The first privately held, pre–certified Core & Shell LEED™ Platinum office building in the United States, the McKinney Green Building is a significant and unique sustainable project. The project site is located on a 3.0 acre, gently sloping parcel that is located within a rapidly growing area of McKinney, Texas. Through the use of sustainable design elements, this project will offer energy-efficient, high indoor environmental quality space to prospective tenants.

The design provides an extraordinarily energy efficient building to maximize sustainable attributes while balancing a corporate image to blend with the aesthetic requirements of a residential neighborhood. This was accomplished by employing wooden supports for vine clad terraces, louvered shutters and articulating building volumes. Cisterns located at the east and west corners of the building will contain rain water for irrigation purposes and hidden retention basins below permeable parking areas will also serve to collect water for irrigation of xeroscape landscape areas.

This guidebook will introduce tenants and visitors to the many sustainable design elements that have been incorporated into the building. Several signs are located throughout the site and within the building to highlight specific features. Additional information pertaining to the LEED™ accreditation process and point system is explained.

reduce ♻ reuse ♻ recycle

Stormwater Management Rate and Quantity - SS Credit 6.1

Imperviousness on this existing site was less than 50%. Therefore, our storm water management plan has been developed to maintain previous runoff rates at the site after development is complete. We are utilizing a pervious paving system throughout the site development. This system contains concrete pavers over a sand and gravel base, which is installed over a liner. The liner is provided to direct rainwater to the drainage and storage system. Rainwater will drain into the paver system, and filter down through the sand and gravel bed. At this point it will be directed to the stormwater storage system that has been located at the low end of the site. An additional component in controlling the stormwater at this site is that the roof stormwater is being stored in above-ground steel tanks adjacent to the building The water that is stored in the building water storage tanks, as well as the water that is stored in the below ground storage facility will be used as irrigation water on the site. This drainage system, along with the stormwater storage system, will maintain the previously developed site stormwater run-off.

01

Underground stormwater storage system reduces runoff leaving the site

photo courtesy of HDR Architects, Inc

Light Pollution Reduction - SS Credit 8

Light trespass has being minimized on this site. The site and building lighting for this project have been designed to meet specific IESNA requirements. Parking lot lighting has been moved to interior locations of the site where possible, to help reduce light trespass. Appropriate cut-off fixtures have been specified to reduce light trespass and impact on nocturnal environments.

02

Eliminating light pollution helps with nocturnal environments and reduces nighttime glare

Environmental Tobacco Smoke Control - IEQ Prerequisite 2

Smoking will be prohibited in this building. A designated smoking area is provided at the northwest corner, away from the main entries and air intakes, so no second hand smoke will be able to enter the building.

03

Designated smoking areas improve the overall air quality for the entire site and its occupants

Stormwater Treatment - SS Credit 6.2

As mentioned above, we are not increasing the amount of storm water that leaves this development site. In addition, the pervious paver and site stormwater storage system that has been described will remove 80% of the average annual post-development TSS and 40% of the average annual post-development TP. The sand and gravel that the water drains through will clean the water as it passes through the system. Stormwater that leaves this site will be much cleaner than stormwater that leaves most sites.

Non Roof Heat Island Effect - SS Credit 7.1

We are using light-colored/high-albedo paver materials with a solar reflectance index of at least 29 for most parking areas and drives on the project. These materials will absorb less heat, and thus have less impact on the local “heat island effect”.

photo courtesy of HDR Architects, Inc

04

Pervious paver system is a major component in the stormwater management system

Erosion & Sedimentation Control - SS Prerequisite 1

A sediment and erosion control plan specific to this site, and which conforms to erosion and sedimentation control standards and codes, was created for this project. The Erosion and Sedimentation Control Plan is in accordance with the City of McKinney Stormwater Ordinance, Article 9 – Erosion Control Guidelines, and Best Management Practices outlined in the EPA Stormwater Management for Construction Activities EPA Document EPA 832-R-92-005. The Erosion and Sedimentation Control Plan is required to be submitted before construction starts. This plan was followed during the construction phase. Materials used for this activity include silt fencing, inlet protection and gravel pads at all construction entrances.

Construction Waste Management - M&R Credits 2.1 and 2.2

The contractor has followed a waste management plan during the construction of this project. Over 79% of construction waste materials has been diverted from landfills. The plan includes the recycling of land clearing debris, cardboard, metal, brick, concrete, plastic, clean wood, glass, gypsum wallboard, carpet and insulation. During construction, the contractor located dumpsters on site for the recyclable materials.

Alternative Fuel Vehicles - SS Credit 4.3

We are providing 6 alternative fuel vehicle parking spaces, which is 3% of the vehicle parking capacity.

05

Being the largest consumer of gasoline, the US consumes nearly 20 million barrels of oil per day

Bicycle Storage and Changing Rooms - SS Credit 4.2

We are providing bicycle storage facilities to accommodate 16 bicycles adjacent to our building entrance, which provides bicycle parking for over 5% of the anticipated building occupants. The bicycle racks are located near the rear building entrance. We are also providing changing/shower facilities within our building, for building occupant use.

06

Bicycling reduces pollution impacts from automobile use and provides health benefits

Parking Capacity - SS Credit 4.4

This site has 195 vehicle parking spaces. The City Zoning Standard actually requires 208 parking spaces for this size building. We have provided preferred parking for car pools or van pools in the amount of 5% of the total vehicle parking capacity of the site. The 10 carpool spaces at the site are adjacent to the rear entrance of the building. The reduced parking and privileged carpool spaces will hopefully entice users of the building to carpool.

If every car carried one more passenger during its daily commute, 32 million gallons of gasoline would be saved each day

WE Credit 1.1 and 1.2

Drought tolerant planting and rainwater harvesting enable us to not use any potable water for irrigation at this site. The water that is harvested from the roof will be stored in the large above ground storage tanks. Site storm water will be held in the below ground storage tanks at the east end of the site. These systems will be connected to an irrigation system that will be used throughout the site to water plant materials. The City of McKinney does require a median zone along Eldorado Parkway to be planted and watered to meet specific City standards. The other landscaping areas on the site will incorporate drought tolerant planting that once established, will not need extensive watering. Stormwater storage capabilities on our site are over 250,000 gallons of water, and will be sufficient to support irrigation needs without the use of potable water.

08

Each cistern stormwater storage system stores 9,200 gallons of water to be used for irrigation

Storage and Collection of Recyclables - M&R Prerequisite 1

A recyclable collection and storage area has been located in the basement of the building. The space includes an area provided solely for the use of separation, collection and storage of recyclable materials. Tenants in the building will be asked to participate in a building recycling procedures program. The owner has contracted with a recycling company to pick up recyclable materials.

Indoor Chemical and Pollutant Source Control - IEQ Credit 5

The main entrances to the building incorporate recessed floor mat systems to capture dirt and particulates, to keep them from entering the building.
Housekeeping areas have incorporated the use of deck to deck partitions and also have separate outside exhaust air, no air re-circulation, and will maintain a negative pressure.
Janitor closets have been designed with a mop sink, which will enable appropriate disposal of liquid waste where water and chemical concentrate mixing occurs. In addition, this building will utilize “green housekeeping concepts”, in order to reduce the amount of caustic cleaning chemicals in the building.

Fundamental Building Systems Commissioning - E&A Prerequisite 1

Early in the design phase a commissioning agent was hired to help evaluate the systems that were being developed for this building, and to review the design documents to ensure the owner's intentions were carried forward into the project. Specific tasks have included:

1. Assisting in the development of design intent and basis of design documentation.
2. Performing design review of HVAC and electrical concepts and construction documents.
3. Assisting in the development and integration of LEED and commissioning requirements into the contract plans and specifications.
4. Developing a preliminary construction phase commissioning plan.

Minimum Energy Performance - E&A Prerequisite 2

Design conditions for determining building heating and cooling loads are in accordance with climate conditions outlined in the ASHRAE Fundamentals. The building complies with ASHRAE/IESNA 90.1- 1999.

CFC Reduction - E&A Prerequisite 3

The building mechanical system utilizes a heat pump system with geothermal wells, in order to significantly reduce energy use. This system contains no CFC-based refrigerants.

Geothermal wells get their energy from the Earth's own natural occurring inner heat

Local / Regional Materials - M&R Credit 5.1

Many products have been specified which are manufactured locally within a 500 mile radius of the facility. Some of these include insulation, ceiling tile, stone, cast stone, brick and steel. The contractor kept a log of all materials for the project, which documents the amount of Local/Regional materials manufactured locally.

Harvested Locally - M&R Credit 5.2

Of the Regional Materials discussed above that were used for this project, over 50% were harvested, extracted or recovered within a 500 mile radius of the site. These products include steel, brick, stone, insulation and ceiling tile. The contractor kept a log of all materials for the project, which documents the amount of Local/Regional materials harvested locally.

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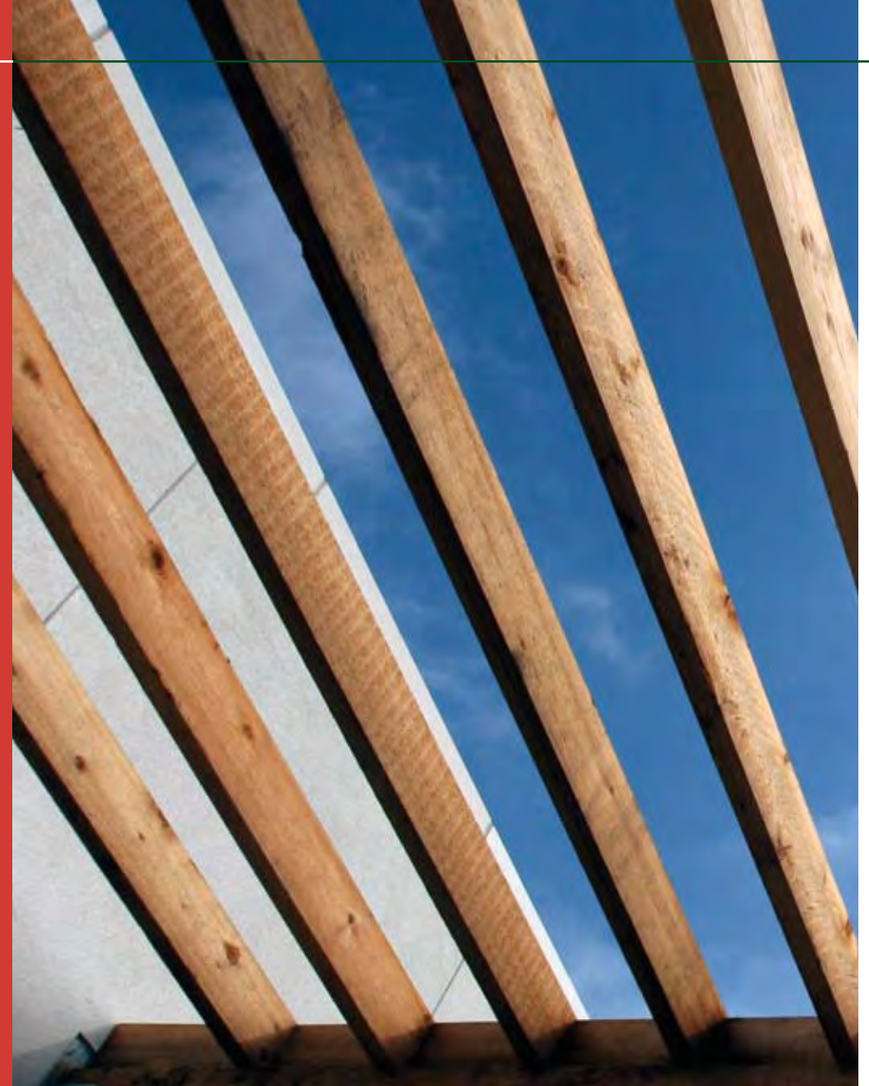
Texas shell stone and other indigenous materials supports the regional economy

Certified Wood - M&R Credit 7

Wood based products on this project include the use of wood nailers on the roof, wood doors, miscellaneous plywood backing in walls, base materials for countertops, and finish millwork. Many of these products have been specified to be FSC Certified products. The contractor has tracked the materials at the jobsite, and determined that 58% of the wood-based materials and products on the project are certified in accordance with the Forest Stewardship Council's Principles and Criteria.



11

Americans consume about 27% of the world wide commercial wood harvest

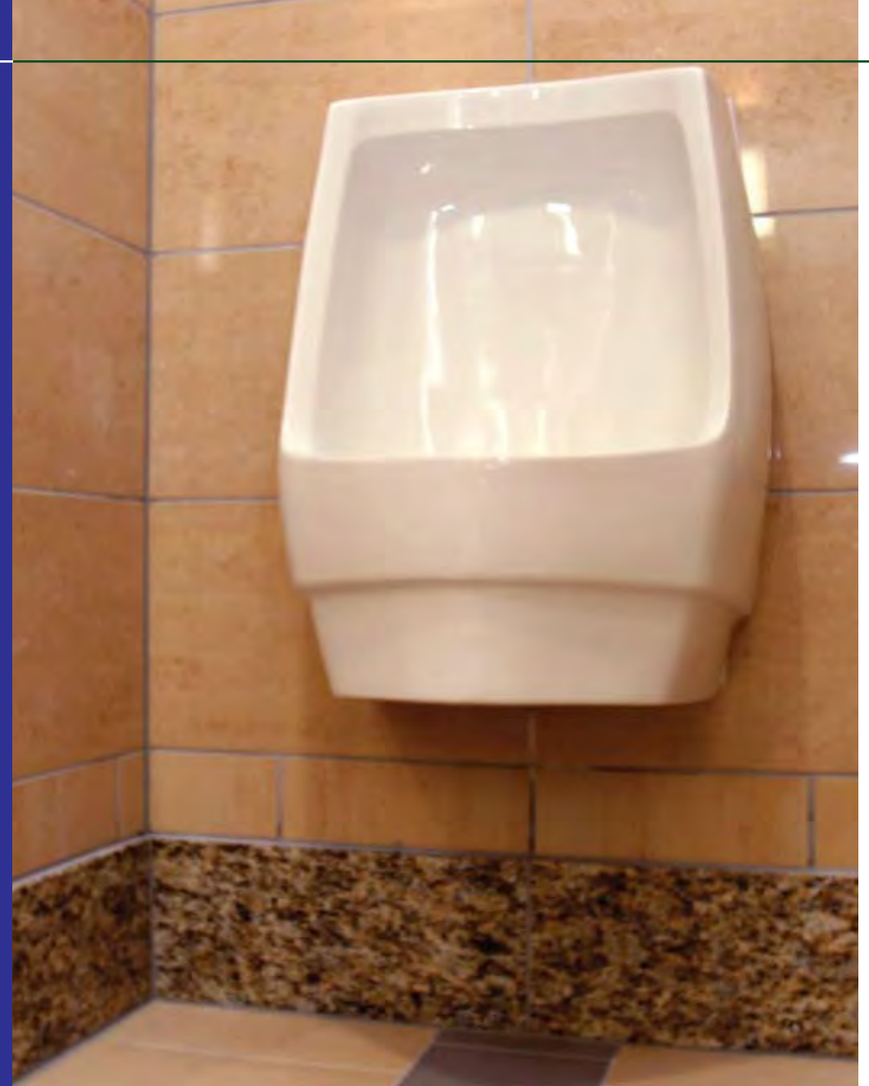
Innovative Wastewater Technologies - WE Credit 2

Waterless urinals and low flow toilets are being used on this project. Because of this, the wastewater from this building will be reduced by over 50%.

Water Use Reduction - WE Credit 3.1 and 3.2

Plumbing fixtures used in this building enable potable water use to be reduced by 30%. The fixtures used include:

a. Water Closets, close coupled tank style with air bladder assisted flush (one gallon flush)
b. Urinals Waterless, touch free operation and mechanical free design.
c. Low Flow Shower Heads and Lavatories.



12

More than 4 billion gallons of water get flushed down the toilet every day in the US

IEQ Credit 7.2

A Building Management System is being provided for this building that will continually monitor air being provided to spaces. This will also adjust the temperature and humidity of air being provided to accommodate varying building conditions.

E&A Credit 5

Continuous metering equipment has been designed for the following end-uses in the building.

- Lighting systems and controls
- Constant and variable motor loads
- Variable frequency drive (VFD) operation
- Cooling load
- Air and water economizer and heat recovery cycles
- Air distribution static pressures and ventilation air volumes
- Boiler efficiencies
- Building-related process energy systems and equipment
- Indoor water risers and outdoor irrigation systems
- Site stormwater storage systems
- Photo-voltaic system output
- Solar hot water heating system output

A specific measurement and verification plan is being developed for the building that will compare the predicted savings of the building to the actual savings achieved in the field.

Public Education Package - Innovation & Design Process, Credit 1.1

A public education package, including this brochure, will be available in the Main Lobby and Pubic areas of the building. This package will help to educate tenants and visitors to the building about the sustainable design elements that have been incorporated. The Building Management System is being designed to provide an interactive exhibit that continually shows water use, energy use, and on-site electrical energy production. A filmed documentary is also being produced for the building, which will further explain the sustainable features of the building. This public education package will be permanent in the building, and will promote sustainable design practices to the community.

Optimize Energy Performance - E&A Credits 1 – 10

The reduction of energy consumption is a key element and goal in the sustainable design of this building. Our energy modeling shows that the Design Energy Cost when compared to the Energy Cost Budget, for energy systems that are regulated by ASHRAE/IESNA Standard 90.1-1999 in this building is capable of reducing energy use by over 72% from the standard that has been established. In addition to the energy efficient HVAC and lighting systems in this building, elements such as natural day-lighting, increased building insulation, highly efficient window glazing, window shading and under-floor air distribution are incorporated into the building. These elements all contribute to the large reduction of energy use on this project.

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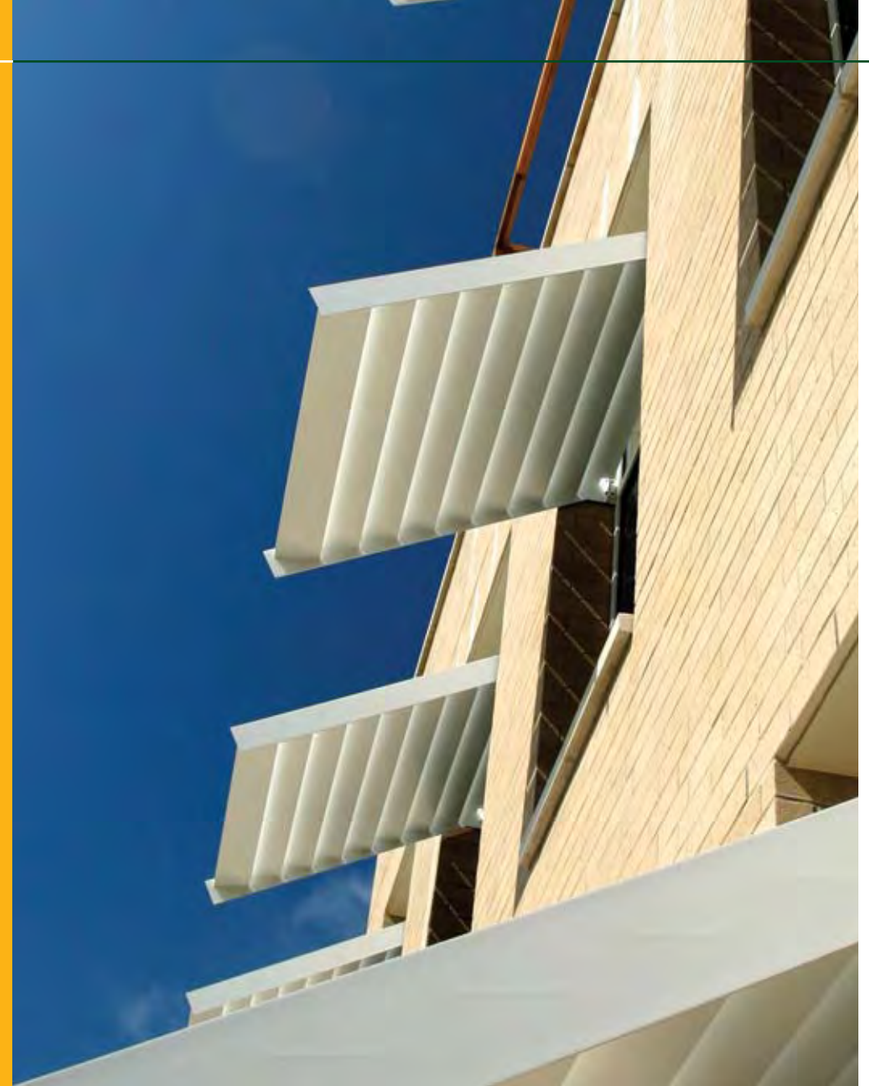
Heat pumps reduce environmental impacts associated with excessive energy use

Daylight and Views of Spaces - IEQ Credit 8.1 and 8.2

This building has been designed to be long and linear, enabling efficient use of natural daylight into the tenant spaces. Large windows and higher than normal ceilings in tenant areas will help disperse natural light far into the spaces. Shading devices help control glare, while also bouncing light to the interior spaces through the daylight glazing. Highly efficient glazing was selected that enables as much natural light to come in as possible, while also promoting energy efficiency. Early in the design phase, daylight modeling was done to determine the best combination of window and shading devices for our structure. Calculations have been completed that show the building will provide daylight and views to 90% of all regularly occupied spaces. As tenant spaces are designed for the building, an effort will be made to keep enclosed office and conference room spaces closer to the core area of the building so that these daylight design schemes can be maintained.



Maximizing daylight use will help reduce the need for artificial illumination and is a visual connection to the outdoor environment

Renewable Energy - E&A Credit 2.1 and Credit 2.2

A large photo-voltaic system has been installed on the roof of this building. In addition, a solar hot water heating system has been installed for hot water heating. These systems enable over 10% of the buildings' energy use to be provided by renewable energy sources.

Green Power - E&A Credit 6

The owner of this building has signed a contract with a vendor to provide 100% of the electrical energy needed in this building. This supports electrical energy generation from a wind farm in West Texas.

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McKinney Green Building 70% less energy than a typical office building

Ventilation Effectiveness - IEQ Credit 2

The under-floor air supply system used in this building enables the system to realize an air change effectiveness greater than or equal to 0.9 as determined by ASHRAE 129-1997. The "displacement ventilation" technique used in this building provides fresh air throughout the tenant spaces, and thus improves the indoor air quality. Increased indoor air quality can result in decreased health care and thus reduced insurance costs to employers. The under-floor air system provides low flow air at multiple locations throughout the space. The return air ducts located at the ceiling pull the air up and through the space, thus preventing short-circuiting of airflow delivery. The design standards recommended in ASHRAE Fundamentals Handbook 2001, Chapter 32: Space Air Diffusion were utilized in the design of this project. All tenant spaces in the building will utilize this underfloor air distribution system.

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Provides air ventilation to improve indoor air quality for better occupied comfort, well-being and productivity

Carbon Dioxide Monitoring - IEQ Credit 1

Carbon dioxide sensors are utilized to monitor the indoor air quality in this building. They are located at air-handlers and return air ducts. These detectors are used to monitor carbon dioxide in the air, and enable the system to increase the amount of outdoor air into the spaces if feedback shows this to be required. They are also used to minimize the amount of the outdoor airflow when the building occupancy is low. This system is integrated with the building management system.

Thermal Comfort - IEQ Credit 7.1

The under-floor air system designed for this project meets the ASHRAE Standard 55-1992, Addenda 1995. Each controlled zone meets the temperature and humidity control ranges. Sensors are provided that will monitor the temperature and humidity.

Non Perimeter Controllability of Systems - IEQ Credit 6.2

Occupant comfort is an important element in employee performance. In this building, controls are provided that enable individuals to control airflow and temperature at individual workspaces. This is accomplished through the under-floor air HVAC system. This under-floor system enables tenants to control the amount of air and the direction of air coming into their specific workstation area. The building is zoned to have temperature controls for specific areas of the building. Lighting for tenant areas will have occupancy and daylight sensors and dimming controls. In addition, tenants will be encouraged to provide workstations that incorporate individual task lighting that can be controlled at the space.

Roof Heat Island Effect - SS Credit 7.2

The roof system being used on our building is Energy Star Compliant and has an actual SRI of 80, for all of the roof surface. The energy star compliant roofing system reflects heat away from the building, again having less impact on the local “heat island effect”.

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The typical American household can save about $400 per year in energy bills using products that carry the Energy Star Label

M&R Credits 4.1 and 4.2

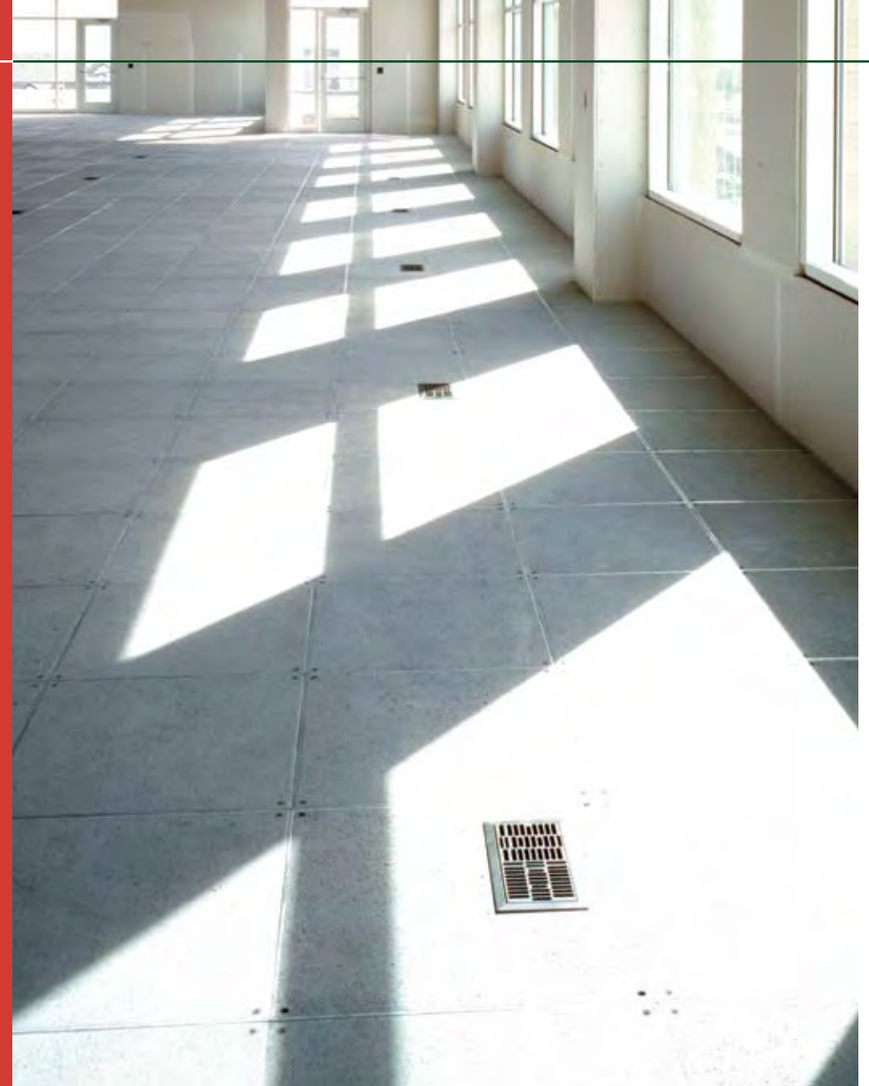
Products have been specified for the building, which constitute at least 10% of the total value of materials on the project will be recycled content. Products used in the project that incorporate recycled content include ceiling tile, steel and metal products, carpeting, insulation products, and concrete to name a few. The contractor is keeping a log of all materials for the project, which will document the amount of recycled content being used.

Using durable and recycled materials help reduce the impact resulting from extraction and processing of new virgin materials

Tenant Design and Construction Guidelines - SS Credit 9

West World Management has a "Tenant Design & Construction Guideline" for prospective tenants of the project. Some of the items and requirements included in this guideline for tenants will include:

1. the types of finishes and VOC criteria tenants may use in building materials
2. recommended layouts for their spaces to increase daylighting possibilities
3. recycling requirements and goals for the building
4. an explanation of the sustainable elements in this facility
5. plumbing fixture requirements for any tenant required plumbing in the building
6. information for Carbon Dioxide monitoring requirements in the building
7. information for temperature and humidity monitoring requirements in the building



"Green" work environments have many advantages including: increased employee productivity; decreased costs for employee sick days and medical costs; lower energy pass through costs to tenants

Developed by
West World Holding, Inc. || a Wereldhave Company
www.wereldhave.com

Features:

- Abundant retail nearby
- Convenient access to US 75
- Changing facilities with showers
- Nearby day care
- Overnight drop boxes
- Saxon Woods Luxury Apartments adjacent to the property, corporate discounts available

Rentable Area:

Bsmnt:	900 sq. ft.
1st:	18,800 sq. ft.
2nd:	21,000 sq. ft.
3rd:	18,400 sq. ft.
Total:	59,100 sq. ft.

Parking: 188 Spaces

- Alternative Fuel Stations
- HOV Parking
- Bicycle Parking

For leasing information:

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