

## Green Building CO-CE-PR1

Responsible Officer: Vice President for Administration and Campus Operations

Sponsoring Department: Office of Sustainability

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Errors or changes to: [aim@uta.edu](mailto:aim@uta.edu)

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### PROCEDURE OBJECTIVE

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This procedure provides guidelines for resource sustainability at the University of Texas at Arlington and augments and supports University of Texas System and University of Texas at Arlington guidelines and policies. Energy efficiency, forms of renewable energy production, waste management, and environmental health are the core focus. The Green Building Procedure provides a means to save money, foster environmental awareness, reduce the environmental impact of the University and provide regional and national leadership.

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### SCOPE

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All construction-related activities that impact sustainability for the University of Texas at Arlington.

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### RESPONSIBILITIES

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## Office of Sustainability

- Draft, publish, and implement policies and procedures that reduce the University's impact on the environment
- Actively promote best practices for sustainability
- Maintain current reporting of information that charts the University's progress in sustainability

## Environmental Health and Safety

- Conduct environmental assessments on newly acquired property through the University's Historic Review function in order to reveal any potential for environmental concerns with its prior usage
- Conduct an asbestos survey In those cases where the property structures are demolished: any necessary abatement of hazardous materials as well as the recycling of those products is also determined
- Conduct review of other construction factors that would impact the sustainable nature of the property

## Facilities Management

- Select products that are sustainable for both building construction and consumable products
- Use sustainable building elements as in construction using "green cement" in concrete structures and longer life products including upgraded HVAC system components.

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## PROCEDURES

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### Section I. Energy Efficiency

#### A. Transportation

Alternative forms of transportation to and from campus as well as on campus will be incorporated, where appropriate, in the planning and construction of new and existing facilities throughout the campus.

#### B. Green Roof Initiatives

The term *green roof* may be used to indicate roofs that use some form of "green" technology, such as a cool roof, a roof with solar thermal collectors or photovoltaic modules, or roofs where plants are cultivated. Green roofs are currently in use on campus, and additional opportunities for their use will be sought.

#### C. Cool Roof Initiatives

A cool roof is a roofing system that can deliver high solar reflectance (the ability to reflect the visible, infrared and ultraviolet wavelengths of the sun, reducing heat transfer to the building) and high thermal emittance (the ability to radiate absorbed, or non-reflected solar energy). Cool roofs enhance roof durability and reduce both building cooling loads and the urban heat island effect.

## **Section II. Renewable Energy**

The University will minimize the use of "finite" non-renewable energy by implementing measures that reduce energy consumption in both new and existing buildings. Approaches will include:

- A. Increase in the use of renewable energy sources
- B. Purchase of [renewable energy credits](#)
- C. Minimizing the use of finite materials and resources for demolition projects, renovation, and construction of facilities
- D. Implementation of Storm Water Management
  - 1. Installation of rainwater collection systems
  - 2. Establishment of rill gardens, which filter storm water prior to its leaving the site

## **Section III. Waste Management**

- A. The amount of generated waste produced by existing campus procedures will be minimized and reduced by recycling glass, food waste, paper and cardboard, plastic bottles, etc.
- B. Waste management will be applied to the renovation of existing facilities and construction of new building projects.
- C. Demolition debris from structures removed will be constantly recycled.

## **Section IV. Environmental Health**

Indoor environmental quality for new and existing buildings will be improved.

## Section V. Tracking and Reporting

A. Sustainable procedures utilized in building, renovation, and landscape services will be tracked and reported. This will include the diversion of waste produced by demolition and new construction procedures on all major projects as deemed appropriate.

B. **STARS Report**

The Sustainability Tracking, Assessment, and Rating System report is submitted to The Association for the Advancement of Sustainability in Higher Education. STARS is a transparent, self-reporting framework for colleges and universities to gauge relative progress toward sustainability. STARS was developed by AASHE with broad participation from the higher education community

C. **Carbon Footprint Report**

The report is prepared for the President's Sustainability Committee by an interdisciplinary student/faculty team through a summer course in the School of Urban and Public Affairs. It characterizes the university's greenhouse gas emissions in 2005, forecasts emissions in 2010 and 2020, then proposes a framework for setting reduction targets and develops reduction scenarios based on those targets.

D. **TryParkingIt Reporting**

1. TryParkingIt is a website sponsored by the North Central Texas Council of Governments where commuters can register and find alternative means of transit such as vanpools and carpools.
2. The Office of Sustainability will track the new registration, number of registrants logging rideshare, number of vehicle trips reduced, number of vehicle miles travel reduced, and an emissions breakdown by vehicle type. Those numbers will be used to calculate the amount of air quality emission reduced and the number of miles saved by faculty and staff.

## Section VI. LEED Certification

A. Projects that meet the highest standards of indoor environmental and health standards will be provided in order to obtain LEEDS certification.

B. Where appropriate, facilities will be designed, built, and renovated to comply with the standard rating system, Leadership in Energy and Environmental Design (LEED) as developed by the United States Green Building Council. Within the constraints of program needs and budget parameters, the University will strive to meet the LEED rating system levels for new construction as follows:

<b>Certifiable</b>	<b>Required</b>
Silver	Preferable
Gold	Optional
Platinum	Advanced

- C. LEED is aimed at quantifiably improving performance across issues related to: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.
- D. This system allows for the comparison of similar buildings throughout the public and private sector.
- E. New Construction will include reducing surface parking lots and replacing them with more sustainable features including the landscape, green spaces and tree canopies.

## **Section VII. Campus Community Involvement**

The University will provide the means for the ongoing active participation of students, faculty, staff, administrators, and external representatives in further development and implementation of the green building procedures.

### **A. Faculty and Staff**

- 1. Lights, Computer and other electrical accessories are turned off at the end of the day or when employees are away for long periods.
- 2. Mugs are used instead of disposable cups for drinks.
- 3. Documents are not printed unless necessary. Documents that must be printed are printed on two sides of the page.
- 4. Stairs are used instead of the elevator in order to conserve energy and to promote health through beneficial exercise.
- 5. Video conferencing is used instead of travel to meeting places whenever possible.
- 6. The use of portable heaters and fans is discouraged: appropriate clothing is encouraged instead.
- 7. Maverick Office Green Teams collaborate to meet higher environmental standards for office practices. The program includes extended initiatives in reducing , recycling and reusing, energy conservation, purchasing, and more.
- 8. TXU tree planting on campus
- 9. Campus Climate Action Plan
- 10. Green Event Certification
- 11. University Sustainability Committee, responsible for the Greenhouse Gas Emissions Inventory, ACES student sustainability competition and awards.

### **B. HUB vendor fairs**

### **C. Students**

1. EcoReps green leadership program is for students living on campus. They promote recycling, composting, energy conservation and more within their residence hall.
2. UTA Environmental Society activities

**D. Community**

1. Participation in the City of Arlington EcoFest, Recyclemania, Planet Earth Day festival, etc.
2. Work with Kids in Summer Sustainability Program – volunteers read children's books about sustainability to elementary school children
3. North Central Texas Climate Summit
4. Participation in Bike Friendly Arlington program

**E. Curriculum, Research & Community Engagement**

1. Sustainability Minor In the School of Urban and Public Affairs
2. Summer environmental courses

**Section VIII. Alternative Forms of Transportation**

Alternative forms of transportation to and from campus and on campus will be Incorporated into the planning and construction of new and existing facilities.

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**FORMS AND TOOLS/ONLINE PROCESSES**

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N/A

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**DEFINITIONS**

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**Cool roof** - a roofing system that can deliver high solar reflectance (the ability to reflect the visible, infrared and ultraviolet wavelengths of the sun, reducing heat transfer to the building) and high thermal emittance (the ability to radiate absorbed, or non-reflected solar energy).

**Finite Materials** - finite means it can run out as opposed to infinite (not finite). Oil is a finite material.

**Leadership in Energy and Environmental Design (LEED)** - developed by the United States Green Building Council. This rating system is recognized as an internal green building certification system whose strategies are aimed at quantifiably improving performance across issues related to: energy savings, water efficiency, CO2 emissions reduction, improved indoor environmental quality and stewardship of resources and sensitivity to their impact. This system further allows for the comparison of similar buildings throughout the public and private sector.

**Renewable Energy Certificates (RECs)**, also known as **Green tags, Renewable Energy Credits, Renewable Electricity Certificates, or Tradable Renewable Certificates (TRCs)**, - tradable, non-tangible energy commodities that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource (renewable electricity).

**Rills**, or narrow canals, wind through a backyard garden adding ambiance and the pleasant sound of running water. Formal rills are made of concrete or masonry and typically employ one type of flower for an elegant effect. Informal rills are similar to natural brooks. Water loving plants, such as irises, are planted along edges lined with stone.

**STARS Report** (Sustainability Tracking, Assessment, and Rating System) - a report submitted to the Association for the Advancement of Sustainability in Higher Education (AASHE).

**Urban Heat Island** - An urban heat island (UHI) is a metropolitan area which is significantly warmer than its surrounding rural areas

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## RATIONALE

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This procedure supports sustainability policies of the University of Texas System and the University of Texas at Arlington. With the implementation of a Green Building Procedure, The University of Texas at Arlington is committed to reducing the University's impact on the environment. The implementation of this procedure is based on the ever-evolving best practices of sustainable construction. The University aspires to provide goals that will put forward specific courses of action, standardized methods, and/or consistent series of steps to implement sustainable building, renovation, and landscape procedures. Through these actions, the University of Texas at Arlington strives to be a leader of exemplary initiatives in the sustainable building process. With an ever-evolving understanding of sustainability, the University is committed to regularly review initiatives and best practices in order to augment, develop, and improve the University Building guidelines. The guidelines will be subject to continuous review as sustainable research and education is a continual process.

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## RELATED STATUTES, POLICIES, REQUIREMENTS OR STANDARDS

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UT System Administration Policies and Standards	Other Policies and Standards
UTS169 Sustainability Practices	<i>Sustainability Policy</i> ( <a href="#">HOP ADM 5-305</a> )

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## APPENDICES

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## CONTACTS

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If you have any questions about Procedure 10-2, *Green Building*, please contact the following departments:

Subject	Office Name	Telephone Number	Email/URL
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All topics in Procedure	Office of Sustainability	(817) 272-9299	<a href="mailto:mtare@uta.edu">mtare@uta.edu</a>
Website access	Administrative Information Management	(817) 272-0222	<a href="mailto:aim@uta.edu">aim@uta.edu</a> <a href="http://www.uta.edu/aim">http://www.uta.edu/aim</a>

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WEBSITE ADDRESS FOR THIS PROCEDURE

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<http://www.uta.edu/policy/procedure/10-2>