



# Sustainable Buildings and Sites Policy

## Overview for Infrastructure and Interior Projects

*The Sustainable Buildings and Sites Policy sets standards for the design, construction, operations, and maintenance of Metro buildings and developed properties. This document focuses on requirements for infrastructure or interior projects. This includes all projects that the policy applies to in the Capital Improvement Plan (CIP) that are not new construction or major renovations. Separate overview documents cover new construction/major renovation project requirements, and operations and maintenance standards for existing buildings.*

### What applies to my project?

Project managers will work through a checklist of policy requirements for each new project to specifically identify the needs of the project depending on its specific scope and opportunities. This overview summarizes policy requirements that may apply to infrastructure (e.g., paving, water systems, utilities) or interiors (e.g., renovation of small spaces within a building, equipment, furnishings) projects.

### Appendix B requirements

#### **Bird-friendly design**

These requirements prevent bird injury and mortality from the built environment and apply if:

- The project includes one or more structures with a footprint of more than 500 square feet
- The project includes one or more monopole structures
- The project includes one or more wind energy facilities
- The project involves a change to 25% of an existing building façade with exterior alterations
- The project involves installation of trail or building lighting, glass railings or exhibit windows, a glass corridor/walkway, etc.
- Exemptions are allowed when accidents, severe weather events, and other emergency situations require immediate replacement of existing glass and infrastructure

#### **Materials carbon reduction**

- Reduction in the embodied carbon of primary materials, furniture, equipment, and interior finishes (resources to support these reductions will be expanded over time)
- All concrete shall comply with the city of Portland's Concrete Embodied Carbon Thresholds
- Evaluate use of MetroPaint before specifying finishes

### **Sustainable roof requirement**

Projects with roof construction or replacement of 1,000 square feet or more must evaluate and implement the most suitable roof option:

- **Solar power generation** – highest priority due to clean energy generation
- **Ecoroof** – next-highest priority to mitigate storm water, provide habitat and combat heat island effect
- **High reflectance roof** – lowest priority; combats heat island effect

### **Tree replacement requirements**

For all capital improvement projects on Metro property other than parks and natural areas, avoid tree removal to the extent feasible. If live tree removal occurs, the tree replacement requirements apply unless local jurisdictional requirements exceed it.

## **Equity outcome requirements**

### **Design to mitigate urban heat island**

Concentrated concrete and other paved areas can create an “urban heat island” effect where trapped heat causes temperatures to increase and stay hot for longer, creating stressful and even deadly microclimates. Project teams will explore opportunities to reduce urban heat island effect on and surrounding the site within the scope of the project.

### **Welcoming design**

Opportunities to create a welcoming environment may include providing signage in different languages, the inclusion of art, or furniture for resting.

### **Design for accessibility**

Any ADA requirements must be met as a baseline, but additional opportunities may be available depending on scope.

### **Minimize toxic building materials**

Prioritize low VOC paints, furnishings and materials, and products without formaldehyde. Additional opportunities for less toxic materials may be identified on a project-by-project basis.

### **Equity in contracting and advance workforce diversity**

[Metro’s Construction Career Pathways and the Subcontractor Equity Requirement](#) serve as the baseline for this requirement. Any additional efforts around equity and diversity in contracting should be documented to further our development of best practices.

### **Respect culturally significant areas**

This requirement has two elements. If a project includes ground disturbance, measures must be taken to ensure that any culturally significant artifacts are treated appropriately. Some projects may also have opportunities to celebrate culturally significant areas through art, educational materials, or other means.

## **Sustainability goal requirements**

Metro has adopted goals for addressing greenhouse gas emissions, toxics, waste, water, and habitat. The first three goals are embedded into a variety of policy requirements, and the remaining two goals are addressed here.

**Water**

Metro's sustainability goal for water is to reduce water use to 50% below 2008 levels by 2025. All projects that include water infrastructure should explore opportunities to reduce water use, particularly in irrigation.

**Habitat/stormwater**

Metro's sustainability goal for habitat and stormwater is for Metro's parks, trails and developed properties to positively contribute to healthy, functioning urban ecosystems and watershed health. All projects should explore opportunities to incorporate habitat-friendly and sustainable stormwater practices.

## Operational requirements

**EV infrastructure**

Any project that replaces or repairs a parking area should at minimum include electrical capacity and conduit with wiring to supply future EV charging stations and should consider installation of EV charging equipment as part of the project.

**LED lighting**

All new lighting must be LED.

**Energy Star appliances and equipment**

All new appliances and electronic equipment purchased shall achieve the highest Energy Star efficiency rating where certified products are available unless an alternative product demonstrates a better performance over the life of the product.

**WaterSense water fixtures**

All new water fixtures (toilets, faucets, etc.) must be EPA WaterSense certified unless an alternative product demonstrates a better performance over the life of the product.

**Most efficient available system**

Systems upgrades in Metro buildings shall require selection of most efficient options available and applicable for that system.

**Energy Trust of Oregon incentives**

Replacement or upgrade of lighting, HVAC equipment, or domestic hot water equipment shall, at a minimum, require installation of energy efficient options for which financial incentives are available from the Energy Trust of Oregon or other energy efficiency incentive resources. Project managers shall apply for any incentives available from ETO for energy efficient equipment at the start of a project. If options are available that conserve more energy than those that are incentivized by ETO, those may be selected.

**Submetering**

Projects shall be evaluated for the installation of submeters to provide targeted energy use information to help optimize energy performance.

**Total cost of ownership/lifecycle assessment**

Total cost of ownership and lifecycle assessment shall be used in the decision-making criteria for selection of retrofit or replacement projects, rather than simple comparison of the initial first costs.

**Transition away from fossil fuels**

Projects should work to reduce the use of fossil fuels and fossil fuel combustion at existing facilities through efficiency and the replacement in part or in whole with less, or non-emitting renewable or low-carbon alternatives.

**Campus-scale opportunities**

When multi-building redesign projects occur at a campus site, such as at the Oregon Zoo or Expo Center, a holistic approach to sustainable operations will be integrated into the design process to address the challenges and opportunities in campus projects towards achieving Metro sustainability goals.