

Saint Paul Overlay

In addition to certification with one of the Sustainable Building Standards, projects complying with the Saint Paul Sustainable Building Ordinance (SPSBO) must also meet and document the requirements laid out in this section, referred to as the *Saint Paul Overlay*. The Ordinance states that the Overlay must require specific measurable requirements in the following areas:

- Predicted and actual energy use
- Predicted greenhouse gas emissions
- Predicted and actual use of potable water
- Predicted use of water for landscaping
- Diversion of construction waste from landfills and incinerators
- Indoor environmental quality
- Stormwater management
- Ongoing monitoring of actual energy and water use

While achieving the Overlay requirements may contribute toward compliance with one or more of the identified *Sustainable Building Standards*, some additional documentation of compliance with the *Saint Paul Overlay* must be completed.

The following section lists the requirements of the *Saint Paul Overlay*, the required method(s) of demonstration of compliance, and the time at which this is due to be reported to the *Sustainability Facilitator*. Some of the *Overlay Requirements* have coordinating or overlapping reporting requirements; these are reordered to streamline project teams reporting.

List of Overlay Requirements:

1. Predicted and actual energy use
Predicted greenhouse gas emissions
Ongoing monitoring of actual energy use
2. Predicted and actual use of potable water
Predicted use of water for landscaping
Ongoing monitoring of actual water use
3. Diversion of construction waste from landfills and incinerators
4. Indoor Environmental Quality
5. Stormwater Management

Overlay Requirement 1: Meet SB 2030 Energy Standard

Tracked in B3 Tracking Tool

Meeting this requirement during design and construction will document compliance with the following items:

- Predicted and actual energy use
- Predicted greenhouse gas emissions
- Ongoing monitoring of actual energy use

Overlay requirement:

Project teams must demonstrate that projects meet the State of Minnesota's SB 2030 Standard during both design and through 10 years of occupancy. The SB 2030 Standard sets an absolute energy target in Energy Use Intensity (EUI) in annual kBtu/sf based on the building's program and schedule. This standard is based on the following reduction from a 2003 baseline average building: 70% from 2015 through 2019, 80% from 2020 through 2024, and 90% from 2025 through 2030. Achieving this energy target may be done through improvement in energy efficiency and/or on-site renewable energy. Owners of campuses or sites that are greater than, and contiguous with the specific project site are permitted to locate new renewable systems that contribute to meeting SB 2030 anywhere on that campus, not merely on the portion associated with the relevant SPSBO project.

The SB 2030 program documentation is available at <http://www.b3mn.org/2030energystandard/> Multiple paths may be available for projects, including methods for smaller buildings (under 20,000ft²) with more limited energy modeling requirements.

Overlay Requirement 2: Indoor and Outdoor Water Efficiency

Tracked in B3 Tracking Tool

Meeting this requirement during design, construction, and operation will document compliance with the following items:

- Predicted and actual use of potable water indoors
- Predicted use of water for landscaping
- Ongoing monitoring of actual water use

Overlay requirement:

The project shall achieve the following:

Indoor water use: Reduce predicted and actual municipal potable water or harvested groundwater use in the building by 30% compared to code (Energy Policy Act of 1992) for any fixture types and water consuming appliances referenced by that standard. The criteria may be met by any combination of: selection of low or no flow fixtures, use of alternatively sourced water, or other strategies.

Outdoor water use: Design and maintain landscape so that after a 2-year establishment period, the landscape uses 50% less municipal potable water or harvested groundwater for irrigation than a base case landscape design. Exceptions: 1: annuals are exempt. Site-harvested rainwater, stormwater, or gray or wastewater treated on-site to tertiary standards does not count toward the consumption limits.) The criteria may be met by any combination of selection of native or low water use plants, use of alternatively sourced irrigation water as described, use of high-efficiency irrigation systems, or other strategies. In order to verify compliance with this guideline during operation of the building, it is necessary to sub-meter irrigation separately from indoor water consumption.

Overlay Requirement 3: Construction Waste Diversion

Tracked in B3 Tracking Tool

Meeting this requirement during design and construction will document compliance with the following items:

- Diversion of construction waste from landfills and incinerators

Overlay requirement:

Divert at least 75% (by weight) of construction, demolition, and land-clearing debris from landfill and incinerator disposal. Waste reports must be specific to the project and not include waste data from other sources.

Overlay Requirement 4: Indoor Environmental Quality

Tracked in B3 Tracking Tool

Meeting this requirement during design and construction will document compliance with the following items:

- Indoor Environmental Quality

Overlay requirement:

Projects must meet all of the following:

- Projects not regulated under the Minnesota State Residential Code must achieve ventilation rates of not less than that required by the Minnesota State Energy Code or ASHRAE 62.1, whichever is more stringent.
- Projects regulated under the Residential Code must meet the Residential Code Minimums or ASHRAE 62.2, whichever is more stringent.
- Projects must document a Construction IAQ Management Plan, including following the SMACNA IAQ Guidelines for Occupied Buildings Under Construction, 2nd edition, if any portion of the building is occupied during construction.
- Document that the project is designed to meet the design, operating, and performance criteria of the most current version of ASHRAE 55.
- All newly installed interior materials must comply with the California Department of Health (CDPH) Standard Method v1.1-2010 and be certified as low-VOC. Interior materials are considered to be those within the least vapor-permeable most continuously-sealed layer.

Overlay Requirement 5: Stormwater Management

NOT *Tracked in B3 Tracking Tool – must work with Saint Paul Water Resource Coordinator to document compliance*

Meeting this requirement during design and construction will document compliance with the following items:

- Stormwater Management

Overlay requirement:

Sites with 1/4 acre or more of total land disturbance must meet the following three criteria:

- Water Quality Management: For a two-year, 24-hour rainfall event, provide treatment systems designed to remove 80% of the average annual post-development Total Suspended Solids (TSS) and remove 60% of the average annual post-development Total Phosphorus (TP), by implementing Best Management Practices (BMP's)

outlined in “Urban Small Sites Best Management Practices” handbook (Metropolitan Council), “Protecting Water Quality in Urban Areas” (Minnesota Pollution Control Agency), or the “Minnesota Storm Water Manual” (Minnesota Pollution Control Agency). All BMP treatments systems for the subject site shall include safety factors, maintenance, and a backup plan in case of failure. All manufactured devices require independent laboratory testing to confirm product claims.

- Volume Control/Infiltration: Maintain or increase infiltration rates from pre-project site conditions.
- Operation and Maintenance: All practices must have an Operation and Maintenance plan