

City of Minneapolis  
Sustainable Building Policy  
Planning Team DRAFT

11/18/2021

# Table of Contents

Topic	Page
Executive Summary	3
Introduction and Background	4
Policy Components	7
Overlay Requirements	11
Energy/Carbon	13
Water	15
Resilience	16
Site	17
Indoor Air Quality	20
Materials	23
Equity	25
Process	29
Approved Building Standards	34

# Sustainable Building Policy: Executive Summary

This Sustainable Building Policy is City of Minneapolis' comprehensive standard of requirements for all buildings that are owned, operated, or leased by the City for municipal operations. The built form environment (industrial, commercial, and residential buildings) emits more than two-thirds of the greenhouse gas emissions (GHGs) in Minneapolis through electricity generation and natural gas combustion. In order to attain Minneapolis' climate goals of reducing GHGs by 80% in 2050 from a 2006 baseline, the City's built form environment will need drastic energy efficiency improvements, renewable energy generation, and energy conservation measures. This policy uses an overlay approach that will incrementally increase energy conservation and reduce carbon resulting in net zero energy, carbon-neutral buildings by 2030.

While Minneapolis formally declared a climate emergency on December 13, 2019 to halt, reverse, and address the consequences and causes of climate change, the City continues to grapple with a legacy of institutionalized and systemic racism epitomized by the murder of George Floyd on May 25, 2020. As the City formally declared racism as a public health emergency on July 25, 2020, the disproportionate impact of the COVID-19 pandemic on Black, Indigenous, People of Color, and immigrant populations reinforces that the built form environment is just one piece of the complex and interwoven mosaic that impact Minneapolis residents differently according to their race. As such, this sustainability policy fulfills environmental criteria while also prioritizing the health, wealth, and daily well-being of Minneapolis communities beginning with prioritization of communities of color and the City's Green Zones. To this extent, all projects will incorporate elements of community engagement, workforce and community wealth development, and environmental worksheet assessments (when applicable) to begin to address inequities.

This document addresses standards for all buildings that are City owned, operated, or leased for municipal operations. In addition to achieving required overall building LEED Gold certification, this document establishes requirements for the following sustainable building overlay criteria:

- Energy
- Water
- Resilience
- Equity
- Site
- Indoor Environmental Quality
- Materials

# Introduction and Background

This document includes the recommendations, policy goals and policy framework for creating a Sustainability Building Policy for City Enterprise owned or leased buildings. The Policy may be applied to all City of Minneapolis newly constructed or renovated projects, as approved by City Council over time.

This Sustainability Building Policy is a direct-action response to the [Sustainable Building Policy Resolution](#) which accompanied the [Declaration of a Climate Emergency](#) approved by City Council on December 13, 2019 as part of the City's declaration of a climate emergency. There is overwhelming scientific consensus that climate change is a real and major threat to human civilization primarily caused by the combustion of fossil fuels. Climate change disproportionately impacts Black, Indigenous, People of Color and Immigrant Black, Indigenous, People of Color and immigrant (BIPOCI) communities and low wealth communities. This policy aims to provide guidance on how to construct and renovate buildings which improves indoor and outdoor air quality, building comfort and reduces energy costs for its occupants. Buildings are the City's single largest source of greenhouse gas emissions contributing to climate change. Buildings and their uses account for 71% of greenhouse gas emissions in Minneapolis because of the fossil gas that is used for heating, cooling, and electricity.

The [Minneapolis Climate Action Plan](#) was adopted in 2013 and provides a road map toward reducing greenhouse gas emissions (GHG) with targets of 15% by 2015 and 30% by 2025. In 2014, Minneapolis passed an 80% reduction goal by 2050 and formed the Clean Energy Partnership with Xcel Energy and CenterPoint Energy. Minneapolis has met its 2015 goal of a 15 percent reduction in emissions. However, according to the [2019 Citywide GHG emissions](#) report the city is not on track to reach its 2025 or 2050 goals.

As the City evaluated methods toward reducing carbon emissions by 80% or more through these efforts it became clear that increasing City sustainable design requirements is a critical component to achieving that goal under existing conditions. Current policy requires that City owned projects achieve a minimum of USGBC's LEED Silver using version 2.0 or more. In many cases the City has exceeded this standard and achieved a LEED Platinum rating. However, meeting carbon emission reduction goals in conjunction with the City's Climate Action Plan will require not only incremental increases in building efficiency, but also creating buildings that become assets to their communities, reduce air pollution, retain storm water, reduce heat island effects, and create local resiliency.

## Introduction and Background continued

In addition, the Minneapolis 2040 Comprehensive Plan includes a goal of Climate Change Resilience, identifying energy efficiency and renewable energy as crucial components. The Plan includes an ‘Energy Efficient and Sustainable Buildings’ policy which calls for “... steep increases in energy efficiency of buildings through retrofits, design of new buildings, and decarbonization options while promoting sustainable building practices for new and existing construction.” (Minneapolis 2040). This policy demonstrates leadership and commitment to the 2040 vision of sustainably designed, constructed, and operated buildings with reduced operational costs and a healthy, comfortable, and productive work environments.

In conjunction with the City’s Division of Sustainability, Community Planning and Economic Development (CPED), Finance and Property services, and city council staff met throughout 2020-21 to develop a sustainability policy for City owned properties. The City also contracted with The University of Minnesota Center for [Sustainable Building Research \(CSBR\)](#), to assist with the development of the Sustainability Building Policy.

## Sustainable Building Policy Goal

The goal of the sustainable building policy for municipal facilities is to maximize the environmental quality, economic vitality and social health of Minneapolis through the design, construction, operation and maintenance of city owned and leased buildings and sites. The objectives are to reduce the negative impacts on the environment and improve the health and comfort of buildings occupants through the reduction of fossil fuels, maximizing sustainable electrification of heating and cooling systems, minimizing waste, and creating healthy indoor and outdoor environments for people plants and animals. The policy will help the City of Minneapolis meet its goals of 30% greenhouse gas emissions reductions by 2025 and 80% by 2050. It will also help improve local environmental resource (such as air and water quality), increase climate resilience, reducing heat island, flooding, invest in skill development and local employment of Minneapolis residents, engage communities, and build community assets and amenities.

In addition to minimizing the negative impact to the environment and surrounding community, this policy will enhance and fortify City facilities with resilient and adaptive building operations in the face of increasingly uncertain climate. Maximum electrification with on-site renewable energy along with fossil gas backup systems allows for consistent, reliable, and minimal-impact service while also allowing for offset energy production during utility high-demand peak hours.

# Community Engagement in Development of the Policy

The recommendation for a Sustainability Building Policy, specifically for City owned municipal buildings, has been a common theme expressed throughout various community engagement initiatives held by multiple City departments over the last three years. Through the Minneapolis 2040 Minneapolis Homes, and Community Environmental Organization outreach there was a consistent desire to develop affordable housing for residents in Minneapolis who have been historically most impacted by the negative implications of climate change. In addition, members of the Energy Vision Advisory Commission, Community Environmental Advisory Commission, and Green Zone task forces members have expressed support for healthier, energy efficient and low carbon buildings.

With this initial community support, the Office of Sustainability working with the University of Minnesota Center for Sustainable Building Research (CSBR) and an inter-departmental planning team to develop a draft policy identifying key sustainability criteria. This draft policy established a framework upon which community and citizen engagement and feedback could be incorporated.

## **Community Engagement**

In both the drafting and development of this policy, community groups and individuals were consulted for insight and recommendations for both policy criteria categories and impact standards. Presentations and feedback occurred with groups including the Minneapolis Community Environmental Advisory Committee, the Green Zone Tasks Forces, the Green Zone Development Criteria working group, Sierra Club, Audubon Society, and Community Power.

# Policy Components

## Policy Definitions, Requirements, and Application

### City Owned and Operated Properties

This policy applies to all City owned new construction projects that are over 10,000 square feet. Special-use facilities such as fire/police stations, garages, maintenance facilities, and other atypical buildings will be considered on a case-by-case basis. The Planning Team, including Sustainability and Facilities staff, will review special-use considerations while still incorporating as many policy criteria as is feasible.

This policy will apply to all additions, renovations, and site work (including workspaces) on buildings that the City owns or leases when project costs are 50% or more of the total building valuation.

For renovation projects less than 50% of the total building value and leased space not owned by the City, this policy will be used as a best practices guide and evaluate on a case-by-case basis any renovations required by the City, proprietary ownership of HVAC, electrical, and water systems, and other considerations that affect the City's influence. When the City is determined to have influence in renovations that fall within policy criteria, these policy standards will apply.

### Submission Requirements

City owned and operated projects required to meet this policy will coordinate with and submit relevant documentation to City of Minneapolis Sustainability staff for approval of compliance with this policy.

# Requirements for Community Engagement Process and Timeline

When the City has identified a new project prior to building site developed design and location to move forward with a new building, the City's Project Team staff will develop a process for meaningful community engagement. Throughout the development of the project, the Team will utilize the City of Minneapolis [Racial Equity Impact Analysis](#) and [guide](#) at the beginning of design and at the end of construction to evaluate the project's potential and real impacts on the Black, Indigenous, people of color and immigrants, (BIPOCI) in the community surrounding and interacting with the project. Project teams are encouraged to evaluate the project's racial equity impact assessment with the impacted residents.

The community engagement activities must be equitable and involve the local community members most affected by the proposed building project, especially BIPOCI, low-wealth people, neighborhood groups, community organizations, people living with disabilities, and new immigrants.

The community engagement must include discussion with the impacted community about the project's vision, design and plan. The engagement must include processes for impacted residents, specially BIPOCI to share their assessment and evaluation of the project's plan and design, including risk of involuntary displacement, identify displacement pressures and create a community needs that could be met through the project plan. The concerns of impacted communities must be addressed and treated as opportunities to create real and meaningful solution. These efforts must be documented and shared publicly.

Community engagement must begin early in the project timeline before project designs are complete and proposed and occur frequently throughout design and project development. Any significant changes to the scope of the project related to size, functionality, or impact will require additional community engagement.



# Workforce and Community-Wealth Building

The Minneapolis Sustainable Building Policy will adhere to all requirements as listed under the most recent version of the Contracts Compliance Division within the Civil Rights Department. As of this publishing, this requires for all City owned and invested projects valued at \$100,000, prime contractors and subcontractors are expected to make a good faith effort to meet the following aspirational workforce goals:

At least 20% of the total project labor hours to be performed by women workers

At least 32% of the total labor hours to be performed by Black, Indigenous, People of Color, or Immigrant workers.

On all contracts in excess of \$100,000, Prime Contractors must have an approved AAP on file with the City prior to contract signing. The Civil Rights Pre-Award Review will cover the above program areas and ensure Primes understand the requirements. Prime Contractors are expected to share these program requirements with subcontractors; Primes are accountable for subcontractor non-compliance.

Additionally, the project team must create a plan and explain:

- The project team is encouraged to use the [Equitable Development Scorecard](#) and evaluate the project's community engagement, land use, economic development, and transportation practices.
- How the project enhances community health through public amenities (parks, open spaces, complete streets), access to affordable healthy food and other community-serving spaces.
- Assess and evaluate the impact of the project to the residents in the neighborhood, and specially to the BIPOCI communities, including anticipated involuntary economic and cultural displacement. The project team must identify populations vulnerable to displacement pressures and identify plans and strategies that would lead to stabilization and minimize burdens caused by the investments.
- Project team should explore solutions and policies that give residents preference for certain programs based on ties to community or because of risk of displacement.

All projects are required to include a plan for creating physical space for small businesses, non-profit, community-centered building-spaces, culturally-specific commercial and cultural enterprises, and other community spaces for economic development support.

# Environmental Assessment Worksheet

An Environmental Assessment Worksheet (EAW) is required for all City-owned new buildings or substantial renovations for projects:

- in communities with identified pollutants above health benchmarks as measured by the [MPCA's MNRISKS analysis](#) or City of Minneapolis assessment;
- for buildings over 25,000 square feet or which have a change in use that increases air pollution or traffic over the current use;
- for sites consisting of development greater than .5 acres.

An EAW (or EIS if available) is required for all City-owned new buildings or substantial renovations located in the Green Zones (Page 33).

## Social Cost of Carbon

In cases where this policy uses economic criteria to determine whether a project technology, material, process, purchase, or any other feature which creates significant carbon emission is implemented or the amount of carbon emissions allowed from said feature, the social cost of carbon (SCC) will be applied. The social cost of carbon is the value of carbon dioxide that accounts for the impacts of climate change, including changes in agricultural productivity, ecosystem services, and environmental damages. The most current value of the social cost of carbon will be used. As of this publishing, this range of costs is determined by both the [White House](#) and the Minnesota Public Utilities Commission (PUC) [docket CI-14-643](#). In December of 2019, a Minneapolis City Council [resolution](#) established that the social cost of carbon for climate and energy policy and projects be set at the "High" value of the PUC.

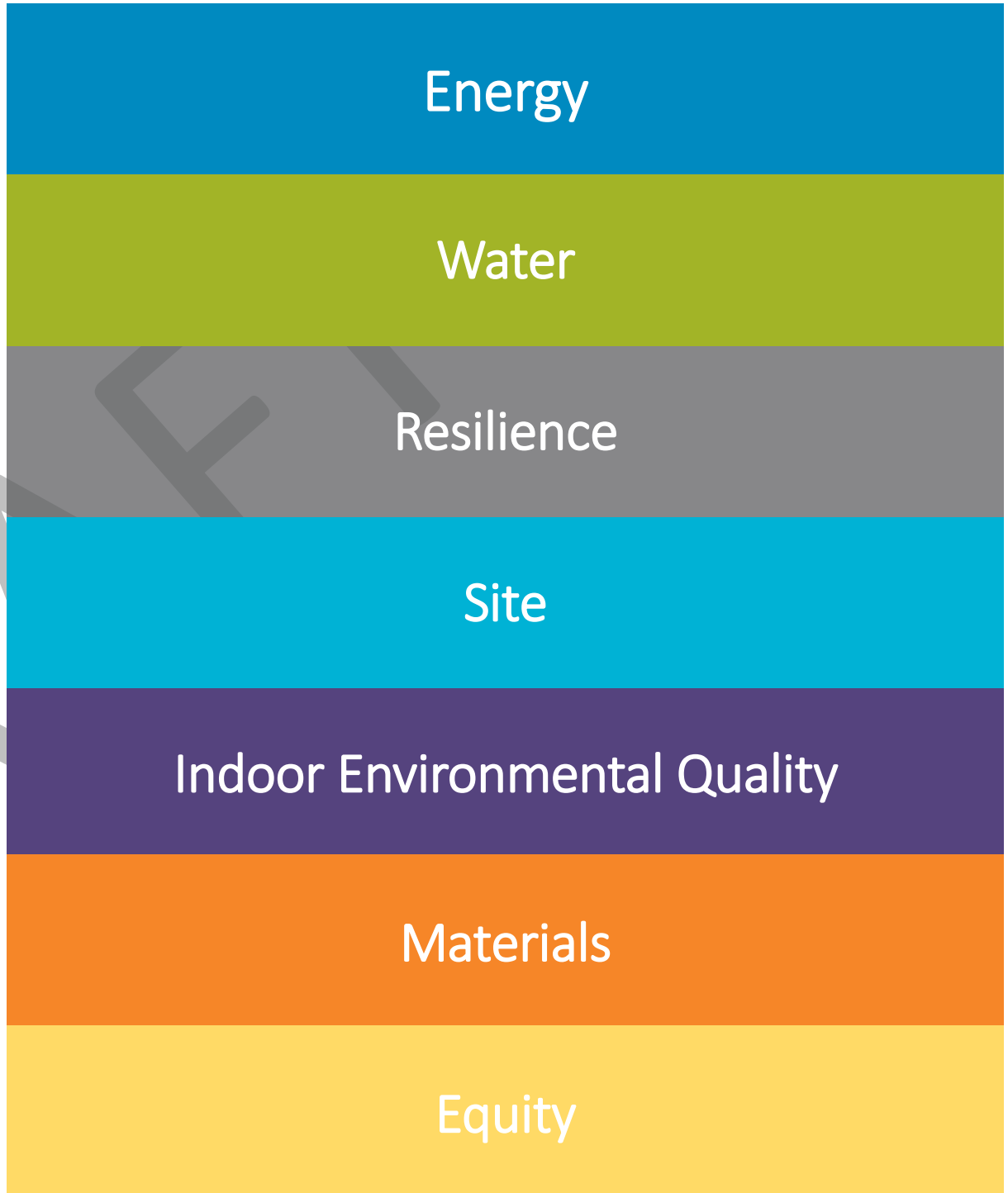
The current marketplace does not take into account this social cost of carbon. Increasing and including the social cost of carbon in this policy results in a higher return on investment and economic justification for carbon-reducing features above and beyond what the current marketplace allows. In addition, incorporating on-site renewable energy and storage increases resiliency of City operations, provides security for emergency operations, and can offset utility energy production in high-demand peak hours. When applicable, energy generation, storage, and distribution systems may provide extra backup with simple payback calculated using the expected life of the building instead of the 15-year threshold.

# Policy Overlay Requirements: City of Minneapolis Owned and Operated Municipal Projects

## **Introduction and Intent:**

This overlay is designed to ensure that buildings owned and operated by the City of Minneapolis support and demonstrate the priorities of the City. The Minneapolis Sustainable Building Policy allows certification through a variety of standards to provide a flexible policy that accommodates a wide variety of project types, sizes, and budgets. These certifications are achieved in different ways and can produce slightly different versions of a 'sustainable building'.

To establish a consistent basis, the Minneapolis Sustainable Building Policy specifically requires compliance with the multiple overlay items. Many of these requirements are included in the approved sustainable building standards, but may be considered 'optional' in the standard, or may have a different target than is appropriate to this policy. The overlay topics include: Energy, Water, Resilience, Site, Indoor Environmental Quality, Materials, and Equity. The specific requirements for each topic are detailed below.



Sustainable  
Building Policy  
Categories

# Energy

## Total Annual Energy Use

## Renewable Energy

### Overlay Description:

### Requirement

### Entity

#### Total Annual Energy Use

##### *Sustainable Building 2030*

Projects must meet Minnesota's SB 2030 Standard using an adjusted Social Cost of Carbon (SCC) established by the City of Minneapolis during design and using throughout occupancy. Energy Use Intensity (EUI) (kBtu/ft<sup>2</sup>) targets are based on the building's characteristics, program, and schedule. Reductions are measured from a 2003 baseline average building. Targets are achieved through energy efficiency and on-site renewable energy with preference toward electrification.

All electric and gas meter data must be compiled into and uploaded to the City of Minneapolis Benchmarking program.

SB 2030 program documentation is available at <http://www.b3mn.org/2030energystandard/>. Multiple paths are available for projects, including buildings under 20,000ft<sup>2</sup> with limited energy modeling requirements.

Reduction from a 2003 baseline building

**80%** from 2020 - 24  
**90%** from 2025 - 30  
**Net Zero** 2030 +

Submit meter data to Minneapolis Benchmarking

CSBR in partnership with the Center for Energy and Environment (CEE) will perform energy modeling through SB 2030 program

City Facilities staff will submit building utility data in compliance with the existing Energy Benchmarking Program

#### Renewable Energy

##### *Sustainable Building 2030*

Projects must strive to implement a renewable energy system designed to meet at least 10% of the annual energy need of the project through on-site solar and/or wind renewable energy systems, if determined cost-effective and if site conditions allow. Cost-effectiveness is achieved when the system-lifetime cost of on-site renewable supplied energy is less than that supplied by available utility using the Social Cost of Carbon (SCC) established by the City of Minneapolis and a 15-year simple payback. It may be necessary to supply more than 10% of the energy needs to meet the SB2030 Energy Standard. Properties greater than and contiguous with the specific project site may locate new renewable systems to meet SB 2030 anywhere on the campus.

10% on-site renewable energy

All buildings must be built to solar-capable standards.

CSBR in partnership with the Center for Energy and Environment (CEE) will perform energy modeling through SB 2030 program

In coordination with CSBR, Property Services will include requirements in the request for proposals.

# Energy

## Electric Vehicle-Ready Parking

### Overlay Description:

### Requirement

### Entity

#### Electric Vehicle Supply Equipment

The project must provide Electric Vehicle Supply Equipment (EVSE) infrastructure to permit future electric vehicle charging. The Project Manager will work with City staff to determine the type of vehicles to be used on-site to determine the number of EV charging spaces to be installed. Parking requirements shall strive to consist of:

- Dedicated space for future electrical distribution equipment to support EVSE
- Meeting EV charging requirements in Chapter 541 of the Minneapolis Zoning Code: Off-Street Parking and Mobility.

Considerations for locations of ESVE should include the ability for accessible parking to access charging capability.

EV-ready infrastructure for all parking spaces

Electrical capacity to charge 20% of total parking spaces

Property Services will include requirements in the request for proposals.

# Water

## Meter and Report Potable Water

## Reduce Indoor Potable Water Use by 50%

### Overlay Description:

### Requirement

### Entity

#### Meter and Report Potable Water

Install permanent water meters that measure potable water use for the building (indoor use) and associated grounds (outdoor use). Indoor and outdoor use must be metered separately at the building level. Meter data must be compiled into monthly and annual summaries and uploaded to the B3 Tracking Tool and the City of Minneapolis Benchmarking program.

Separate metering and tracking for indoor and outdoor potable water use

Submit meter data

City Facilities will submit building data in compliance with the Energy Benchmarking Program

#### Reduce Indoor Potable Water Use By 50%

Reduce predicted and actual municipal potable water or harvested groundwater use in the building by 50% compared to code (Energy Policy Act of 1992) for any fixture types and water consuming appliances referenced by that standard. The City encourages this criteria to be met by any combination of: use of alternatively sourced water including greywater or rainwater, selection of low-flow, dual flow, or no flow fixtures, or other strategies.

50% reduction from 1992 EPA Baseline

Property Services will include requirements in the request for proposals.

# Resilience

## Natural Hazard Assessment and Design Response

## Assessment of Renewable Energy Generation and Battery Storage

### Overlay Description:

### Requirement

### Entity

#### Natural Hazard Assessment and Design Response

The project team shall undergo an assessment process to identify any hazards and vulnerabilities based on site location and conditions. Hazards include, but are not limited to, urban heat, flooding and overburdened storm sewer system, drought, impaired local surface water, and extreme weather events. The project team will establish a resilient goal and design response which must be implemented.

Hazard assessment and design

Finance and Property Services will include requirements in the request for proposals.

#### Assessment of Renewable Energy Generation Battery Storage

The project team shall identify critical electrical loads in the project and assess the feasibility of supplying a system including energy generation and storage with capacity to serve critical loads in the event of an electrical grid disruption.

The project team in consultation with the sustainability will evaluate a renewable energy + battery storage alternative to a natural gas generator if a backup energy source is required to maintain building operations. The cost-benefit evaluation will be developed in consultation with the sustainability office and include an assessment of the city's social cost of carbon.

Renewable energy storage assessment

CSBR in partnership with the Center for Energy and Environment (CEE) will perform energy modeling through SB 2030 program.

Finance and Property Services and Sustainability will evaluate energy storage feasibility.



# Site

## Irrigation

Overlay Description:	Requirement	Entity
<p>Eliminate Potable Water for Irrigation Design and maintain landscape so that after a 2-year establishment period, the landscape requires no municipal potable water or harvested ground water for irrigation. Any amount of site-harvested rainwater, storm water, or gray or waste water treated on-site to tertiary standards may be used. The criteria may be met by any combination of: selection of native, low water-use and pollinator plants, use of alternatively sourced irrigation water such as grey water or rain water capture, use of high efficiency irrigation systems, or other strategies.</p> <p>Sub-metering irrigation separately from indoor water consumption is necessary for compliance.</p> <p>Program areas including turf grass and annuals are exempt .</p>	<p>No potable irrigation</p> <p>Sub-metered indoor and outdoor sources</p>	<p>Finance and Property Services will include requirements in the request for proposals.</p>
<p>Stormwater Management. Any project on a site with an area of .5 acre (21,780 ft<sup>2</sup>) shall meet the guidelines and requirements described in the most recent version of the City of Minneapolis Stormwater and Sanitary Sewer Guide. City owned projects will seek to retain all stormwater on site or in conjunction with a neighborhood retention strategy.</p>	<p>Comply with Chapter 54 Stormwater Management Ordinance</p>	<p>Finance and Property Services will include requirements in the request for proposals.</p>

## Stormwater Management

# Site

## Bird Strike— Whole Building Threat Factor

## Native Plantings

## Pollinator Friendly Plantings

Overlay Description:	Requirement	Entity
<p><b>Bird Strike—Whole Building Threat Factor</b></p> <p>The project shall assess the Whole Building Threat Factor (WBTF) for bird strikes and ensure a rating of 45 or less for non-critical sites. This assessment will be performed with and documented in the <a href="#">B3 Bird-Safe Building Calculator</a>, which includes consideration of building façade material types, area, and threat factor for bird strikes. Projects in critical sites shall ensure a Whole Building Threat Factor of 15 or less. Critical sites include areas of ecological significance, fared wetland, land with elevation within five feet of the 100-year floodplain, land providing habitat to rare or endangered plant or animal species, land that was pubic parkland prior to acquisition, or land under a conservation easement.</p>	<p>WBTF of 45 or less for non-critical sites</p> <p>WBTF of 15 or less for critical sites</p>	<p>Finance and Property Services will include requirements in the request for proposals .</p>
<p><b>Native Plantings</b></p> <p>The greater of either 25% of the project site area (excluding the building footprint), or 70% of the project site area (excluding the building footprint and code-minimum parking) must be planted using pollinator, native or adapted species. Biochar and compost shall be incorporated into landscaping whenever possible.</p>	<p>25% of site native plants</p> <p>Biochar and compost when possible</p>	<p>Finance and Property Services will include requirements in the request</p>
<p><b>Pollinator Friendly Plantings</b></p> <p>The project shall utilize plantings that are free from detectable levels of neonicotinoids when they are available to meet project needs. Projects are encouraged to include plants labeled as “beneficial to pollinators,” specifically selecting blooming pollinator plants. Ideal planting design includes those which bloom in spring, summer, and fall; and include large clusters of coincidentally blooming plants.</p>	<p>Utilize pollinator species when possible</p>	<p>Finance and Property Services will include requirements in the request for proposals .</p>

# Site

## Dark Sky and Lights Out Management

## Sustainable Roofs

### Overlay Description:

### Requirement

### Entity

#### Dark Sky and Lights Out Management

The project's aggregate illumination level outlined under the most recent International Dark-Sky Association (IDA) IES [Model Lighting Ordinance \(MLO\)](#) should not be exceeded for the project's lighting zone.

The project shall follow the Lights Out management program to support nighttime bird migration during critical times. The program advises turning off exterior and interior building lights overnight (midnight-dawn) between March 15<sup>th</sup> and May 31<sup>st</sup>, and between August 15<sup>th</sup> and October 31<sup>st</sup>. Lights documented as necessary to building operation are exempted from this procedure.

Identify lighting zone and comply

"Lights Out" management plan

Finance and Property Services will set operating conditions.

#### Sustainable Roofs

Projects shall utilize 100% of available roof area as a sustainable roofing zone. Sustainable roofing zones may include intensive and extensive green roofing systems and/or solar panels. Available roof does not include setbacks, zoning/code requirements, space allocated for HVAC, and/or other components as deemed necessary.

All available roof area utilized

Finance and Property Services will include requirements in the request for proposals issued to designers and contractors.

# Indoor Environmental Quality

## Air Quality

## Ventilation

Overlay Description:

Requirement

Entity

---

### Construction Indoor Air Quality Management Plan

If the project contains any areas that will be occupied during construction, the project team must document a Construction Management Indoor Air Quality Management Plan. The plan must adhere to the SMACNA Indoor Air Quality Guidelines for Occupied Buildings Under Construction, 2<sup>nd</sup> edition.

SMACNA Air  
Quality  
Guidelines

Property Services  
will include  
requirements in  
the request for  
proposals.

---

### ASHRAE Ventilation Standard .

Projects must achieve ventilation rates of not less than that required by the current Minnesota State Energy Code or current ASHRAE 62.1, whichever is more stringent.

Projects must make the ventilation adaptable to meet indoor air quality standards based on building occupants set by state or local government in times of health emergencies such as COVID-19

Current  
ASHRAE 62.1  
version

Property Services  
will include  
requirements in  
the request for  
proposals.

---

# Indoor Environmental Quality

## Temperature

## Materials

## Noise

Overlay Description:	Requirement	Entity
<p><b>Thermal Comfort Standard</b>            Projects must be designed to meet the design, operating, and performance criteria of the current version of ASHRAE 55. Heating and cooling setpoints and performance shall comply with the City of Minneapolis <a href="#">Indoor Space Temperature Policy</a>.</p>	<p>Current ASHRAE 55 version/standard</p>	<p>Property Services will include requirements in the request for proposals.</p>
<p><b>Low VOC Indoor Materials</b>            All newly installed interior materials must comply with California Department of Health (CDPH) Standard Method v1.2-2017. Interior materials are defined as those interiors to the enclosure’s least vapor-permeable and continually air-sealed barrier system, and may include: flooring adhesives, sealants, carpets, resilient flooring, paint, acoustical insulation or panelized products, gypsum board, casework, composite wood products and furnishings.</p>	<p>California Department of Health compliance</p>	<p>Property Services will include requirements in the request for proposals.</p>
<p><b>Acoustic Performance</b>            Projects shall categorize spaces by level of acoustic privacy and meet composite sound transmission class (STC<sub>c</sub>) OR noise isolation class (NIC) appropriate for the adjacencies.             Projects shall also address HVAC system noise by achieving the maximum background noise levels from HVAC systems per ASHRAE Handbook – HVAC Applications (2015).</p>	<p>ANSI standard  ASHRAE HVAC standard</p>	<p>Property Services will include requirements in the request for proposals.</p>

# Indoor Environmental Quality

## Active Design

Overlay Description:	Requirement	Entity
<b>Active Design Measures</b>		
<p>Project shall provide secure storage for non-motorized vehicles. Space provided must accommodate at least 20% of regular building occupants and at least 5% of building guests. Storage space must be located within 650 feet of the main building entrance.</p>	Non-motor storage for 20% of occupants	Property Services will include requirements in the request for proposals.
<p>For buildings with ten or more regular occupants, provide showers, changing facilities, and lockers for a minimum of 5% of all regular building occupants.</p>	Facilities for 5% of occupants	
<p>The project shall provide at least one staircase that is easy to locate for occupants and visitors, accesses all regularly occupied floors and building entrance, and is aesthetically pleasing. This stair may be an enclosed egress stair.</p>	Staircase accessibility and ease	

# Materials

## Life Cycle Assessment

## Recycling and Organics

## Waste

## Space

### Overlay Description:

### Requirement

### Entity

#### Whole Building Life Cycle Assessment

The project team will perform a whole-building life cycle assessment to establish a baseline for the expected embodied emissions over the project's service life, including construction. The project team must implement strategies to reduce embodied emissions by 10% from the baseline. Reductions may be achieved by modifications of the building, the assembly, and/or the material. Cost-effectiveness evaluation will use the social cost of carbon.

Life Cycle Carbon Assessment and 10% reduction

CSBR in partnership with City Facilities staff will perform Assessment through SB 2030 program

#### Recycling and Organics Collection

The project shall provide dedicated floor space and service infrastructure, including chutes when necessary, for recycling and organics collection. Recycling and organics containers must be provided at a 1:1 ratio co-located within 5 feet of waste containers. Labelling must coincide with Hennepin County resources.

1:1 ratio collection  
Labels align with Hennepin County

Facilities, Public Works, and Sustainability

#### Waste Reporting

Each facility will track annual waste volume and costs. When possible, waste sorts will be conducted every two years to assess waste composition and possibilities for diversion improvement.

Annual waste reporting

Facilities, Public Works, and Sustainability

#### Space Allocation

In the design phase, space will be allocated for re-use of office materials and supplies, collection of "other" recyclables (such as light bulbs, batteries, etc.), and unused building materials or equipment. Space will also be designated for dishwashers in staff food preparation areas and water filling stations throughout facility.

Space for material, recyclable, and equipment

Facilities, Public Works, and Sustainability

# Materials

## Construction Waste Diversion

## Material Environmental Impact

Overlay Description:	Requirement	Entity
<p><b>Construction and Deconstruction Waste Diversion</b></p> <p>The project shall strive to divert 100% of waste but at least 80% of concrete and asphalt, reclaim 10% of material, and divert 85% of other material (by weight) of non-hazardous construction, demolition, or land-clearing debris from landfill or incinerator disposal. When on-site sorting is not possible, sending to a processing facility is required. Utilizing Hennepin County deconstruction grants is encouraged.</p> <p>Land-clearing woody biomass shall be processed (in order of priority) for lumber, wood chips, biochar, turned to compost, or sent to a district energy facility. Exporting of site soil shall be avoided but, when necessary, used for alternative daily cover.</p>	<p>Divert 80% of concrete and asphalt</p> <p>Reclaim 10% of materials</p> <p>Divert 85% of non-hazardous material</p> <p>Woody debris sent to biochar</p>	<p>Property Services will include requirements in the request for proposals.</p>
<p><b>Environmentally Preferred Materials</b></p> <p>The project shall specify and install environmentally preferable materials for 55% of total building materials. 'Environmentally preferable' includes: salvaged or reused materials or components, recycled content, recyclable, bio-based, biodegradable, or locally produced within a 500-mile radius. The 55% requirement may be met by mass, volume, or cost. Building materials with multiple preferable attributes may be counted for each qualifying attribute.</p>	<p>55% of material is environmentally preferable</p>	<p>Property Services will include requirements in the request for proposals.</p>



# Equity

## Minneapolis Racial Equity Impact Analysis

## Universal Design

## Wayfinding

### Overlay Description:

### Requirement

### Entity

#### City of Minneapolis Racial Equity Impact Analysis

The project team shall utilize the City of Minneapolis Racial Equity Impact Analysis at the beginning of design and again at the end of construction to assess how Black, Indigenous, People of Color and immigrants could be affected by the project's construction and operation, and to facilitate community engagement with project stakeholders including neighbors, community organizations, and anticipated user groups.

Complete REIA form

Finance and Property Services will consult with Sustainability and Race and Equity

#### Universal Design

The project team shall implement design elements in support of seven Universal Design Principles: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use.

Incorporate Universal Design

Finance and Property Services will include requirements in the request for proposals.

#### Wayfinding

The project team shall ensure that all wayfinding signage and communication materials are accessible to building occupants and visitors, regardless of language or ability.

Wayfinding throughout

Finance and Property Services will include requirements in the request for proposals.

# Equity

## Private-Use Space

## Potentially Hazardous Chemicals in Materials

Overlay Description:

Requirement

Entity

Private-Use Space

The project team shall provide at least one dedicated, reservable, lockable, and private room that is accessible to all building occupants for lactation, prayer, or other private use.

At least one private-use space provided

Finance and Property Services will include requirements in the request for proposals.

Disclosure, Reduction, Elimination of Potentially Hazardous Chemicals in Materials

The project team shall demonstrate that the chemical inventories of at least ten permanently installed interior materials from at least five different manufacturers do not contain likely hazardous materials. Products may be identified using the following methods: GreenScreen List Translator, GreenScreen Full Assessment, Cradle to Cradle v2 Gold or Platinum, Cradle to Cradle v3 Silver, Gold, or Platinum, and/or Declare Label status of LBC Red List Free.

Provide chemical inventories of at least ten interior materials

Finance and Property Services will include requirements in the request for proposals.

# Equity

## Air Quality

### Overlay Description:

#### Local Air Quality Assessment and Mitigation

The project team shall use the Minnesota Pollution Control Agency's [MNRisks tool](#) to evaluate modeled air quality at the project site. For project sites where the ratio of air pollution concentration to the health benchmark exceeds 2, implement air quality mitigation strategies on the projects exterior and site areas and evaluate the need for increased filtration of outdoor air supplied to building interior. Exterior mitigation strategies may include increased vegetation and/or vegetation selection, consideration of airflow in semi-outdoor spaces, regulation of activities on site such as prohibiting idling vehicles, and other approaches.

The project shall include the installation of an air quality monitoring device capable of publishing real-time data available via a website or app. Projects under this policy and requirement will form a hyperlocal air quality monitoring network, capable of generating data necessary to develop strategies to reduce air pollution and protect the health of project occupants, visitors, and the larger neighborhood.

### Requirement

Air quality mitigation for MNRisk sites above 2

Air quality monitor device with real-time public data

### Entity

Finance and Property Services will include requirements in the request for proposals.

Finance and Property Services will include requirements in the request for proposals.

# Equity

## Green Zones

Overlay Description:	Requirement	Entity
<p><b>Green Zones Development Criteria</b></p> <p>The Green Zones were established to advance racial and environmental justice in Minneapolis. Green Zones advisory committee members developed <a href="#">Green Zone Development Criteria recommendations</a> in 2020-2021. Key recommendations:</p> <p><i>Engagement:</i></p> <ul style="list-style-type: none"><li>• Engage impacted community early and often, especially marginalized populations</li><li>• Empower community to be decision-makers</li><li>• Foster inclusive engagement that resources residents and impacted stakeholders to participate</li></ul> <p><i>Community Impacts and Benefits:</i></p> <ul style="list-style-type: none"><li>• Align with the <a href="#">Green Zones goals</a> (outlined in their respective Work Plans)</li><li>• Address environmental, social, racial and economic impacts of the development. Use <a href="#">Cumulative Levels and Effects analysis</a> for air impact analysis. Address gentrification and displacement impacts.</li><li>• Create community benefits agreements</li></ul>	<p>Conduct inclusive community engagement</p> <p>Conduct REIA</p> <p>Conduct EAW (or EIS if project qualifies)</p> <p>Conduct Cumulative Levels and Effects analysis</p>	<p>Finance and Property Services will consult with NCR, Sustainability and Race and Equity</p> <p>Finance and Property Services will include requirements in the request for proposals.</p>

PROCESS

DRAFT

# Process

## Owners Project Requirements

## Commissioning Plan

## Basis of Design Document

Overlay Description:

Requirement

Entity

---

### Owners Project Requirements

The project team shall develop an Owners Project Requirements document including project background, objectives, functional uses and requirements, lifespan, cost, and quality, performance requirements, and maintenance requirements.

Owners Project summary document

Project Planning Team led by Sustainability and CSBR

---

### Commissioning Plan

The project team shall develop a commissioning plan, which includes requirements for system(s) and assemblies to be commissioned based on project size, scope, and Owners Project Requirements document, and a plan to carry out activities required during design, construction, and operation. Commissioning plan and activities must include at minimum mechanical, electrical, plumbing, and renewable energy systems and assemblies.

Systems Commissioning Plan

Project Planning Team led by Sustainability and CSBR

---

### Basis of Design Document

The project team shall develop a Basis of Design document to be updated and approved at each phase. The document will provide detailed information at each phase on the following topics: HVAC systems, electrical and lighting systems, envelope systems, plumbing and service hot water systems, and renewable energy systems.

Basis of Design Document

Project Planning Team led by Sustainability and CSBR

---

# Process

Small  
Projects—  
Energy Design  
Assistance  
Program

Large  
Projects—  
Enhanced  
Energy Design

Overlay Description:

Requirement

Entity

---

**Small Projects—Energy Design Assistance Program 10,000—50,000ft<sup>2</sup>**

Projects shall apply for and complete Xcel Energy’s Standard Energy Design Assistance (EDA) program if accepted, beginning participation during schematic design. This program will complement the project’s progress towards the SB 2030 energy use target, and includes rebates based on energy savings. Projects not accepted to the Energy Design Assistance program are exempt from this requirement, and may require additional evaluation by the City or an external consultant. All projects will utilize any available utility prescriptive rebates.

Apply for Xcel EDA Program

Facilities

---

**Large Projects— 50,000ft<sup>2</sup>+**

Projects shall apply for and complete Xcel Energy’s Enhanced Energy Design Assistance (EDA) if accepted, beginning participation during pre-design. This program will complement the project’s progress towards the SB 2030 energy use target, and includes rebates based on energy savings. Projects not accepted to the Enhanced Energy Design Assistance program are exempt from this requirement, and may require additional evaluation by the City or an external consultant. All projects will utilize any available utility prescriptive rebates.

Apply for Xcel EDA

Facilities

## City of Minneapolis Sustainable Building Policy Planning Team

Kim Havey	Elfric Porte
Bjorn Olson	Roxanne Kimball
Dolkar Tenzin	Stephanie Johnson
Luke Hollenkamp	Jocelyn Bremer
Bob Friddle	Karlee Weinmann
Emily Stern	Robin Garwood
Angie Skilldum	Liz Veaderko
Rob Verke	Chris Backes
Brian Millberg	Chris Droske
Kevin Knase	

## University of Minnesota Center for Sustainable Building Research Consultants

Richard Graves  
Patrick Smith  
Elizabeth Kutschke

For reasonable accommodations or alternative formats please contact the Minneapolis Sustainability Division—Bjorn Olson, [bjorn.olson@minneapolismn.gov](mailto:bjorn.olson@minneapolismn.gov) or 612-673-2965. People who are deaf or hard of hearing can use a relay service to call 311 at 612-673-3000. TTY users call 612-263-6850.  
Para asistencia, llame al 612-673-2700 - Rau kev pab 612-673-2800 - Hadii aad Caawimaad u baahantahay 612-673-3500.



# Policy Management

## Enforcement

City owned projects will include reference to the Sustainable Building Policy in all contracts with the architect engineers, general contractor and others. The contract language will also include reference to all specific policies to be achieved. It is the responsibility of the City Project Manager and the director of property services to ensure compliance with the Sustainable Building Policy. On an annual basis the city building benchmarking staff will review the energy and water use to ensure the buildings are meeting the design expectations for energy and water use.

## Revision and Review Schedule

The Division of Sustainability will work with Finance and Property Services and Community Planning and Economic Development (CPED) to review and amend any needed components of the policy on an annual basis

## Update schedule

Every three years the Sustainability and Property Services will provide an update to new standards needed to achieve city climate goals

# Approved Sustainable Building Standards

The Minneapolis Sustainable Building Policy requires all projects to select and comply with one of the approved sustainable building standards at the listed thresholds. The approved standards and minimum thresholds are:

- State of Minnesota B3 Guidelines; Certified Commercial Compliant
- LEED version 4.1; Certifiable Gold (or Certified per City Council Action)
  - ◇ Building Design + Construction
    - \* New Construction and Major Renovation, Core and Shell, Schools, Retail, Data Centers, Warehouses and Distribution Centers, Hospitality, Healthcare
  - ◇ Interior Design + Construction
    - \* Commercial Interiors, Retail, Hospitality
- Passive House US Certified Commercial

# State of Minnesota B3 Commercial Guidelines

The Minnesota B3 Guidelines is a comprehensive sustainability program focusing on required, metric based, and measured performance outcomes. It has been required of State funded projects since 2004 and is intended to reflect Minnesota's priorities and opportunities.

The B3 Guidelines include both required and recommended measures. Meeting all of the required guidelines achieves compliance with the B3 Guideline program. Projects wishing to use B3 to meet the requirements of the Minneapolis Sustainable Building Policy must meet all of the required guidelines and document compliance in the B3 Guidelines Tracking tool.

The B3 Guidelines are grouped into the following categories: Performance Management, Site and Water, Energy and Atmosphere, Indoor Environmental Quality, and Materials and Waste.

For those conditions where the guidelines conflict with the program of the project a variance from a guideline may be requested of the City representative (or representative of the appropriated State agency if the project is also funded through the State of Minnesota). If requesting a variance, the project team can adequately document that this conflict and measures to meet the guideline within the programmatic requirements have been exhausted and that the guideline has been met to the extent possible considering the programmatic conflict. This variance process, if approved, does not render a project non-compliant. Any project not meeting any required guidelines under the B3 Guidelines, which have not been granted a variance are considered non-complaint with the program.

Compliance with the B3 Guidelines is tracked in the B3 Guidelines Tracking Tool, an online program that permits design team members to enter and manage project data. The Tracking Tool also allows city and state staff to review the data and approve it. The tracking tool collects a variety of quantitative and qualitative information as well as uploaded files to provide a reviewable summary of the project team's documentation of compliance with the B3 program.

# State of Minnesota B3 Guidelines (Commercial and Residential)

## Compliance, Documentation and Submission Schedule

The following is a list of phase submissions required under B3, listed in comparison to typical design phase names. Note that B3 Guidelines documentation continues for a period of 10-years, where key building performance metrics are tracked.

Design Phase	B3 Phases	Description
Predesign / Project Planning / etc.	Predesign	Project should be set up in Tracking Tool, and B3 Guidelines reviewed by relevant team members (including calculating a preliminary SB 2030 Energy Standard). A preliminary budget should also be established and a design team should be selected who can meet the B3 (and SB 2030 requirements). Guideline leader, once selected, transitions to member of design team. An early Owner's Project Requirements (OPR) document should be drafted at this phase to outline project requirements and owner expectations
Schematic Design	Design	Check-in to make sure design is on track to meet B3/SB 2030 requirements.
Design Development	Final Design	Compliance check of bid/permit documents.
Construction Documents		
Construction/Construction Administration	Closeout	Verification that constructed building meets B3/SB 2030 requirements; Guideline leader role moves from design and construction team to owner and operations team once documentation of closeout is complete.
Correction Period	Occupancy – Year 1	Owner is responsible for compliance in occupancy.

## **LEED v. 4.1 (Commercial and Residential)**

LEED is a rating system that serves as both guideline and assessment mechanism. LEED is applicable to commercial, institutional, and residential buildings and neighborhood developments. LEED was first developed in 1998 and has been updated and expanded several times since. The seven goals of LEED are: Reversing contribution to global climate change, enhancing individual human health and well-being, protecting and restoring water resources, protecting, enhancing, and restoring biodiversity and ecosystem services, promoting sustainable and regenerative material resource cycles, building a greener economy, and enhancing social equity, environmental justice, community health, and quality of life.

The LEED v.4.1 rating system is point based and has four categories of achievement: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points), and Platinum (80 points and above). There are several versions of LEED v4.1 based on project types and size. These include:

- Building Design + Construction
  - ◇ New Construction and Major Renovation, Core and Shell, Schools, Retail, Data Centers, Warehouses and Distribution Centers, Hospitality, Healthcare
- Interior Design + Construction
  - ◇ Commercial Interiors, Retail, Hospitality
- Residential
  - ◇ Single Family Homes, Multifamily Homes, Multifamily Homes Core and Shell

LEED groups possible credits into the following Impact Categories: Integrative thinking, Location and Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation, and Regional Priority

### **Compliance Level Required**

City owned and invested projects must receive a minimum of certifiable LEED Gold from the Green Building Certification Institute (GBCI) by earning a minimum of 60 points.

# LEED v. 4.1 (Commercial and Residential)

## Demonstration of Compliance

Four main steps are required for certification:

1. Register the project by completing forms and submitting payment
2. Submit completed certification application and certification review fee
3. Application is reviewed by Green Business Certification Inc. (GBCI)
4. Certification decision is made and shared with City of Minneapolis

In preparing the application, team members will collect information, perform calculations and analysis, and prepare documentation. The specific documentation required is listed within each credit section, and varies from written narrative to energy use calculations.

## Documentation and submission schedule

Documentation for LEED certification is collected throughout the design and construction and is submitted in its entirety in the application process. Specific application time varies, though for many projects applications must be submitted no later than two years after substantial completion. The application undergoes a preliminary review, and if necessary, the project team can submit additional materials and/or a revised application. Once a project is certified, no further action is necessary to retain LEED Certification. Note that while LEED does not require ongoing compliance monitoring other portions of the Minneapolis Sustainable Building Policy do have an annual submission requirement.

DRAFT



[Minneapolismn.gov/sustainability/](https://minneapolismn.gov/sustainability/)  
[sustainability@minneapolismn.gov](mailto:sustainability@minneapolismn.gov)

Date: November 25, 2020