

# DIVISION 17 - SUSTAINABILITY

## A. RECYCLING CONSTRUCTION & DEMOLITION WASTE

1. Recycle at least 50% or more of all construction and demolition waste (e.g. concrete, wood, asphalt, scrap metal). **Records must be kept of total weights** (in tons) recycled, and reported to LSU staff periodically/as available.

## B. PLUMBING - Install the most efficient appliances/fixtures possible. Consider the following:

1. Install WaterSense-labeled appliances and equipment.
2. If not Water-Sense-labeled, appliances and equipment must meet these requirements:
  - a. Low-flow faucets (1.5 gallons per minute, or lower)
  - b. Sensor-operated faucets (recommended: 0.5 gpm faucets and 15-second shut-off time).
  - c. Low-flow toilets (1.28 gallons per flush, or lower)
  - d. Low-flow urinals (0.5 gallons per flush, or lower)
  - e. Low-flow showerheads (2.0 gallons per minute, or less)

## C. LIGHTING

1. Install the most energy-efficient lighting available for the lighting task. Consider the following:
  - a. LED lighting wherever possible.
  - b. Install occupancy sensors, timer controls, manual dimming, bi-level switching or automatic daylight dimming for more efficient indoor lighting controls.
  - c. Outdoor lighting: consider motion / photo sensor lighting, dimming controls, or timed lighting that turns off for places like electrical yards.

## D. APPLIANCES AND EQUIPMENT

1. Use the following types of appliances:
  - a. Residential clothes washers – ENERGY STAR labeled
  - b. Residential dish washers – ENERGY STAR labeled
  - c. Pre-rinse spray valves - < 1.3gpm
  - d. Ice machines – ENERGY STAR labeled

## E. REFRIGERANT MANAGEMENT

1. Meet the following (small units of 0.5 pounds or less refrigerant are exempt):
  - a. No CFC-based refrigerants used in new HVAC&R systems.
  - b. If reusing equipment, complete a CFC phase-out plan.

#### **F. HVAC / AIR FILTRATION**

1. For new construction, consider conducting a comprehensive commissioning process for mechanical, electrical, plumbing and renewable energy systems in accordance with ASHRAE 0-2005 and 1.1-2007.
2. Consider demand-response program (system for capability with real-time, fully-automated DR).
3. Consider installation of renewable energy systems (solar PV, solar thermal).
4. Consider green power, carbon offsets, or renewable energy certificates (RECs) for project.
5. Systems for filtering outdoor air to occupied spaces must have particle filters or air-cleaning devices that meet one of the following:
  - a. Minimum Efficiency Reporting Value (MERV) of 13 or higher
  - b. Class F7 or higher (CEN standard EN 779-2002)

#### **G. PAINTS, SEALERS, ADHESIVES – Consider using the following for all projects:**

1. Interior paints & coatings – Meet Green Seal Standard GS-11 (for 90% by volume for VOC emissions, and 100% for VOC content)
2. Adhesives, sealants and sealant primers - comply with SCAQMD Rule 1168.
3. Aerosol adhesives – comply with Green Seal Standard GS-36
4. Anti-corrosive and anti-rust paints – comply with Green Seal Standard C-03
5. Clear wood finishes, floor coatings, stains, primers, sealers applied to interior elements – SCAQMD Rule 1113.

#### **H. FURNITURE / MATERIALS - Generally furniture comes from state-contracted materials. In the event that we are procuring furniture outside of the state contract, consider the following specifications:**

1. Composite Wood - Must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEE) resins or no added formaldehyde resins.
2. Furniture - Must comply with ANSI/BIFMA e3-2011 Furniture Sustainability Standard, Sections 7.6.1 and 7.6.2, using either the concentration modeling approach or the emissions factor approach
3. Carpet Systems - Must meet testing and requirements of Green Label Plus program (VOC limit of 50 g/L)

#### **I. ROOFING MATERIALS**

1. For roofs that will not use the standard terracotta tiles, use materials having a Solar Reflectance Index (SRI) equal to or greater than 78 for low-sloped roofs or 29 for steep sloped roofs for a minimum of 75% of the roof surface.
2. Consider green or vegetated roofing.

**J. PARKING LOTS / PAVING MATERIALS**

1. Consider using porous or semi-pervious pavement (e.g. porous asphalt, pervious concrete, interlocking concrete blocks, and gravel/grass pavers, brick pavers) to help manage stormwater. Consider pervious pavement for either entire parking surface, or parking stalls, crosswalks and overflow lots.
2. Consider using paving materials with Solar Reflectance Index of at least 29
3. Consider installation of swales, retention basins, vegetated buffer strips, infiltration systems, constructed wetlands and/or rain gardens (bioretention areas) to help manage stormwater.
4. Materials - Consider use of recycled asphalt, recycled rubberized asphalt

**K. SITE SELECTION / LANDSCAPE**

1. Minimize runoff and erosion on steep slopes (maximum slope of 3:1 for grassy slopes, or 2:1 slopes without turf or ground cover).
2. As much as possible, avoid removing any mature live oaks or other trees.
3. Reuse trees and shrubs where possible.
4. Recycle/compost all cleared vegetation.
5. Retain as much of the existing native landscaping as possible.
6. Use native plant species
3. Use irrigation techniques that are water-efficient: consider low-flow sprinkler systems, soaker hose, drip or subsurface irrigation.
4. Incorporate large trees into the landscape plan.
5. Incorporate clusters of trees into the landscape plan.
6. Incorporate undergrowth into the landscape plan.
7. Install root protection to protect tree roots from compaction during construction.
8. Provide sediment control barriers where fill or excavate will be temporarily located