



**SUSTAINABILITY
STANDARDS**

12

Section 12 describes regulations for Sustainability throughout the Badger Mountain South community.

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|------|--------------------------------|------|
| 12.A | Introduction..... | 12-2 |
| 12.B | Sustainability Principles..... | 12-2 |
| 12.C | Common Standards..... | 12-2 |
| 12.D | Non-Residential Standards..... | 12-3 |
| 12.E | Residential Standards..... | 12-3 |

12.A INTRODUCTION

- In Badger Mountain South, sustainable development means development that looks to the long-term social and environmental health of the community. It is the key concept to what is unique about this community of homes, businesses, schools and play fields. This section provides sustainability goals for Badger Mountain South.
- The standards and requirements of previous sections of the LUDR relate to the concept of sustainability through the following ways:
 - Compact Design**
Compact design is a recognized element of sustainable development because it allows a reduction of infrastructure, yields a higher proportion of contiguous preserved open space, facilitates transit use, and is more conducive to walking.
 - Mix of Uses**
Permitting a mix of land uses in close proximity creates attractive places to live, provides employment, business and shopping opportunities in close proximity to residences, and encourages alternatives to driving.
 - Connectivity**
Connected open space in Badger Mountain South will provide over 300 acres of parks, trails, and open space connecting neighborhoods, schools, and businesses.
 - Walkability**
Each neighborhood in Badger Mountain South is designed to create multiple destinations within a five-minute walk. The street and trail network provides safe accommodations for pedestrians and easy access to (proposed) neighborhood schools.
 - Housing Choice**
Badger Mountain South will provide a range of housing types and affordability levels to accommodate most any household and to facilitate the creation of intergenerational neighborhoods.
 - Transportation Choice**
The street and trail network will provide multiple ways into the community for vehicles, bicyclists, pedestrians and transit. As build out occurs, transit expansion will likely follow.
- In this section of the LUDR, more specific direction is provided to address energy and other resource conservation through standards that apply to all buildings and sites. These standards are guided by sustainability principles which follow. At their best, sustainability principles, when applied as standards to the built environment, reconnect people to their community and provide attainable performance targets without limiting innovation.
- National, sustainable design certifications, including but not limited to, Energy Star, Built Green and LEED, are rating systems that provide guidance to developers and builders to help achieve the sustainability intent of the Badger Mountain South community.

12.B SUSTAINABILITY PRINCIPLES

- ENERGY:**
 - Promote energy conservation in all aspects of development and life cycle operation.
 - Promote production and use of renewable energy.
- WATER:**
 - Promote water conservation in all aspects of development and life cycle operation.
 - Promote re-use, recycling and ground water recharge of rain water and grey water.
- TRANSPORTATION:**
 - Promote pedestrian, bicycle and community transit modes of transportation.
 - Promote a compact, walkable and mixed-use pattern of development.
- EXTERIOR LIGHTING:**
 - Minimize light trespass from the building and site to achieve:
 - Energy savings
 - Night-sky ambience; and
 - Increased visibility, safety, and security by reducing glare.
- RECYCLING:**
 - Promote reduction in waste during development and life cycle operation.
 - Promote reuse of materials during construction.
 - Promote recycling of materials during development and life cycle operation.
- HEALTHY LIFESTYLE:**
 - Promote an active, healthy lifestyle by connecting areas of activity with non-motorized means of circulation.
 - Promote opportunities for active recreation through community-wide trail system as well as provisions for parks and play areas in each neighborhood.
- BUILDING MATERIALS:**
 - Choose building materials and systems that:
 - Protect and promote indoor air quality;
 - Contain recycled content, or can be recycled;
 - Are extracted, processed, and manufactured regionally;
 - Utilize renewable, salvaged, or FSC Certified materials
- URBAN AGRICULTURE:**
 - Promote opportunities for community gardening within each neighborhood.

and

5) Energy Star Certification

12.C COMMON STANDARDS



Illustrative Photo: Walkable and Sustainable Community

The following Common Standards are applicable to all development within Badger Mountain South. Refer to Section 12.D and 12.E for additional standards specific to use or to District.

1. ENERGY

- ~~Achieve Energy Star compliance applicable for the year of construction.~~
- Include passive and/or active means of allowing for both solar gain where used for passive solar heating as well as sun protection from unwanted solar heat gain.
- Include building space, conduits and roof support for future addition of solar hot water or photovoltaic systems on every building. When provided, the use of geo-thermal may substitute for any of the above requirements. Geo-thermal wells and related infrastructure is permitted in all setback areas.

or energy star

2. GREEN BUILDING COMPLIANCE

- Achieve the minimum level for one of the following green building rating systems or their equivalent:
 - Built Green – as promoted by the local building trade organization
 - LEED – as promoted the U.S. Green Building Council (www.usgbc.org)
 - Green Globes – as promoted by the Green Building Initiative (www.thegbi.com)
 - National Green Building Standards – 2008 (www.nahbgreen.org) for residential only

3. EXTERIOR LIGHTING

Goals: Nighttime building illumination should reinforce prominent building design elements yet avoid off-site lighting and night sky pollution. Technologies to reduce light pollution include full cutoff luminaires, low-reflectance, and low-angle spotlights. Computer modeling of commercial project's site lighting is encouraged.

- For all buildings except Low Rise Residential (under four stories):
 - Submit a Lighting Plan, depicted on the site plan, for all projects with four or more exterior fixtures. The



Illustrative Photo: Sustainable Community

Lighting Plan must include all elements as found in the Glossary for "Lighting Plan".

- Lighting power densities must not exceed ANSI/ASHRAE/IESNA Standard 90.1-2010.
 - Meet exterior lighting control requirements from ANSI/ASHRAE/IESNA Standard 90.1 - 2010.
 - Follow all the requirements that applies to the development proposed as found in ANSI/ASHRAE/IESNA Standard 90.1 - 2010.
- For all Low Rise Residential Buildings (under four stories):
 - Lighting fixtures shall have translucent covers that eliminate glare and have full cutoff features/shielding to prevent direct light from the fixture to shine beyond the property limits where the fixture is installed.
 - Lights of less than 15 watts used for holiday decoration are exempt.
 - Lighting for U.S. flags intended to be properly displayed at night is exempt.

4. REACH CODES

- Projects that achieve Passive House Certification shall be deemed compliant with the energy conservation requirement.
- Projects that achieve Living Building Challenge shall be deemed compliant with both the energy conservation requirement, and the green building requirement.

5. RECOMMENDED ELEMENTS (NOT REQUIRED)

- Solar Hot Water system
- Photovoltaic system
- LEED Platinum

12.D NON-RESIDENTIAL STANDARDS



Illustrative Photo: Commercial Facility w/ Solar Array Entry Canopy

1. Compliance with the Common Standards, 12.C.
2. Commercial buildings shall be Energy Star compliant.
3. Civic buildings should attempt to meet LEED Silver standard or equivalent rating in an alternate green building rating system.
4. Schools: All K-12 schools that receive funding from the Office of the Superintendent of Public Instruction must be built either to the Washington Sustainable Schools Protocol (WSSP) or LEED Silver standard.
5. Provide shared parking within Mixed-Use development projects.
6. Parking must be organized so that no one surface parking area in any development is larger than two (2) acres. In large developments with multiple surface parking areas, each area shall be defined through the use of landscape and pedestrian access ways.

12.E RESIDENTIAL STANDARDS



Illustrative Photo: Single Family Home with Rooftop Solar Array

1. Compliance with the Common Standards, 12.C.
2. In order to reduce the energy demand for domestic hot water usage, install one of the following Energy Star - Residential Water Heater Systems:
 - a. Whole-Home Gas Tankless Water Heater
 - b. Gas Condensing Water Heater
 - c. Heat Pump Water Heater
 - d. Solar Water Heater with conventional storage or tankless backup system"
 - e. Or other equivalent system