

# UAB SUSTAINABILITY FOR ORIENTATION LEADERS



# LOW WASTE EVENT!

- Recycle: paper, plastic, aluminum in appropriate bins
- Reusable plates and forks
- Reusable water bottle?

# WHAT IS SUSTAINABILITY?

Meeting the needs  
of the present  
without  
compromising the  
ability of future  
generations to  
meet their needs.

**\*POPULATION\***

**\*CONSUMPTION\***



# UAB'S IMPACT

- Alabama's largest employer: **1 out of 31 Alabamians** is either directly or indirectly employed by UAB
- **3<sup>rd</sup> largest** public hospital in the US
- Covers more than **100 city blocks & 16 million sq ft**
- Students, faculty, staff represent **100+ countries**
- **377,347,356 kWh** used FY2016-2017

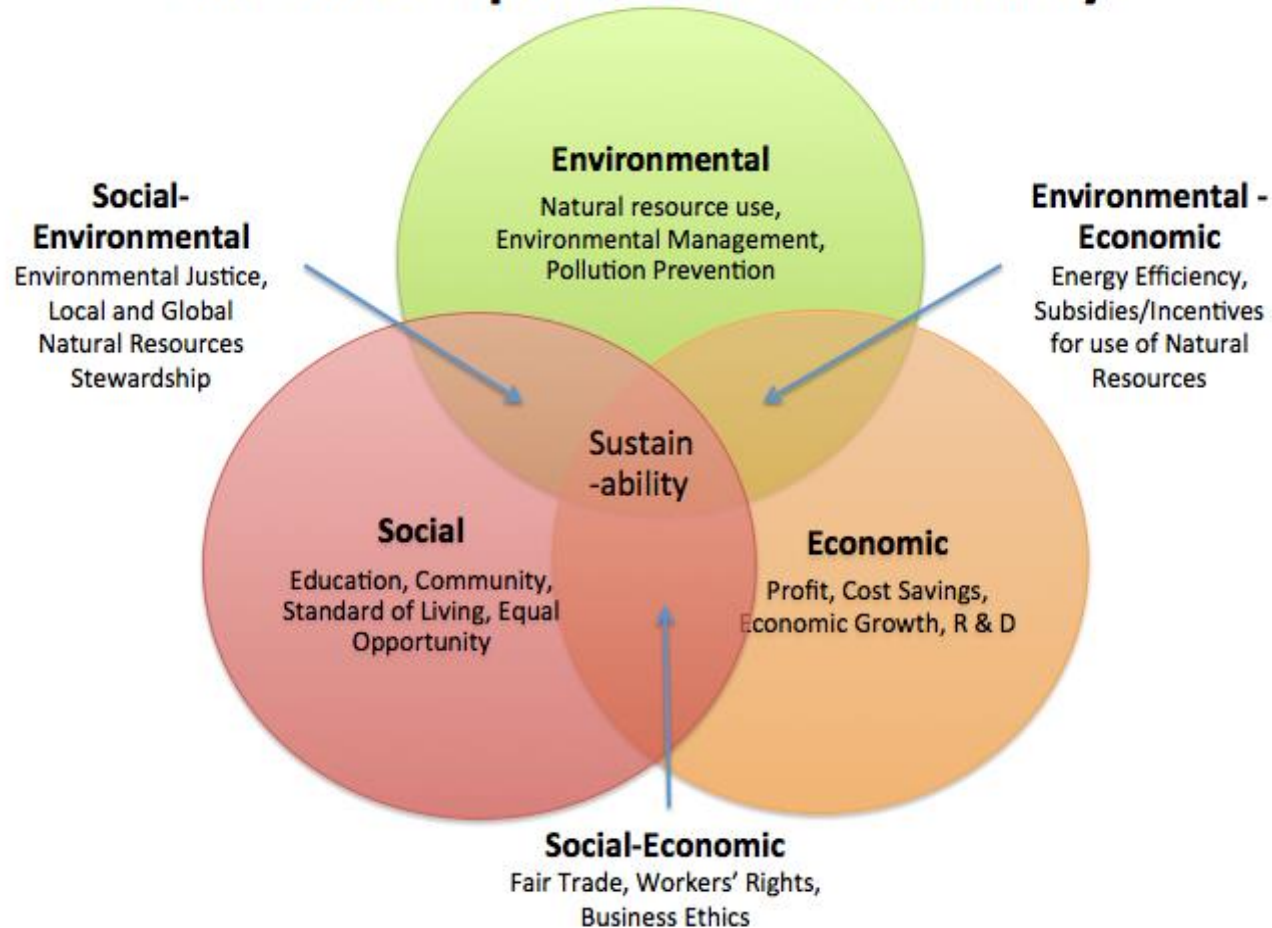
## THE UNIVERSITY OF ALABAMA AT BIRMINGHAM ECONOMIC IMPACTS TO THE STATE, FY16

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# TRIPLE BOTTOM LINE

## The Three Spheres of Sustainability



# SUSTAINABILITY IN HIGHER EDUCATION

## 1. Academics

- Curriculum
- Research

## 2. Engagement

- Campus
- Public

## 3. Operations

- Air & Climate
- Buildings
- Dining
- Energy
- Grounds

- Purchasing
- Transportation
- Waste
- Water

## 4. Planning & Administration

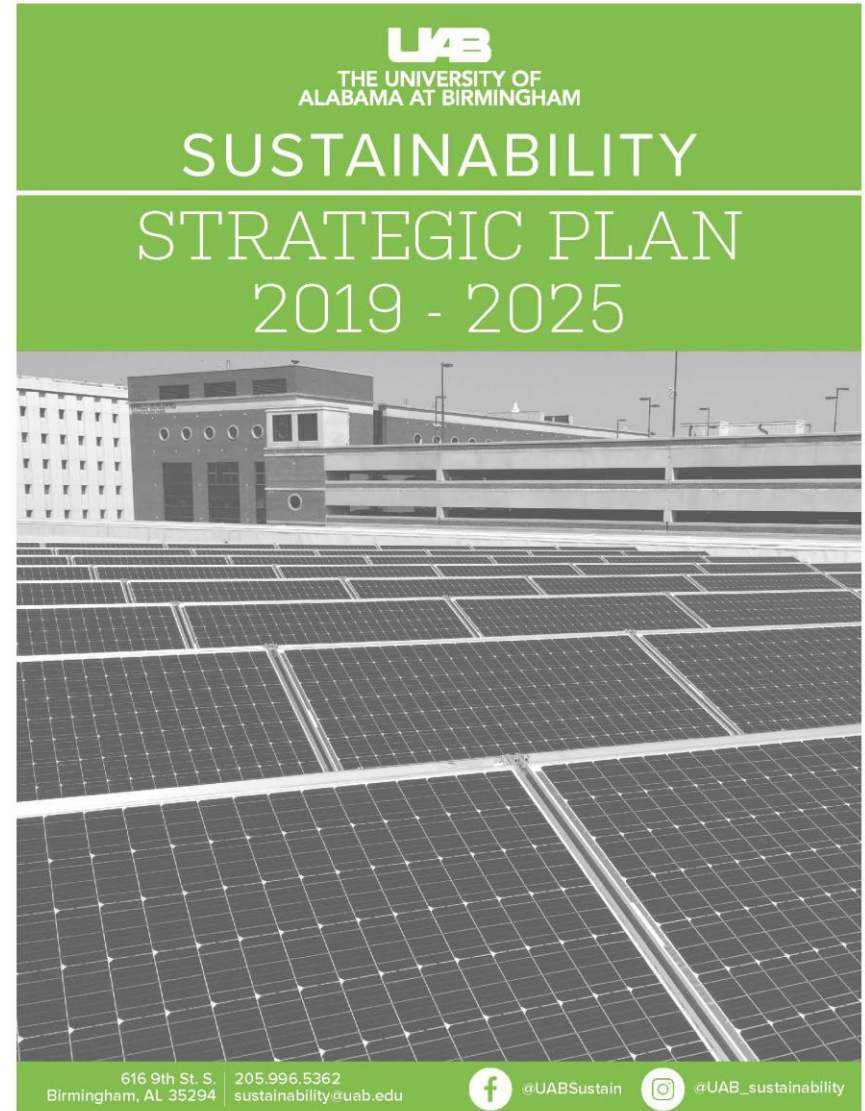
- Coord, Planning, & Governance
- Diversity & Affordability
- Health, Wellbeing, & Work
- Investment

## 5. Innovation



# SUSTAINABILITY STRATEGIC PLAN

- 18 months
- 13 working groups
- 4 shared governance road shows
- 2 open houses
- Enterprise-wide survey  
>4,000 responses
- ONE 5-year strategic plan



# RESIDENCE HALL MOVE OUT

## Don't Throw Out, MOVE OUT!

Place your household items, non-perishable food, personal care products, cleaning supplies, and recyclables in the designated bins, tables, and dumpsters during moveout.

Donations will support programs for men, women, and children at The Salvation Army.

**UVB** Sustainability  
**UVB** STUDENT HOUSING  
& RESIDENCE LIFE





# DINING

- Reducing straws
- Local, seasonal produce
- Vegan and vegetarian
- Organic
- Cage free eggs
- Used cooking oil to biodiesel
- Fair trade coffee
- Sustainable seafood
- Food waste reduction

“It’s only ONE straw..”  
*(said billions of people)*

**71%** of SEA BIRDS and **30%** OF SEA TURTLES  
*have been found with plastic in their stomachs.*

**#SKIPTHESTRAW**

*We’re building a better tomorrow for everyone.*

Should you require it, straws are available by request.



# SUSTAINABILITY INVESTMENT FUND

- Crowdsourcing ideas from students
- Partnership with Student Affairs
- Students write 2-page proposal with educational component
  - Water bottle refilling station
  - Bike racks
  - Electric car charging stations
  - Move out reuse program
  - Recycling bins
  - Pollinator garden



# POLLINATOR HABITAT GARDEN & MEADOWS

## UAB POLLINATOR HABITAT GARDEN

Our pollinator garden has many different flowers that appeal to native pollinators, such as bees, butterflies, and birds. Pollination transfers pollen from one plant to another for fertilization, which produces seeds and fruit. The majority of flowering plants, including many human food crops, depend on insects and animals for pollination.

### DID YOU KNOW?

- ✂ Approximately 1 out of every 3 bites of food we eat exists because of pollinators such as bees, butterflies, birds, bats, beetles, moths, and other insects.
- ✂ Pollinator populations are decreasing due to the challenges of our modern world, including habitat loss, parasites, and environmental contaminants.
- ✂ Our garden habitat will be a needed contribution for pollinators, providing food, water, shelter, and a place to raise their young.

### HOW TO HELP

- ✂ Choose native plants where possible since they are adapted to the local climate and soils, and local pollinators are adapted to them.
- ✂ Plant a variety of flower shapes and colors to bloom continually from early spring to early fall, with plants of the same species planted in large clusters.
- ✂ Avoid using pesticides. If you want butterflies, you need caterpillars – and the nibbled leaves that go with them!

### SUSTAINABILITY

- ✂ UAB defines sustainability as meeting the needs of the present without compromising the ability of future generations to meet their own needs.
- ✂ This garden was developed from a student application to the UAB Sustainability Investment Fund, a partnership of UAB Sustainability and UAB Student Affairs.
- ✂ Get involved with sustainability efforts on campus by visiting [uab.edu/sustainability](http://uab.edu/sustainability).



Honey Bee and Margined Leatherwing Beetle



Monarch Butterfly



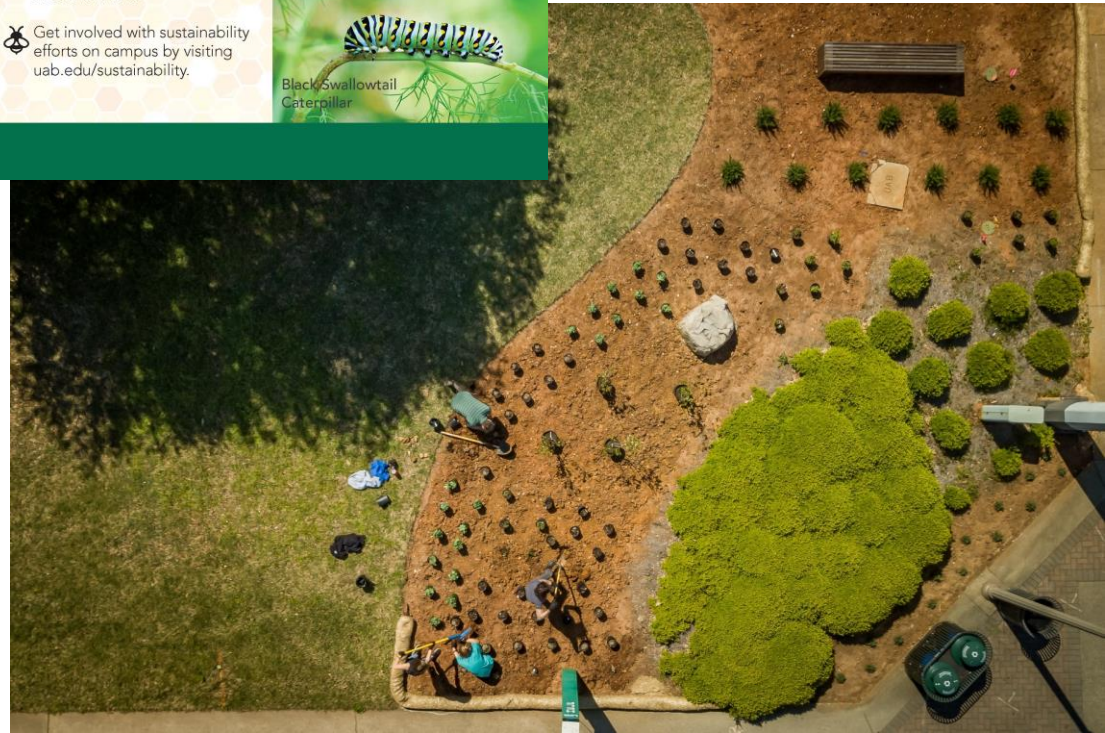
Ladybug



American Robin



Black Swallowtail Caterpillar



# EARTH MONTH



## Dr. Robert Bullard

*Father of Environmental Justice*

Distinguished Professor of Urban Planning  
and Environmental Policy  
Texas Southern University

“Unequal Burden: Advancing Health Equity  
Through Environmental, Economic and  
Racial Justice”

Tuesday, April 2 @ 6PM

UAB School of Nursing, Rm 1054

Hosted by

**UAB** THE UNIVERSITY OF  
ALABAMA AT BIRMINGHAM

School of Public Health  
Environmental Health Sciences

Lister Hill Health  
Policy Center

Institute for  
Human Rights

Office of  
Sustainability

College of Arts and Sciences  
Anthropology



CLEAN AIR. HEALTHY COMMUNITIES.

# EARTH MONTH



# EARTH MONTH



# EARTH MONTH



# UAB GARDENS





# WATER BOTTLE FILLING STATIONS & SIGNAGE



# TREE CAMPUS USA



# HERITAGE TREES



# TREES

## Trees are public health infrastructure

- Tree protection during construction
- Replanting policy
- Benefits:
  - Reduced urban heat island
  - Improved air quality
  - Increased Pedestrian comfort
  - Habitat
  - Reduced flooding
  - Building energy savings
  - Speedier hospital recoveries



# SUSTAINABILITY IN CURRICULUM

- 50 courses have SUS designation on transcript
- Hundreds of courses related to sustainability
- Most relevant degree programs:
  - Public Health
  - Anthropology (Peace, Justice, and Ecology)
  - Environmental Engineering
  - Political Science and Administration
  - Biology
  - Independently Designed Major

# GREEN LABS



# SOLAR DECATHLON



# Solar Decathlon

- Design/construct net zero home (~1000 sq ft)
- Transport to competition in Denver, CO
- Install on campus for research, engagement, and potential residence











UAB Sustainability  
SCHOOL OF  
ENGINEERING

surviv(AL)

[uab.edu/solardecathlon](http://uab.edu/solardecathlon)



zero emission

UAB  
FUTURE PROJECT  
COMMUNITY



SEASIDE CATHEDRAL  
www.seasidecathedral.gov

**112**  
Team Alabama



SURVIVAL TEAM UAF



SURVIVAL TEAM UAF

SURVIVAL SURVIVAL SURVIVAL

SURVIVAL SURVIVAL SURVIVAL

survival House LAB

QUICK PERMANENCE

# SOLAR HOUSE AND MICROGRID



# ENERGY & EMISSIONS

## Energy Management

- Building retrocommissioning and efficiency projects
  - Lowered campus-wide energy usage (BTU/GSF) 9 years running (now 15.5% over base year)
  - Over \$15M in avoided utility costs every year
  - **Increased Efficiency = Decreased Energy Dependence = Decreased Emissions**

**UAB CONSERVES ENERGY**  
**THINK "GREEN" - SAVE "GOLD" \$\$**

# WATER

## Priorities: Redundancy & Cost Savings

- Strategically located wells
- **Using the right water for the right job**
  - Industrial water (not treated) for utility plants & irrigation
  - **'Waste' as a resource:** condensate & groundwater recovery.  
~50M gallons/year





# TRANSPORTATION

## Multi-Modal: Reduce Drive- Alone Commuting Rates

- Infrastructure: complete streets, bike lockers, bus system
- Incentives

## Electric Vehicle Charging



# LEED

2 LEED Buildings under construction

1 LEED Buildings in planning

## LEED Priorities

- Metering & Accountability
- Transportation
- Green Infrastructure
- Waste Reduction
- Wellness



# LEED



University Hall  
College of Arts & Sciences  
(06/19)



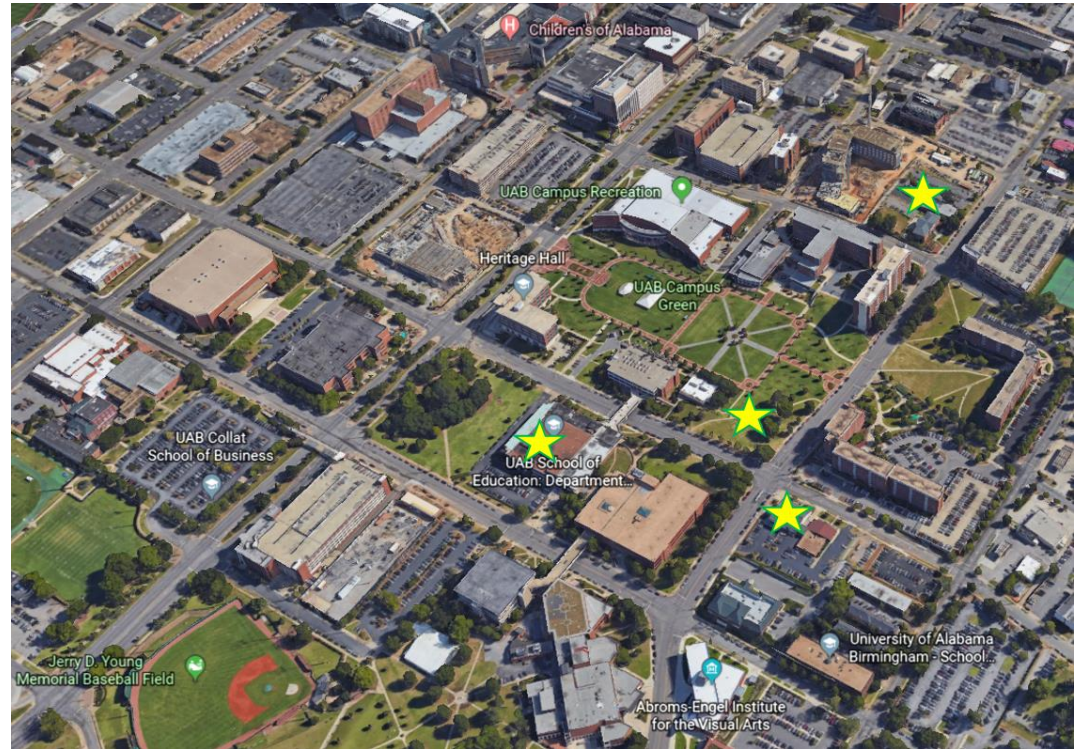
Honors College  
Snoozy's Bookstore Renovation  
(02/20)



Residence Hall 2020  
Smolian/Sorority House  
Demolition  
(06/20)



+ Science & Engineering  
Complex  
Phase 1



# LOW-IMPACT DEVELOPMENT

## Bioswales

Reducing impervious surfaces and delaying/cleaning stormwater on urban infill sites.

## Green Spaces

Encouraging biophilia on UAB's campus simultaneously helps absorb stormwater and provides biodiverse public assets that assist with reducing the urban heat island effect.

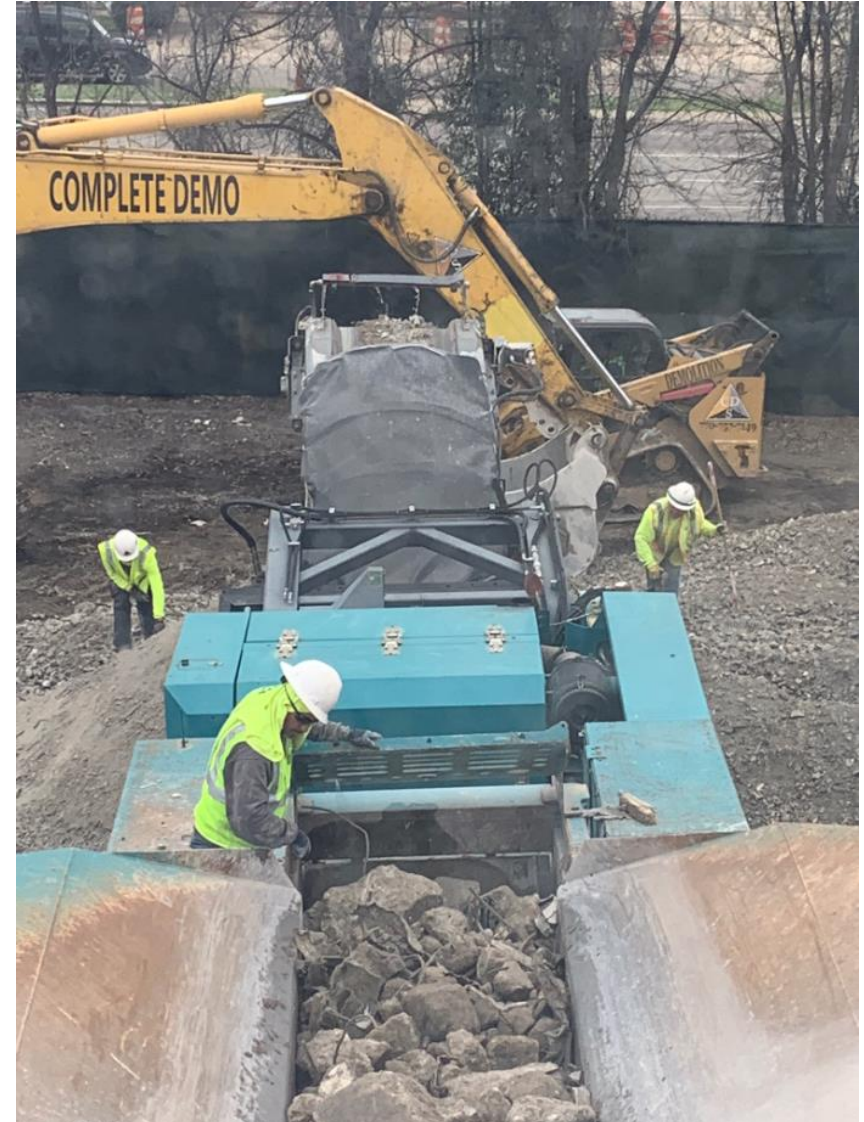


# CONSTRUCTION & DEMOLITION WASTE

## UAB Construction & Demolition Waste Planning

Divert at least 75% (by weight) of the total construction and demolition (C&D) waste materials generated onsite.

Divert materials from at least four major material or waste streams. Waste streams are defined by where the waste goes.



# CRADLE TO CRADLE: PURCHASING & WASTE

- Zero waste movement
- Alabama's land is worth more than landfills
- Economic development
  - Alabama spends \$25M/year throwing away \$190M in commodities (ADEM, 2011)
  - Ex. Plastics recycler in Troy, Alabama employs 420 people



# The Fundamentals of Recycling

1. Reduce and Reuse
2. Recycling is for what we can't avoid using.
3. **When in doubt, throw it out!!**



# Why Recycle?

- UAB *sometimes* makes money from the recyclables
- UAB saves money by avoiding dumpster costs
- Recycling protects resources for future generations
- The Recycling supply chain creates jobs
  - Largest plastics recycler in the world is based in Troy, AL!





# Keeping it Clean!

Keeping the recycling stream clean makes it more valuable.



WHAT UAB RECYCLES

# CLEAN PLASTICS

- We recycle #1 plastic
  - Bottles
  - Check the bottom for the recycle symbol



- Where to recycle plastic on campus:
  - Indoor green bins
  - Outdoor metal bins



WHAT UAB RECYCLES

# CLEAN ALUMINUM CANS

- Where to recycle aluminum cans on campus:
  - Indoor green bins
  - Outdoor metal bins



## WHAT UAB RECYCLES

# CLEAN PAPER

- Where to recycle office paper on campus:
  - Indoor rolling totes (96 gal)
  - Deskside bins



## WHAT UAB RECYCLES

# CLEAN CARDBOARD

- Cardboard dumpsters located across campus
- Cardboard must be flattened
- Food contaminated cardboard cannot be recycled
- Cardboard can also be placed in paper totes



## OTHER ITEMS

# TONER/INK CARTRIDGES

- Recycled through Campus Mail

# ELECTRONICS

- UAB items go to Surplus Warehouse
- Personal items go to UAB Recycling Drop-off.  
Make an appointment at 4-WORK
- Tech Connect?

# UAB Recycling Center

- Drop off hours:
  - Mondays and Thursday
  - 7am-9am and 4pm-5:30pm

# WHY IS THIS AN INSTITUTIONAL PRIORITY?

## Forging the Future: UAB's Strategic Plan 2018-2023

- Stewardship is a Shared Value
- Sustainability touches all mission pillars:
  - Education
  - Research, Innovation, & Economic Development
  - Community Engagement
  - Patient Care





This tree is being protected  
during construction.



**UAB** THE UNIVERSITY OF  
ALABAMA AT BIRMINGHAM  
Knowledge that will change your world

Did you know?

WE HAVE MORE THAN 80 DIFFERENT  
TREE SPECIES ON CAMPUS