.1**  
Outside Temp: 41



## [EXTERNAL EMAIL]

Thanks Jerry, can you share with us the instrument you are using for the readings?

On Feb 8, 2021, at 9:28 AM, Orr, Jerry <[JORR@hitt-gc.com](mailto:JORR@hitt-gc.com)> wrote:

Good morning Eddie & Kim. I stopped by the 2 mock-up locations last week to take a look at the glass and get a BTU reading comparing glass we coated vs. glass we didn't coat.

Increase in performance of glazing resulted in a reduction in  
EUI of 3 kBTU/SF



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