



## Tenant Design Criteria

Section e Environmental Criteria  
Updated: February 2017



## ADDENDUM LOG

*June, 2014*

*Criteria Manual Created*

*January, 2015*

*March, 2016*

*Changed water efficiency use in restrooms (e9)*

*February, 2017*

*New BP Photo pg (e1)*



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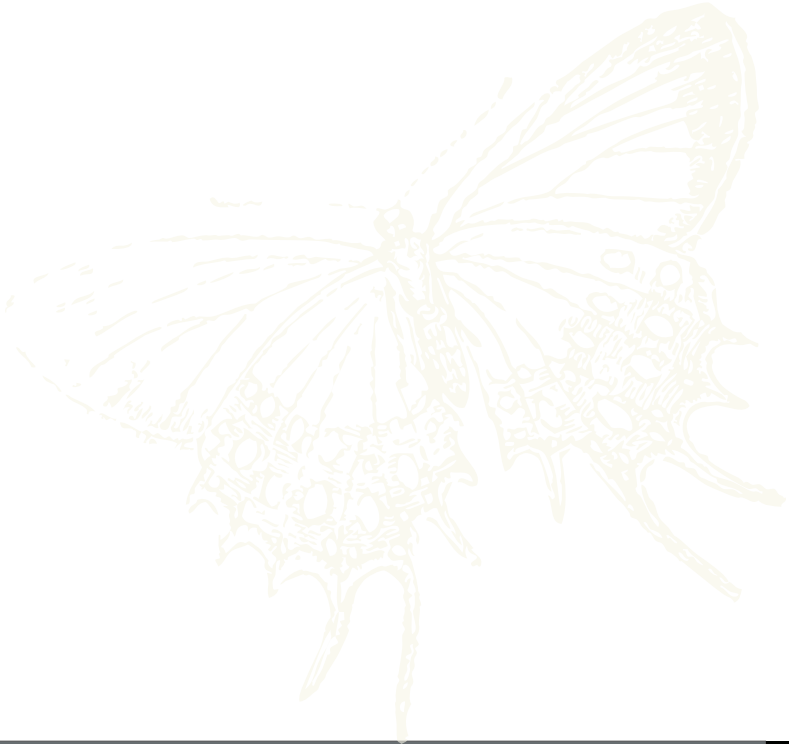
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# Broadway Plaza

1275 Broadway Plaza, Walnut Creek, CA 94596

## ENVIRONMENTAL MISSION STATEMENT

Macerich is committed to planning, designing, constructing and operating Broadway Plaza in an environmentally sound manner. We will implement green-building strategies and technologies wherever practical to minimize the environmental impact of the development on the Walnut Creek community.

As the developer of Broadway Plaza, Macerich is proud to be part of the Walnut Creek community. It has been critical from the outset that Broadway Plaza adopts the values of this special place in every way. Broadway Plaza is committed to being a leader in green-building strategies.

We expect and will strongly encourage the same forward-thinking from Broadway Plaza retailers. Not only is it the right thing to do, but green-building will pay huge dividends in acceptance and loyalty in a community that understands and values environmental sustainability.

As developer and retailer, we are partners in creating something special - something that will be fully embraced by Walnut Creek. Green-building will be a significant part of creating this special environment.

Through the practice and implementation of green-building strategies and technologies, Broadway Plaza can and will mitigate the project's environmental impact. The project is already off to a fantastic start and we need your help and commitment in carrying the environmental torch to the finish line. The following pages detail the green-building technologies we have included in the Broadway Plaza design.

Thank you in advance for your collaborative efforts.

## FRAMEWORK FOR 'GREEN-BUILDING'

### What is green-building?

While there is no single definition of green-building, the fundamental principles can be adhered to through design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in the following areas:

- Sustainable site planning
- Safeguarding water and water efficiency
- Energy efficiency and renewable energy
- Conservation of materials and resources
- Indoor environmental quality

The design, construction, and maintenance of buildings has a tremendous impact on our environment and our natural resources. There are more than 76 million residential buildings and nearly 5 million commercial buildings in the U.S. today. These buildings together use one third of all the energy consumed in the U.S., and two-thirds of all electricity. By the year 2010, another 38 million buildings are expected to be constructed. The challenge will be to build them smarter, so they use a minimum of nonrenewable energy, produce a minimum of pollution, and cost a minimum of energy dollars, while increasing the comfort, health, and safety of the people who live, work, and shop in them. The onus is on us, the developers and retailers, to make this a priority.

### LEED (Leadership in Energy & Environmental Design)

Early on in the project, the Broadway Plaza development team looked to adopt a framework to tackle the green-building goals of the project. The most established framework and the one we have chosen to guide our efforts is the United States Green Building Council's LEED program.

LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards,

LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources.

### High Expectations

Macerich is holding this project to the highest standards of green-building design. As our partner, we challenge you to raise the bar.

In the spirit of raising the bar, the Broadway Plaza Tenant Criteria contains requirements as well as recommendations. While we have listed those items that are required, we are also providing you with other green-building strategies and technologies that are optional. This was done, in part, to help you identify opportunities for green-building strategies and technologies in the build out of your stores, but mostly because it helps strengthen the project's commitment to the environment.

It is our hope that you will strongly consider implementing as many green building and LEED strategies/technologies that you can with the "greatest practical efficiency."

### Helpful Resources

#### LEED-CI for Commercial Interiors

If LEED certification is the goal for your Tenant space, this document provides the necessary framework.

#### Green strategy/technology checklist

Created by Tenant coordination, this checklist summarizes the opportunities Tenants have to show their "green" commitment.

#### [www.usgbc.org](http://www.usgbc.org)

United States Green Building Council website providing resources dedicated to green-building and LEED.

#### [www.greenerbuildings.com](http://www.greenerbuildings.com)

Information and resources on the full spectrum of environmental issues related to buildings and facilities. GreenerBuildings.com is a partnership between the U.S. Green Building Council and the National Environmental Education & Training Foundation's Green Biz.com

## CENTER GREEN DESIGN

### Green-building Accomplishments

While the development team continues to evaluate and identify opportunities, there have been many green-building strategies and technologies already incorporated into Broadway Plaza. As we decide to implement certain strategies and technologies, the team uses the lens of “greatest practical efficiency.” That means a use that is technically and financially feasible. We are seeking certification under 2009 LEED for Core and Shell.

Green-building strategies employed at Broadway Plaza include:

Broadway Plaza is a green site – We expect to earn LEED points for site selection (our site won't destroy protected habitat or prime farmland), for development density and community connectivity, for access to public transportation, and for reuse of an existing structure. We hope to earn points for providing preferred parking to energy-efficient, low-emitting vehicles and for providing appropriate parking capacity.

Our landscape and roof membrane has been chosen to reduce the heat island effect, and the landscape has been designed to reduce water consumption. We use less water inside as well: A reduction in interior water consumption should earn multiple LEED points.

Our air-conditioning systems were designed to be energy efficient and non-polluting, and our building design will minimize solar heat gain and radiant heat transmission. We expect to win LEED points for optimal energy performance and for 'enhanced commissioning' of the HVAC systems, and for increased ventilation.

We will supplement grid power with rooftop photovoltaic panels.

We've chosen recycled materials and FSC-certified wood in order to reduce the environmental impact of our building materials, and our indoor paints, adhesives, carpets, and plywood are free of formaldehyde and other odorous, irritant chemicals.

Finally, our construction process has been managed to reduce construction waste and pollution. We've managed indoor air quality during construction, 75% of our construction waste will be recycled, and we've planned our construction process to account for construction related erosion and pollutant runoff.

## SAMPLE GREEN DESIGN

The following is a summary of how a hypothetical Broadway Plaza retailer might expect to earn LEED points for its green finish-out. If the tenant were to win all of these points, it would earn a LEED Gold certificate.

Reference: 2009 LEED-CI

### **Sustainable Sites**

6 points

Because Broadway Plaza is LEED certified, we start with three points. We'll also get points for development density, public transportation access, and parking.

### **Water Efficiency**

2 points

By installing waterless urinals, low-flow water closets, and operation sensors and low-flow faucets at lavatories, the tenant reduces water consumption by 30%, earning two points.

### **Energy & Atmosphere**

8 points

Our hypothetical tenant earns eight points by managing lighting power, HVAC performance, using Energy-Star rated equipment, measuring energy usage, and buying energy from sustainable sources.

### **Materials & Resources**

5 points

Careful management of the construction process and selection of recycled, regionally manufactured, and certified materials.

### **Indoor Environmental Quality**

9 points

Credits for low-VOC paints, glues, carpet, and plywood. We also earn credits for lighting controls, thermal comfort, and daylighting, which are part of good retail design, green or not.

### **Innovation and Design Process**

3 points

One point for having a LEED-accredited professional on the design team, and two for exemplary performance, in water efficiency and certified wood.

**Total 33 points, which puts this tenant in the LEED Gold range.**

## REQUIREMENTS & RECOMMENDATIONS FOR THE TENANT

### LEED CRITERIA REQUIREMENTS FOR ALL TENANTS LEED

The completed checklist on page e11 must accompany all Tenant plan submittals to the Landlord.

#### Optimize Energy Performance

1. Restaurants will use HVAC&R refrigeration with no CFC-based refrigerants.  
Impact: Reduces ozone depletion and reduces the accumulation of greenhouse gases that contribute to Global Warming.
2. Automatic occupancy sensing lighting controls will be installed in all spaces not regularly occupied such as storage rooms and restrooms.
3. Exterior glazing units for both storefronts and doors must have a solar heat gain coefficient (SHGC) of not more than 0.27 and a U-value of not more than 0.28. Tinting or films applied after the glass is installed is prohibited. Prior to installation Tenant will be required to submit documentation from the glass manufacturer for each type of storefront glass used demonstrating that it meets these criteria.
4. Exterior wall insulation with an R-value of 19 or greater shall be provided and installed by Tenant.
5. HVAC refrigerant shall meet zero-ozone-depletion standards, e.g. R-410a sold by Honeywell under the trademark AZ-20.
6. HVAC energy efficiency:
  - a. Tenants on First Level shall provide their own split system air conditioning. Systems shall be heat pumps or cooling only, 3-phase powered with a minimum efficiency of SEER 18.0 / 12.7 EER cooling and 12.0 HSPF heating.

- b. Tenants at the Second Level have the option to install systems as described above for First Level tenants or may provide package rooftop air conditioning heat pumps or cooling-only units with a minimum cooling efficiency of 12.1 EER and a heating COP of 3.5.

Impact: Reduces lighting and energy costs while reducing heat loads in the tenant space.

#### Enhanced Commissioning

1. Commissioning is fundamental to verify and ensure that a building's energy-related systems are designed, installed, calibrated, and set to perform optimally in order to save energy and, in turn, costs associated with running and maintaining these systems. Fundamental commissioning is now part of the California Building Code. To further the benefits of commissioning and meet the project's LEED requirements, tenants are required to begin the commissioning process early in the design process and execute additional activities after systems performance verification is completed. Enhanced Commissioning is carried out by a 3rd party Commissioning Agent (CxA). Tenant's may use the Landlord's CxA. Energy Efficiency Solutions (e2s), or they may hire their own CxA

#### Minimum Indoor Air Quality Performance

1. Minimum outside air quantities shall meet Title 24 or required by ASHRAE standard 62.1-2007 or the applicable local governing code, whichever is more stringent. Provide airflow monitoring and setpoint alarm.



## REQUIREMENTS & RECOMMENDATIONS FOR THE TENANT (con't.)

### LEED CRITERIA RECOMMENDATIONS

#### Water Efficiency

1. The Tenant is required to install waterless urinals in tenant restrooms where urinals are used.
2. Low Flow water closets using 1.28 gallons per flush or less will be installed in all common area restrooms.
3. Operation sensors and low flow faucets using 0.5 GPM or less will be installed on all lavatories.

Impact: Each waterless urinal can save approximately 7,800 gallons of water per year over traditional flush urinals. While waterless urinals can save valuable water resources, they also require less cleaning time and have no flushing machinery that can break down.

#### Materials & Resources

1. Provide an easily accessible dedicated area that serves the tenant space for the collection and storage of materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastics and metals.
2. Tenants and Tenant's contractors, vendors, suppliers...etc. must use the recycling facilities located on the Property. General contractors will be assessed a fee for the use of Landlord-provided recycling facilities during the Tenant's construction. Contact the Landlord's designated tenant coordinator for pricing and placement of such facilities. Once the Mall is open and operating, Tenants should meet with the property/operations manager to understand the program further.

Impact: Facilitates the reduction of waste generated by building occupants that is hauled to and disposed of in landfills thus reducing land, water and air pollution impacts.

### Minimum Indoor Air Quality Performance

1. During finish-out construction, Tenants must implement the following methods for maintaining indoor air quality (IAQ)
  - a. During construction, meet or exceed the Sheet Metal and Air Conditioning Contractors' National Association's IAQ Guidelines for Occupied Buildings under Construction, 1995, chapter 3.
  - b. Protect absorptive materials (stored-on-site and installed) from moisture damage.
  - c. If air handlers are used during construction, filtration media with Minimum Efficiency Reporting Value (MERV) of 8 or more must be installed at each return air grille, per ASHRAE52.2.
  - d. Replace all filtration media immediately prior to occupancy.
2. Adhesives (including carpet adhesives), sealants, and sealant primers used in the interior of the space shall meet the South Coast Air Quality Management District (SCAQMD) Rule #1168.
3. Aerosol Adhesives used in the interior shall meet Green Seal Standard GC-36.
4. Interior Paints and coatings applied on-site must meet the following standards:
  - a. Topcoat paints: Green Seal Standard GS-11-03, Paint
  - b. Paints on ferrous substrates: Green Seal Standard GS-03, Anti-Corrosive Paint
  - c. All other architectural coatings, primers, and undercoats: SCAQMD Rule 1113.

## REQUIREMENTS & RECOMMENDATIONS FOR THE TENANT (con't.)

5. Carpet and carpet pad shall meet the following standards:

- a. Carpet: Carpet and Rug Institute - Green Label Plus
- b. Carpet Pad: Carpet and Rug Institute - Green Label

6. Composite wood, composite agrifiber products, and laminate adhesives shall contain no added urea-formaldehyde resins.

Impact: Reduces the quantity of indoor air contaminants that are odorous, potentially irritating and/or harmful to the comfort and wellbeing of installers and occupants.

### Energy & Atmosphere

The tenant is encouraged to have 70% ENERGY STAR compliance equipment and appliances (excluding HVAC, lighting and building envelope products).

### Materials & Resources

1. Use materials, including furniture and furnishings, with recycled content such that the sum of post-consumer recycled content plus 1/2 of the preconsumer content constitutes as least 20% of the total value of the materials in the project.
2. Use a minimum of 20% of the combined value of construction and furniture materials and products that are manufactured regionally within a radius of 500 miles.
3. Use rapidly renewable construction, materials and products, man made from plants that are typically harvested within a 10-year or shorter cycle.
4. When using new wood-based products and materials, use a minimum of 50% that are certified in accordance with the When using new wood-based products and materials, use a minimum of 50% that are certified in accordance with the Forest Stewardship Council's Principles and Criteria.

Impact: Increases the demand for building products that incorporate recycled content materials, therefore reducing impacts resulting from extraction and processing of virgin materials; supports the regional economy and reduces the environmental impacts resulting from transportation; reduces the use and depletion of finite raw materials and long-cycle renewable materials; and encourages environmentally responsible forest management.

## BROADWAY PLAZA

1275 Broadway Plaza, Walnut Creek, CA 94596

### LEED CHECKLIST

Quest # \_\_\_\_\_ Tenant name \_\_\_\_\_

This checklist summarizes the minimum sustainable construction practices which Macerich requires Broadway Plaza Tenants to follow. Tenants are encouraged to seek LEED certification for their finish-out under LEED-CI (LEED Commercial Interiors). General information and recommendations about Tenant LEED certification is in the Environmental section of the Tenant Design Criteria.

This completed form with the required annotated plans, specifications and cut-sheets shall be submitted to the Tenant Coordinator. The Landlord plan review cannot be completed or approval granted until this is completed.

### REQUIREMENT

### PAGE # NOTE

#### OPTIMIZE ENERGY PERFORMANCE:

1. Restaurants will use HVAC/R refrigeration with no CFC-based refrigerants.
2. Automatic occupancy sensing lighting controls will be installed in all spaces not regularly occupied, such as storage rooms and restrooms. Show locations on plans, provide cut-sheet for sensor/light switch.
3. Exterior glazing units for both storefronts and doors must have a solar heat gain coefficient (SHGC) of not more than 0.27 and a U-value of not more than 0.28. Tinting or films are prohibited. Provide glazing specification with SHGC and U-value documentation.
4. Exterior wall insulation with an R-value of 19 or greater shall be provided and installed by Tenant. Show on plans.
5. HVAC refrigerant shall meet zero-ozone-depletion standards, e.g. R-410a, sold by Honeywell under the trademark AZ-30. Provide signed letter stating the manufacturer and product name of the zero-ozone-depletion refrigerant used in the HVAC system; provide product literature for the refrigerant.
6. HVAC energy efficiency:
  - a. Tenants on lower levels of multi-level buildings shall provide their own split system air conditioning. Systems shall be heat pumps or cooling only, 3-phase powered with a minimum efficiency of SEER 18.0 / 12.7 EER cooling and 12.0 HSPF heating. Provide product literature for HVAC system demonstrating efficiency rating.
  - b. Tenants on the top level of multi-level buildings or first level tenants of single level buildings have the option to install systems as described in section 6a above or may provide package rooftop air conditioning heat pumps or cooling-only units with a minimum cooling efficiency of 12.1 EER and a heating COP of 3.5. Provide product literature for HVAC system demonstrating efficiency rating.

#### ENHANCED COMMISSIONING:

7. Commissioning is fundamental to verify and ensure that a building's energy-related systems are designed, installed, calibrated, and set to perform optimally in order to save energy and, in turn, costs associated with running and maintaining these systems. To further the benefits of commissioning and meet the project's LEED requirements, tenants are required to begin the commissioning process early in the design process and execute additional activities after systems performance verification is completed. Enhanced Commissioning is carried out by a 3rd party Commissioning Agent (CxA). Tenants may use the Landlord's CxA, Energy Efficiency Solutions (e2s), or they may hire their own CxA.



## **BROADWAY PLAZA**

1275 Broadway Plaza, Walnut Creek, CA 94596

### **MINIMUM INDOOR AIR QUALITY PERFORMANCE:**

B. Minimum outside air quantities shall meet Title 24 or required by ASHRAE standard 62.1-2007 or the applicable governing code, whichever is more stringent. Provide airflow monitoring and setpoint alarm. Provide a letter describing the airflow monitoring system. Provide calculations demonstrating that design breathing zone ventilation rates meet the requirement.

I attest that the finish-out design for \_\_\_\_\_  
meets or exceeds the requirements listed above.

\_\_\_\_\_

Tenant name

\_\_\_\_\_

Signature

Printed Name

Date