

Multnomah County

GREEN GUIDEBOOK FOR FACILITY MANAGERS



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Acknowledgements
Facilities Natural Step Team (PIT)
Brett Taute, Facilities Data Management Center
Amy Joslin, Sustainability Coordinator
Gail Hochhalter, Facilities Project Manager

INTRODUCTION

This guidebook has been created to assist Facility Managers in managing operations of their buildings in a more sustainable way. It will also aid the Facility Manager in making important decisions concerning operations and maintenance of the buildings from site issues to handling recycling in the building. As each building is different, some of these strategies may not apply to your current building situation. This guidebook can provide the tools necessary to help you reduce the environmental impact of the buildings you manage, by potentially reducing operations and maintenance costs and helping improve communications with building occupants.

MULTNOMAH COUNTY'S GREEN FACILITY HIGHLIGHTS

Multnomah County is a founding member of the Oregon Natural Step Network. The Oregon Natural Step Network is founded on the principle that businesses and organizations can reduce their impact on the environment while enhancing their overall efficiency and effectiveness.

New building construction in the County emphasizes sustainable neighborhoods, mixed use development and a commitment to the community. Buildings will be designed to last 50-100 years and will continue to provide long-lasting support to the community in years to come. Building designs that exceed code minimum standards in energy, provide quality indoor air quality, and promote sustainability ideals are encouraged and serve as a goal for development and renovation.

- ❑ Projects Include: North Portland Clinic, Juvenile Center, Multnomah County East, Woodstock Library, and Hillsdale Library.

Multnomah County has shown a commitment to align with government practices that support natural cycles by:

- ❑ Adoption of the Local Action Plan on Global Warming in April 2001 with the City of Portland
- ❑ Providing opportunities for employees to participate in In-depth workshops, conferences on sustainability, and special learning events.
- ❑ Implementing Travel Smart Policies which reduce single occupancy vehicles (SOVs)
- ❑ Providing opportunities for employees to participate in the Multnomah County Green Team as advocates for green and sustainable practices in the workplace. Green teams work with the Facilities and Project Management Department Natural Step Process Improvement Team and DSCD to implement sustainability initiatives in the areas of energy conservation and renewable sources of energy, landscaping, pollution prevention and solid waste reduction, employee commute options, education and outreach, reuse and recycling, and sustainable procurement.
- ❑ Being a leader of sustainable practices by setting a strong example for the community and local businesses.
- ❑ Participating in the Sustainable Procurement Strategy with the City of Portland for building materials, automotive vehicles and equipment, cleaning and coating products, paper, and office furniture.

Contact Amy Joslin, Sustainability Manager at 503-988-4092 if you have questions regarding Multnomah County's Sustainability Policies.

WHY GREEN BUILDING IS IMPORTANT

Careful planning and thoughtful design of a building can provide the day to day operations and maintenance with short-term and long-term advantages. Some of these are tangible and measurable, such as lower utility bills or happier tenants, while others may be harder to quantify such as measuring employee productivity.

Financial Benefits

- ❑ When buildings have proven attributes that they are healthier buildings tenants tend to be more content which allows the Facility Manager to focus on the day to day operations of the buildings.
- ❑ Lower costs to operations and management of building by reduced electric or water costs.
- ❑ Risks are reduced (insurance and legal) if building systems are operating properly.

Business Process Improvements

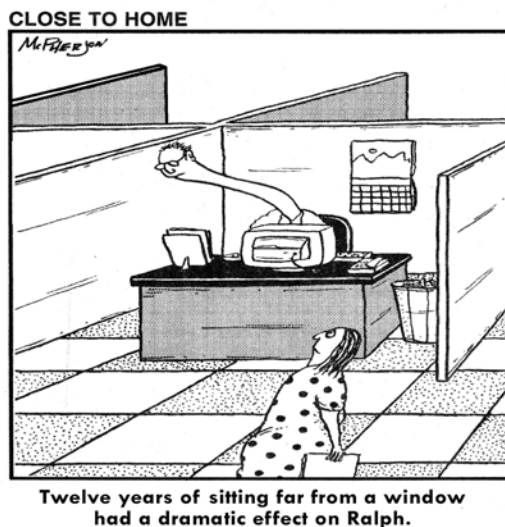
- ❑ The process in which buildings are managed can be improved.
- ❑ Increased efficiency in the way the operation runs.
- ❑ With improved practices Facility Managers are able to be more flexibility as new technologies emerge.
- ❑ Efficient buildings will be more competitive in the marketplace.

Human Resources Benefits

- ❑ Create higher quality work environment for tenants.
- ❑ Improved personnel morale (perception that the County and the Facility Manager care)
- ❑ Attract and keep higher quality tenants

Public Relations Opportunities

- ❑ Improved customer perceptions and image
- ❑ Credibility with community stakeholders
- ❑ Opportunity for community outreach and education Facility and County wide.



ENERGY EFFICIENCY

Building Commissioning

Commissioning is the process of systematically testing and evaluating the performance of mechanical and electrical equipment and controls to ensure that they function as a complete system. Commissioning may also involve the review of operation and maintenance procedures. Moreover, this process determines if a building or facility provides a safe, efficient, and comfortable shelter conducive to the activities for which it is used. These measures have been shown to reduce energy use by 10% to 15% with minimal capital investments.

For information regarding commissioning for a building contact:

- ❑ **Gail Hochhalter**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-3322, x 29518
- ❑ **Michael Meinecke, Energy Conservation Specialist**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-4476

Electric Lighting Systems

Lighting improvements may be the most efficient way you can improve the operations and performance of your building. Improved electric lighting and associated control technologies can minimize the use of electricity and maximize natural daylighting.

For assistance in this area please contact:

- ❑ **Michael Meinecke, Energy Conservation Specialist**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-4476
- ❑ **Karen Parker**
Facilities & Property Management
Multnomah County Business and Community Services
503-988-3322 x 29519

SITE CONSIDERATIONS

Simple changes to the existing landscaping and plants as well as upgrades to irrigation systems can reduce the demand for potable water use on building sites.

Landscaping

- ❑ Specify native plants adapted to the site and climate. Consult your landscape consultant for a recommended native plant list.
- ❑ Plant a diverse mix of plant types that offer birds and animals several options for seasonal food and cover.
- ❑ Minimize lawn area. Use drought-tolerant, slow growing, hardy grasses.
- ❑ Plant shade trees in pertinent areas to provide shading for buildings and parking lots which helps reduce heat islands.
- ❑ Plant flowering and food-producing shrubs and trees to promote bird and animal diversity.

Water-efficient irrigation

Incorporating high-efficiency irrigation systems such as micro-irrigation systems, moisture sensors, drip irrigation systems and clock timers uses significantly less water than traditional irrigation methods and help minimize runoff caused by inefficient watering

- ❑ Use drip irrigation systems.
- ❑ Use gray water and/or collected roof water for irrigation where permitted.
- ❑ Use timer controls on permanent irrigation system.
- ❑ Install soil moisture sensors to monitor water available to plants.
- ❑ Minimize lawn areas to save water.
- ❑ Group plant species with similar water needs.

Integrated Pest Management:

Implementing a comprehensive Integrated Pest Management plan can eliminate the use of chemical pesticides and herbicides at buildings and ground maintenance. Ban the use of all chemicals that are known to be carcinogenic or bio-accumulative. Contact Northwest Coalition for Alternatives to Pesticides, <http://www.pesticide.org> for assistance on their Pesticide Use Reduction program.

Native landscaping tends to require minimal irrigation and attracts native wildlife, such as birds and insects that control pests naturally. Because of its adaptability to the local conditions native landscaping also requires less pesticide and fertilizer, which means less negative water quality impacts from contaminated water runoff.

For further information regarding Integrated Pest Management contact.

www.reeusda.gov/nipmn

- ❑ Prevent disease and pest problems by planting trees, shrubs, and plants that are appropriate for site conditions.
- ❑ Monitor plants, properly identify pests, weeds or diseases, and evaluate potential control methods. Determine a tolerance level and then begin controls to achieve it.
- ❑ Use mechanical controls such as traps or barriers whenever possible.
- ❑ Preventive landscaping emphasizing a wide variety of maintenance practices and specific pest control tactics.

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- ❑ Use natural controls as a second line of defense. These include natural
- ❑ predators, bacteria and parasites.
- ❑ Use chemical controls as a last resort, using the least-toxic product that is appropriate.
- ❑ Develop a system to regularly monitor pest levels, as well as to evaluate the control methods you should apply.
- ❑ Use management and control approaches rather than elimination or eradication (except in cases of certain noxious weeds and specific situations where the tolerance threshold may be zero).

For information regarding landscaping considerations contact:

- ❑ **Gail Hochhalter**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-3322, x 29518
- ❑ **Michael Meinecke, Energy Conservation Specialist**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-4476

WATER EFFICIENCIES

Reduce Building Indoor Water Use

The U.S. Energy Policy Act of 1992 established water conservation standards for water closets, showerheads, faucets and other uses to save water consumption in the United States. These standards can be met and even exceeded by installing sensors and flow restrictors on water fixtures. Additional interior water saving methods include installing dry fixtures such as composting toilets and waterless urinals.

Flow-restricting faucet aerators and showerheads should meet the criteria in the table below. Inventory your existing fixtures to determine water flow. Indoor water efficiency products that meet or exceed these requirements are readily available locally. Devices that lower the quantity of water flow can reduce the operating costs of a building.

Energy Policy Act of 1992 Flow Requirement	
Water Closets (GPF)	1.6
Urinals (GPF)	1.0
Showerheads (GPM)	2.0
Faucets (GPM)	1.5
Replacement Aerators (GPM)	.5
Metering Faucets (gal/CY)	.025

For further information regarding water efficient fixtures for a specific project contact:

- ❑ **Gail Hochhalter**
Facilities and Property Management
Multnomah County Business and Community Services
503-988-3322, x 29518
- ❑ **Michael Meinecke, Energy Conservation Specialist**
Facilities and Property Management
Multnomah County Business and Community Services
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INDOOR AIR QUALITY

Fresh Air Ventilation

Healthy buildings need controlled and effective fresh air ventilation. The ventilation system must remove stale air and bring in and distribute clean, fresh air. Humidity control is also very important because pathogens, molds, mildew and other allergens can thrive at levels exceeding 60 percent relative humidity. It's also important to protect interior and exterior sources of air from chemicals, combustion by-products and other pollutants.

Poor air quality is a major problem in many buildings. In order to avoid complaints, establish a minimum Indoor Air Quality performance to prevent the development of indoor air quality problems in your buildings. According to the U.S. Environmental Protection Agency, indoor air pollution is one of today's most pressing health concerns. Well-documented cases of Legionnaire's disease and sick building syndrome have increased the awareness and importance of indoor air quality. Building occupants spend approximately 80 percent of their time indoors. Consequently, the air that we breathe has a strong correlation to how we experience our working environments.

Many materials, such as nylon carpet, sealants, sheet vinyl, caulking and paint can cause harmful vapors. This off gassing may cause illness and chemical sensitivities that can reduce employee productivity. Selecting building products with little or no off gassing potential, or products with low VOC's (Volatile Organic Compounds) can help maintain good air quality.

- ❑ Ask for MSDS sheets for all building products that are part of your project in order to verify VOC limits.

Chemical off-gassing isn't the only cause of indoor environmental problems. Inadequate ventilation, cigarette smoke, radon, noxious vapors from cleaning compounds, airborne bacteria and molds can all contribute to sick buildings.

Consider elements beyond indoor air quality to enhance a quality indoor environment. This includes illumination, acoustics, access to natural daylighting, and controllable HVAC systems.

For questions or concerns regarding the fresh air ventilation within a building contact:

- ❑ **Mike McBride**
Environmental Health and Safety Specialist
Facilities and Property Management
Multnomah County Business and Community Services
503-988-4474

Refer to the products and materials section for materials that have low Volatile Organic Compounds (VOCs). See sections "Paint and Sealers" along with "Resilient Flooring & Adhesives".

USING RESOURCES WISELY

Minimal Material Use

Whether you are planning a simple renovation or a large upgrade to your building, it is important to use resources wisely. No matter what the size, or how complicated the construction process is many resources are used.

The resource extraction and manufacturing processes used to create materials and products, coupled with the modes of transportation used to remove them, are intensive drains on our environment. Resource-efficient construction is an effective way to reduce the negative impacts of construction and use environmental and economic resources and energy more responsibly.

Coordinate early in the design process with your design team to determine ways that resources may be conserved. Establish green goals for the project that are realistic and meet everyone's needs and objectives.

Project considerations:

- ☐ Can the concrete walls or floors be left exposed?
- ☐ Can the ceiling be left exposed without dropping in a ceiling?
- ☐ Can the beams and structural columns be left exposed?
- ☐ In rooms such as parking garages, storage closets, and mechanical rooms are any surface finishes necessary at all?
- ☐ Can you leave the existing walls or ceiling in place without doing any demolition?
- ☐ Is it possible to use recycled paint in your project?
- ☐ Is it possible to retrofit the lighting to more energy efficient fixtures?

Recycled Content Building Materials:

Using recycled content building products is a resource -efficient strategy that reduces the need for virgin materials and helps keeps the recycling market strong. Recycled-content products can contain post-consumer or post-industrial recycled content, or a combination of both. Listed below are typical building products that have recycled content.

- ☐ Carpet
- ☐ Carpet backing
- ☐ Rubber flooring
- ☐ Metals
- ☐ Steel
- ☐ Aluminum
- ☐ Concrete
- ☐ Masonry
- ☐ Acoustic Tile
- ☐ Paint
- ☐ Walk-off mats
- ☐ Ceramic Tile
- ☐ Plastic Toilet Partitions
- ☐ Site Furniture
- ☐ Insulation

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Refer to the products and materials section for materials that have recycled content.

Local Building Materials

Locally extracted or manufactured building materials and products help reduce the environmental impacts of global transportation and support the local and regional economy. These products may also be more cost effective due to reduced transportation cost. There is a number of building products that are manufactured or harvested locally.

- ☐ Wood
- ☐ Concrete
- ☐ Brick
- ☐ Steel
- ☐ Paint

INNOVATIVE FACILITIES MANAGEMENT

As a Facility Manager you may consider items other than what has been listed here in order to encourage environmental responsibility in the building and among your tenants. Listed below are suggestions that you may want to consider to promote sustainability in the buildings you manage.

- ❑ Educate the building tenants about building retrofits or upgrades that have been incorporated into the building design. Train them on the functioning of any automated systems such as lighting controls, thermostats, etc.
- ❑ Promote and support ways to encourage employee commute options. Consider programs to allow employees to purchase transit passes through the County at a reduced rate.
- ❑ Provide an education program for building tenants that demonstrates the benefits of the green operations of your building. Provide examples of how the tenant can participate in actually helping improve the buildings green performance achievements.
- ❑ Provide tenants with opportunities to learn about sustainable practices. The Northwest Earth Institute offers excellent workplace discussions courses at no charge. You may contact them at 503-227-2807 or visit www.nwei.org.
- ❑ Adopt Green Purchasing Guidelines building wide and provide training for the purchasing department and contractors. Consider joining an organization such as the Sustainable Purchasers Products Coalition. Review the State of Oregon Sustainable Purchasing guidelines available from the Department of Administrative Services. Contact Jennetta Fennell, DAS/Purchasing (503) 378-4655 or download at http://tpps.das.state.or.us/purchasing/sustainable_purchasing.html

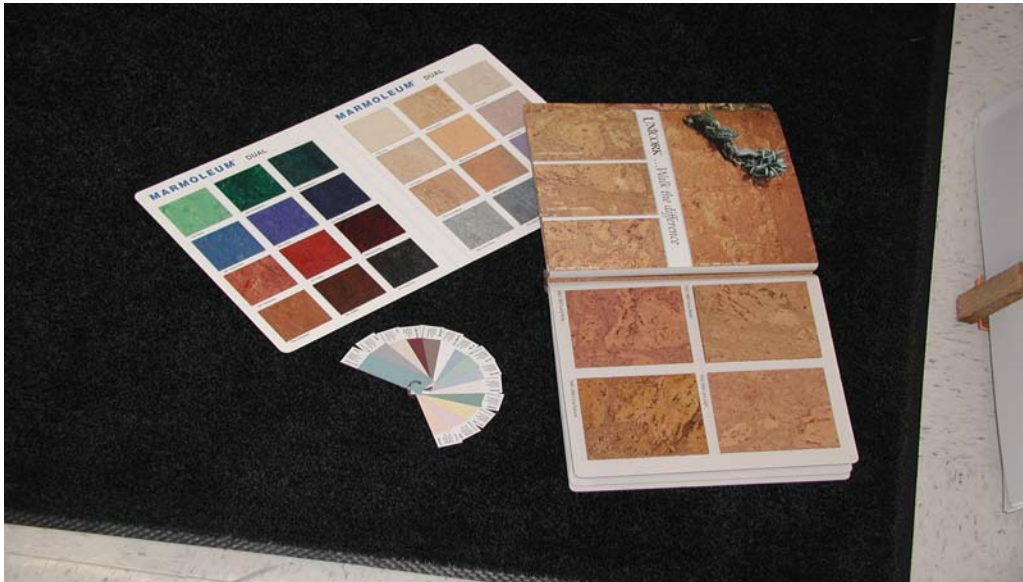
SUMMARY

The design, construction and maintenance of commercial buildings and workplaces is constantly changing. Green technologies are here to stay and the sooner one is able to demonstrate an understanding of the process, the easier it may be for management to embrace ideas for building improvements. Major social, economic, technological, and environmental trends are changing the way we commute, work, learn and play. Taking an active role in how you operate your buildings in a more sustainable way will help you stay ahead of the changing technologies that face us all.

REFERENCES

References for Green Building Strategies

- Bonneville Power Administration Building Commissioning Guidelines. www.bpa.gov
- PECI Model Building Commissioning Plan and Guide Specifications. www.peci.com
- ASHRAE Guideline 1-1996: the HVAC Commissioning Process, ASHRAE, 1996
- ASHRAE Guideline 4-1993: The preparation of Operations & Maintenance Documentation for Building Systems, ASHRAE, 1993
- The City of Portland Erosion Control Manual. 503-823-6892
- Parking Lot Landscaping Requirements, <http://ordlink.com/codes/portland/index.com>
- EPE Energy Star Roofing, www.epa.gov/appdstar/roofing
- Naturescaping, www.cleanrivers-pdx.org/get_involved/naturescaping.htm
- South Coast Air Quality Management District Rule #1168 www.arb.ca.gov/ractbarc/adhfinal.pdf



For questions regarding Construction Waste Management and Recycling contact:
Molly Chidsey
Pollution Prevention Specialist
503-988-5000 x27365

CONSTRUCTION WASTE MANAGEMENT

Waste Management Plan

Construction projects generate large quantities of waste during demolition, renovation, repair or new construction of buildings. It is becoming increasingly expensive to dispose of these wastes by taking them to landfills. Recycling, salvaging and reusing construction waste can reduce disposal costs, while conserving natural resources in the process.

For any future building improvement projects, require a construction and demolition waste management plan from the facilities manager or the general contractor. Establish aggressive goals for debris recycling and track the progress towards that goal.

A Construction Waste Management Plan should include the following:

- ☐ Identification of materials to be recycled.
- ☐ Identification of items that can be salvaged, donated, or reused in the project.
- ☐ Development of a plan for sorting and storing recyclable materials and waste on site throughout the project.
- ☐ Identification of contractors that salvage and/or recycle targeted materials.
 - Contact Andy Rader, The Environmentalists for carpet demolition and carpet recycling, 503-295-2070. Call to get quote per project.
 - Contact the Rebuilding Center for other materials to be salvaged, 3625 NW Mississippi Ave. Portland, OR 97227, 503-331-1877.

Building materials that can be recycled:

Contact Metro to receive a copy of their Construction Industry Recycling Toolkit. This reference guide will help you save money and conserve natural resources by reusing and recycling construction and demolition debris. Call Metro recycling Information at 503-234-3000 or log on to www.metroregion.org

- ☐ Land clearing debris
- ☐ Clean dimensional wood
- ☐ Plywood, OSB, & particleboard
- ☐ Concrete
- ☐ Asphalt concrete
- ☐ Concrete masonry units
- ☐ Bricks
- ☐ Gypsum wallboard.
- ☐ Rigid foam insulation.
- ☐ Asphalt shingles
- ☐ Paint
- ☐ Glass
- ☐ Carpet & carpet pad
- ☐ Plastic film
- ☐ Polystyrene
- ☐ High density polyethylene
- ☐ Cardboard, paper and packaging

The City of Portland ordinance requires general contractors to recycle construction and demolition debris from construction projects that are valued at \$50,000 or more. If there is no general contractor responsible for the project, recycling is the property manager's responsibility. For more information contact the Portland Office of Sustainable development. 503-823-7222.

Solid Waste & Recycling Code

Title 17

17.102.180 Businesses and Multifamily Complexes Required to Recycle.

(Added by Ordinance No. 169103; amended by 171812, effective December 26, 1997.)

A. Requirement to Recycle

1. All Businesses within the City shall recycle their recyclable materials in compliance with Administrative Rules established by the Bureau of Environmental Services.
2. All Multifamily Complexes within the City shall establish recycling systems, for their tenants' use, in compliance with Administrative Rules established by the Bureau of Environmental Services.
3. For all building projects within the City where the total job cost (including both demolition and construction phases) exceeds \$50,000, the general contractor shall ensure that certain materials generated on the job site are recycled in compliance with Administrative Rules established by the Bureau of Environmental Services. For an affected building project where there is no general contractor, this requirement applies to the property owner.

B. City monitoring of compliance will be accomplished through Customers' and Self-haulers' completion of Recycling Plan Forms and City review of those forms, as well as through City inspection of onsite recycling and waste systems.

C. Reporting Requirements. All Independent Commercial Recyclers and all Businesses or Multifamily Complexes which self-haul at least 25 tons of recyclables per year, shall report to the City quarterly on the quantities of recyclables collected in the City, using forms provided by the Bureau.

D. Any Business or any other Person may sell or exchange at fair market value its own recyclable materials, which are source separated for reuse or recycling. This Chapter and any Administrative Rules promulgated hereunder are not intended to limit the ability of any Person to compete openly to provide recycling collection service to businesses within the City of Portland.

PRODUCT INFORMATION SHEET:

You may want to use the attached form to distribute to your sub contractors or vendors to help track products and materials that have recycled content as well as sourcing local and regional materials for your project.

PRODUCT INFORMATION – Project Name

Product Name: _____

CSI Division Number: _____

Company: _____

Total Construction Cost: \$ _____
(includes labor, equipment, and materials)

Material Cost: \$ _____

Recycled Content of Product
(as applicable, please provide product data or cut sheets)

Post Consumer _____ %
(Waste material from consumer use incorporated into the material)

Post Industrial _____ %
(Waste material from industrial use incorporated into building material. This differs from industrial scrap, defined as a by-product of an industrial process easily recycled back into the same manufacturing process.)

Local/Regional Materials (within 500 miles of the project 'as the crow flies')

If manufactured locally/regionally, please give location:
(manufactured refers to the final assembly of components of a building product that is finished and installed by tradesmen)

If materials harvested, extracted, or recovered locally/regionally, please give location:

Information Provided by:

Name: _____

Contact address: _____

Phone: _____

Fax: _____

Signature _____

Date: _____

INTERIOR RECYCLING STORAGE AREAS

It may be difficult to achieve interior recycling storage areas in an existing building, but if at all possible, devise a plan to create space for a recycling collection area. Statistics have shown that a majority of individuals will recycle as long as the process is not too inconvenient or costly. The recycling area should have easy access for the entire building and be used for the purpose of separation, collection and storage of recyclables. Contact METRO Solid Waste Department 503-221-1646 for more information.

Recommendations for non-residential buildings:
Provide a minimum storage area of 10 sq ft plus:

- | | |
|---------------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Office buildings: | additional 4 sq ft /1,000 sq ft gross floor area |
| <input type="checkbox"/> Retail: | additional 10 sq ft/1,000 sq ft gross floor area |
| <input type="checkbox"/> Warehouse & Manufacturing: | additional 6 sq ft/1000 sq ft gross floor area |
| <input type="checkbox"/> Educational and Institutional: | additional 4 sq ft/1,000 sq ft gross floor area |
| <input type="checkbox"/> Other: | additional 4 sq ft/1,000 sq ft gross floor area |

In addition to creating space in the building for recycling, provide opportunities to educate and promote recycling within the building.

- ☐ Provide recycling containers that are clearly marked for paper, glass, metals and plastics.
- ☐ Provide a floor plan accessible to all that clearly marks recycling stations throughout building.
- ☐ Develop a tracking method incentive program to encourage building tenants to recycle.



BUILDING MAINTENANCE JANITORIAL AND MAINTENANCE PROCEDURES

Cleaning and maintenance compounds are common sources of indoor air pollution. Avoid exposing building occupants and building maintenance personnel to potentially hazardous chemicals. Examples include carpet cleaners, tile cleaner, disinfectants, deodorizers, drain cleaner, machine oils, solvents, pesticides, anti-bacterial compounds, mold inhibitors and other biocides. Because of the large surface areas treated, such compounds can produce a significant amount of pollution and have adverse effects on the indoor air quality of a building.

Large quantities of cleaning products are washed down drains every day. Many of these products contain toxic chemicals that ends up in our water shed, drinking water supplies, streams, lakes and rivers. These chemicals are toxic not only to humans but plants and animals as well. Additionally, many concentrated forms of cleaning products are classified as hazardous wastes, creating potential handling, storage, and disposal issues for users. Recognizing the human health and environmental effects of cleaning supplies is important for implementing a program for purchasing green cleaning products.

Recommendations for alternative cleaning supplies:

- ❑ Select products made from renewable resources, such as bio-based citrus, seeds and vegetable oils, avoid products made from non-renewable sources such as petroleum or hydrocarbon-based materials.
- ❑ Preference should be given to concentrated products over ready to use. Concentrated products are preferable because they reduce the amount of packaging, as well as the energy used in transportation of the product.
- ❑ Product containers should have recycled content, be recyclable or reusable. Use packaging designed to reduce exposure to product and use pump sprayers rather than aerosols. Consider using products with high-recycled content such as paper towels, toilet tissue, napkins, plastic bags and plastic containers.
- ❑ Use disposable paper products utilizing 100% recycled content and a minimum of 30% post-consumer recycled content and manufactured without the additional use of elemental chlorine or chlorine compounds.
- ❑ Plastic trash liners should have a minimum of 30% post-consumer recycled content.
- ❑ Develop and maintain policies to purchase only low VOC cleaning products. (Look for labels that meet Green Seal Standard GS-37 or California Code of Regulations for low VOC cleaning products.)

Low VOC Cleaning products to consider:

- ❑ Coastwide Laboratories, 5 distributors in Portland region. 1-800-775-3289 www.coastwidelabs.com. They carry high performance commercial cleaners and are 3rd party certified for strict environmental, health and safety requirements. Coastwide's Sustainable earth line currently carries six commercial cleaning products, including a general purpose cleaner, glass cleaner, washroom tub and tile cleaner, toilet and urinal cleaner, odor eliminator, and a carpet cleaner.
- ❑ Professional Turf- 11576 S.W. Pacific Highway, Tigard, OR. 1-800-894-7333. www.organicainc.com. They carry a variety of cleaning products such as degreasers, concrete cleaners, drain openers, as well as products for landscaping.
- ❑ Bi-O-Kleen Industries, Inc. sales@bi-o-kleen.com P.O. Box 2679, Clackamas, OR 97015. 503-557-0216. Bi-O-Kleen Industries carries products that meet commercial requirements such as All purpose Cleaner-Degreaser, Bacout Stain & Odor Eliminator, Spray and Wipe Cleaner and Glass Cleaners. All of their products are ammonia and alcohol free, non-toxic, and non-corrosive.



PAINTS AND SEALERS

INTERIOR PAINTS

All paint products that are used in Multnomah County buildings shall comply with **Green Seal Environmental Requirements** www.greenseal.org
This standard establishes environmental requirements for paints. The standard does not include stains, clear finishes, or paints sold in aerosol cans.

Paint	VOC Limit g/L
Flat	50
Non-Flat	150

Miller Paint Co., Inc. (Non-Flat Applications only)

Premium Interior Paints
317 S.E. Grand Ave.
Portland, OR 97214
503-233-4491

Parker Paint (Non-Flat Applications only)

Proshell
1024 SE Grand Ave.
Portland, OR 97201
(503) 236-7818

Metro Recycled Paint (Flat Applications only)

2001 Washington Street
Oregon City, OR 97045
503-234-3000
www.metro-region.org

Local Dealer:

Environmental Building Supplies
819 SE Taylor
Portland, OR 97214
503/222-3881

(Available anytime in 5-gallon quantities up to 60 gallons, no government discount)

AFM Safecoat New Wallboard Primecoat HPV

A premium quality, fast curing, flat finish primer specially formulated to provide a superior prime coat over interior surfaces such as new gypsum wallboard and textured sheetrock. It equalizes the absorption rate of topcoat paints over a variety of surfaces with different porosities, and helps to eliminate decorating problems over textured sheetrock and tape joints on wallboard.

AFM MetalCoat Acrylic Metal Primer

A thermoplastic acrylic emulsion primer fortified with rust inhibiting pigments. Designed for use on non-ferrous metal, iron, steel, aluminum, galvanized and masonry. It is not recommended for copper. Provides a tough, flexible film, producing outstanding

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Portland, OR 97227 503-988-3322

corrosion resistance and excellent adhesion. May be used on interior or exterior, including marine atmospheres. Very low odor and low VOC, it is one of the least toxic metal primers available, formulated without the heavy metals and other hazardous ingredients commonly used.

AFM Safecoat SemiGloss Zero VOC

A premium quality, fast curing enamel designed for interior walls, ceilings, wallboard, properly cured and primed plaster, masonry and primed metal where a semi-gloss finish and superior film formation properties are needed. It is particularly well suited for areas in which the health of the occupants is a concern: schools, hospitals, homes, offices - anywhere people want to reduce their exposure to toxic chemicals. Safecoat paints have almost no odor during application and are odor free once cured. They contain no formaldehyde, ammonia, crystalline silica, or ethylene glycol.

AFM Safecoat Transitional Primer

A premium quality, waterbased, flat finish universal primer specifically formulated to solve difficult application problems without the use of toxic and malodorous chemicals. It is particularly well suited for transitioning from existing oil based painted surfaces to waterbased coatings. Because it has an extremely tight and efficient polymer network, it is when properly applied useful as a stain blocker for knot holes, water soluble stains and the oils, tannins and terpenes in wood which can "bleed through" to the surface upon the application of traditional waterbased primers. Like all Safecoat paints, it is the least toxic product of its type, and contains no naphtha or other aromatic solvents, and no formaldehyde, ethylene glycol, ammonia, acetone, heavy metals, crystalline silica or other carcinogenic or hazardous materials.

Environmental Attributes:

Low-Emitting Materials: All of the paint mentioned above meet the VOC limits as outlined by Green Seal in the USGBC LEED Green Building Rating System

SEALERS

Use sealers in your buildings that meet the following criteria for
Bay Area Air Quality Management District

www.baaqmd.gov

The purpose of this rule is to limit the quantity of volatile organic compounds in architectural coatings.

Sealants	VOC Limit g/L
Architectural	250
Sealant Primer	VOC Limit g/L
Architectural (non-porous)	250
Architectural (porous)	775
Other	750
Specialty Coatings	
Wood varnish	350
Stains	250
Waterproofing concrete/ masonry sealers	400
Waterproofing sealers	250
Primers, sealers and undercoaters	200
Quick dry enamels	250
Quick dry primers, sealers & undercoaters	200
Recycled Coatings	250
Shellacs:	
Clear	730
Opaque	550

LACQUER SEALER FOR METAL AND WOOD

Safecoat Acrylacq

Clear high gloss water-based replacement for high solvent content lacquers. Use on wood cabinetry and doors, paneling, furniture, wood railings, metal railings. EBS carries product.

VOC material: 124 grams/liter

VOC Material less water: 281 grams per liter.

Manufacturer: American Formulating and Manufacturing
619-239-0321

Environmental Attributes:

Low-Emitting Materials: All of the sealers, caulking and adhesives mentioned above meet the VOC limits as outlined by the USGBC LEED Green Building Rating System.

CONCRETE AND MASONRY SEALER

AFM Safecoat

800/239-0321

Environmental Building Supplies

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322
503/222-3881

AFM Safecoat Penetrating WaterStop

Improves water resistance and repellency in a wide variety of surfaces, including brick walls, concrete foundations, concrete block, stucco, stone and most unglazed tile. Because Safecoat Penetrating WaterStop is not toxic and low odor, it is ideal for use indoors instead of a typical high solvent content sealer; yet, it is durable enough for use outdoors. It is particularly useful as a periodic maintenance coat for surfaces originally treated with Safecoat WaterShield.

AFM Safecoat Safe Seal

A multi-use, waterbased, low gloss sealer for highly porous surfaces such as particle board, plywood, processed wood and porous concrete. Used primarily to reduce toxic outgassing: in particular, it is highly effective at sealing in formaldehyde outgassing from processed wood such as plywood, particle board and pressed wood. Virtually odorless on application and odorless once cured.

USE ON: Porous surfaces such as processed wood products, concrete, wood

JOINT SEALERS

Mon-Eco Industries Inc.

Mon-Eco mastic, sealants and adhesives
5 Joanna Ct.
East Brunswick, NJ 08816
908/257-7942

Hardcast Inc.

Hardcast mastic and adhesive
903 West Kirby St.,
Wylie TX 75098
972-442-6545

SKYLIGHT SEALANTS

Dow Corning 791 Silicone Perimeter Sealant

Dow Corning 791 silicone perimeter sealant that is intended to be field applied to seal erected building components in both new and remedial applications.

VOC: 46-48 g/l

Dow Corning Corporation
Corporate Center
PO box 994

MIDLAND, MI 48686-0994

800/248-2481- ext. 746

s.beebe@dowcorning.com

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322

FIRESTOP SEALANT

TREMstop IA

Single component, water-based, intumescent acrylic firestop sealant.

Tremco Sealant/Weatherproofing Division

VOC: zero

3735 Green Road

Beachwood, Ohio 44122

216-292-5000

MULTIPLE-COMPONENT HIGH PERFORMANCE POLYURETHANE SEALANT

Sonneborn Sonolastic Sealant Systems NP-2

VOC: 23/g/l less water

Commercial Construction Products Division of ChemRex®

889 Valley Park Drive

Shakopee, MN 55379

Telephone 952/496-6000

Fax 952/496-6062

Customer Service 1/800/433-9517

Technical Services 1/800/ChemRex (243-6739)

ADHESIVE CAULKING

The Sherwin-Williams Company

3006 Original Formula All purpose adhesive caulk, White

101 Prospect Avenue N. W.

Cleveland, Ohio 44115

Telephone: (216) 566-2000 (Main Switchboard)

Environmental Attributes: VOC: 42 g./l

White Lighting Products, Inc.

Material is an aqueous water based sealant white in color.

Sherwin-Williams@SWCBD

Environmental Attributes: VOC: 42 g/l Less federally Exempt Solvents

DAP Inc

Dynaflex 230

2400 Boston St.

Suite 200

Baltimore, MD 21224

Phone: 1-800-543-3840

www.dap.com

Environmental Attributes: VOC less water: 20-25 gm/l

VOC material: 15-20 gm/l

Franklin International Solvent-free Tite-Bond Subfloor Adhesive

3610 North Suttle Rd.

Portland OR 97217

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322
503/735-9972

INTERIOR CAULK

DAP Safecoat Caulking Compound

DAP P.O. Box 277
Dayton, OH 45401
800/327-3339

Environmental Attributes: A non-toxic water-based elastic emulsion type caulking compound designed to replace oil caulk and putty for windows, cracks and general maintenance work. Use for caulking windows, sealing cracks, filling holes, door perimeters, walls and woodwork, air duct openings, venting and plumbing areas, siding openings and masonry cracks. Does not dry out or crack and does not release any solvents or obnoxious odors.

Macco LC-130 Super Caulk

116651 Sprague Rd.
Strongsville, OH 44136 USA
800/634-0015

Macklanburg-Duncan

35 yr acrylic w/ silicone
800/865-8454

EXPANSION JOINT SEALER

Johnson Paints Inc

Flex-Bon Pinnacle Acrylic Urethane Sealant.
Fort Meyers FL 33906
813/489-2332, 800/226-3539 Direct

Environmental Attributes: Low-VOC (54 g/L) low-odor paintable sealant that performs similarly to one-part urethane sealants such as at expansion and control joints

WOOD PRODUCTS

Certified Wood

Using wood products from sustainable forests certified by the Forest Stewardship Council (FSC) is a positive choice for sustainability. Certified forest products come from forests that have been independently audited and verified, as well managed to maintain the health of the total forest ecosystem.

Consult the Certified Forest Products Council's website at www.certifiedwood.org for a directory of certified wood suppliers, products and species, as well as for the latest information about the growing application of certified woods in the built environment. To be sure you are getting the FSC materials you specify use the Certified Wood Bid Compliance Form whenever you begin a project. ***See form at end of this section.***

CERTIFIED WOOD DISTRIBUTORS

Collins Wood Companies

1618 SW First Ave Suite 500
Portland, OR 97201-5706
800-329-1219
ljimerson@collinsco.com

Endura Hardwoods

1303 SE 6th Ave
Portland, OR 97214
503-233-7090
jim@endurawood.com

Cascadia Forest Goods, LLC

2844 Adams St.
Eugene, OR 97408
1-541-485-4477
cfg@teleport.com

Healthy Forest, Healthy Communities Partnerships (HFHC)

620 Southwest Main Street, Ste 112
Portland, OR 97205
503-221-6911 phone
503-221-4495 fax
rtemple@sustainablenorthwest.org
(Wood Framing, Wood Flooring, Furniture and Accessories)

Environmental Building Supplies

818 SE Taylor.
Portland, OR 97214
503-222-3881
www.ebs.com

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322

The Rebuilding Center

3625 N. Mississippi Ave.
Portland, OR 97227
503-331-9875
www.rebuildingcenter.com

Green Mountain Woodworks

P.O. Box 1433
Phoenix, OR 97535
541-535-5880

DOORS

Architectural Building Services

Interior Tenant Doors
20209 SW 95th Place
Tualatin, OR 97062
1-503-885-2181

Environmental Attributes:

FSC Certified: This company carries wood doors that are certified.
Local Regional: This company manufactures doors locally in Tualatin, OR.

RECLAIMED WOOD FLOORING

Environmental Attributes: Reclaimed wood flooring is typically salvaged from buildings that are typically 70 to 200 years old.

Collins Companies

1618 SW 1st Ave., Ste 500
Portland, OR 97201-5706
503-417-7755
800-329-1219
www.Collinswood.com

(Certified Wood, Reclaimed Wood, Wood Framing, Wood Stairs & Railings)

Columbia International Trading Co.

0547 S.W. Gaines St.
Portland, OR 97201
503-279-8165

The Rebuilding Center

3625 N. Mississippi Ave.
Portland, OR 97227
503-331-9875
www.rebuildingcenter.com

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322

Environmental Building Supplies

818 SE Taylor.
Portland, OR 97214
503-222-3881
www.ebs.com
ebs@ecohaus.com
(Carries wide variety of products that are safe for the environment)

Resource Woodworks, Inc.

627 E 60th
Tacoma, WA 98404
253-474-3757

BAMBOO FLOORING

Environmental Attributes: Despite the long distance transport of the product from China to the United States bamboo is still considered a sustainable product because of its durability, hardness, and short regeneration time.

Rapidly Renewable Resources: Using materials that are considered rapidly renewable helps reduce the use of products that are considered long-cycle renewable materials. Rapidly renewable materials are typically planted and harvested in cycles of 10 years or less. These products tend to be more environmentally and economically friendly, use fewer natural resources and require less labor to produce than other products.

Bamboo Flooring International

20950 Currier Rd.
Walnut, CA 91789-3019
909-594-4189 phone
909-594-6938 fax
www.bamboo-flooring.com

Oregon Bamboo Flooring Inc.

31120 SW Paulina CT.
Wilsonville, OR 97070-8529
Belliot@BambooFlooring.com

Smith & Fong Company, Plyboo Bamboo Products

601 Grandview Dr.
South San Francisco, CA 94080
866-835-9859
www.plyboo.com

Bamboo Hardwoods Flooring, Inc.

3834 Fourth Ave. S
Seattle, WA 98134
206-264-9365
www.bamboohardwoods.com

Certified Wood Project Toolkit

CERTIFICATION OVERVIEW

SPECIFICATION GUIDELINES

RESOURCES

DOCUMENTATION



Certified Wood Bid Compliance Form

PROJECT _____

PROJECT CONTACT _____

This section to be completed by Bidder:

Please send this completed form back with your bid to supply the certified forest products specified.

Make copies of this form as necessary to obtain vendor statements.

SPECIFICATION SECTION(S) _____

GENERAL CONTRACTOR _____

SUBCONTRACTOR _____

This section to be completed by Certified Forest Products Vendor:

Please send this completed form back with your bid to supply the certified forest products specified.

STATEMENT OF COMPLIANCE

As the representative of _____ I give my assurance that we are able to supply FSC certified products, as:

1. We are an FSC certified company able to supply the specified products and have been assigned the following Chain of Custody number: _____ - _____ - _____

All invoices and shipping documents relating to FSC certified products will be labeled with our company's Chain of Custody number. In addition, each FSC certified product will be identified on a line-item basis in accordance with FSC rules.

2. Our company's statement of product availability, delivery times, and pricing reflect due diligence based on market conditions at the time of inquiry.

SIGNATURE _____ DATE _____

PRINT NAME _____



Prepared by the Certified Forest Products Council

721 NW 9th Avenue, Suite 300 • Portland, OR 97209 • (503) 224-2205 Fax (503) 224-2216 • info@certifiedwood.org • www.certifiedwood.org

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CABINETRY

Environmental Attributes:

Recycled Content: Using recycled content building products is a resource-efficient strategy that reduces the need for virgin materials and helps keep the recycling market strong. Recycled-content products can contain post-consumer or post-industrial recycled content, or a combination of both. A wide variety of recycled content building products are listed below.

Neil Kelly

15573 SW Bangy Rd.
Lake Oswego, OR
503-288-neil
www.neilkelly.com

COUNTERTOPS

Counter Production

701 Bancroft Way
Berkeley, CA 94710
510-843-6948
www.cpinter-production.com

Environmental Attributes:

Recycled Content: Has recycled beverage glass chips embedded in a masonry binder for a terrazz –like look.

Armstrong Splash!

Permagrain Products, Inc.
4789 W. Chester Pike
Newtown Square, PA 19073-2212
610-353-8801
www.permagrains.com

Environmental Attributes:

Recycled Content: Has waste marble chips along with recycled plastic bound in a resin.

Syndesis, Inc. Syndecrete

Syndecrete Pre-Cast Light Weight Concrete
2908 Colorado Ave.
Santa Monica, CA 90404-3650
310-829-9932
www.syndesisinc.com

Environmental Attributes:

Recycled Content: Syndecrete® is a cement-based, precast lightweight composite containing fly ash and post-industrial recycled polypropylene fiber waste from carpet manufacturing.

MARMOLEUM AND ARTOLEUM

Forbo Industries, Inc.

Humbolt Industrial Park
Maplewood Drive
P.O. Box 667
Hazelton, PA 18201

Environmental Attributes

Rapidly Renewable: Natural Linoleum is a durable, low maintenance flooring made of linseed oil, pine rosin, sawdust, cork dust, limestone, natural pigments, and a jute backing.

Adhesives for linoleum installation differ from vinyl flooring adhesives; a smooth, dry surface is essential for proper installation. Linoleum can be used for desktop and conference table surfaces.



WALL SYSTEMS

INTERIOR STEEL STUDS

Steeler™, Inc.

10023 Martin Luther King Jr. Way South
Seattle, WA 98178
800-275-2279

Environmental Attributes:

Recycled Content: It is assumed that steel automatically contains a minimum of 25% post consumer recycled content. The steel material comes from galvanixed steel coils made up from a minimum of 25% recycled steel, using the Basic Oxygen Furnace process.

Manufactured locally: The steel studs are locally manufactured in Seattle, WA.

GYPSUM BOARD

Georgia Pacific Gypsum Board

Tough Rock™ Gypsum has a non-combustible, dimensionally stable, gypsum core. The surfacing on both faces and on the long edges is 100% recycled paper. The front face and the long edges are an ivory color: the back face paper is gray. The ends are square cut, smooth finished with no paper facing.

Environmental Attributes

Mining raw materials, gypsum, limestone, clay, talc, mica, and perlite) produces spoil erosion, pollutant runoff, and habitat loss. Gypsum is nonrenewable, although relatively abundant resource. Most gypsum board products are manufactured with paper backing from primarily recycled paper and gypsum core containing minimum 10 percent recycled gypsum. Percentages vary depending on the manufacturing facility, and are generally increasing throughout the industry as manufacturing facilities upgrade.

Recycled Content:

- 100% of the facing paper used to make wallboard is recovered fiber. Approximately 5% is from post consumer sources. Total recycled content: 13.96%, Post Industrial recycled Content: 8.26%. Post Consumer Recycled Content: 5.70%
- The recycled content in the core includes internal recycling, construction scrap, and synthetic gypsum.
- The USGBC has determined that synthetic gypsum is postindustrial content. The Tacoma Washington plant will use synthetic gypsum. Synthetic or flu-gas gypsum is a waste product obtained from stack scrubbers for removing sulfur from coal-fired power plant emissions.

Local Resource: Tacoma, WA

PREFINISHED PANELS

Gridcore® Systems International

Gridcore Panels
1400 Canal Ave.
Long Beach, CA 90813
888-474-3267

Homasote, Inc.

Designwall, Nova Cork, and Burlap Panels
Lower ferry Rd.
P.O. Box 7240
West Trenton, NJ 08628-0240
800-257-9491
www.homasote.com

National Shelter Products, Inc.

Unicor
22516 S.E. 64th Pl., Ste 210
Issaquah, WA 98027
800-552-7775

Phenix Biocomposites, LLC

Environ and NewStone Biocomposite, Dakota Burl, and Biofiber Wheat
1511 N. Gault St.
St. Peter, MN 56082
800-324-8187
www.phenixmfg.com

SierraPine LTD.

Medex, Medite II, and MediteFR MDF
P.O. Box 4040
Medford, OR 97501
1-800-676-3339
www.sierrapine.com

Environmental Attributes:

Recycled Content: Corrugated boxes and newspapers are being utilized as the raw materials for some interesting panel products. Post-consumer and post-industrial waste fibers are used in their manufacture.

FIBERBOARD MILLWORK

SierraPine, Ltd.

P.O. Box 4040
Medford, OR 97501
1-800-676-3339

- Medite II is an interior grade, engineered wood based panel manufactured from softwood fibers combined with formaldehyde free synthetic resins.
- Medite II can be used as a replacement for sanded plywood and solid wood in non-structural interior applications including: woodworking, cabinets, paneling, and standing running trim.
- Medite II is not suitable for structural applications or where moisture may be present.

Environmental Attributes:

Recycled Content: At least 25% of the fiber in these products is from post-industrial recycled resources, while the balance is certified as recovered fiber, consistent with U.S. EPA recovered fiber definitions. These products are made without formaldehyde - containing additives, and were shown in lab testing to be free of formaldehyde down to a detection limit of 0.05 ppm.

Locally Regional: Medite II is manufactured in Medford, OR.

STRAW PANELS

BioFab, LLC

Pacific Gold Board
P.O. Box 990556
Redding, CA 96099
530-243-4032
www.strawboard.com
www.ricestraw.com

Isobord Enterprises, Inc.

1300 SW Fifth Ave., Ste 3030
Portland, Or 97201
503-242-7345
www.isobord.com

Meadowood Industries, Inc.

33242 Red Bridge Rd.
Albany, OR 97321
541-259-1331

Environmental Attributes:

Rapidly Renewable: Straw, an agricultural waste product that remains after harvesting of grains and is gaining acceptance as a building material. Straw panels are formed under high temperature and pressure into 2" to 4" thick blocks that are wrapped in heavy

Multnomah County Facilities and Property Management

401 N. Dixon Street

Portland, OR 97227 503-988-3322

weight kraft paper, similar to drywall. Straw particleboard is 20% lighter than wood particleboard and has excellent machinability.

Low VOC: The finely shredded straw fibers are pressed into panels along with a formaldehyde-free MDI binder.

RESTROOM PARTITIONS

PLASTIC TOILET COMPARTMENTS

Santana Plastic Products

1300 Meylert Ave.

Scranton, PA 18509

800-368-5002

www.hinyhider.com

Comtec Industries, Inc.

801 Corey

Moosic, PA 18507

800-445-5148

Inteq Corp.

33010 Lakeland Blvd.

Eastlake, OH 44095

440-953-0550

Environmental Attributes:

Recycled Content: Recycled plastic is an excellent material for toilet partitions due to the non-structural requirements of the product and the durability and cleanability of the material. These products use recycled HDPE post-consumer plastic. Depending on the product the recycled content can vary from 30% to 75%.

CERAMIC TILE

Environmental Attributes

Recycled Content: Using recycled content building products is a resource -efficient strategy that reduces the need for virgin materials and helps keeps the recycling market strong. Recycled-content products can contain post-consumer or post-industrial recycled content, or a combination of both.

TILE SETTING MATERIALS AND ACCESSORIES

American Formulating & Manufacturing

AFM Safecoat 3 in 1 Adhesive
350W. Ash Street, #700
San Diego, CA 92101-3404
800-239-0321

Environmental Attributes: Water based adhesive with low VOC content

DAP, Inc.

D-50 Plus Mortar and D-40 Latex Fortified Mortar
855 N. Third St.
Tipp City, OH 45371
800-327-1044
www.dap.com

CERAMIC TILE

Bedrock Industries

Blazestone
1401 W. Garfield
Seattle, WA 98119
206-283-7625
www.bedrock-ind.com

Environmental Attributes

Recycled Content: Blazestone® tiles are made from 100% recycled glass.

Madera Solid Surface Tile

www.maderatile.com
800-767-4495

Environmental Attributes

Recycled Content: Madera tile is made from Lignasil® 100% reclaimed hardwood fiber

Terra-Green Ceramic Tiles

1650 Progress Drive
Richmond, IL 47374

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322
765-935-4760

www.terragreenceramics.com

Environmental Attributes:

Recycled Content: Terra Green Ceramic Tiles are made with 58% recycled aviation glass.

Summitville Tiles

State Hwy. 644
Summitville, OH 43962
330-223-1511

www.summitville.com

Environmental Attributes:

Recycled Content: Summitville porcelain and quarry tile products use feldspar tailings, a post-industrial waste product, as the primary raw material in a nearly solid-waste-free manufacturing process.

Terra Designs Tileworks

Green Series
P.O. Box 913
Dover, NJ 07802-0913
973-328-1135

Environmental Attributes:

Recycled Content: The Terra Designs Green Series tile products consist of at least 50% recycled ceramic content.

Crossville Ceramics Company

PO Box 1168
Crossville, TN 38557
931-484-2110 phone
931-456-2956 fax

www.crossville-ceramics.com

Environmental Attributes:

Recycled Content: Most manufacturers reclaim their fired scrap materials. Tile containing recycled glass is available. Recycled glass can contain preconsumer and post-consumer industry waste such as windshield glass and waste from light bulb manufacture. Tile is an inherently low-toxic, durable finish material for flooring, walls, and other applications

RESILIENT FLOORING AND ADHESIVES

Environmental Attributes:

Rapidly Renewable Resources

Using materials that are considered rapidly renewable helps reduce the use of products that are considered long-cycle renewable materials. Rapidly renewable materials are typically planted and harvested in cycles of 10 years or less. These products tend to be more environmentally and economically friendly, use fewer natural resources and require less labor to produce than other products.

FLOORING UNDERLAYMENT

Acousti-Cork

Amorim Industrial Solutions
26112 110th St.
P.O. Box 25
Trevor, WI 53179
800-255-2675

Dodge –Regupol, Incorporated

P.O. Box 989
Lancaster, PA 17608-0809
1-800-322-1923
www.regupol.com

Environmental Attributes:

Dodge Cork Sound Control Underlayment is made from granulated cork

Homasote, Inc.

Homasote 440 Sound Barrier, 440 Carpetboard and Comfort base
Lower Ferry Rd.
P.O. Box 7240
West Trnton, NJ 08628-0240
800-257-9491
www.homasote.com

Environmental Attributes:

These Homasote products are made from high-density fiberboard panels made from 100% recycled wastepaper and a formaldehyde-free paraffin binder.

Natural Cork, Ltd. Company

Cork Underlayment
1825 Killinsworth Rd.
Augusta, GA 30904
800-404-2675
www.naturalcork.com

SLIP-RESISTANT FLOORING

Slip-resistant flooring is necessary for public or industrial entryways, work areas and high traffic areas, particularly where exposure to water may occur. Walk-off mats such as these are also good sources of soil removal from foot traffic entering a building.

Marley Flexco

Flex-Tuft Rubber Tile®
1401 East 6th Street
P.O. Box 553
Tuscumbia, AL, USA 35674
Tel: 1-800-633-3151
www.marleyflexco.com

Environmental Attributes: Flex-Tuft® is a product with approximately 95% of the components comprised of recycled bus and truck tires)\

U.S. Rubber Recycling, Inc.

SureStep Traffic Tire Tiles
Rancho Cucamonga, CA 91730
1-888-473-8453
www.usrubber.com

Environmental Attributes SureStep™ Traffic Tire is made of recycled truck and bus tire linings.

VINYL FLOORING

Environmental Attributes:

Recycled Content: Resilient flooring manufactured from 100 percent-recycled PVC is available in sheet, tile, and plank.

Amtico International

Stratica
6480 Roswell Rd.
Atlanta, GA 30328
1-800-404-0102
www.stratica.com

Environmental Attributes Stratica is a chlorine free, low-VOC, durable alternative to vinyl or VCT flooring.

Lees, Burlington Industries, Inc.

3330 West Friendly Avenue
Greensboro, NC 27410
1-800-523-5647
www.leescarpets.com

Environmental Attributes:

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322

Recycled Content: MetaFloor is a hybrid construction that performs many performance features of hard surface floor coverings. MetaFloor is produced using 50% less nylon than typical carpet, which translates into a 50% reduction in oil and energy resource consumption. Metafloors secondary backing system consists of 50 % recycled content.)

CORK FLOORING

Environmental Attributes

Rapidly Renewable: Cork is a natural product that is obtained from the outer bark of the cork oak tree. Because the cork naturally regenerates in about 10 years, it can be harvested sustainable without killing the tree. Some cork flooring is fabricated from bottle-cork industry waste. Manufacturing process involves few toxins and generates very little waste because nearly all-manufacturing waste is recycled back into product.

Dodge –Regupol, Incorporated

P.O. Box 989
Lancaster, PA 17608-0809
1-800-322-1923
www.regupol.com

Environmental Attributes: Dodge Cork Tiles™ are available in one face pattern and four different shades

Duro-Design Cork Flooring

3020 Le Corbusier Blvd.
Industrial Park, Laval (Quebec) Canada H7L 3W2
1-888-528-8518
www.duro-design.com
info@duro-design.com

Environmental Attributes: Parquet tile floor made of 100% high-density cork

Gerbert Limited

715 Fountain Ave.
P.O. Box 4944
Lancaster, PA 17604-4944
888-359-5466
gerbertinfo@gerbertltd.com

Expanko Cork

Treadmaster® Flooring
1139 Phoenixville Pike
West Chester, PA 19380
1-800-345-6202 www.expanko.com

Environmental Attributes: Treadmaster® flooring is made from 60% re-cycled cork and 40% rubber- Expanko Cork Flooring is organically grown Granulated Cork.

Natural Cork, LLC

1710 N. Leg CT.
Augusta, GA 30909
800-404-2675
www.naturalcork.com

Cork America

5657 Santa Monica Blvd.
Los Angeles, CA 90038-2903
323-469-3228
800-795-2675
www.corkamerica.com

Wicanders Cork

Infocor, USA, Wicanders
www.amorim-revestimentos.pt
(Glueless Cork System)

LINOLEUM FLOORING

Environmental Attributes:

Rapidly Renewable: Linoleum is manufactured from cork, linseed oil, wood fiber, and pine resin. Ground-up stone and wood are added for color. Manufacturing process generates little waste because nearly all-manufacturing waste is recycled back into product.

Armstrong World Industries, Commercial Floors

2500 Columbia Ave.
Lancaster, PA 17603
1-800-572-8324
www.armstrong.com

Forbo Industries, Inc.

Humbolt Industrial Park
Maplewood Drive
P.O. Box 667
Hazelton, PA 18201 1-800-842-7839
www.forboLinoleumNA.com
infor@fl-NA.com

Environmental Attributes

Rapidly Renewable: Natural Linoleum is a durable, low maintenance flooring made of linseed oil, pine rosin, sawdust, cork dust, limestone, natural pigments, and a jute backing.

Adhesives for linoleum installation differ from vinyl flooring adhesives; a smooth, dry surface is essential for proper installation. Linoleum can be used for desktop and conference table surfaces.

Recycled Content: The Post-Industrial recycled content for Marmoleum is 45% by weighted average.

The Post Consumer recycled content is 0%.

The VOC rating for Marmoleum is 0%

Linoleum Adhesive: Forbo Linoleum L910 Adhesive (US)

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322

Armstrong World Industries, Inc.

DLW Linoleum
P.O. Box 3001
Lancaster, PA 17604
1-800-292-6308
www.commercial-floors.com

Environmental Attributes: linoleum is made from renewable raw materials

Flintile

DINOFLEX Manufacturing LTD.
3340 NW Yeon
Portland, OR 97210
503-222-9367

RUBBER FLOORING

Environmental Attributes:

Recycled Content: In the United States each year approximately 200 million tires are discarded; most enter landfills. Recycled-tire rubber provides a highly durable, resilient, slip-resistant Rubber floors may contain industrial and natural rubber. Industrial rubber is obtained through the polymerization of petroleum products. Natural rubber is a renewable raw material that is extracted from the sap of the tropical rubber plant (without harming the plant). Rubber flooring is available with 75 percent to 100 percent post-consumer recycled content.

EcoStar, Inc.

Nova Walkway Pads
230 Center Dr., Ste. 201
Vernon Hills, IL 60061
1-800-211-7170
www.ecostarinc.com

Environmental Attributes:

Recycled Content: EcoStar produces Nova Walkway Pads from Starloy, a proprietary polymer made from 100% recycled post-industrial rubber and plastic

Surface America

P.O. Box 157
Williamsville, NY 14231
1-800-999-0555
www.surfam.com

Environmental Attributes:

Recycled Content: recycled tires and gym shoes used in flooring materials.

Van Dijk, Carpet Inc.

2500 Donn Drive
P.O. Box 1569
Cartersville, Georgia 30120

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322
800-222-9005

Environmental Attributes:

Recycled Content: Walk off mat with secondary backing consisting of a recycled rubber/ vinyl compound

U.S. Rubber Recycling, Inc.

2225 Via Cerro, Unit B
Riverside, CA 92509
909-342-0177
www.usrubber.com

nora Rubber Flooring

94 Glenn Street
Lawrence, MA 01843
800-332-nora
www.norarubber.com

Dodge-Regupol, Incorporated

ECOsurfaces
P.O. Box 989
Lancaster, PA 17608-0809
1-800-322-1923
www.regupol.com

Environmental Attributes: Recycled rubber flooring

FLOORING ADHESIVES

When installing any flooring product, first consult with the manufacturer to determine the correct adhesive to use with their product and if they have low VOC adhesives. The following guidelines will provide you with the VOC limits for adhesives.

South Coast Rule #1168 by the South Coast Air Quality Management District

The purpose of this rule is to reduce emissions of volatile organic compounds (VOCs) from the application of adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers. www.aqmd.gov

Welding & Installation	VOC Limit grams/Liter
Indoor carpet adhesives	50
Carpet pad adhesives	50
Wood flooring adhesives	100
Rubber flooring adhesives	60
Subfloor adhesives	50
Ceramic Tile adhesives	65
Subfloor adhesive	50
VCT & asphalt tile adhesive	50
Drywall and panel adhesive	50
Cove base adhesive	50

FRAMING AND CONSTRUCTION ADHESIVES

DAP Inc.

Multnomah County Facilities and Property Management
401 N. Dixon Street
Portland, OR 97227 503-988-3322
DAP 4000 Subfloor/Deck Adhesive
2400 Boston St. Suite 200

Baltimore, MD 21224
Phone: 1-800-543-3840
www.dap.com

COVE BASE ADHESIVE

DAP

DAP D-3001 Inveronline
P.O. Box 277
Dayton, OH 45401
800/327-3339

AFM

AFM 3-in-1
350 West Ash St. Suite. 700
San Diego, CA 92101
619/239-0321, Factory direct

Advanced Adhesive Technology Inc.

Airtech, A.A.T.
207 E Emory St.
Dalton GA 30721
706/226-0610

Mapei

Eco 575
Solvent Free High Performance Acrylic Cove Base Adhesive
1501 Wall Street
Garland, TX 75041-4046
1-800-42-mapei

Environmental Attributes: A solvent-free, high performance, acrylic cove base adhesive for the installation of vinyl and rubber cove base over good quality, approved surfaces.

Mapei Arizona Corp

Environtech Floor covering adhesives.
401 S Smith Rd.
Tempe, AZ 85281
602/968-7725

Mapei ECO Ultra-Bond 245

Ultra-rapid setting, high-solids adhesive for the installation of jute, polypropylene (Action Bac®), latex unitary, latex foam, sponge rubber, hot melt (Unibond®), needle punched, woven, closed cellular urethane foam and Enhancer® backed carpets; felt-backed sheet vinyl goods and vinyl composition tiles.

Mapei Arizona Corp

Mapei ECO Ultra-Bond 290

Multnomah County Facilities and Property Management

401 N. Dixon Street

Portland, OR 97227 503-988-3322

Ultra-white non-staining specially formulated for the installation of mineral fibrous felt-backed vinyl sheet goods and jute, polypropylene (Action Bac®), latex foam or sponge rubber-backed carpeting

CEILINGS

Environmental Attributes: The major constituents of acoustical ceiling tiles are mineral wool (fabricated from slag and rock, cellulose, starch (primarily from corn). Clay (for fire-rated products), fiberglass and paint. Mining raw materials produces soil erosion, pollutant runoff, and habitat loss. Manufacture of acoustic ceiling tiles does not generate much waste because scrap material is recycled back into the process.

BiFab, LLC

Pacific Gold Board Baled Batt

P.O. Box 990556

Redding, CA 96099

530-243-4032

www.strawboard.com

www.ricestraw.com

Celotex Corp.

P.O. Box 31602

Tampa, FL 33631

800-873-4103

www.Celotex.com

Pacific Wood Systems

32928 Roberts Ct.

Coburg, OR 97408

541-342-7662

pws@pacificwoodsyste.ms.com

Armstrong Ceilings

P.O. Box 3001

Lancaster, PA 17604

888-234-5464

1-800-572-8324

www.armstrong.com

ARMSTRONG CEILINGS RECYCLING

Armstrong Ceilings Reclamation Program

P.O. Box 3001

Lancaster, PA 17604

888-234-5464

1-800-572-8324

www.armstrong.com

Environmental Attributes: Armstrong will take back used ceiling tiles and remanufacture them into new tiles

CARPET AND INDOOR AIR QUALITY

All carpets specified meet the following guidelines per the Carpet and Rug Institute Green Label Testing Program
www.carpet-rug.com

The purpose of this labeling program is to identify products that are truly low-VOC, CRI has established a labeling program. The CRI Indoor Air Quality Carpet Testing Program informs the consumer that the product type has been tested by an independent laboratory and has met the criteria for very low emissions.

Emission Factor Limit	Mg/m2/hr
Carpets Total VOCs	0.50
4-Phenylcyclohexene	0.05
Formaldehyde	0.05
Styrene	0.40
Adhesives Total VOCs	10.0
Formaldehyde	0.05
2-Ethyl-1-Hexanol	3.00
Cushion Total VOCs	1.00
4-Phenylcyclohexene	0.30
Formaldehyde	0.05
Styrene	0.05

Questions concerning carpet recycling or carpet specifications contact:

CARPET SPECIFICATIONS

Criteria for Carpet Specifications

- A. **Performance:** Preference will be made for "Branded Type 6,6 Nylons as they tend to out perform unbranded nylons due to the manufacturing process and the characteristics of the nylon being used. Being sustainable means the product will perform and last longer, hence reduce energy consumption to produce a newer replacement product and thus reduce premature disposal. More energy is ultimately consumed with a carpet that has a shorter use life span. This is why performance branded type 6,6 nylons are preferred over commodity products.
- B. **Local and Regional:** Preference will be made for carpet products that are manufactured on the West Coast with the exception of Carpet Tiles. There are several carpet mills that manufacture their carpet in California and we have selected from those manufactures. Even though the distance is greater than the preferred 500 mile radius of a product considered local and regional it is much closer than those products manufactured in Georgia.
By using products that are manufactured locally helps reduce the environmental impacts resulting from their transportation and help supports the local economy
- C. **Recycled Content:** The carpet industry has responded to the market's demand for carpet fibers with recycled content. However, the results have not been as successful as possible. Recycled materials in the construction of commercial carpet have always been a challenge because of the long-term performance issues that commercial carpet demands. It is achievable to get some recycled content with Lumena solution dyed nylons. Our specifications reflect that some of these solution dyed nylons have a small percentage of recycled content. As mentioned above our selection criteria was based upon performance nylons as opposed to nylons with recycled content. The industry has not perfected the development of Type 6,6 nylon with a high percentage of recycled nylon, either post-industrial or post-consumer. You can custom order type 6,6 nylon with recycled content for a minimum quantity and some cost premium.
- D. **Carpet Tile:** On the other hand carpet tile as opposed to broadloom is possible to achieve a high percentage of recycled content nylon. Because of the advanced technologies of the mills manufacturing carpet tiles and the backing on the carpet tile it is possible to use a carpet tile with a premium type 6,6 nylon that has recycled content on the backing and face fibers. In the specification manual we have specified 3 products that have a high percentage of recycled content.

In addition to these products with high recycled content C&A will also take back and recycle any existing vinyl backed carpet product down if you replace it with their product. Interface will take back any manufacturers carpet and recycle it. To ensure that this happens you must write the request on your purchase order when the order is placed.

Benefits of using Carpet Tile:

- ☐ Provides flexible to change areas out with out changing entire floor
- ☐ High recycled content on backing
- ☐ Performance nylons
- ☐ Works ideal with raised access floor system or open office system
- ☐ Easy for selective replacement of tiles in high traffic areas
- ☐ Minimum use of adhesive is required

- E. **Indoor Air Quality:** All carpet and adhesives shall meet Carpet and Rug Institutes Green label program. The carpet and adhesives specified will meet these requirements

CARPET RECYCLING

Recycle existing carpet and pad when demolition occurs. Dupont flooring has made special arrangements with Multnomah County to provide carpet recycling for your renovation projects. Contact Dupont early in the project to establish budget for carpet demolition and recycling.

Contact: Andy Rader, The Invironmentalists
Dupont Flooring Systems
2121 NW Front Ave.
Portland, OR 97209
503-295-2070

CARPET RECLAMATION SPECIFICATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirements for Reclamation Provider for carpet reclamation.
- B. Procedures for removal and reclamation of carpet.

1.2 RELATED SECTIONS

- A. Section 01738: Selective Demolition
- B. Section 02222: Building Demolition
- C. Section 09680: Carpeting

1.3 DEFINITIONS

- A. Agent Firm: Company coordinating and performing reclamation. (Dupont)
- B. Carpet Remover: Designated agent firm providing carpet removal services for recycling purposes.

1.4 SUBMITTALS

- A. Environmental Quality Management Plan to include provisions for:
 - 1. Dust
 - 2. Odor
 - 3. Noise
- B. Proposed packing and transportation measures.
- C. Schedule of carpet reclamation activities indicating following:
 - 1. Detailed sequence of removal.
 - 2. Inventory of items to be removed and recycled.
- D. Reclamation agency records indicating receipt and disposition of used carpet.
- E. Provide copy of contract with Reclamation Provider for review and approval (chain of custody letter).
- F. Certification: Written certification Reclamation Provider and Carpet Remover that used carpet **[and pad]** was removed and recycled in accordance with established Carpet Reclamation Program.
- G. Carpet reclamation procedures.

1.5 QUALITY ASSURANCE

- A. Reinstall in accordance to CRI's 104-1996 Standard of Installation of Commercial/Carpet Textile Floor coverings and Specifying Commercial Carpet Installation
- B. Regulatory Requirements:
 - 1. Comply with governing authorities having jurisdiction.
 - 2. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.6 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Evaluate possible contaminants generated by carpet removal.
 - 2. Obtain approval of **[Owner] [Facilities Manager] [Construction Administrator]** before performing operations which generate contaminants.

PART 2 PRODUCTS

2.1 CARPET RECLAMATION AGENCY

- A. [List Reclamation Provider] Dupont

2.2 MATERIALS

- A. Adhesive Removal Solvents: Comply with Carpet and Rug Institute (CRI) Publication 104 subparagraph 6.2.10
- B. Used Carpet:
 - 1. Reclaimed carpet: Remove and place in container or trailers.
 - a. Reclamation Provider to provide written receipt.
 - 2. Retained carpet: Remove, store, and protect materials **[for re-installation] [to be retained by Owner]**.
- C. Carpet Pad recycle carpet padding **[where locally available] or [as designated by Reclamation Provider]**.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions where Work is to be performed.
- B. Identify conditions detrimental to proper or timely completion in writing to Architect.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.
 - 2. Start of work to represent acceptance of conditions.

3.2 PREPARATION

- A. Do not proceed until following work has been executed and approved by Owner's representative.
 - 1. Install dust, odor and noise control measures described in Environmental Quality Management Plan.
 - 2. Provide, erect, and maintain barricades, lighting, and guardrails as required to protect general public, workers, and adjoining property for tenant spaces.
 - 3. Filter intake and return air grilles.
 - 4. Vacuum used carpet before removal.
 - 5. Notify Owner's representative [10] days prior to implementing plan.
 - 6. Fire detection, alarms and exits to be maintained unless temporarily permitted by Fire Marshal or authority having jurisdiction.
- B. *Notify Owner's representative **[10]** calendar days prior to installing temporary protection.*

3.3 CARPET REMOVAL

- A. Broadloom and/or carpet tile:

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401 N. Dixon Street
Portland, OR 97227 503-988-3322

1. Remove in large pieces.
 2. Roll tightly and pack neatly in container.
 - B. Carpet Tiles:
 1. Neatly stack or repack in cardboard boxes prior to placing in container.
 2. Do not stack higher than six (6) feet when packing.
 - C. Deposit only clean, dry, used or scrap carpet in containers.
 1. Clean carpet: Clean free from demolition debris or asbestos contamination, garbage, and tack strips.
 2. Includes carpet scrap and waste from new installation.
 - D. Remove adhesive according to recommendations of Carpet and Rug Institute (CRI).
- 3.4 DISPOSAL CONTAINER
- A. Place used carpet in container supplied by Reclamation Provider.
 1. Containers are fully enclosed, front (end) loading.
 2. Place only used commercial carpeting in collection container.
 3. Container shall be kept locked or supervised.
 - B. Use effective packing techniques to maximize amount of material in container.
 - C. When container is full, contact reclamation agency to coordinate pickup and drop-off of replacement container. If container is locked for security purposes, remove the container locks prior to pickup.
- 3.5 DISPOSAL TRAILER
- A. Place used carpet in trailer supplied by Reclamation Agency.
 - B. Comply with State and Federal Department of Transportation regulations for weight limits.
 - C. Carpet Tiles:
 1. Do not stack higher than six (6) feet.

CARPET SPECIFICATIONS

BROADLOOM

Facility Type:

Healthcare, Clinics

(see also Carpet Tile section)

Manufacturer:	Bentley
Style:	Refuge
Option A:	Color: Dewberry 885961
Option B:	Color: Woodsage885957
Option C:	Color: Olive Yard 885958
Fiber:	DuPont Antron Lumena Nylon, Type 6.6
Dye Method:	Solution Dyed
Standard Backing:	High Performance
Premium Backing:	High Performance is Premium standard
Moisture Barrier Backing:	Lifespan MG
Adhesive:	Premium multipurpose adhesive 1000

*** Note:** You may select from the following coordinates:

Style: Spa Colors to match Options A, B, & C

Style: Kava Kava Colors to match Options A, B, & C

Style: Lojong Colors to match Options A, B, & C

Style: Oasis Colors to match Options A, B, & C

Style: Raku Colors to match Options A, B, & C

Style: Retreat Colors to match Options A, B, & C

Manufacturer:	Monterey
Style:	Digital
Option A:	Color- 0290-964 Synchronize
Option B:	Color- 0290-287 Direct Sequence
Option C:	Color- 0290-786 Network
Fiber:	DuPont Antron Lumena Nylon, Type 6.6
Dye Method:	Solution Dyed
Standard Backing:	Super Lok
Premium Backing:	LifeSpan NT
Moisture Barrier Backing:	Lifespan MG
Recycled Content:	10% post-industrial
Adhesive:	W.F. Taylor Co. 550 Fast Tack Carpet Adhesive

BROADLOOM

Facility Type:

Office Spaces, Judges Chambers, Commissioners' Offices, Directors' Offices, and Libraries

(Also see Carpet Tile section)

Manufacturer: Bentley
Style: Rhythm and Blues Loop
Option A: **Color-** 7085 Boogie Woogie
Option B: **Color-** 7091 Honey, Honey
Option C: **Color-** 7096 Syncopated
Fiber: DuPont Antron Legacy Nylon Type Type 6.6
Dye Method: Yarn Dyed
Standard Backing: High Performance
Premium Backing: High Performance is Premium backing
Adhesive: Premium Multipurpose Adhesive 1000

Manufacturer: Monterey
Style: Tatami II
Option A: **Color-** 6041-234 Miso
Option B: **Color-** 6041-814 Kyoto
Option C: **Color-** 6941-393 Sashimi
Fiber: DuPont Antron Legacy Nylon Type 6.6
Dye Method: Beck Dyed
Standard Backing: Super Lok
Premium Backing: LifeSpan NT
Adhesive: W.F. Taylor Co. 550 Fast Tack Carpet Adhesive

Manufacturer: Atlas
Style: Chasse
Option A: **Color-** C717 Violet Lace
Option B: **Color-** C706 Florentine
Option C: **Color-** C713 Shellstone
Fiber: DuPont Antron Legacy Nylon, Type 6.6
Dye Method: Yarn Dyed
Standard Backing: Lifespan (premium backing comes standard)
Premium Backing: LifeSpan
Adhesive: Premium Multipurpose Adhesive 1000

BROADLOOM

Facility Type:

Detention Spaces

Carpet:	Broadloom
Manufacturer:	Pacificrest
Style:	Strategy P0679
Option A:	Color- 03 Fullerton
Option B:	Color- 08 Van Nuys
Option C:	Color- 05 San Jose
Fiber:	DuPont DSDN Type 6.6 Solution Dyed Nylon
Dye Method:	Solution Dyed
Standard Backing:	ActionBac
Premium Backing:	E-LOK BioBak Laminate Backing
Adhesive:	W.F. Taylor Co. 550 Fast Tack Carpet Adhesive

Manufacturer:	Monterey
Style:	Marbella II
Option A:	Color- 6040-476 Olivera
Option B:	Color- 6040-913 Tortosa
Option C:	Color- 6040-928 Barcelona
Fiber:	DuPont XTI Nylon Type 6.6 Skein & Space Dyed
Dye Method:	Skein Dyed & Space Dyed
Standard Backing:	Super Lok
Premium Backing:	LifeSpan NT
Adhesive:	W.F. Taylor Co. 550 Fast Tack Carpet Adhesive

Manufacturer:	Bentley Prince Street
Style:	Interplay
Option A:	Color- 889038 Topiary
Option B:	Color- 889042 New Denium
Option C:	Color- 889033 Peat
Fiber:	DuPont Type 6.6 Nylon
Dye Method:	Solution Dyed
Standard Backing:	High Performance
Premium Backing:	High Performance is Premium backing
Adhesive:	Premium Multipurpose Adhesive 1000

Note: You may select from the following coordinates in the same grouping
Style: Interfold, Interpoint, Interlock

CARPET TILE

Facility Types:

Healthcare, Clinics, Office Spaces, Libraries

Manufacturer: C&A
Style: Ecotone
Option A: **Color-** 51013 Limit
Option B: **Color-**51017 Redesign
Option C: **Color-**51004 Respond
Fiber: Repeat BCF-Nylon Type 6.6
Dye Method: Solution Dyed
Backing: ER3, 100% Recycled Content
Total Recycled Content: Minimum 45%, minimum of 7% post-consumer recycled carpet, the balance post-industrial carpet and plastic.
Adhesive: Not Applicable- Tiles are Peel and Stick Method

* **Note:** Also see coordinate Habitat in colors to match options A, B, & C

Manufacturer: Interface
Style: Transformation 146030250E
Option A: **Color-** 4185 Pollen
Option B: **Color-**4191 Conifer
Option C: **Color-**4189 Tundra
Fiber: Solutia Ultron ReNew Nylon Type 6.6
Dye Method: Solution Dyed
Backing: GlasBac RE Tile
Total Recycled Content: 52%, 22% post-consumer, 30% post-industrial
Adhesive: Grid-Set Green Glue

* **Note:** Please order full size tile for overall pattern and color range.

Manufacturer: Milliken
Style: Earth Square
Options: See Earth Square book for colors and patterns.
Fiber: Milliken WearOn Nylon, Type 6.6
Dye Method: Computerized Dye Injection
Backing: Vinyl Hard Back
Total Recycled Content: 100% post-consumer. Existing tile has been renewed for another installation life.
Adhesive: Milliken Modular Carpet Adhesive- 100V

LINOLEUM

Facility Type: All

Manufacturer: Forbo Marmoleum
Style: Fresco
Color: 3858 Barbados
Recycled Content: 45% Post-Industrial

Manufacturer: Forbo Marmoleum
Style: Fresco
Color: 3859 Smoke Grey
Recycled Content: 45% Post-Industrial

Manufacturer: Forbo Marmoleum
Style: Fresco
Color: 3863 Dutch Sky
Recycled Content: 45% Post-Industrial

Manufacturer: Forbo Marmoleum
Style: Fresco
Color: 3861 Arabian Pearl
Recycled Content: 45% Post-Industrial

Manufacturer: Forbo Marmoleum
Style: Fresco
Color: 3862 Persian Grey
Recycled Content: 45% Post-Industrial

Manufacturer: Forbo Marmoleum
Style: Real
Color: 3123 Arabesque
Recycled Content: 45% Post-Industrial

PAINT

Facility Type: All

Flat

Manufacturer: Metro
Product: Latex Flat
Color: White
Recycled Content: 100%

Manufacturer: Metro
Product: Latex Flat
Color: Cream
Recycled Content: 100%

Non-Flat

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: 8231W Sawyer's Fence

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: CW022 Soft Gold

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: 8210W Whispering Birch

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: 8200W Bleached Sand

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: 8680W Aria Ivory

Manufacturer: Miller Paint
Product: Premium
Finish: Eggshell
Color: 8171W Olive Fog