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NEW QUESTION: 1
Which group of chemicals emitted by some building materials is linked to asthma, chronic obstructive pulmonary disease, and cancer?
A. Nitrogen Oxides (NOx)
B. Polyvinyl Chlorides (PVCs)
C. Chlorofluorocarbons (CFCs)
D. Volatile Organic Compounds (VOCs)
Answer: D (LEAVE A REPLY)
Volatile Organic Compounds (VOCs) (D) are chemicals often found in building materials, such as paints, adhesives, and finishes, and are associated with health risks, including asthma, chronic obstructive pulmonary disease, and certain cancers. VOCs release harmful gases that contribute to indoor air pollution, and LEED encourages using low-VOC materials to protect occupant health. PVCs (B) and CFCs (C) are harmful to the environment but are not directly linked to these health conditions.

NEW QUESTION: 2
A vegetated roof contributes to earning which of the following credits?
A. Sustainable Sites Credit, Heat Island Reduction
B. Location and Transportation Credit, Sensitive Land Protection
C. Sustainable Sites Credit, Site Assessment
D. Sustainable Sites Credit, Light Pollution Reduction
Answer: (SHOW ANSWER)
A vegetated roof primarily contributes to the Sustainable Sites (SS) Credit: Heat Island Reduction. Green roofs reduce the heat island effect by minimizing roof surface temperatures through vegetation, which absorbs less heat than conventional roofing materials. This helps lower building cooling costs and mitigates urban heat effects.

Sensitive Land Protection (B) and Site Assessment (C) are unrelated to roof treatments, while Light Pollution Reduction (D) deals with exterior lighting strategies.

NEW QUESTION: 3
An urban office building project is installing a cooling tower. To save on potable water, the project would like to use a nonpotable water source to provide 20% of the cooling tower makeup water to achieve the maximum number of points under Water Efficiency Credit, Cooling Tower Water Use. Which nonpotable water source would be the most appropriate for use?
A. Municipally supplied tap water
B. Ground surface stormwater runoff
C. Rainwater collected from the building roof
D. Graywater from the building's hand-washing sinks
Answer: (SHOW ANSWER)
Rainwater collected from the building roof would be the most appropriate nonpotable water source for use in a cooling tower. This is because rainwater is generally cleaner than other nonpotable sources and does not require extensive treatment before use. Additionally, using rainwater can help to reduce stormwater runoff, providing an additional environmental benefit.
Reference: LEED AP Building Design + Construction (LEED AP BD+C) V4 resources 1

NEW QUESTION: 4
In Sustainable Sites Credit, Light Pollution Reduction, which factor is included in the lamp lumen uplight calculation?
A. Total fixture power
B. Site area of the project
C. Quantity of installed luminaires
D. Total fixture lumens below 90 degrees
Answer: (SHOW ANSWER)
This factor is included in the lamp lumen uplight calculation, because it represents the amount of light that is emitted downward by the fixture, which does not contribute to light pollution1. The lamp lumen uplight calculation is used to determine the percentage of total luminaire lumens emitted above horizontal, which must not exceed the maximum allowed values for each lighting zone2.

NEW QUESTION: 5
Which of the following will result in a higher demand for potable water use in irrigation?
A. Sparsely planted area
B. Drip irrigation system
C. High evapotranspiration rate
D. Rainwater harvesting system

Answer: C (LEAVE A REPLY)
The answer is C. A high evapotranspiration rate will result in a higher demand for potable water use in irrigation. Evapotranspiration is the process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants. The higher the evapotranspiration rate, the more water is lost from the soil and plants, and the more irrigation is needed to replenish the moisture. The other options will not increase the demand for potable water use in irrigation. A sparsely planted area will have less vegetation and less transpiration, reducing the water demand. A drip irrigation system will deliver water directly to the plant roots, minimizing evaporation and runoff, and saving water. A rainwater harvesting system will collect and store rainwater for irrigation, reducing the reliance on potable water sources. For more information on outdoor water use reduction and irrigation efficiency, you can refer to the LEED v4 Reference Guide for Building Design and Construction1 or the WaterSense Water Budget Tool2.

NEW QUESTION: 6
Which of the following innovation proposals is most likely to be successful to achieve an Innovation Credit?
A. Providing an educational program on the environmental and human health benefits of green building practices
B. Including locked, indoor bicycle storage for 100% of project occupants
C. Being located next to a 20 mi. (32 km) award-winning bicycle trail
D. Distributing leaflets to project occupants about available public transit services nearby
Answer: A (LEAVE A REPLY)
Providing an educational program on the environmental and human health benefits of green building practices is a potential innovation strategy that is not addressed by any existing LEED credit. It also meets the criteria of being measurable, replicable, and having a positive impact on the project and the environment.
Reference: LEED v4 BD+C Reference Guide, Innovation Category, INc1: Innovation, Option 1. Innovation (1 point), page 704.

NEW QUESTION: 7
A contractor wants to use an adhesive that exceeds the allowed Volatile Organic Compound (VOC) content limit under Indoor Environmental Quality Credit, Low Emitting Materials. This credit can be earned if
A. the VOC budget method is applied for VOC content
B. the adhesive is not included in the LEED documentation
C. 75% of the adhesives used comply with the VOC content limit and emissions requirements
D. 95% of the adhesives used comply with the VOC content limit and emissions requirements

Answer: A (LEAVE A REPLY)
This credit can be earned if the VOC budget method is applied for VOC content. The VOC budget method allows the use of some products that exceed the VOC content limit, as long as the total VOC content of all products within a category does not exceed the total allowable VOC content for that category1. The adhesive is a product within the wet-applied and aerosol adhesives category, which has a VOC content limit of 70 g/L1. The contractor must calculate the VOC budget for this category and ensure that it does not exceed the limit. The other options are not valid ways to earn this credit. The adhesive must be included in the LEED documentation, as all products used in the project must be accounted for1. The credit requires that 100% of the adhesives used comply with the VOC content limit and emissions requirements, not 75% or 95%1.
Reference:
* Low-emitting materials, p. 2

NEW QUESTION: 8
A project team is attempting Location and Transportation Credit: High Priority Site and selects Option 1: Historic District. To demonstrate that the project is located in an infill site, the project team must confirm that:
A. At least 75% of qualifying land areas within 3/4 mile (1.20 km) are previously developed
B. At least 75% of qualifying land areas within 1/2 mile (0.80 km) are previously developed
C. The project is a Federal Renewal Community site
D. The site is a brownfield as defined by the Environmental Protection Agency
Answer: (SHOW ANSWER)
For Location and Transportation (LT) Credit: High Priority Site, Option 1: Historic District, the project team must confirm that at least 75% of land areas within 1/2 mile (0.80 km) are previously developed (B). This demonstrates that the project site is part of an infill area, supporting LEED's goal to revitalize and use previously developed urban spaces while protecting undeveloped land. Options like Federal Renewal Community status (C) or brownfield designation (D) apply to different site categories.

NEW QUESTION: 9
Which item is included in the reuse calculation for Materials and Resources Credit, Building Life-Cycle Impact Reduction?
A. Floor decking
B. Asbestos insulation
C. Exterior glazing
D. Plumbing fixtures
Answer: (SHOW ANSWER)
The reuse calculation for MR Credit Building Life-Cycle Impact Reduction includes the surface area of structural elements that are reused in place or salvaged and reinstalled, such as floor decking, columns, beams, and roof decking. Exterior glazing and plumbing

fixtures are not considered structural elements and are not included in the reuse calculation. Asbestos insulation is a hazardous material that should be removed and disposed of properly, not reused. Reference: MR Credit Building Life-Cycle Impact Reduction, LEED v4 Reference Guide for Building Design and Construction123

NEW QUESTION: 10
What credit rewards customers who change their normal consumption patterns in response to the varying price of energy over time?
A. Energy and Atmosphere Credit, Demand Response
B. Energy and Atmosphere Credit, Advanced Energy Metering
C. Energy and Atmosphere Credit, Building Level Energy Metering
D. Energy and Atmosphere Credit, Green Power and Carbon Offsets
Answer: A (LEAVE A REPLY)
The Energy and Atmosphere Credit, Demand Response rewards projects that participate in demand response programs that aim to reduce peak electricity demand and shift the load to off-peak periods. The LEED v4 Reference Guide for Building Design and Construction states that "the intent of this credit is to increase participation in demand response technologies and programs that make energy generation and distribution systems more efficient, increase grid reliability, and reduce greenhouse gas emissions"1. The project team must either implement a permanent demand response program or develop a plan to implement a program within a year of occupancy. The project team must also demonstrate that the building has the capability to reduce its peak electricity demand by at least 10% in response to demand response signals.
Reference:
LEED v4 Reference Guide for Building Design and Construction, Energy and Atmosphere Credit: Demand Response, page 2721 Demand response | U.S. Green Building Council2

NEW QUESTION: 11
When attempting Regional Priority Credit, what must be provided in LEED Online?
A. Latitude and longitude
B. Heating and cooling degree days
C. Climate zone
D. ENERGY STAR score
Answer: A (LEAVE A REPLY)
To pursue a Regional Priority Credit in LEED, project teams must provide the latitude and longitude (A) of the project in LEED Online. This information helps the LEED system identify which regional priorities are applicable based on the project's geographic location. Regional Priority Credits are customized credits specific to environmental concerns in a particular area, rewarding projects for addressing local issues. Other options like heating and cooling degree days (B), climate zone (C), and ENERGY STAR score (D) are not required to qualify for these credits.

NEW QUESTION: 12
A project elects to pursue Location and Transportation Credit, Surrounding Density and Diverse Uses, Option 2. Diverse Uses because of the project's location in an amenity-rich are a. The project features 18 uses overall, including at least four uses in three of the five use type categories. What threshold must the project surpass in order to demonstrate exemplary performance for Option 2?
A. Exemplary Performance is not available for Option 2
B. 15 uses, including two uses in each of the five categories
C. 15 uses, including at least one Food Retail and one Community Anchor use
D. 18 uses, including uses in at least four of the five use type categories
Answer: A (LEAVE A REPLY)
Exemplary Performance is not available for Option 2 of Location and Transportation Credit, Surrounding Density and Diverse Uses. According to the LEED v4 BD+C Reference Guide, this credit has two options: Option 1. Surrounding Density (5 points) and Option 2. Diverse Uses (1 point). Exemplary Performance is only available for Option 1, and it requires achieving a surrounding density of at least 405,000 square feet per acre (100,000 square meters per hectare)1. Option 2 does not have any Exemplary Performance criteria, and it only requires locating the project within a 1/2-mile (800-meter) walking distance of at least seven diverse uses2. Reference:
Credit: Surrounding density and diverse uses | U.S. Green Building Council Surrounding Density and Diverse Uses - LEED v4

NEW QUESTION: 13
A project's installed water fixtures do not exceed WaterSense maximum levels. Which compliance path should the LEED AP select under Water Efficiency Prerequisite, Indoor Water Use Reduction, and what type of documentation is required to demonstrate compliance with this path?
A. Compliance Path 2: Usage-Based Calculation; prescriptive compliance confirmation
B. Compliance Path 2: Usage-Based Calculation; appliance water calculations
C. Compliance Path 1: Prescriptive Achievement; indoor water use calculations
D. Compliance Path 1: Prescriptive Achievement; product cutsheets
Answer: D (LEAVE A REPLY)
Detailed
For Compliance Path 1: Prescriptive Achievement, project teams must demonstrate that installed fixtures meet WaterSense requirements. This is achieved through product cutsheets that verify maximum flow rates or flush volumes. LEED uses this documentation to ensure that water-efficient fixtures are installed and operational.

NEW QUESTION: 14

A design team is pursuing Indoor Environmental Quality Credit, Indoor Air Quality Assessment. The building is 1,000 ft2 (93 m2) and has a 10 ft. (3 m) ceiling height. In order to earn the credit, what is the required volume of supply air for the entire building flush-out?

A. 3,500,000 ft3 (99 108 m3)

B. 10,000,000 ft3 (283 168 m3)

C. 14,000,000 ft3 (396 435 m3)

D. 35,000,000 ft3 (991 089 m3)

Answer: (SHOW ANSWER)

According to the LEED Reference Guide for Building Design and Construction1, the Indoor Environmental Quality Credit, Indoor Air Quality Assessment, Option 1. Flush-Out requires the project to perform a building flush-out by supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of gross floor area while maintaining an internal temperature of at least 60°F and no higher than 80°F and relative humidity no higher than 60%. The gross floor area of the building is 1,000 ft2 and the ceiling height is 10 ft, so the required volume of supply air for the entire building flush-out is:

14,000 ft3/sf x 1,000 sf = 14,000,000 ft3

Reference:

LEED Reference Guide for Building Design and Construction v4

NEW QUESTION: 15

What is a viable strategy for optimizing open space under Sustainable Sites Credit, Open Space? U

A. Coordinate open space features during the construction phase

B. Minimize the floor-area ratio (FAR) and accessibility for open space

C. Design a parking and road footprint layout that is not near open land

D. Coordinate open space features early during the site planning phase

Answer: (SHOW ANSWER)

Coordinating open space features early during the site planning phase is a viable strategy for optimizing open space under Sustainable Sites Credit, Open Space. This can help to preserve natural habitats, reduce heat island effects, and enhance human health and well-being. The credit requires that the project provide outdoor space that is at least 30% of the total site area, and that at least 25% of that outdoor space meets certain criteria for vegetated, pervious, or shaded areas. Reference:

LEED credit library: This is the USGBC's comprehensive listing of all the LEED credits available in pursuing certification for your project. The credit library contains the requirements and guidance for each credit, as well as the web-based reference guide for the Building Design and Construction rating system.

Open Space: This is the specific credit page for the Open Space credit under the Sustainable Sites category. It provides the intent, requirements, and strategies for achieving the credit, as well as the number of points available and the applicable project types.

Step by Step Approach to Comply with the Open Space Credit in LEED v4: This is a blog post that explains the steps and calculations involved in complying with the Open Space credit. It also provides some examples and tips for optimizing open space design.

NEW QUESTION: 16
What is the definition of the evapotranspiration rate?
A. Evaporation of onsite reuse water
B. Percentage of potable water usage for irrigation
C. Water loss from evaporation in micro irrigation systems
D. Amount of water loss in a vegetated surface in units of water depth
Answer: D (LEAVE A REPLY)
The evapotranspiration rate is the amount of water loss in a vegetated surface in units of water depth, such as millimeters or inches. It is a measure of the water demand of the plants and the climate conditions. It is used to calculate the baseline water use for irrigation in the Outdoor Water Use Reduction credit.
Reference:
* LEED v4 BD+C Reference Guide, page 5381
* Outdoor Water Use Reduction Credits in LEED v4 - HydroPoint2

NEW QUESTION: 17
A project team develops a site plan for a school project with an athletic field and a playground with real grass. In order to qualify for the Water Efficiency Prerequisite, Outdoor Water Use Reduction, the landscape area calculations:
A. Must include the athletic field and playground
B. May include the playground but must exclude the athletic field
C. Must include the playground but exclude the athletic field
D. May include or exclude the athletic field and the playground
Answer: D (LEAVE A REPLY)
For the Water Efficiency (WE) Prerequisite: Outdoor Water Use Reduction, athletic fields and playgrounds are considered special landscape areas and can be optionally included in landscape area calculations. This flexibility (D) allows teams to decide based on the unique

water needs of these areas, as athletic fields often require extensive watering for maintenance. LEED recognizes these areas' high water demand and provides an exception, acknowledging the potential challenges in reducing water for such intensive-use spaces.

NEW QUESTION: 18
Who must be a member of the integrated project team for the Integrative Process Prerequisite, Integrative Project Planning and Design?
A. The general contractor
B. A LEED AP
C. The project's mechanical engineer
D. The owner or an owner's representative
Answer: D (LEAVE A REPLY)
According to the LEED v4: Building Design + Construction Guide, the owner or an owner's representative must be a member of the integrated project team for the Integrative Process Prerequisite, Integrative Project Planning and Design. The owner or an owner's representative is responsible for establishing the project's vision, goals, budget, and schedule, as well as defining the owner's project requirements (OPR) and participating in the design charrettes and reviews1. The owner or an owner's representative also plays a key role in ensuring the continuity and alignment of the project's performance and environmental objectives throughout all phases of the project1.
The other choices are not mandatory members of the integrated project team, although they may be involved in the integrative process depending on the project's scope and needs. The general contractor is typically hired after the design phase and may not be involved in the predesign and schematic design analyses required by the prerequisite1. A LEED AP is a professional who has demonstrated knowledge and experience in applying the LEED rating system, but is not required to be part of the integrated project team, although it is recommended and rewarded by the LEED credit, Integrative Process1. The project's mechanical engineer is one of the possible design consultants who may contribute to the integrative process, especially for the energy-related systems analysis, but is not required to be part of the integrated project team1.

NEW QUESTION: 19
The scope of analysis in Materials and Resources Credit, Building Life-Cycle Impact Reduction, Option 4.
Whole-Building Life-Cycle Assessment is a
A. gate-to-gate assessment
B. cradle-to-gate assessment
C. cradle-to-grave assessment
D. cradle-to-cradle assessment
Answer: (SHOW ANSWER)

The scope of analysis in Materials and Resources Credit, Building Life-Cycle Impact Reduction, Option 4. Whole-Building Life-Cycle Assessment is a cradle-to-grave assessment. This means that the life cycle assessment (LCA) covers all stages of the building's life cycle, from the extraction of raw materials (cradle) to the disposal or reuse of the building components at the end of their service life (grave)1. The LCA must include the following life cycle stages: product stage, construction process stage, use stage, and end-of-life stage2. The LCA must also account for the environmental impacts of the building's structure and enclosure, as well as any other building elements that are permanently attached to and share service systems with the building2. Reference:
Whole building life cycle assessment through LEED v4
Building life-cycle impact reduction | U.S. Green Building Council

NEW QUESTION: 20
Which federal agency designates Federal Renewal Community sites, which can be considered High Priority Sites for project development?
A. U.S. Internal Revenue Service
B. U.S. Department of Agriculture
C. U.S. Environmental Protection Agency
D. U.S. Department of Housing and Urban Development
Answer: A (LEAVE A REPLY)
According to the LEED v4: Building Design + Construction Guide, Federal Renewal Community sites are designated by the U.S. Internal Revenue Service (IRS) as areas that are eligible for tax incentives to encourage businesses to locate and hire residents within the community. These sites are considered High Priority Sites for project development, as they support the revitalization of economically distressed areas. The other federal agencies listed do not designate Federal Renewal Community sites. Reference: LEED v4: Building Design + Construction Guide, Location and Transportation Credit, High Priority Site, Requirements1; U.S. Internal Revenue Service, Renewal Communities2

NEW QUESTION: 21
The project landscape architect suggests reducing the area planned for surface parking and replacing it with additional vegetated space. What benefit would this strategy provide to the owner?
A. Increases the rainwater infiltration capacity
B. Decreases the amount of bicycle parking that must be provided
C. Increases the overall SR (solar reflectance) of the hardscape area
D. Decreases the required amount of on-street parking that must be provided
Answer: A (LEAVE A REPLY)
Reducing the area planned for surface parking and replacing it with additional vegetated space can provide several benefits to the owner, such as:

Decreasing the amount of bicycle parking that must be provided, since there will be less demand for parking spaces for cyclists.
Increasing the overall SR (solar reflectance) of the hardscape area, which can reduce the cooling load and energy consumption of the building.
Decreasing the required amount of on-street parking that must be provided, since there will be less demand for parking spaces for cars.
However, one of the most significant benefits of this strategy is increasing the rainwater infiltration capacity, which can improve the water quality and quantity in the stormwater system. According to a study by Biondolilo1, integrating green space into parking lots can decrease stormwater runoff, mitigate the heat island effect, store carbon, improve air quality and may have social benefits as well. The study estimated that converting 30% of Manhattan's parking into green space would decrease runoff and pollutants from parking lots1. Therefore, this strategy can help reduce water demand and environmental impact in arid climates.
Reference:
How Eliminating Parking Minimums Actually Makes Cities Better
Analyzing the benefits of reducing parking: improving public transportation to reduce parking demand and increase space for green infrastructure in Manhattan, Kansas
Benefits of Urban Vegetation and Green Spaces - BeautyHarmonyLife Reduce Urban Heat Island Effect | Green Infrastructure | US EPA

NEW QUESTION: 22
A school wants to incorporate natural daylighting in classrooms on all sides of the building. What can the project design team explain to the school district about how this strategy will affect the operational energy cost?
A. Heat gain will reduce the air conditioning load
B. Having the lights off reduces the electricity use
C. Reduction in lighting fixture use reduces re-lamping
D. There would be passive solar heating benefits to all of the classrooms
Answer: B (LEAVE A REPLY)
Natural daylighting can reduce the electricity use for artificial lighting, which is one of the major components of operational energy cost for buildings. By having the lights off or dimmed when sufficient daylight is available, the project can save energy and money. The other options are not necessarily true or relevant for natural daylighting. Heat gain and passive solar heating depend on the orientation, shading, and insulation of the windows, not just the amount of daylight. Reduction in lighting fixture use may reduce re-lamping, but that is not a significant factor in operational energy cost compared to electricity use.
Reference: EA Credit Optimize Energy Performance, EQ Credit Daylight, LEED v4 Reference Guide for Building Design and Construction123

NEW QUESTION: 23

The Exemplary Performance threshold for Sustainable Sites Credit, Rainwater Management requires:

A. Utilizing a rain garden to manage the 98th percentile rainfall event

B. Managing 100% of rainfall that falls within the project boundary

C. Achievement of both Option 1. Percentile of Rainfall Events and Option 2. Natural Land Cover Conditions

D. Utilizing a combination of both structural and non-structural measures to manage the 98th percentile rainfall event

Answer: C (LEAVE A REPLY)

Detailed

Exemplary Performance for Rainwater Management requires achieving both Option 1 (Percentile of Rainfall Events) and Option 2 (Natural Land Cover Conditions). This demonstrates a superior level of stormwater management by addressing both the volume and quality of runoff, aligning with LEED's goals of reducing stormwater impacts on surrounding ecosystems and water infrastructure.

NEW QUESTION: 24

A LEED AP is evaluating whether Indoor Environmental Quality Credit, Acoustic Performance is feasible for a LEED AP Building Design and Construction: Healthcare project. Which of the following groups of documents would best inform this decision?

A. Airport flyover maps, mechanical plans, wall sections

B. Patient records, wall sections, ceiling panel cut sheets

C. Occupancy statistics, patient records, MRI machine specifications

D. MRI machine specifications, mechanical plans, occupancy statistics

Answer: A (LEAVE A REPLY)

The Acoustic Performance credit under the LEED BD+C: Healthcare rating system addresses the acoustic environment in healthcare spaces. It requires strategies that reduce noise levels, control background noise, and provide sound privacy. The documents that would best inform this decision are:

Airport flyover maps: These can help determine the level of external noise intrusion into the building, which can affect the acoustic environment.

Mechanical plans: These can provide information about the location and type of mechanical equipment, which can be a source of internal noise.

Wall sections: These can provide information about the construction of the walls, including materials and assemblies, which can affect sound transmission between spaces1.

Reference:

Acoustic performance | U.S. Green Building Council

NEW QUESTION: 25

When planning a water-efficient landscape design, the designer should consider including

A. potable water

B. sprinkler system
C. native vegetation
D. permeable pavement
Answer: C (LEAVE A REPLY)
The best answer is C. native vegetation. This is because:
* Native vegetation is adapted to the local climate and soil conditions, and therefore requires less water than non-native plants1.
* Native vegetation also supports local biodiversity, reduces erosion, and enhances the aesthetic value of the landscape2.
* Potable water is not a good option for water-efficient landscape design, as it is a scarce and valuable resource that should be conserved for human consumption and hygiene3.
* Sprinkler systems are not a good option for water-efficient landscape design, as they can waste a lot of water through evaporation, runoff, and overspray4. Drip irrigation or micro-sprinklers are more efficient methods of watering plants.
* Permeable pavement is not a good option for water-efficient landscape design, as it is not a plant-based element, but a hardscape feature that allows water to infiltrate into the ground. Permeable pavement can reduce stormwater runoff and pollution, but it does not directly contribute to water conservation in the landscape.

NEW QUESTION: 26
Water Efficiency Prerequisite, Outdoor Water Use Reduction, Option 2. Reduced Irrigation, requires that a project's landscape water requirement be reduced by what percentage from the calculated baseline for the project site's peak watering month?
A. 20%
B. 25%
C. 30%
D. 40%
Answer: (SHOW ANSWER)
According to the LEED v4: Building Design + Construction Guide, the Water Efficiency Prerequisite, Outdoor Water Use Reduction, Option 2. Reduced Irrigation, requires that a project's landscape water requirement be reduced by at least 30% from the calculated baseline for the project site's peak watering month. The baseline is determined by the Environmental Protection Agency (EPA) WaterSense Water Budget Tool, or a local equivalent for projects outside the U.S. The reduction must be achieved through plant species selection and irrigation system efficiency1. Reference: LEED v4: Building Design + Construction Guide, Water Efficiency Prerequisite, Outdoor Water Use Reduction, Option 2. Reduced Irrigation, Requirements1

NEW QUESTION: 27
Which of the following is an example of a diverse use as defined by Location and Transportation Credit, Surrounding Density and Diverse Uses?

A. Automated Teller Machine (ATM)
B. Informal day care
C. Public park
D. Private university gym
Answer: C (LEAVE A REPLY)
Detailed
A public park qualifies as a diverse use under LEED because it is a publicly accessible facility that serves the community. LEED defines diverse uses as those that provide amenities, services, or public resources within walking distance, promoting walkable neighborhoods and reducing reliance on vehicles.

NEW QUESTION: 28
What LEED Building Design and Construction rating system mandates a preliminary LEED meeting with the principal members of the project team to create a LEED action plan that includes the anticipated certification tier, targeted credits and parties responsible for each credit?
A. Healthcare
B. Schools
C. Data centers
D. Hospitality
Answer: C (LEAVE A REPLY)
Data centers is the only LEED BD+C rating system that mandates a preliminary LEED meeting with the principal members of the project team to create a LEED action plan that includes the anticipated certification tier, targeted credits and parties responsible for each credit. This is because data centers have unique design and operational characteristics that require a more integrative and customized approach to achieve LEED certification. The preliminary LEED meeting is intended to facilitate early goal setting, alignment, and communication among the project team members12. Reference: LEED BD+C Reference Guide, Data Centers, page 91; LEED v4.1 BD+C: Data Centers

NEW QUESTION: 29
The energy-related systems analysis for Integrative Process credit for Core and Shell projects should include all system loads and occupants required by which Energy and Atmosphere prerequisite?
A. Building-level energy metering
B. Fundamental commissioning and verification
C. Minimum energy performance
D. Fundamental refrigerant management
Answer: (SHOW ANSWER)
Detailed

The energy-related systems analysis must align with the requirements of the Minimum Energy Performance prerequisite. This prerequisite ensures that energy systems are modeled to optimize performance and meet baseline criteria outlined in ASHRAE 90.1-2010 (or applicable standard). Including all system loads and occupants provides a comprehensive understanding of energy demands.

NEW QUESTION: 30
Several Materials and Resources credits give a bonus location valuation factor, which allows products extracted, manufactured and produced within 100 mi. (161 km) of the project to take double valuation in credit calculations. The intent of this bonus is
A. to shorten construction duration by reducing shipping times
B. to avoid spreading products with potentially invasive non-native pests
C. to incentivize the purchase of products that support the local economy
D. to promote design with indigenous materials in order to maintain local aesthetic quality
Answer: C (LEAVE A REPLY)
The bonus location valuation factor in several Materials and Resources credits under LEED AP BD+C V4 is intended to incentivize the purchase of products that support the local economy. Products extracted, manufactured, and produced within 100 miles (161 km) of the project are valued at 200% of their cost within the calculations1. This adds value to locally produced products and materials2.
Reference:
LEED Quiz 8: Ch. 9 Materials & Resources Flashcards | Quizlet
LEED 2009 vs. LEED v4: Regional Materials - LaForce, LLC

NEW QUESTION: 31
Which rating system is appropriate for a new mixed-use building with 300,000 ft2 (27 871 m2) of residential units, 150,000 ft2 (13 935 m2) hotel and 50,000 ft2 (4 645 m2) of retail space?
A. Retail
B. Hospitality
C. Core and Shell Development
D. New Construction
Answer: D (LEAVE A REPLY)
New Construction is the appropriate rating system for a new mixed-use building with 300,000 ft2 (27 871 m2) of residential units, 150,000 ft2 (13 935 m2) hotel and 50,000 ft2 (4 645 m2) of retail space. According to the LEED rating system selection guidance1, the New Construction rating system applies to buildings that are being newly constructed or going through a major renovation, and that include any of the following use types: office, retail, hospitality, education, residential, warehouse and distribution centers, or data centers2. The New Construction rating system can also be used for mixed-use buildings that have more than one use type3. Since the project involves new construction of a

mixed-use building with residential, hospitality, and retail uses, the New Construction rating system is the most suitable option. The other rating systems are not applicable because they are either specific to one use type (Retail and Hospitality) or to buildings that are not complete at the time of certification (Core and Shell Development). Reference:
LEED rating system selection guidance | U.S. Green Building Council
LEED v4: Building Design + Construction Guide - U.S. Green Building Council LEED v4 Rating Systems | USGBC-LI

NEW QUESTION: 32
A project team is deciding on the impact of a proposed concrete walkway. Which of the following will be impacted as a result of adding the walkway?
A. Site's impervious cover
B. Project density calculations
C. Erosion and sediment control plan during construction
D. Air quality as a result of off gassing that occurs as concrete cures
Answer: A (LEAVE A REPLY)
Adding a concrete walkway will increase the site's impervious cover, which is the percentage of the site area that does not allow water to infiltrate into the ground1. Impervious cover can affect the site's stormwater management, heat island effect, and habitat quality. The project team should consider using permeable paving materials, vegetated roofs, or rain gardens to reduce the impervious cover and mitigate its impacts2. The other options are not directly impacted by adding a concrete walkway. Project density calculations are based on the floor area ratio and the number of occupants, not the site features3. Erosion and sediment control plan during construction is required for any site disturbance, regardless of the type of material used4. Air quality as a result of off gassing that occurs as concrete cures is not a significant issue for outdoor applications, and can be minimized by using low-emitting concrete products5.

NEW QUESTION: 33
To achieve the Sustainable Sites Credit, Light Pollution Reduction, Option 1. BUG Rating Method, projects must demonstrate

A. all luminaires have full cutoff fixtures
B. all luminaires have a minimum color temperature of 3500 K
C. all luminaires meet acceptable fixture ratings for the project's Model Lighting Ordnance (MLO) lighting zone
D. all luminaires are mounted at least three mounting heights from the lighting boundary
Answer: C (LEAVE A REPLY)
To achieve the Sustainable Sites Credit, Light Pollution Reduction, Option 1. BUG Rating Method, projects must demonstrate that all luminaires meet acceptable fixture ratings for the project's Model Lighting Ordnance (MLO) lighting zone. The MLO lighting zone is determined by the site-specific characteristics and the definitions provided in the IES/IDA MLO User Guide1. The fixture ratings are based on the backlight-uplight-glare (BUG) system, which measures the amount of light emitted in different directions by a luminaire, as defined in IES TM-15-11, Addendum A2. The maximum allowable ratings for each lighting zone are given in Table 1 of the credit language3. Reference: IES/IDA MLO User Guide; IES TM-15-11, Addendum A; Light pollution reduction

NEW QUESTION: 34
In order to achieve Indoor Environmental Quality Credit, Quality Views the project team increased the window-to-wall ratio. Which prerequisite was impacted by this action?
A. Energy and Atmosphere Prerequisite, Minimum Energy Performance
B. Energy and Atmosphere Prerequisite, Building-Level Energy Metering
C. Energy and Atmosphere Prerequisite, Fundamental Refrigerant Management
D. Energy and Atmosphere Prerequisite, Fundamental Commissioning and Verification
Answer: A (LEAVE A REPLY)
The correct answer is A. Energy and Atmosphere Prerequisite, Minimum Energy Performance. This is because:
Increasing the window-to-wall ratio (WWR) would reduce the solar heat gain and the cooling load of the building, which are two of the main factors that affect the energy performance of a building12.
The WWR is defined as the ratio of the area of windows to the area of external walls in a building3. The higher the WWR, the more natural light and ventilation can be achieved, which can improve the indoor environmental quality (IEQ) and reduce the need for artificial lighting and mechanical systems4.
The LEED AP BD+C V4 credit for IEQ requires that buildings have a minimum WWR of 15% for south-facing walls and 20% for north-facing walls5. However, this minimum WWR may not be sufficient to achieve optimal IEQ in hot regions, where high solar radiation and humidity levels create high cooling demand6. Therefore, increasing the WWR beyond these minimum values can help achieve better IEQ by reducing both solar heat gain and cooling load.
The other prerequisites are not impacted by increasing the WWR. Building-level energy metering is a prerequisite that requires measuring and reporting energy use at individual

building units or zones5. Fundamental refrigerant management is a prerequisite that requires ensuring proper handling, storage, use, recovery, and disposal of refrigerants used in cooling systems5. Fundamental commissioning and verification is a prerequisite that requires ensuring that all commissioning activities are documented and verified according to LEED standards5.

NEW QUESTION: 35
Qualifying spaces for the Sustainable Sites Credit, Places of Respite must
A. be located outdoors near a water feature
B. be located at least 20 ft. (6 m) from a smoking area
C. have provisions for direct medical care to be delivered in the area
D. have options for shade or indirect sun for a portion of seating spaces
Answer: D (LEAVE A REPLY)
According to the LEED AP BD+C V4 reference guide for Healthcare, places of respite must be outdoors or located in interior spaces with views of nature, and have options for shade or indirect sun for a portion of seating spaces. The other options are either incorrect or not required by the credit. Reference: LEED AP BD+C V4 reference guide for Healthcare, Places of respite

NEW QUESTION: 36
Landscape irrigation practices consume large quantities of potable water. By evaluating the project's outdoor water budget and irrigation water demand early in the design process in Water Efficiency Prerequisite, Outdoor Water Use Reduction project teams will be able to
A. earn Water Efficiency Credit, Water Metering
B. earn Sustainable Sites Credit, Rainwater Management
C. estimate and optimize water use in landscape designs
D. estimate and optimize water use in outdoor fountains and pools
Answer: C (LEAVE A REPLY)
The intent of the Water Efficiency Prerequisite, Outdoor Water Use Reduction is to reduce outdoor water consumption by either eliminating the need for irrigation or reducing the irrigation demand by at least 30% from the baseline. This prerequisite requires project teams to evaluate the project's outdoor water budget and irrigation water demand using the EPA WaterSense Water Budget Tool or a local equivalent. This will help project teams to estimate and optimize water use in landscape designs by selecting appropriate plant species and irrigation system efficiency.

NEW QUESTION: 37
Which of the following should be analyzed when pursuing an Integrative Design Process focusing on Energy-Related Systems?
A. Site conditions

B. Potable water availability
C. Acoustic performance of the project
D. Applicability of Green Vehicles to the project
Answer: (SHOW ANSWER)
The correct answer is A, site conditions. According to the LEED v4: Building Design + Construction Guide, the Integrative Process Prerequisite, Integrative Project Planning and Design, requires the project team to perform a preliminary "simple box" energy modeling and analysis before the completion of schematic design. The purpose of this analysis is to evaluate the energy performance goals of the project and to identify and compare the energy-related design strategies. The analysis should include the following aspects1: Site conditions, such as climate, solar orientation, shading, and natural ventilation potential Massing and orientation, such as building shape, size, and orientation, and how they affect the heating and cooling loads, daylight availability, and passive design strategies Basic envelope attributes, such as insulation levels, window-to-wall ratio, glazing properties, infiltration rates, and thermal bridging Lighting levels, such as the target illumination levels, daylighting potential, and lighting power density Plug and process loads, such as the equipment and appliances that consume electricity, and their schedules and controls Programmatic and operational parameters, such as the occupancy, operating hours, and zoning of the building Thermal comfort ranges, such as the acceptable temperature and humidity levels for the occupants HVAC system selection, such as the type, efficiency, and control of the heating, ventilation, and air conditioning system The other choices are not aspects that should be analyzed when pursuing an integrative design process focusing on energy-related systems, because:
Potable water availability is related to the water efficiency and water quality goals of the project, not the energy performance goals2.
Acoustic performance of the project is related to the indoor environmental quality and occupant comfort goals of the project, not the energy performance goals3.
Applicability of green vehicles to the project is related to the location and transportation and greenhouse gas emissions goals of the project, not the energy performance goals4.

NEW QUESTION: 38
Which of the following Building Product Disclosure and Optimization credits under the Materials and Resources category would a project team achieve by using insulation material that is cradle-to-cradle V3 Gold certified?
A. Material Ingredients, Option 2. Leadership Extraction Practices and Environmental Product Declarations, Option 1. Environmental Product Declarations (EPD)
B. Material Ingredients, Option 1. Material Ingredient Reporting and Material Ingredients, Option 2. Material Ingredient Optimization
C. Sourcing of Raw Materials, Option 1. Raw Material Source and Extraction Reporting and Material Ingredients, Option 2. Material Ingredient Optimization

D. Sourcing of Raw Materials, Option 2. Leadership Extraction Practices and Material Ingredients, Option 2. Material Ingredient Optimization

Answer: B (LEAVE A REPLY)

Detailed

Cradle-to-cradle certification (Gold level) meets the requirements for Material Ingredient Optimization under Option 2. It demonstrates the product's compliance with advanced environmental standards, supporting the LEED focus on transparency and optimization of building materials to minimize their environmental and human health impacts.

NEW QUESTION: 39

The project team wants to modify the design of an office building copy room to minimize the risk of airborne contamination to the surrounding space. The design includes a separate exhaust, but due to design constraints the partition walls of the room cannot run deck-to-deck. What can the team do to achieve Indoor Environmental Quality Credit, Enhanced Indoor Air Quality Strategies?

A. Use MERV 8 (F5), or higher, filters

B. Provide a hard-lid ceiling

C. Create positive pressure in the room

D. Provide a large opening to dilute air contaminates

Answer: (SHOW ANSWER)

The Indoor Environmental Quality Credit, Enhanced Indoor Air Quality Strategies aims to establish better quality indoor air for the building occupants that promotes their comfort and well-being1. This credit requires the project team to implement several strategies to reduce the exposure of occupants and HVAC systems to environmental tobacco smoke, airborne contaminants, and chemicals1. One of the strategies is to design and construct all interior partitions to full height (deck-to-deck) or provide a hard-lid ceiling for spaces where hazardous gases or chemicals may be present or used2. This strategy helps prevent the migration of contaminants from one space to another through the plenum3. A copy room is an example of such a space, as it may contain printers, copiers, toners, and solvents that can emit volatile organic compounds (VOCs) and particulate matter (PM) into the air4. Therefore, the project team can achieve Indoor Environmental Quality Credit, Enhanced Indoor Air Quality Strategies by providing a hard-lid ceiling for the copy room.

Reference:

Enhanced Indoor Air Quality Strategies

Enhanced Indoor Air Quality Strategies - Canada Green Building Council

[LEED Reference Guide for Building Design and Construction v4], page 631 Copy Rooms: A Source of Indoor Air Pollution

NEW QUESTION: 40

A contractor is building a retirement community project. 30% of the building's product costs were derived from reused/salvaged materials or met recycled content criteri a. Which of the following credits can the LEED AP submit towards certification?

A. Materials and Resources Credit, Building Product Disclosure and Optimization - Sourcing of Raw Materials

B. Materials and Resources Prerequisite, Construction and Demolition - Waste Management Planning

C. Materials and Resources Credit, Building Product Disclosure and Optimization - Material Ingredients

D. Materials and Resources Credit, Building Product Disclosure and Optimization - Environmental Product Declarations

Answer: A (LEAVE A REPLY)

The Materials and Resources Credit, Building Product Disclosure and Optimization - Sourcing of Raw Materials rewards projects that use materials that have optimized extraction processes by limiting or eliminating the extraction of new resources, the reuse of materials or the use of recycled materials1. According to the LEED Reference Guide for Building Design and Construction2, the credit has two options: Option 1. Raw Material Source and Extraction Reporting and Option 2. Leadership Extraction Practices. Option 1 requires the project to use at least 20 permanently installed products from at least five different manufacturers that have publicly released a report from their raw material suppliers which include extraction locations, a commitment to long-term ecologically responsible land use, a commitment to reducing environmental harms from extraction and/or manufacturing processes, and a commitment to meeting applicable standards or programs voluntarily that address responsible sourcing criteria2. Option 2 requires the project to use products that meet at least one of the responsible sourcing criteria below for at least 25%, by cost, of the total value of permanently installed building products in the project:

Extended producer responsibility. Products purchased from a manufacturer (producer) that participates in an extended producer responsibility program or is directly responsible for extended producer responsibility.

Bio-based materials. Bio-based products must meet the Sustainable Agriculture Network's Sustainable Agriculture Standard. Bio-based raw materials must be tested using ASTM Test Method D6866 and be legally harvested, as defined by the exporting and receiving country. Exclude hide products, such as leather and other animal skin material.

Wood products. Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent.

Materials reuse. Reused products must include salvaged, refurbished, or reused products.

Recycled content. Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on cost. Products meeting recycled content criteria are valued at 100% of their cost for the purposes of credit achievement calculation.

USGBC approved program. Other USGBC approved programs meeting leadership extraction criteria.
Therefore, among the given options, only Option A is relevant to the use of reused/salvaged materials or recycled content, as they can contribute to the materials reuse or recycled content criteria under Option 2. Option B is a prerequisite that requires the project to develop and implement a construction and demolition waste management plan that identifies the materials to be diverted from disposal and whether the materials will be sorted on-site or co-mingled2. Option C is a credit that requires the project to use at least 20 different permanently installed products from at least five different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1000 ppm):
Health Product Declaration. The end use product has a published, complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration Open Standard.
Cradle to Cradle. The end use product has been certified at the Cradle to Cradle v2 Basic level or Cradle to Cradle v3 Bronze level.
REACH Optimization. The end use product is compliant with REACH Optimization criteria.
GreenScreen v1.2 Benchmark. The product's chemical ingredients are inventoried using the GreenScreen v1.2 Benchmark.
Declare. The Declare product label must indicate that all ingredients have been disclosed down to 1000 ppm.
Option D is a credit that requires the project to use at least 20 different permanently installed products that have environmental product declarations. The products must be sourced from at least five different manufacturers. The environmental product declarations must conform to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930 and have at least a cradle-to-gate scope2.
Reference:
LEED Reference Guide for Building Design and Construction v4
Recycled content | U.S. Green Building Council
CS-v4.1 MRc3: Sourcing of Raw Materials | LEEDuser
How to choose the right materials for a LEED project? - GBCE

NEW QUESTION: 41
Plug-in task lighting will be utilized in a LEED project at all workstations. The task lighting is not included in the installed lighting power calculations for Energy and Atmosphere Prerequisite, Minimum Energy Performance since
A. it is being covered by Indoor Environmental Quality Credit, Interior Lighting, Option 1. Lighting Control
B. it is specifically exempted by ASHRAE
C. it will be installed by the owner
D. the lamp wattage has not been determined

Answer: C (LEAVE A REPLY)
Plug-in task lighting is considered as furniture and is not included in the installed lighting power calculations for Energy and Atmosphere Prerequisite, Minimum Energy Performance. It is also not required to comply with the lighting control requirements of ASHRAE 90.1-2010. However, it can be used to satisfy the individual control requirement of Indoor Environmental Quality Credit, Interior Lighting, Option 1. Reference:
LEED v4 for Building Design and Construction, p. 361
LEED v4 for Building Design and Construction, p. 6012
ASHRAE 90.1-2010, Section 9.1.13

NEW QUESTION: 42
Which of the following pairs of strategies can help reduce the landscape water demand beyond the prerequisite level in Water Efficiency Credit, Outdoor Water Use Reduction?
A. Mulched paths and weather sensor controls
B. Artificial turf grass and alternative water sources
C. Plant species selection and permeable pavement
D. Alternative water sources and smart scheduling technology
Answer: D (LEAVE A REPLY)
Detailed
The combination of alternative water sources (e.g., captured rainwater or reclaimed water) and smart scheduling technology (e.g., weather-based irrigation controllers) is an effective strategy for reducing outdoor water use. These measures exceed the prerequisite requirements and optimize water efficiency by tailoring irrigation to actual landscape needs.

NEW QUESTION: 43
What Color Rendering Index (CRI) value meets the requirements of Indoor Environmental Quality Credit, Interior Lighting?
A. 45
B. 85
C. 25
D. 65
Answer: B (LEAVE A REPLY)
Detailed
A CRI value of at least 85 is required to meet the Indoor Environmental Quality Credit for Interior Lighting. This ensures high-quality lighting that renders colors accurately, enhancing occupant comfort and visual experience. LEED emphasizes lighting design that supports functionality and wellbeing.

NEW QUESTION: 44

Which of the following are control measures recommended by the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) for the Indoor Environmental Quality Credit, Construction Indoor Air Quality Management Plan?

A. Source control

B. Material selection

C. Contractor training

D. Pre-construction meeting

Answer: A (LEAVE A REPLY)

Source control is one of the control measures recommended by the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) for the Indoor Environmental Quality Credit, Construction Indoor Air Quality Management Plan. Source control means minimizing the generation and emission of indoor air pollutants from the construction activities and materials. Some examples of source control are1:

* Using low-emitting adhesives, sealants, paints, coatings, and flooring systems that comply with the VOC limits of the applicable LEED credit.
* Storing absorptive materials in a protected area and covering them with plastic sheeting to prevent moisture and mold growth.
* Scheduling the installation of finish materials after the completion of wet and dusty work, such as concrete pouring, drywall sanding, and painting.
* Isolating work areas where high levels of contaminants are generated or used, such as welding, cutting, grinding, and solvent cleaning, and providing adequate ventilation and exhaust.
* Prohibiting smoking, eating, and drinking in the work areas, and providing designated areas for these activities.

Reference:

* Construction indoor air quality management plan | U.S. Green Building Council1

NEW QUESTION: 45

Which of the following strategies can be used to reduce the internal load of a building?

A. Decreasing lighting power

B. Oversize the HVAC systems

C. Install low reflective exterior facade

D. Increase the insulating value of the glazing and window frame system

Answer: (SHOW ANSWER)

Decreasing lighting power is a strategy that can be used to reduce the internal load of a building. Internal load is the amount of heat generated within a building by its occupants, equipment, and lighting1. Reducing lighting power can lower the internal heat gain and thus decrease the cooling demand and energy consumption of the building2. Other strategies to reduce internal load include using energy-efficient appliances, natural ventilation, daylighting, occupancy sensors, and shading devices3. Reference:

8.1: Internal Loads - Engineering LibreTexts

Chapter 3: Design Loads for Residential Buildings - HUD User
Internal Heat Gain - an overview | ScienceDirect Topics

NEW QUESTION: 46
What LEED Building Design and Construction project type should exclude weekend transit service from the transit service level calculations for Location and Transportation Credit, Access to Quality Transit, if the project occupants do not commute to the building during weekends?
A. Schools
B. Data centers
C. Hospitality
D. Warehouses and distribution centers
Answer: (SHOW ANSWER)
Data centers are buildings that house computer systems and associated components, such as servers, storage devices, and network equipment. They typically operate 24/7 and do not have regular commuting patterns of occupants. Therefore, they can exclude weekend transit service from the transit service level calculations for the Location and Transportation Credit, Access to Quality Transit12. This credit aims to encourage development in locations that are served by high-quality transit, which reduces greenhouse gas emissions, transportation costs, and automobile dependence.

NEW QUESTION: 47
The current facilities requirements (CFR) and operations and maintenance plan (OMP) required for Energy and Atmosphere Prerequisite, Fundamental Commissioning and Verification must include
A. issue logs
B. functional performance tests
C. minimum outside air requirements
D. installation verification (construction) checklists
Answer: C (LEAVE A REPLY)

The current facilities requirements (CFR) and operations and maintenance plan (OMP) are two documents that are required for the Energy and Atmosphere Prerequisite, Fundamental Commissioning and Verification. The CFR is a document that describes the owner's project requirements, such as the design intent, performance goals, and operational needs of the building. The OMP is a document that provides information and guidance on how to operate and maintain the commissioned systems and equipment. According to the LEED v4 Reference Guide for Building Design and Construction, the CFR and OMP must include the minimum outside air requirements, which are the minimum rates of outdoor air ventilation that are needed to provide acceptable indoor air quality and thermal comfort for the occupants1. The issue logs, functional performance tests, and installation verification (construction) checklists are not required to be included in the CFR and OMP, but they are part of the commissioning process and documentation.
Reference:
* LEED v4 Reference Guide for Building Design and Construction, Energy and Atmosphere Prerequisite: Fundamental Commissioning and Verification, page 2611
* Fundamental commissioning and verification | U.S. Green Building Council2

NEW QUESTION: 48
Which of the following methods is the referenced standard for demonstrating compliance with Indoor Environmental Quality Prerequisite, Minimum Indoor Air Quality Performance?
A. ASHRAE 62.2 - 2007
B. ASHRAE 90.1 - 2010
C. ASHRAE 55 - 2010
D. ASHRAE 62.1 - 2010
Answer: (SHOW ANSWER)
The referenced standard for Indoor Environmental Quality (IEQ) Prerequisite: Minimum Indoor Air Quality (IAQ) Performance in LEED AP ID+C projects is ASHRAE 62.1 - 2010. ASHRAE 62.1 specifies ventilation rates and air quality requirements for acceptable indoor air quality in commercial buildings, establishing the minimum standards needed to maintain health and comfort. ASHRAE 62.2 (A) is relevant to low-rise residential buildings, ASHRAE 90.1 (B) covers energy standards, and ASHRAE 55 (C) relates to thermal comfort rather than air quality.

NEW QUESTION: 49
The design team has specified products to achieve Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials, Option 2. Leadership Extraction Practices for the project. At the end of the construction, it was discovered that the transporter who shipped a portion of the wood did not have chain-of-custody (CoC) certification. The design team should do which of the following?
A. Submit a Credit Interpretation Ruling (CIR) to get clarification from USGBC

B. Recalculate the percent of certified wood and consider the affected wood as non-certified
C. Recalculate the percent of certified wood and delete the affected wood from the calculation
D. Remove and replace the affected wood from the project site
Answer: (SHOW ANSWER)
If a transporter lacks chain-of-custody (CoC) certification for certified wood products, the design team should recalculate the percentage of certified wood and classify the affected wood as non-certified (B). This approach follows LEED's requirements for accurate reporting on certified materials. LEED requires all certified wood to maintain CoC certification from the forest to the project site, so any deviation affects credit calculations. Submitting a CIR (A) isn't needed as the LEED rules are clear on this matter, and removal (D) may not be feasible or cost-effective.

NEW QUESTION: 50
The contractor has submitted waste hauling reports for review in order to achieve Materials and Resources Credit, Construction and Demolition Waste Management. Which of the following materials on the documentation contribute towards the credit?
A. Excavated soil
B. Wood derived fuel
C. Items sent to the local incinerator
D. Alternate Daily Cover
Answer: B (LEAVE A REPLY)
This option requires the project to classify wood derived fuel as a recycled material that contributes towards the credit, because it is a waste material that is converted into a useful energy source1. Wood derived fuel can be used for heating, electricity generation, or co-firing with other fuels2. According to the LEED v4: Building Design + Construction Guide, recycled materials are those that have been reprocessed or remanufactured from recovered materials3.

NEW QUESTION: 51
Which of the following standards needs to be followed to comply with Indoor Environmental Quality Credit, Thermal Comfort?
A. ASHRAE 55-2010
B. ASHRAE 62.1-2010
C. ASHRAE 90.1-2010
D. ASHRAE 189.1-2010
Answer: (SHOW ANSWER)
To comply with Indoor Environmental Quality Credit, Thermal Comfort, the standard that needs to be followed is ASHRAE 55-2010, Thermal Environmental Conditions for Human Occupancy, with errata or a local equivalent1. This standard specifies the combinations of

indoor thermal environmental factors and personal factors that will produce thermal environmental conditions acceptable to a majority of the occupants within the space2. The standard also provides methods for measuring and evaluating thermal comfort, as well as guidance for design, operation, and maintenance of thermal comfort systems2. Reference: Thermal comfort; ASHRAE 55-2010

NEW QUESTION: 52
What are the three phases within the Integrative Process Credit, Integrative Process?
A. Pre-design, Discovery, Design and Construction
B. Discovery, Design and Construction, Operations and Feedback
C. Schematic Design, Design and Construction, Operations and Feedback
D. Design Charrette, Schematic Design, Operations and Feedback
Answer: (SHOW ANSWER)
The Integrative Process credit under the LEED BD+C v4 rating system encourages the coordination of all the project team members, starting from the predesign phase, to discover unique opportunities for project design, enhanced building performance, and green features. The three phases within the Integrative Process Credit are:
Discovery phase: This involves investigating at least two energy-related and several water-related sustainable design strategies prior to the end of schematic design1.
Design and Construction (implementation) phase: This requires the project teams to turn their findings into reality2.
Occupance, Operations, and Performance Feedback phase: This phase involves the evaluation of the implemented strategies and their effectiveness3.
Reference:
LEED Integrative Process Credit Explained - Projectific, Inc.
LEED AP BD+C v4 - Integrative Process Flashcards | Quizlet
Achieving the LEED v4 Integrative Process Credit - SketchUp

NEW QUESTION: 53
What is the basis of energy consumption in determining the percentage of green power or carbon offsets?
A. Quality
B. Quantity
C. Efficiency
D. Performance
Answer: B (LEAVE A REPLY)
The basis of energy consumption in determining the percentage of green power or carbon offsets is the quantity of energy used by the project, measured in kilowatt-hours (kWh) or British thermal units (Btu). Green power is electricity generated from renewable sources, such as solar, wind, hydro, biomass, or geothermal. Carbon offsets are reductions or removals of greenhouse gas emissions from a project or activity that compensates for the

emissions from another source. According to the LEED Reference Guide for Building Design and Construction1, the Energy and Atmosphere Credit, Green Power and Carbon Offsets, requires the project to engage in a contract for qualified resources that meet the following requirements:
The contract term is at least five years.
The green power or carbon offsets are based on the quantity of energy consumed by the building.
The green power is Green-e Energy certified or the equivalent.
The carbon offsets are Green-e Climate certified, Verified Carbon Standard certified, Gold Standard certified, or the equivalent.
Reference:
LEED Reference Guide for Building Design and Construction v4
Green Power and Carbon Offsets | U.S. Green Building Council
Green Power and Carbon Offsets - LEEDuser
Green Power and Carbon Offsets - LEED v4 for BD+C: New Construction ...

NEW QUESTION: 54
When preparing the Sustainable Sites Prerequisite, Construction Activity Pollution Prevention, the Construction General Permit must contain which of the following?
A. Waste Management Plan
B. Building orientation on the site
C. Installation plan for perimeter control
D. Minimum standards for equipment exhaust
Answer: C (LEAVE A REPLY)
The Construction General Permit (CGP) for the Sustainable Sites Prerequisite, Construction Activity Pollution Prevention, must contain an installation plan for perimeter control. This is part of the Erosion and Sedimentation Control (ESC) Plan, which is designed to prevent loss of soil during construction by stormwater runoff and/or wind erosion, prevent sedimentation of storm sewer or receiving streams, and prevent polluting the air with dust and particulate matter1.
Reference:
Sustainable Sites Prerequisites | GlobalSpec

NEW QUESTION: 55
The project team achieved a strategy not addressed in the LEED Green Building Rating System, which proved to be a significant, measurable environmental benefit for the project. What can the project team do in order to get a benefit for this strategy?
A. Submit a regional priority credit
B. No benefit can be achieved since the strategy is not included in the rating system
C. Submit the manufacturer's product declaration
D. Submit an innovation credit

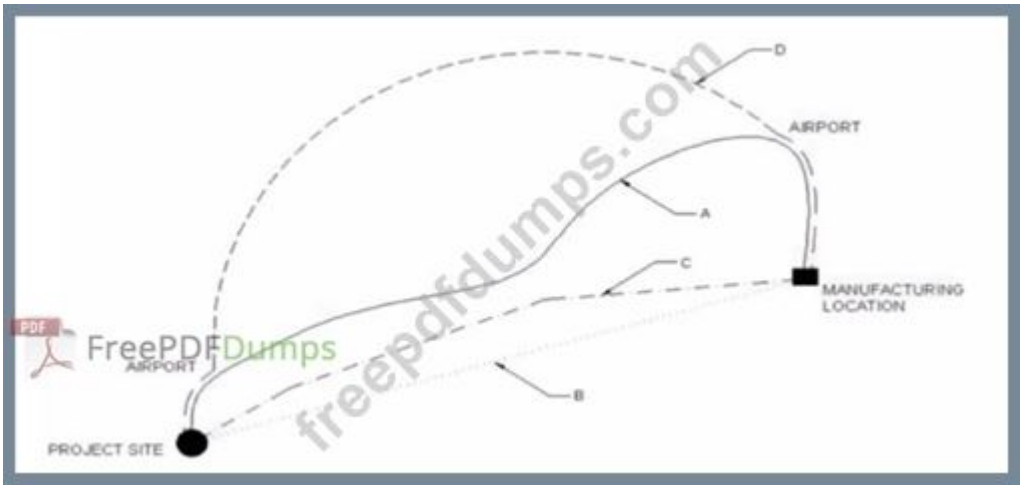
Answer: D (LEAVE A REPLY)
Detailed
LEED allows project teams to submit an Innovation credit for strategies that provide measurable environmental benefits but are not explicitly addressed in the rating system. Innovation credits reward creative and exemplary performance that goes beyond LEED's standard requirements, fostering continuous improvement in green building practices.

NEW QUESTION: 56
LEED project boundaries that include multiple similar buildings which are all eligible for certification can be registered as which of the following?
A. Batch project
B. Group project
C. Master Site project
D. Neighborhood project
Answer: B (LEAVE A REPLY)
LEED project boundaries that include multiple similar buildings which are all eligible for certification can be registered as a group project. A group project allows multiple buildings (or interior spaces within multiple buildings) on a shared site to be certified as a single LEED project. These projects must meet the criteria outlined in the LEED Campus Guidance for Projects on a Shared Site, such as having the same construction contract, ownership, management, space type, rating system, and compliance paths. A group project will receive one certification and rating for the entire group.
Reference: Group Projects (previously Multiple Building Projects), CAGBC News, September 1, 2020.

NEW QUESTION: 57
During a review of the HVAC equipment submittal, the Commissioning Authority (CxA) determined that the contractor substituted a higher efficiency piece of equipment. Which of the following is the priority for the CxA to consider?
A. Energy meter location
B. Equipment Maintenance Plan
C. Owner's Project Requirements
D. Coordination of other contractors
Answer: (SHOW ANSWER)
The Owner's Project Requirements (OPR) is a document that defines the goals, expectations, and performance criteria of the project, as established by the owner or the owner's representative1. The OPR is one of the key deliverables of the commissioning process and serves as the basis for the design, construction, and operation of the building systems. Therefore, the priority for the Commissioning Authority (CxA) to consider when the contractor substitutes a higher efficiency piece of equipment is whether the substitution meets or exceeds the OPR. The CxA should verify that the new equipment is compatible

with the OPR and does not compromise the performance, functionality, or reliability of the system. The CxA should also communicate the substitution to the owner and the design team and document the change in the commissioning plan and report.
Reference:
LEED Reference Guide for Building Design and Construction v4
The Role of a Commissioning Agent (CxA) - cxplanner.com
Commissioning Authority | WBDG - Whole Building Design Guide
General Commissioning Requirements - Northwestern University

NEW QUESTION: 58
How is the distance between the project site and the manufacturing location determined for Materials and Resources Credit. Building Disclosure and Optimization - Sourcing of Raw Materials. Option 2. Leadership Extraction Practices?



A. Roadway distance
B. Straight line distance
C. Rail freight distance
D. Air freight distance
Answer: (SHOW ANSWER)
The distance between the project site and the manufacturing location is determined by the straight line distance. This is because the LEED v4 Reference Guide for Building Design and Construction states that the distance should be measured as the crow flies1. The straight line distance is the shortest distance between two points on a plane, regardless of the mode of transportation or the road conditions. The image that you sent shows the straight line distance between the project site and the manufacturing location as the line segment AB.
Reference:
LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials, page 551

NEW QUESTION: 59

What issue must be present on the project site to achieve Location and Transportation Credit, High-Priority Site, Option 3. Brownfield Remediation?

A. Mercury containing lamps

B. Contaminated soil or groundwater

C. Asphalt construction waste

D. Asbestos tile and glue

Answer: B (LEAVE A REPLY)

Detailed

For the Brownfield Remediation option under the High-Priority Site credit, the project site must include contaminated soil or groundwater requiring cleanup to improve environmental conditions. This credit incentivizes the redevelopment of previously unusable or hazardous sites, helping to promote environmental restoration and sustainable land use.

NEW QUESTION: 60

A comprehensive rainwater management plan may include design elements such as

A. artificial turf, bioretention pond, cisterns and hay bales

B. cisterns, porous pavement, swales and vegetated roofs

C. soil compaction, swales, vegetated roofs and xeriscaping

D. bioretention pond, cisterns, porous pavement and stabilized construction entrance

Answer: B (LEAVE A REPLY)

These design elements are examples of low-impact development (LID) and green infrastructure (GI) practices that can reduce runoff volume and improve water quality by replicating the natural hydrology and water balance of the site1. Cisterns can collect and store rainwater for reuse or infiltration, porous pavement can allow water to seep into the ground, swales can convey and filter stormwater runoff, and vegetated roofs can reduce runoff and evapotranspiration2.

NEW QUESTION: 61

Which of the following activities must be prohibited within a building as a prerequisite to LEED certification?

A. Burning fossil fuels

B. Smoking tobacco products

C. Preparing non-organic foods

D. Manufacturing toxic chemicals

Answer: B (LEAVE A REPLY)

Smoking tobacco products must be prohibited within a building as a prerequisite to LEED certification, according to the Indoor Environmental Quality Prerequisite, Environmental Tobacco Smoke Control1. This prerequisite aims to prevent or minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to environmental tobacco smoke (ETS), which is a known human carcinogen and a source of

indoor air pollution2. The prerequisite requires the project to meet one of the following options:
Option 1. No Smoking. Prohibit smoking in the building and within 25 feet (8 meters) of all entries, outdoor air intakes, and operable windows.
Option 2. Smoking Areas. Designate smoking areas outside the building and at least 25 feet (8 meters) from all entries, outdoor air intakes, and operable windows. If smoking areas are enclosed, they must be negatively pressurized and vented directly to the outdoors. Prohibit smoking in all common areas of residential buildings and provide signage to indicate smoking and nonsmoking areas.
The other activities, such as burning fossil fuels, preparing non-organic foods, and manufacturing toxic chemicals, are not explicitly prohibited by any LEED prerequisites, although they may have negative impacts on the environment, health, and energy performance of the building.
Reference:
LEED Reference Guide for Building Design and Construction v4
Environmental Tobacco Smoke Control | U.S. Green Building Council
Environmental tobacco smoke (ETS) - World Health Organization
Environmental Tobacco Smoke - an overview | ScienceDirect Topics

NEW QUESTION: 62
Smoking is prohibited inside LEED-certified buildings in order to eliminate the health risks associated with environmental tobacco smoke. Which building type is exempt from this requirement?
A. Office projects
B. Healthcare projects
C. Warehouse projects
D. Residential projects
Answer: D (LEAVE A REPLY)
In LEED-certified projects, residential buildings (D) are the exception to the rule prohibiting smoking inside buildings. For residential projects, the standard is modified to require designated smoking areas with special ventilation or separation rather than a complete

ban, as smoking regulations in residential settings often involve tenant rights and are treated differently than commercial or institutional buildings. LEED requires that precautions be taken to control environmental tobacco smoke migration in multifamily residential projects to protect air quality in common areas.

NEW QUESTION: 63
Which approach will contribute to maintaining compliance with Sustainable Sites Credit, Rainwater Management?
A. Installing bioretention area
B. Installing on-site renewable power generation facility
C. Substituting impervious surface area with high-albedo paving materials
D. Increase artificial turf on the roof
Answer: A (LEAVE A REPLY)
Installing a bioretention area is an example of a low-impact development (LID) practice that can reduce runoff volume and improve water quality by replicating the natural hydrology and water balance of the site. This approach will contribute to maintaining compliance with Sustainable Sites Credit, Rainwater Management, which requires designing the site to retain the runoff from the developed site for at least the 80th percentile of rainfall events1.
Reference:
Credit: Rainwater management | U.S. Green Building Council
Achieving SSc Rainwater Management in LEED v4.1

NEW QUESTION: 64
Which of the following acoustical units are used in Indoor Environmental Quality Credit, Acoustic Performance to measure reverberation time?
A. T60
B. STC
C. Hz
D. dBA
Answer: (SHOW ANSWER)
Detailed
T60 is the unit used to measure reverberation time, which is the time it takes for sound to decay by 60 decibels in a space. This metric is critical for achieving the Acoustic Performance credit under LEED, as it ensures that spaces are designed to provide optimal acoustic environments that enhance occupant comfort and productivity.

NEW QUESTION: 65
A new commercial building is being designed to use small capacity air handling units. To meet the requirements of the Carbon Dioxide Monitoring strategy in the Indoor Environmental Quality Credit, Enhanced Indoor Environmental Quality Strategies, where would CO2 monitors need to be located?

A. In each occupied space
B. In each densely occupied space
C. In each occupied space and outdoors
D. In each occupied space over 500 ft2 (46 m2)
Answer: B (LEAVE A REPLY)
According to the LEED v4 Reference Guide for Building Design and Construction, the Carbon Dioxide Monitoring strategy requires CO2 monitors to be located in each densely occupied space, which is defined as a space with a design occupant density of 25 people or more per 1,000 square feet (93 square meters). This strategy is intended to provide feedback on ventilation system performance and indoor air quality12 Reference: 1: LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Enhanced Indoor Air Quality Strategies, Option 2: Additional Enhanced IAQ Strategies, Strategy 3: Carbon Dioxide Monitoring, page 704. 2: LEED v4 Reference Guide for Building Design and Construction, Glossary, page 1019.

NEW QUESTION: 66
A Photovoltaic (PV) system was installed on a 35,000 ft2 (3 252 m2) project. What actions need to take place in order to meet compliance for Energy and Atmosphere Prerequisite, Fundamental Commissioning (Cx) and Verification?
A. No action is necessary as the PV system is not required to be commissioned
B. The PV system installer should commission his own installations and share the results with the project owner
C. The Cx agent for the project must conduct or oversee the Cx of the PV system
D. The building's mechanical engineer should commission his own installations and share the results with the project owner
Answer: C (LEAVE A REPLY)
The correct answer is C, the Cx agent for the project must conduct or oversee the Cx of the PV system. According to the LEED v4 Reference Guide for Building Design and Construction, the Energy and Atmosphere Prerequisite, Fundamental Commissioning and Verification, requires that all energy-related systems, including renewable energy systems such as PV, be commissioned by an independent commissioning agent (CxA) or a qualified member of the project team who reports to the owner. The CxA or the qualified team member must perform or oversee all commissioning activities, including developing a commissioning plan, reviewing design documents and submittals, verifying installation and performance, and preparing a commissioning report12 Reference: 1: LEED v4 Reference Guide for Building Design and Construction, Energy and Atmosphere Prerequisite: Fundamental Commissioning and Verification, page 562. 2: LEED v4 Reference Guide for Building Design and Construction, Glossary, page 1020.

NEW QUESTION: 67

The project team is working to reduce the building's total energy costs in a cold climate. Which is the best strategy for the project team to consider?

A. Additional envelope insulation

B. Window shades

C. Highly reflective roof

D. Increased cooling efficiency

Answer: (SHOW ANSWER)

Detailed

In a cold climate, additional envelope insulation is the most effective strategy for reducing energy costs. Improved insulation minimizes heat loss through the building envelope, reducing the demand for heating systems. This aligns with LEED's focus on enhancing energy efficiency and thermal performance in building design.

NEW QUESTION: 68

During a design charrette, community neighbors raise a concern about potential glare resulting from a project's highly reflective roof. Which option should the LEED AP recommend to best address these concerns?

A. Install a vegetative roofing system

B. Change the design to reduce the amount of roofing area

C. Change the roofing material to a dark material to eliminate the issue

D. Increase the parapet height

Answer: A (LEAVE A REPLY)

Installing a vegetative roofing system is the best option to address the potential glare resulting from a project's highly reflective roof. A vegetative roofing system, also known as a green roof, is a roof that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane. A vegetative roofing system can reduce the reflectivity of the roof surface and mitigate the glare impact on the surrounding environment. It can also provide other benefits, such as reducing heat island effects, improving stormwater management, enhancing biodiversity, and increasing roof insulation. Therefore, option A is the correct answer. The other options are not as effective or desirable as installing a vegetative roofing system. Changing the design to reduce the amount of roofing area (option B) may not be feasible or desirable, as it may compromise the project's program or performance. Changing the roofing material to a dark material to eliminate the issue (option C) may reduce the glare, but it will also increase the heat absorption and emission of the roof, contributing to heat island effects and increasing cooling loads. Increasing the parapet height (option D) may block some of the glare, but it will also increase the material and construction costs, and it may not be sufficient to prevent glare from all angles. For more information on vegetative roofing systems and their benefits, you can refer to the LEED v4 Reference Guide for Building Design and Construction1 or the Green Roofs for Healthy Cities website2.

NEW QUESTION: 69
A facility manager cleaning highly reflective paving material is
A. unnecessarily wasting water
B. reducing the heat island effect
C. increasing the heat island effect
D. lowering the Solar Reflectance Index (SRI)
Answer: B (LEAVE A REPLY)
The heat island effect is the phenomenon of urban areas having higher air temperatures than surrounding rural areas due to the absorption and emission of heat by human-made surfaces, such as buildings, roads, and pavements. The heat island effect can have negative impacts on the environment, human health, and energy consumption. One of the strategies to reduce the heat island effect is to use highly reflective paving materials that have a high solar reflectance index (SRI), which measures the ability of a surface to reflect solar radiation and stay cool. However, over time, the paving materials can accumulate dirt and dust, which can lower their reflectance and increase their heat absorption. Therefore, a facility manager cleaning highly reflective paving material is reducing the heat island effect by restoring the reflectance and cooling potential of the surface12.
Reference:
* Heat Island Reduction | U.S. Green Building Council1
* SpecTopics: Heat Island Reduction Credit and LEED V4/V4.1 - Carlisle SynTec

NEW QUESTION: 70
U.S. Green Building Council (USGBC)'s vision for using LEED internationally includes
A. allowing more stringent credit requirements for countries outside of the U.S. so that all projects can achieve LEED
B. creating multiple LEED rating systems for different countries
C. modifying U.S. reference standards, such as ASHRAE 90.1, to be more appropriate for regions outside the U.S.
D. providing opportunities for alternative compliance paths that meet the unique needs of a particular region
Answer: (SHOW ANSWER)
USGBC's vision for using LEED internationally is to promote green building practices that are globally applicable, locally relevant, and culturally sensitive1. To achieve this vision, USGBC provides opportunities for alternative compliance paths (ACPs) that meet the unique needs of a particular region, such as climate, codes, standards, market conditions, and priorities2. ACPs are modifications or additions to existing LEED credits or prerequisites that recognize regional differences and allow for more flexibility and applicability of LEED3. ACPs are developed by USGBC in collaboration with local green building councils, experts, and stakeholders, and are reviewed and approved by the LEED Steering Committee3. ACPs are available for various regions and countries, such as China, India, Brazil, Europe, and Canada2.

Reference:
LEED International | U.S. Green Building Council
Alternative Compliance Paths (ACPs) | U.S. Green Building Council
USGBC's 2020 vision will use LEED to further global connectedness | U.S. Green Building Council LEED Reference Guide for Building Design and Construction v4

NEW QUESTION: 71
Discussing the project goals to help identify the credits and options that the team should attempt is an example of
A. documenting LEED credits
B. creating the Basis of Design (BOD)
C. developing the LEED Scorecard
D. implementing the Commissioning (Cx) Plan
Answer: (SHOW ANSWER)
Discussing the project goals to help identify the credits and options that the team should attempt is an example of developing the LEED Scorecard. The LEED Scorecard is a tool that shows the potential points that a project can achieve under each credit category of the LEED rating system1. Developing the LEED Scorecard involves selecting the most appropriate credits and options based on the project's goals, location, budget, and design2. The scorecard helps the project team track their progress and prioritize their actions throughout the design and construction process1. Reference:
LEED scorecard | U.S. Green Building Council
LEED v4: Building Design + Construction Guide - U.S. Green Building Council

NEW QUESTION: 72
A project team wants to educate the facility manager on the installed building systems to improve Indoor Environmental Quality. They want the facility manager to maintain the systems so that they will continue to function as intended. Which of the following should be provided to the facility manager?
A. Vendor invoices for mechanical equipment
B. Preventive maintenance plan for the building
C. As-built drawings and copies of material submittals
D. A copy of the credit documentation for the credits that were approved by Green Business Certification Inc. (GBCI)
Answer: B (LEAVE A REPLY)
A preventive maintenance plan is a document that outlines the procedures and schedules for maintaining the building systems and equipment. It helps to ensure that the systems and equipment are operating efficiently and effectively, and that they meet the design intent and performance goals. A preventive maintenance plan can also help to reduce the risk of failures, breakdowns, and repairs, and extend the service life of the systems and equipment. A preventive maintenance plan is especially important for improving the indoor

environmental quality, as it can prevent issues such as poor ventilation, air leaks, moisture problems, mold growth, and indoor air pollution. Therefore, the project team should provide the facility manager with a preventive maintenance plan for the building, along with the necessary training and resources to implement it.
Reference:
* LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Enhanced Indoor Air Quality Strategies, page 6951
* LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Thermal Comfort, page 7041
* LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Acoustic Performance, page 7101
* Preventive Maintenance Plan - The Ridiculously Simple Guide

NEW QUESTION: 73
A new Science Education Center is pursuing LEED certification. Which of the following strategies could be submitted to earn an Innovation in Design credit?
A. The selection of energy-efficient LED fixtures for all of the building's lighting
B. The installation of an air-purifying facade material on the front entrance of the building
C. The integration of rainwater management strategies to achieve a Regional Priority Credit
D. The implementation of a comprehensive metering strategy to measure three individual energy end uses
Answer: B (LEAVE A REPLY)
This strategy could be submitted to earn an Innovation in Design credit because it addresses a green building topic not covered by any existing LEED credit. The air-purifying facade material is a novel and sustainable feature that can reduce the environmental impact of the building by removing pollutants from the air and improving the outdoor air quality1.

NEW QUESTION: 74
Building Product Disclosure and Optimization is based on market
A. reliability
B. durability
C. transparency
D. consumption
Answer: C (LEAVE A REPLY)
Building Product Disclosure and Optimization is based on market transparency, which means providing information about the environmental and social impacts of the products and materials used in the building. The LEED v4 Reference Guide for Building Design and Construction states that "the intent of this credit category is to encourage the use of products and materials for which life-cycle information is available and that have

environmentally, economically, and socially preferable life-cycle impacts"1. By disclosing the information about the product ingredients, environmental product declarations, sourcing of raw materials, and material ingredients optimization, the project team can make informed decisions and support the development of a more sustainable market.
Reference:
LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Building Product Disclosure and Optimization - Environmental Product Declarations, page 5462 LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials, page 5502 LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Building Product Disclosure and Optimization - Material Ingredients, page 5542

NEW QUESTION: 75
In the step-by-step guidance for Location and Transportation Credit, Bicycle Facilities, which of the following requirements can define a bicycle network?
A. One-way streets
B. Bike share
C. Slow speed roadways
D. Traffic lights
Answer: (SHOW ANSWER)
According to the LEED Reference Guide for Building Design and Construction1, the Location and Transportation Credit, Bicycle Facilities, requires the project to provide short-term and long-term bicycle storage and a functional entry or bicycle storage within 200 yards of a bicycle network. The bicycle network is defined as any one of the following: Off-street bicycle paths or on-street bicycle lanes that are physically marked and separated from motor traffic Streets designed for a target speed of 25 mph (40 km/h) or less, with traffic calming features such as curb extensions, speed humps, raised crossings, narrowed traffic lanes, median islands, tight corner radii, roundabouts, or landscaping Streets with a legal speed limit of 25 mph (40 km/h) or less that connect to a larger bicycle network Therefore, among the given options, only slow speed roadways can define a bicycle network, as they can provide a safer and more comfortable environment for cyclists. One-way streets, bike share, and traffic lights are not sufficient to define a bicycle network, as they do not necessarily indicate the presence of bicycle paths, lanes, or low-speed streets.
Reference:
LEED Reference Guide for Building Design and Construction v4
Bicycle facilities | U.S. Green Building Council
CI-v4.1 LTc4: Bicycle facilities | LEEDuser
Understanding bikeability: a methodology to assess urban networks
Bicycle Network | Making bike riding easier for everyone

NEW QUESTION: 76
Which of the following strategies can be used to decrease the envelope load of a building?
A. Provide summer solar shading
B. Maximize daylighting
C. Decrease opaque wall area
D. Use economizers for free cooling
Answer: (SHOW ANSWER)
Reducing the envelope load involves minimizing the heat that enters or escapes through a building's envelope (walls, windows, roof, etc.). Summer solar shading is an effective strategy to block direct sunlight during warmer months, decreasing the cooling load on the HVAC system. This method helps reduce solar heat gain, which lowers energy usage for cooling. Other options like maximizing daylighting (B) increase natural light but may also increase heat gain, and decreasing the opaque wall area (C) can actually increase energy loss. Economizers (D) are HVAC strategies and don't directly reduce the envelope load.

NEW QUESTION: 77
For Energy and Atmosphere Credit, Advanced Energy Metering, what is the minimum percentage requirement for metering any individual energy end uses?
A. Those that represent 10% or more of the total annual consumption of the building
B. Those that represent 25% or more of the total annual consumption of the building
C. Those that represent 20% or more of the total annual consumption of the building
D. Those that represent 15% or more of the total annual consumption of the building
Answer: (SHOW ANSWER)
For Energy and Atmosphere (EA) Credit: Advanced Energy Metering, any individual energy end uses that represent 10% or more of the total annual energy consumption must be metered (A). This credit promotes ongoing energy management and helps identify large energy-consuming systems for efficiency improvements. Metering data from major end uses can provide insights into energy patterns, facilitating targeted actions to reduce consumption.

NEW QUESTION: 78

A project team is using the whole building simulation model to quantify the percentage of energy savings for the project. Which of the following should remain the same for both the baseline building and the proposed building?

A. Building operating schedule and occupancy hours

B. Building operating schedule and total window area

C. Building envelope construction and occupancy hours

D. Total window area and building envelope construction

Answer: A (LEAVE A REPLY)

This option requires the project team to use the same building operating schedule and occupancy hours for both the baseline building and the proposed building in the whole building simulation model1. This option ensures that the energy savings are calculated based on the same level of building activity and occupancy, which are major factors that affect the energy performance of a building2.

NEW QUESTION: 79

A building owner installs a building automation system (BAS) to allow programmable load control. Which of the following credits can be pursued because of the installation?

A. Energy and Atmosphere Credit, Demand Response

B Energy and Atmosphere Credit, Ongoing Commissioning

B. Energy and Atmosphere Credit, Enhanced Commissioning

C. Energy and Atmosphere Credit, Enhanced Refrigerant Management

Answer: (SHOW ANSWER)

This is because:

A building automation system (BAS) is a system that controls and monitors various aspects of a building's operation, such as lighting, heating, ventilation, air conditioning, security, fire alarm, and energy management1.

A BAS can allow programmable load control (PLC), which is the ability to adjust the power consumption of devices or equipment based on a schedule, a sensor, or an event2. PLC can help reduce the energy demand and cost of a building by optimizing the use of resources and avoiding unnecessary or wasteful consumption3.

The LEED AP BD+C V4 credit for Demand Response requires that buildings have a demand response program that can respond to changes in electricity prices or supply by reducing or shifting the demand for electricity4. A BAS can enable such a program by allowing PLC and other features that can modulate the power usage of devices or equipment in response to market signals or internal conditions.

Therefore, installing a BAS to allow PLC can help achieve the Energy and Atmosphere Credit for Demand Response by reducing the energy demand and cost of a building.

NEW QUESTION: 80

Under Energy and Atmosphere Prerequisite, Fundamental Commissioning and Verification, a current facilities requirements and operations and maintenance plan must contain which information necessary to operate the building efficiently?
A. Any changes in schedules or setpoints for different seasons, days of the week, and times of day
B. Only changes in schedules or setpoints for peak usages during seasons, days of the week, and times of day
C. Any changes in schedules during peak times, or for different seasons, peak-usage days of the week, and times of day
D. Any changes in schedules or setpoints focusing on only the hottest and coldest periods of the seasons, peak-use days of the week, and times of day
Answer: A (LEAVE A REPLY)
A current facilities requirements and operations and maintenance plan must contain any changes in schedules or setpoints for different seasons, days of the week, and times of day. This is to ensure that the building systems are operating efficiently and according to the design intent. The other options are too limited or too specific and do not cover all the possible variations in schedules or setpoints.
Reference: LEED v4 BD+C Reference Guide, Energy and Atmosphere Category, EAp Fundamental Commissioning and Verification, page 569.

NEW QUESTION: 81
A request to change the lighting fixtures in a conference room is made by a tenant. Which of the following credit scorecard changes will be directly and indirectly impacted by the change in lighting fixtures?
A. Indoor Environmental Quality Credit, Interior Lighting and Sustainable Sites Credit, Light Pollution Reduction
B. Energy and Atmosphere Credit, Optimize Energy Performance and Indoor Environmental Quality Credit, Interior Lighting
C. Energy and Atmosphere Credit, Advanced Energy Metering and Indoor Environmental Quality Credit, Daylight
D. Indoor Environmental Quality Credit, Thermal Comfort and Indoor Environmental Quality Credit, Enhanced Indoor Air Quality Strategies
Answer: B (LEAVE A REPLY)
Changing lighting fixtures in a conference room can affect multiple LEED credits. For LEED AP ID+C certification, the Energy and Atmosphere (EA) Credit: Optimize Energy Performance and the Indoor Environmental Quality (IEQ) Credit: Interior Lighting are directly impacted, as updated lighting can improve energy efficiency and provide better control over light quality. Improved fixtures may optimize energy use, helping to achieve credits in energy performance. Additionally, achieving better interior lighting quality can positively influence occupant well-being.

NEW QUESTION: 82
Which of the following actions should be taken to ensure that project team members understand and prioritize the selection of materials compliant with the Materials and Resources Credit: Building Product Disclosure and Optimization?
A. Select locally sourced and manufactured materials
B. Procure materials directly from raw material suppliers
C. Include all building materials in a whole-building life-cycle analysis
D. Include the material requirements in the project specifications
Answer: D (LEAVE A REPLY)
Including the material requirements in the project specifications (D) ensures that all project team members are aware of and prioritize materials compliant with the Materials and Resources (MR) Credit: Building Product Disclosure and Optimization. Clearly defined specifications communicate the importance of sustainability criteria, such as environmental product declarations and sourcing. Whole-building life-cycle analysis (C) is part of separate LEED credits and doesn't directly influence material prioritization by the team.

NEW QUESTION: 83
Location and Transportation Credit, Surrounding Density and Diverse Uses, Option 1. Surrounding Density requires project teams to exclude what type of land area from the calculations?
A. Buildable land within 1/4 mi. (0.40 km) of the project boundary
B. Public right-of-way areas within 1/4 mi. (0.40 km) of the project boundary
C. Surface parking areas within 1/2 mi. (0.80 km) of the project boundary
D. University campus land areas within 1/2 mi. (0.80 km) of the project boundary
Answer: B (LEAVE A REPLY)
This option requires the project team to exclude public right-of-way areas, such as streets, sidewalks, and alleys, from the calculations of the surrounding existing density1. This option ensures that the density is measured based on the buildable land area, which is the area available for development or construction2.

NEW QUESTION: 84
When should a preliminary water budget analysis be conducted?
A. At the time the plumbing contractor is selected
B. Before completion of schematic design
C. At the time the design development is completed
D. After completion of schematic design
Answer: B (LEAVE A REPLY)
A preliminary water budget analysis should be conducted before the completion of schematic design (B). Early analysis allows the design team to understand and integrate efficient water management practices into the building's layout and system design. Conducting this analysis at an early stage helps inform sustainable water use strategies

and enables more effective decision-making on fixtures, water conservation technologies, and landscape design. This proactive approach aligns with LEED's emphasis on resource conservation in design.

NEW QUESTION: 85
A LEED Building Design and Construction: New Construction office building's HVAC system includes hot water from a central utility plant. The central utility plant is owned and operated by a management company. The office pays a flat fee for hot water, included as part of the lease. The management company does not meter or invoice for actual hot water consumption. For the project to meet the requirements for Energy and Atmosphere Prerequisite, Building-Level Energy Metering, an energy meter must be installed for
A. natural gas
B. hot water at the main service point
C. nothing, because the flat fee is included as part of the lease
D. nothing, because the energy source is outside of the project's scope
Answer: B (LEAVE A REPLY)
An energy meter must be installed for hot water at the main service point for the project to meet the requirements for Energy and Atmosphere Prerequisite, Building-Level Energy Metering. According to the LEED v4 BD+C Reference Guide, this prerequisite requires that "all energy sources used by the building must be metered or submetered" 1. The hot water from the central utility plant is an energy source used by the building, even if it is not directly paid by the office. Therefore, it must be metered at the point where it enters the building. The other options are incorrect because natural gas is not an energy source used by the building in this case, and the flat fee or the ownership of the energy source do not exempt the project from the metering requirement.
Reference: LEED v4 BD+C Reference Guide, Energy and Atmosphere Category, EAp Building-Level Energy Metering, page 569.

NEW QUESTION: 86
For a new project with a $10 million construction cost, the weight of the total recycled content is 0.9 tons (816.5 kilograms) each for post-consumer and pre-consumer recycled content. The value of the total recycled content is one million each for post-consumer and pre-consumer recycled content. What is the percentage of recycled content that contributes toward Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials, Option 2, Leadership Extraction Practices?
A. 33%
B. 20%
C. 40%
D. 18%
Answer: A (LEAVE A REPLY)

The percentage of recycled content contributing to the credit is calculated based on the value of the recycled content relative to the total construction cost.
The combined value of recycled content here is $1 million (post-consumer) + $1 million (pre-consumer) = $2 million.
The percentage is then calculated as: 2,000,00010,000,000×100=20%\frac{2,000,000}{10,000,000} \times 100 = 20\%10,000,0002,000,000x100=20%
Therefore, the recycled content accounts for 20% of the total material value for the project, contributing to the Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials.

NEW QUESTION: 87
A topographic assessment of a project site located 150 ft. (45 m) from a water body was conducted. The results of the slope analysis show that the site is generally sloping 6% to 8% to the northwest over most of the site, with some steep slopes located at the eastern edge of the property, which may impact the runoff volume. Which one of the following LEED credits or prerequisites will be affected by these results?
A. Sustainable Sites Credit, Rainwater Management
B. Sustainable Sites Prerequisite, Environmental Site Assessment
C. Location and Transportation Credit, Sensitive Land Protection
D. Location and Transportation Credit, High-Priority Site
Answer: A (LEAVE A REPLY)
The Sustainable Sites (SS) Credit: Rainwater Management (A) would be affected by the slope analysis results. Slopes, especially those near water bodies, can significantly impact stormwater runoff volume and patterns. Managing runoff in sloped areas is crucial to minimize erosion, reduce pollutants, and protect nearby water bodies. This credit aims to reduce runoff volume and improve water quality by implementing effective rainwater management strategies based on site conditions. Other credits, like Environmental Site Assessment (B) or Sensitive Land Protection (C), don't focus on runoff management.

NEW QUESTION: 88
The use of lead, mercury, copper and cadmium should be limited because they all
A. are persistent bioaccumulative toxins
B. reduce the life cycle assessment of a building
C. take an unreasonable amount of energy to recycle
D. interfere with the magnetic instruments in a medical building
Answer: A (LEAVE A REPLY)
According to the LEED v4: Building Design + Construction Guide, lead, mercury, copper and cadmium are examples of persistent bioaccumulative toxins (PBTs) that should be limited in building products. PBTs are substances that remain in the environment for long periods of time, accumulate in living organisms, and pose health risks to humans and wildlife. One of the prerequisites for the Materials and Resources Credit, Building Product

Disclosure and Optimization - Material Ingredients, is to reduce the use of products that contain PBTs above certain thresholds1. Reference: LEED v4: Building Design + Construction Guide, Materials and Resources Credit, Building Product Disclosure and Optimization - Material Ingredients, Option 3: Product Manufacturer Supply Chain Optimization1

NEW QUESTION: 89
How can the additional energy needed to increase the ventilation in a building be mitigated?
A. Use economizer strategies
B. Use higher-rated MERV filters
C. Use high-pressure drop filters
D. Reduce the size of the ventilation ductwork
Answer: (SHOW ANSWER)
Using economizer strategies (A) can offset the additional energy required to increase ventilation. Economizers allow the HVAC system to bring in cooler outdoor air when conditions permit, thus reducing mechanical cooling needs. This method aligns with LEED's goals for energy efficiency while maintaining indoor air quality. High MERV filters (B) may increase energy usage due to airflow resistance, and reducing duct size (D) can limit airflow efficiency, counteracting ventilation improvements.

NEW QUESTION: 90
Which of the following is required when documenting a LEED Pilot credit?
A. Compliance letter
B. LEED AP approval
C. Innovation narrative
D. Pilot Credit registration
Answer: (SHOW ANSWER)
Pilot Credit registration is required when documenting a LEED Pilot credit. This is to ensure that the project team has access to the latest pilot credit language and requirements, and that USGBC can track the usage and feedback of the pilot credits. The other options are not required for documenting a pilot credit, although they may be helpful or applicable for other credits.
Reference: LEED Pilot Credit Library, Getting Started, page 1.

NEW QUESTION: 91
A project's massing and site orientation can have a direct impact on which of the following prerequisites?
A. Minimum Energy Performance
B. Minimum Indoor Air Quality Performance
C. Construction Activity Pollution Prevention

D. Fundamental Commissioning and Verification
Answer: A (LEAVE A REPLY)
. Minimum Energy Performance
A project's massing and site orientation can have a direct impact on the minimum energy performance prerequisite, which requires projects to demonstrate a percentage of energy cost savings compared to a baseline building. Massing and orientation affect the amount of solar heat gain, daylight availability, natural ventilation potential, and wind exposure of the building, which in turn influence the heating, cooling, lighting, and ventilation loads and strategies. By optimizing the massing and orientation of the building, projects can reduce their energy consumption and improve their thermal and visual comfort.
Reference:
Reference Guide for Building Design and Construction v4 - Pages 279-2801 Building Massing & Orientation | Sustainability Workshop2

NEW QUESTION: 92
In the Indoor Environmental Quality Credit, Low-Emitting Materials, what types of products need to be evaluated for both Volatile Organic Compound (VOC) content of the material and VOC emissions of the material?
A. Flooring
B. Furniture
C. Composite wood
D. Wet applied products
Answer: (SHOW ANSWER)
Furniture is the only type of product that needs to be evaluated for both VOC content and VOC emissions in the LEED BD+C Low-Emitting Materials credit. Flooring, composite wood, and wet applied products only need to meet the VOC content requirements, while other types of products, such as ceilings, walls, thermal and acoustic insulation, and exterior applied products, only need to meet the VOC emissions requirements1.
Reference:
LEED v4: Building Design + Construction Guide
Low-Emitting Materials | U.S. Green Building Council

NEW QUESTION: 93
A decorative overhead light fixture is specified for a project that costs $1,500 USD and uses recycled water bottles as part of the diffuser shade. The shades are 10% of the overall weight of the fixture and are 50% post-consumer recycled content. Assuming no other portions of the fixture meet sustainability criteria, what would the contributing value of the fixture be?
A. $75
B. $150
C. $750
D. $1,500
Answer: A (LEAVE A REPLY)
This option requires the project to calculate the contributing value of the fixture by multiplying the cost of the fixture by the percentage of recycled content by weight1. Since the shades are 10% of the overall weight of the fixture and are 50% post-consumer recycled content, the contributing value of the fixture is:
$1,500 x 10% x 50% = $75

NEW QUESTION: 94
Which of the following Water Efficiency credits differ between LEED Building Design and Construction: New Construction and LEED Building Design and Construction: Healthcare?
A. LEED Building Design and Construction: Healthcare has no Water Efficiency Credit, Cooling Tower Water Use
B. LEED Building Design and Construction: New Construction has no Water Efficiency Credit, Cooling Tower Water Use
C. LEED Building Design and Construction: Healthcare has additional appliance and process water requirements in Water Efficiency Prerequisite, Indoor Water Use Reduction
D. LEED Building Design and Construction: New Construction has additional appliance and process water requirements in Water Efficiency Prerequisite, Indoor Water Use Reduction
Answer: C (LEAVE A REPLY)
. LEED Building Design and Construction: Healthcare has additional appliance and process water requirements in Water Efficiency Prerequisite, Indoor Water Use Reduction LEED Building Design and Construction: New Construction and LEED Building Design and Construction: Healthcare have the same Water Efficiency credits, except for the Cooling Tower Water Use credit, which is only applicable to the former. However, the Indoor Water Use Reduction prerequisite differs between the two rating systems, as the Healthcare version requires additional calculations for appliance and process water use, such as medical equipment, laundry, and kitchen equipment.
Reference:

Reference Guide for Building Design and Construction v4 - Pages 256-3171 LEED v4: Building Design + Construction Guide - U.S. Green Building Council2

NEW QUESTION: 95
Which of the following is required in determining the baseline for Water Efficiency Prerequisite, Indoor Water Use Reduction?
A. Duration of use
B. Building floor area
C. Make and model of fixtures
D. Proposed design fixture flow rates
Answer: (SHOW ANSWER)
The make and model of fixtures is required in determining the baseline for the Water Efficiency Prerequisite, Indoor Water Use Reduction. This information is used to calculate the baseline water consumption of the building, which is then compared to the proposed water use to determine the percentage reduction.
Reference: LEED AP Building Design + Construction (LEED AP BD+C) V4 resources 1

NEW QUESTION: 96
What supporting material is required for all LEED Building Design and Construction projects in order to document Location and Transportation Credit, Bicycle Facilities for the bicycle network?
A. Photographs of bicycle network signage and directional signposts
B. Photographs of the installed bicycle storage and shower facilities
C. Vicinity map showing bicycle network, route and distance along network to eligible destination(s)
D. Manufacturer specifications for the chosen bicycle storage facilities, including the number of bicycles supported by each bike rack
Answer: C (LEAVE A REPLY)
The Location and Transportation Credit, Bicycle Facilities, requires the project team to provide a vicinity map that shows the bicycle network, the route and the distance along the network to eligible destination(s) for all LEED Building Design and Construction projects. The vicinity map is a supporting material that demonstrates that the project site is within a 200-yard (180-meter) walking distance of a bicycle network that connects to at least one of the following: diverse uses, public transportation, recreation facilities, or schools1. The vicinity map must also show the scale and the north arrow, and indicate the project site and the eligible destination(s)2. The photographs of bicycle network signage and directional signposts, the photographs of the installed bicycle storage and shower facilities, and the manufacturer specifications for the chosen bicycle storage facilities are not required for the bicycle network, but for the bicycle storage and shower facilities.
Reference:

* LEED v4 Reference Guide for Building Design and Construction, Location and Transportation Credit: Bicycle Facilities, page 1281
* LEED v4.1 Bicycle Storage Requirements

NEW QUESTION: 97
To assess the feasibility of earning Location and Transportation Credit, Reduced Parking Footprint, the project team should be familiar with what local government regulation?
A. Design guidelines for orientation of parking garages along street frontages
B. Minimum dimensions for on-street parking spaces required by the zoning code
C. Building code standards for structured parking garages
D. Minimum number of parking spaces required by the zoning code
Answer: (SHOW ANSWER)
To evaluate the Location and Transportation (LT) Credit: Reduced Parking Footprint, the project team should be aware of the minimum number of parking spaces required by the zoning code (D). This credit aims to reduce the environmental impact of parking by minimizing the number of spaces provided, encouraging alternative transportation methods. Knowledge of local parking minimums helps the team ensure compliance with LEED while avoiding excess parking, which can contribute to urban sprawl and the heat island effect. Design guidelines and building code standards are not directly relevant to this credit.

NEW QUESTION: 98
A project in a cold climate does not want a highly reflective roof because they want the heat absorption. How can this project comply with Sustainable Sites Credit, Heat Island Reduction?
A. The credit is not feasible for this project
B. The credit may be achieved by using nonroof measures only
C. The credit is applicable for projects that document this special condition
D. The credit can only be achieved by using an alternative compliance path
Answer: B (LEAVE A REPLY)
The credit may be achieved by using nonroof measures only, such as shading, paving, and vegetation, to reduce the heat island effect on the site. The credit does not require a highly reflective roof for all projects, but allows for flexibility and trade-offs depending on the climate and design conditions. The project can use the Heat Island Reduction 1 to demonstrate compliance with the credit requirements. The credit is feasible and applicable for this project, and does not need an alternative compliance path. Reference: SS Credit Heat Island Reduction, LEED v4 Reference Guide for Building Design and Construction234

NEW QUESTION: 99

The Required Breathing Zone Outdoor Airflow Vbz for a new banking facility is 0.120 CFM/ft2 (0.6 L/s/m2). If the team decides to attempt Increased Ventilation under Option 2 in the Indoor Environmental Quality Credit, Enhanced Indoor Air Quality Strategies, what is the minimum Design Zone Outdoor Airflow?

A. 0.144 CFM/ft2 (0.73 (L/s)/m2)

B. 0.156 CFM/ft2 (0.79 (L/s)/m2)

C. 0.168 CFM/ft2 (0.85 (L/s)/m2)

D. 0.30 CFM/ft2 (1.5 (L/s)/m2)

Answer: A (LEAVE A REPLY)

This option requires the project to increase the breathing zone outdoor airflow by at least 20% above the minimum rates required by ASHRAE 62.1-2010. Therefore, the minimum design zone outdoor airflow is 0.120 CFM/ft2 x 1.2 = 0.144 CFM/ft2.

NEW QUESTION: 100

For Energy and Atmosphere Credit, Advanced Energy Metering, what is the minimum amount of time that the metering system should store data?

A. 6 months

B. 12 months

C. 24 months

D. 36 months

Answer: D (LEAVE A REPLY)

For Energy and Atmosphere Credit, Advanced Energy Metering, the minimum amount of time that the metering system should store data is 36 months. This is to ensure that the data can be used for long-term analysis and verification of energy performance1. The credit also requires that the metering system be capable of transmitting data to a remote location and reporting energy use at least hourly1. Reference: Advanced energy metering

NEW QUESTION: 101

A community center will be built on a plot in two phases. Phase 1 will include the building with a pool and gymnasium, while Phase 2 will include the outdoor grass soccer fields. For Phase 1 to achieve certification, where can the project set the LEED boundary?

A. Around Phase 1 and 2

B. Around Phase 1 and 2 while committing to keep the Phase 2 grounds undisturbed

C. Around Phase 1

D. Around Phase 1 while committing to keep the Phase 2 grounds undisturbed

Answer: D (LEAVE A REPLY)

Detailed

The LEED boundary for Phase 1 can include only the building site (Phase 1) but must commit to keeping the Phase 2 grounds undisturbed until the second phase begins. This approach aligns with LEED's requirement to define boundaries where work occurs and ensures environmental protection for future development areas.

NEW QUESTION: 102
Which of the following statements are true for Erosion and Sedimentation Control (ESC) plan prerequisite compliance?
A. The ESC plan cannot be modified during the design phase of the LEED certification
B. The ESC plan can be developed or modified during the design phase of LEED certification
C. A compliant ESC plan may be developed during construction
D. A compliant ESC plan must be in place when the commissioning authority is appointed
Answer: (SHOW ANSWER)
For the Sustainable Sites (SS) Prerequisite: Construction Activity Pollution Prevention, a compliant Erosion and Sedimentation Control (ESC) plan can be developed or modified during the design phase of LEED certification (B). This flexibility allows the project team to adjust the plan as needed to ensure proper site protection measures before and during construction. An ESC plan is essential to prevent soil erosion, waterway sedimentation, and airborne dust, aligning with LEED's environmental protection standards.

NEW QUESTION: 103
Large commercial buildings are most often dominated by
A. internal loads
B. lighting loads
C. external loads
D. envelope loads
Answer: A (LEAVE A REPLY)
Large commercial buildings are most often dominated by internal loads, which are the heat gains or losses from people, equipment, lighting, and other sources inside the building. Internal loads can affect the heating and cooling loads and the energy consumption of the building. Therefore, reducing internal loads can improve the building's energy efficiency and performance. Reference:
LEED AP BD+C V4 Reference Guide, Chapter 5: Energy and Atmosphere, page 5-51
ENERGY STAR Building Upgrade Manual, Chapter 6: Lighting, page 6-22 Michaels Energy, Shell vs. Load Dominated Buildings

NEW QUESTION: 104
What is the maximum number of points a project pursuing LEED for New Construction can achieve under Location and Transportation Credit, Access to Quality Transit?
A. Two points
B. Three points
C. Four points
D. Five points
Answer: (SHOW ANSWER)

According to the LEED v4: Building Design + Construction Guide, the Location and Transportation Credit, Access to Quality Transit has two options: Option 1. Transit-Served Location and Option 2. Transit Service Quality. Option 1 can earn 1 to 4 points depending on the percentage of functional entries within walking distance of transit stops or stations. Option 2 can earn 1 point if the project meets the minimum weekday and weekend headways for bus, streetcar, or informal transit stops, or rail stations or ferry terminals. The maximum number of points a project can achieve under this credit is 4 points by meeting both options1. Reference: LEED v4: Building Design + Construction Guide, Location and Transportation Credit, Access to Quality Transit, Requirements1

NEW QUESTION: 105
Which of the following products are eligible for a WaterSense label?
A. Tankless toilets
B. Waterless urinals
C. Public lavatory faucets
D. Private lavatory faucets
Answer: D (LEAVE A REPLY)
Private lavatory faucets are eligible for a WaterSense label, provided they meet EPA's specifications for water efficiency and performance, and are backed by independent, third-party certification. Tankless toilets, waterless urinals, and public lavatory faucets are not eligible for a WaterSense label because they are not included in the product categories that WaterSense covers. WaterSense currently labels products in the following categories: tank-type toilets, water-using urinals, private lavatory faucets, showerheads, irrigation controllers, spray sprinkler bodies, and pre-rinse spray valves. Reference:
WaterSense Products | US EPA1
The WaterSense Label | US EPA2
Water Sense Labeling | LEEDuser3
Labeled Faucet Questions | WaterSense | US EPA4
What is the WaterSense Label and How Does it Apply?5

NEW QUESTION: 106
Which of the following projects is eligible to pursue the Energy and Atmosphere Prerequisite, Minimum Energy Performance, Option 2. Prescriptive Compliance: ASHRAE 50% Advanced Energy Design Guide?
A. 50,000 ft2 (4 645 m2) office project
B. 80,000 ft2 (7 432 m2) hospital project
C. 110,000 ft2 (10 219 m2) school project
D. 140,000 ft2 (13 006 m2) retail project
Answer: C (LEAVE A REPLY)
The Energy and Atmosphere Prerequisite, Minimum Energy Performance, Option 2. Prescriptive Compliance: ASHRAE 50% Advanced Energy Design Guide allows projects to

follow the recommendations of the ASHRAE 50% Advanced Energy Design Guides (AEDGs) for different building types and climate zones. The AEDGs provide design guidance for buildings that use 50% less energy than those built to the requirements of the ANSI/ASHRAE/IES Standard 90.1-2004 commercial code1. However, not all building types and sizes are covered by the AEDGs. According to the LEED Reference Guide for Building Design and Construction2, the following building types and sizes are eligible for this option:
Small to Medium Office buildings up to 100,000 ft2 (9 290 m2)
Medium to Large Retail buildings up to 100,000 ft2 (9 290 m2)
K-12 School buildings up to 200,000 ft2 (18 580 m2)
Warehouse and Distribution Center buildings up to 500,000 ft2 (46 450 m2) Therefore, among the given options, only the school project is eligible to pursue this option, as it falls within the size limit for the K-12 School AEDG3.
Reference:
LEED Reference Guide for Building Design and Construction v4
Minimum Energy Performance - ASHRAE 90.1 - 2010
ASHRAE 50% Advanced Energy Design Guide for K-12 School Buildings
Advanced Energy Design Guides | Department of Energy

NEW QUESTION: 107
To achieve the Sustainable Sites Credit, Light Pollution Reduction, Option 1. BUG Rating Method, projects must demonstrate:
A. All luminaires have full cutoff fixtures
B. All luminaires are mounted at least three mounting heights from the lighting boundary
C. All luminaires have a minimum color temperature of 3500 K
D. All luminaires meet acceptable fixture ratings for the project's Model Lighting Ordinance (MLO) lighting zone
Answer: D (LEAVE A REPLY)
Detailed
Under the BUG Rating Method, all luminaires must meet acceptable fixture ratings (Backlight, Uplight, and Glare ratings) for the project's Model Lighting Ordinance (MLO)

lighting zone. This ensures compliance with LEED's Light Pollution Reduction credit by limiting light trespass, reducing glare, and preserving night sky quality.

NEW QUESTION: 108
A tenant of a new office building will require 100 workstations per floor. Each floor will have two bathroom facilities and one conference room. How many lighting control devices with at least three lighting levels per floor are required to comply with Indoor Environmental Quality Credit, Interior Lighting, Option 1. Lighting Control?
A. 91 lighting control devices
B. 93 lighting control devices
C. 100 lighting control devices
D. 103 lighting control devices
Answer: B (LEAVE A REPLY)
To comply with Indoor Environmental Quality Credit, Interior Lighting, Option 1. Lighting Control, the tenant of a new office building will require 93 lighting control devices with at least three lighting levels per floor. This is because the credit requires that at least 90% of individual occupant spaces have lighting controls that enable occupants to adjust the lighting to suit their individual tasks and preferences1. The credit also requires that all shared multioccupant spaces have lighting controls that enable adjustments that meet the needs of the group1. According to the LEED BD+C Reference Guide, an individual occupant space is defined as an enclosed space or an open space that is occupied by one person and is at least 50 square feet (4.6 square meters) in area1. A shared multioccupant space is defined as an enclosed or open space that is occupied by more than one person and is at least 100 square feet (9.3 square meters) in area1.
Based on the given information, each workstation can be considered as an individual occupant space, and each bathroom facility and conference room can be considered as a shared multioccupant space. Therefore, the number of lighting control devices per floor can be calculated as follows:
For the 100 workstations, 90% of them need lighting controls, which is 90 workstations. Each workstation needs one lighting control device, so the total number of lighting control devices for the workstations is 90.
For the two bathroom facilities, each facility needs one lighting control device, so the total number of lighting control devices for the bathroom facilities is 2.
For the one conference room, one lighting control device is needed, so the total number of lighting control devices for the conference room is 1.
The total number of lighting control devices per floor is then 90 + 2 + 1 = 93.

NEW QUESTION: 109
According to the Integrative Process Credit, the discovery phase of energy-related systems should identify
A. ventilation rates

B. functional performance tests
C. thermal comfort ranges
D. transportation options
Answer: A (LEAVE A REPLY)
According to the LEED v4 Reference Guide for Building Design and Construction, the discovery phase of energy-related systems should identify ventilation rates, along with other factors such as building orientation, envelope attributes, lighting levels, plug and process loads, and programmatic and operational parameters1. These factors should be used to create a preliminary "simple box" energy model to evaluate the energy performance of the building and explore potential strategies to reduce energy use1. The other options are not relevant for the discovery phase of energy-related systems. Functional performance tests are part of the implementation phase1. Thermal comfort ranges are related to indoor environmental quality2. Transportation options are related to sustainable sites3. Reference: IP Credit Integrative Process, LEED v4 Reference Guide for Building Design and Construction4123

NEW QUESTION: 110
The material cost for a project is $100,000. What is the minimum material value needed to achieve Materials and Resources Credit, Building Disclosure and Optimization, Sourcing of Raw Materials, Option 2. Leadership Extraction Practices?
A. $10,000
B. $12,500
C. $22,500
D. $25,000
Answer: D (LEAVE A REPLY)
According to the LEED v4 Reference Guide for Building Design and Construction, Option 2 of the Sourcing of Raw Materials credit requires using products that meet at least one of the responsible extraction criteria for at least 25%, by cost, of the total value of permanently installed building products in the project1. Therefore, for a project with a material cost of $100,000, the minimum material value needed to achieve this option is 25% of $100,000, which is $25,000.

NEW QUESTION: 111
An HVAC system consists of an air handler supplying conditioned air (mixture of return air and outdoor air) to an office, corridor, conference room and lobby. For Indoor Environmental Quality Prerequisite, Minimum Indoor Air Quality Performance, the ventilation rate procedure calculations must be based upon what HVAC system configuration?
A. Single-zone system
B. Multiple-zone system
C. Mixed-mode system

D. 100% outdoor air system

Answer: B (LEAVE A REPLY)

A multiple-zone system is a system that has one or more air handlers supplying conditioned air to more than one zone. A zone is a space or group of spaces within a building with heating and cooling requirements that are sufficiently similar so that desired conditions (e.g., temperature) can be maintained throughout using a single controlling device. The ventilation rate procedure calculations must be based on the multiple-zone system configuration because the HVAC system in the question serves different zones with different ventilation requirements. Reference: LEED v4 Reference Guide for Building Design and Construction, p. 6881; ASHRAE Standard 62.1-2010, Section 6.2.52

NEW QUESTION: 112

During the early stages of a LEED for Schools project, the team was able to reduce the number of lighting fixtures in classrooms by 25% because the project team selected paint color whose light reflectance value was 75% instead of the initially proposed 64% value. This strategy is an example of applying which of the following credits to the project?

A. Innovation Credit, Innovation

B. Integrative Process Credit

C. Indoor Environmental Quality Credit, Interior Lighting, Option 1. Lighting Control

D. Materials and Resources Credit, Interiors Life-Cycle Impact Reduction

Answer: (SHOW ANSWER)

The Integrative Process Credit is a credit in LEED Building Design and Construction that supports high-performance, cost-effective project outcomes through an early analysis of the interrelationships among systems1. The credit requires project teams to perform analyses for both energy- and water-related systems before completing the schematic design, and to use the findings to inform the owner's project requirements, basis of design, and design and construction documents1. The example given in the question is an illustration of how selecting a paint color with a higher light reflectance value can reduce the energy use and cost of lighting fixtures, which is an energy-related system. This strategy shows how the project team applied an integrative process to evaluate the impacts of different design options on the building performance and environmental benefits. Therefore, the correct answer is B. Integrative Process Credit.

Reference:

Integrative Process

NEW QUESTION: 113

A project team compares a life-cycle assessment (LCA) model to a baseline design to determine the reductions in six impact categories. One impact category exceeds the baseline by 7%. Which alternative analyses should the team run to check different impact measurements?

A. Change the orientation of the design case building

B. Optimize the slab depth of the design case building
C. Decrease the gross floor area of the baseline building
D. Increase the wall mass and types of windows in the baseline building
Answer: B (LEAVE A REPLY)
This alternative analysis can help the team check the impact of reducing the amount of concrete used in the building, which can affect several impact categories, such as global warming potential (GWP), acidification, and eutrophication1. Concrete is a material with high embodied energy and carbon emissions, and reducing its use can lower the environmental impact of the building2. Optimizing the slab depth can also improve the thermal performance and daylighting of the building, which can reduce the operational energy use and demand3.

NEW QUESTION: 114
Which rating system is being used if all of the credits below have been submitted towards certification?
- Location and Transportation Credit, Reduced Parking Footprint
- Energy and Atmosphere Credit, Fundamental Refrigerant Management
- Indoor Environmental Quality Credit, Acoustic Performance
- Materials and Resources Credit, Persistent, Bio accumulative, and Toxic (PBT) Source Reduction - Lead, Cadmium, and Copper
A. Building Design and Construction: Schools
B. Building Design and Construction: Healthcare
C. Building Design and Construction: Hospitality
D. Building Design and Construction: Data Centers
Answer: C (LEAVE A REPLY)
The rating system that is being used if all of the credits below have been submitted towards certification is Building Design and Construction: Hospitality. This is because the Location and Transportation Credit, Reduced Parking Footprint and the Indoor Environmental Quality Credit, Acoustic Performance are only available for the Hospitality rating system among the four options. The other two credits are common for all the rating systems. Reference: LEED v4: Building Design + Construction Guide, p. 301; LEED v4: Building Design + Construction Guide, p. 401; LEED v4: Building Design + Construction Guide, p. 411; LEED v4: Building Design + Construction Guide, p. 421

NEW QUESTION: 115
What is the best strategy for a LEED AP to suggest in order to quantify the impact of increasing the window-to-wall ratio on a Building Design and Construction project?
A. Compare the current project to other similar projects
B. Monitor the HVAC loads throughout the life of the project
C. Perform a simple box energy model before the completion of the schematic phase

D. Review Green Business Certification Inc. (GBCI)'s comments on the energy model submission

Answer: (SHOW ANSWER)

This option allows the project team to evaluate the impact of different window-to-wall ratios on the energy performance of the building, and to optimize the design accordingly. A simple box energy model is a preliminary analysis tool that can be used to compare different design alternatives and inform decision making in the early stages of the project12.

NEW QUESTION: 116

A mixed-use development is located 1/2 mi. (0.80 km) from a future commuter rail line station. Which of the following pieces of information is needed when determining whether the rail line station can contribute to Location and Transportation Credit, Access to Quality Transit?

A. Discounted rail pass availability

B. Rail line station construction completion date

C. Connections to transfer routes

D. Passenger capacity

Answer: (SHOW ANSWER)

The rail line station construction completion date is needed when determining whether the rail line station can contribute to Location and Transportation Credit, Access to Quality Transit. This is because the credit requires that the transit service must be existing or planned to be in operation within two years of the project's occupancy1. Discounted rail pass availability, connections to transfer routes, and passenger capacity are not relevant for this credit1.

Reference:

* Access to quality transit, p. 1

NEW QUESTION: 117

A building owner is considering the installation of a solar thermal panel on the roof of the building. The initial cost of the system is higher than a conventional natural gas system. Which of the following is true to make the renewable energy option economically feasible?

A. Utility cost savings over the lifetime of the system must offset the higher initial cost

B. Higher initial cost must exceed the cost of the utility over the lifetime of the system

C. Higher initial cost must exceed the savings on the utility cost over the lifetime of the system

D. Utility cost savings over the lifetime of the system must be lower than the higher initial cost of the system

Answer: A (LEAVE A REPLY)

The renewable energy option is economically feasible if the present value of the utility cost savings over the lifetime of the system is greater than or equal to the present value of the

higher initial cost of the system. This means that the system will pay for itself and generate net savings in the long run. The utility cost savings depend on the amount of energy produced by the solar thermal panel, the price of natural gas, and the inflation rate. The higher initial cost depends on the size, type, and installation of the solar thermal panel.
Reference:
Solar Thermal: Complete Guide to the Pros, Cons and Costs
Renewable Energy vs Natural Gas - How The Costs Stack Up
Is Solar Cheaper Than Natural Gas? - PowerSouth Energy Cooperative
LEED Reference Guide for Building Design and Construction v4

NEW QUESTION: 118
Which of the following variables must be included in the calculations for Indoor Environmental Quality Credit, Quality Views?
A. Ceiling heights
B. Building furniture
C. Movable partitions
D. Permanent interior obstructions
Answer: D (LEAVE A REPLY)
According to the LEED v4 Reference Guide for Building Design and Construction, the calculations for Quality Views must include the following variables: window size and configuration, glazing factor, window head height, distance of the window from the floor, permanent interior obstructions, and exterior obstructions. Ceiling heights, building furniture, and movable partitions are not required to be included in the calculations.
Reference:
LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Quality Views, page 7061 Daylight and Quality Views

NEW QUESTION: 119
Which of the following is an example of a nonroof measure for Sustainable Sites Credit, Heat Island Reduction?
A. A playground with artificial turf
B. A vegetated shading structure
C. A shade structure with a three-year aged Solar Reflectance Index (SRI) value of 0.2
D. A paving material with a three-year aged SRI value of 0.2
Answer: B (LEAVE A REPLY)
A vegetated shading structure is an example of a nonroof measure for Sustainable Sites Credit, Heat Island Reduction. The heat island effect is the phenomenon of urban areas having higher air temperatures than surrounding rural areas due to the absorption and emission of heat by human-made surfaces, such as buildings, roads, and pavements. The heat island effect can have negative impacts on the environment, human health, and energy consumption. One of the strategies to reduce the heat island effect is to use

nonroof measures that provide shade, reflectivity, or evapotranspiration for at least 50% of the site hardscape, such as parking lots, walkways, plazas, and courtyards1. A vegetated shading structure is a type of nonroof measure that consists of a trellis or pergola that supports climbing plants or vines that provide shade and cooling for the underlying surface. A vegetated shading structure can also enhance the aesthetic and ecological value of the site2.
The other options are not examples of nonroof measures for Sustainable Sites Credit, Heat Island Reduction. A playground with artificial turf is not a nonroof measure, but a roof measure, as it is considered as part of the building envelope. Artificial turf is also not a compliant roof measure, as it does not meet the minimum solar reflectance index (SRI) or vegetated roof requirements1. A shade structure with a three-year aged SRI value of 0.2 is not a compliant nonroof measure, as it does not meet the minimum SRI value of 29 for nonroof surfaces1. A paving material with a three-year aged SRI value of 0.2 is also not a compliant nonroof measure, as it does not meet the minimum SRI value of 29 for nonroof surfaces1.
Reference:
* LEED v4 Reference Guide for Building Design and Construction, Sustainable Sites Credit: Heat Island Reduction, page 1281
* Heat Island Reduction | U.S. Green Building Council2

NEW QUESTION: 120
A project design team for an elementary school project is attempting to achieve Innovation Credit, Innovation, Option 1. Innovation. Which of the following strategies would qualify?
A. Pilot Credit from LEED Pilot Credit Library
B. Exemplary Performance in Energy and Atmosphere Credit, Optimize Energy Performance
C. Create educational kiosks and posters around the school with picture of building systems' sustainable features
D. Implement a building as a learning lab curriculum that has been piloted in three other primary schools in the district
Answer: C (LEAVE A REPLY)
This strategy would qualify as an innovation credit because it is not addressed in the LEED green building rating system, and it achieves significant, measurable environmental performance by educating the students and the community about the benefits of green building. The project team would need to identify the intent, requirements, submittals, and design approach of this strategy in the Basis of Design document1. This strategy is also listed as an example of innovation in the LEED Innovation Catalog2.

NEW QUESTION: 121
The total land area within a 1/4 mi. (0.40 km) radius of a project boundary consists of 130 acres (53 hectares) and has a residential to nonresidential ratio of 60:40. Within this same

total land area, there are 780 dwelling units and 1,600,000 ft2 (148 645 m2) of nonresidential building space. Given these parameters, what are the surrounding residential and nonresidential densities when attempting to achieve Location and Transportation Credit, Surrounding Density and Diverse Uses?

A. 10 dwelling units per acre (24 dwelling units per hectare) and a Floor Area Ratio (FAR) of 0.47

B. 10 dwelling units per acre (24 dwelling units per hectare) and a FAR of 0.70

C. 13 dwelling units per acre (32 dwelling units per hectare) and a FAR of 0.47

D. 15 dwelling units per acre (36 dwelling units per hectare) and a FAR of 0.70

Answer: C (LEAVE A REPLY)

The surrounding residential density is calculated by dividing the total number of dwelling units by the total residential land area. In this case, it would be 780 dwelling units divided by 60% of 130 acres, which equals approximately 13 dwelling units per acre (or 32 dwelling units per hectare).

The nonresidential density, or Floor Area Ratio (FAR), is calculated by dividing the total nonresidential building floor area by the total nonresidential land area. In this case, it would be 1,600,000 ft² divided by 40% of 130 acres, which equals a FAR of approximately 0.47.

These calculations are used when attempting to achieve the Location and Transportation Credit, Surrounding Density and Diverse Uses, under the LEED AP BD+C V4 rating system.

Reference:

[LEED v4 BD+C Reference Guide]

NEW QUESTION: 122

When the LEED AP is applying the Integrative Process to a Building Design and Construction project, which of the following information is required to be present in the Owner's Project Requirements (OPR)?

A. All applicable codes and standards

B. Interior finishes related to the project

C. All project team members and applicable roles

D. Energy efficiency goals and training requirements

Answer: D (LEAVE A REPLY)
Energy efficiency goals and training requirements are required to be present in the Owner's Project Requirements (OPR) when applying the Integrative Process to a Building Design and Construction project. According to the LEED v4 BD+C Reference Guide, the OPR is a document that details the ideas, concepts, and criteria that are determined by the owner to be important to the success of the project 1. The OPR must include, among other things, the following information related to energy efficiency 1:
The owner's energy performance goals and expectations
The owner's requirements for energy metering and monitoring
The owner's requirements for energy modeling and analysis
The owner's requirements for commissioning and verification
The owner's requirements for training and documentation
The other options are not required to be present in the OPR, as they are either related to other aspects of the project, such as codes and standards, interior finishes, or project team members, or they are not relevant to the Integrative Process, which focuses on early analysis of energy, water, and site systems 2.
Reference: LEED v4 BD+C Reference Guide, Integrative Process Category, IPc Integrative Process, page 632.

NEW QUESTION: 123
Which energy efficient lamp type is free from mercury?
A. Compact Fluorescent
B. High Pressure Sodium
C. Light Emitting Diode
D. T-8 Fluorescent
Answer: C (LEAVE A REPLY)
Light Emitting Diode (LED) is an energy efficient lamp type that is free from mercury. Mercury is a toxic metal that can pose health and environmental risks when released from broken or discarded lamps. LED lamps do not contain mercury or other hazardous substances, and they also have longer lifespans and lower energy consumption than other lamp types12. Reference: No mercury Lights | LEEDuser; LED Lighting

NEW QUESTION: 124
An owner has insisted on using a non-native or non-adapted plant species on both the vegetated roof and ground level. What Sustainable Sites credit will this decision impact the most?
A. Site Development-Protect or Restore Habita
B. Site Assessment
C. Heat Island Reduction
D. Light Pollution Reduction
Answer: (SHOW ANSWER)

Using a non-native or non-adapted plant species on both the vegetated roof and ground level will impact the Sustainable Sites credit Site Development-Protect or Restore Habitat the most. This credit requires that at least 20% of the site area (excluding building footprint) or 5% of the site area (including building footprint) must be vegetated with native or adapted plants. Non-native or non-adapted plants do not qualify for this credit and may also have negative impacts on the local ecosystem and biodiversity. The other credits are not directly affected by the choice of plant species, although they may have other requirements related to vegetation, such as shading, reflectance, or lighting.
Reference: LEED v4 BD+C Reference Guide, Sustainable Sites Category, SSc Site Development-Protect or Restore Habitat, page 648.

NEW QUESTION: 125
A LEED Building Design and Construction project includes an outdoor stage for theatrical performances. In pursuit of Sustainable Sites Credit, Light Pollution Reduction the engineer has specified an LED fixture to illuminate actors on the stage while limiting light pollution. Which of the following suggestions should the LEED AP give to the project owner?
A. Modify the design to enclose the performance areas
B. Calculate the return on investment over the 20-year life of the project
C. Compare the energy consumption against an alternative
D. Inform the owner that the LED fixture is exempt from Sustainable Sites Credit, Light Pollution Reduction
Answer: D (LEAVE A REPLY)
The Sustainable Sites Credit, Light Pollution Reduction aims to minimize the adverse effects of artificial lighting on the night sky, human health, and wildlife1. However, the credit does not apply to lighting that is required for safety, security, or emergency purposes2. According to the LEED Reference Guide for Building Design and Construction, lighting for theatrical performances is considered an emergency purpose and is exempt from the credit requirements3. Therefore, the LEED AP should inform the owner that the LED fixture is exempt from Sustainable Sites Credit, Light Pollution Reduction and does not need to be modified or compared to an alternative. Enclosing the performance areas would not reduce light pollution, but rather increase energy consumption and affect the outdoor experience. Calculating the return on investment over the 20-year life of the project is irrelevant to the credit and would not help achieve it.
Reference:
Light Pollution Reduction
Light Pollution Reduction: Sustainable Site Credit for LEED Existing Building O+M
[LEED Reference Guide for Building Design and Construction v4], page 581

NEW QUESTION: 126

The project team has decided to substitute the flooring in the school gym with natural rubber flooring that has met the Sustainable Agriculture Standard. The cost of the substituted flooring is $80,000. The project will achieve

A. Materials and Resources Credit, Building Product Disclosure and Optimization - Sourcing of Raw Materials, Option 2. Leadership Extraction Practices

B. Materials and Resources Credit, Building Product Disclosure and Optimization - Sourcing of Raw Materials, Option 1. Raw Material Source and Extraction Reporting

C. Materials and Resources Credit, Building Product Disclosure and Optimization Environmental Product Declarations, Option 1. Environmental Product Declarations

D. Materials and Resources Credit, Construction and Demolition Waste Management, Option 1. Diversion

Answer: A (LEAVE A REPLY)

. Materials and Resources Credit, Building Product Disclosure and Optimization - Sourcing of Raw Materials, Option 2. Leadership Extraction Practices Natural rubber flooring is a bio-based material that can contribute to the achievement of Option 2 of the Sourcing of Raw Materials credit, which requires using products that meet at least one of the responsible extraction criteria for at least 25%, by cost, of the total value of permanently installed building products in the project1. By meeting the Sustainable Agriculture Standard (SAN), the natural rubber flooring demonstrates that it has been produced in a way that conserves biodiversity, protects natural resources, and enhances social and economic well-being2. Therefore, the cost of the substituted flooring ($80,000) can be counted towards the credit threshold.

Reference:

Reference Guide for Building Design and Construction v4 - Pages 263-2641 Sustainable Agriculture Standard | Rainforest Alliance3

NEW QUESTION: 127

What information must be provided to demonstrate compliance with the Owner's Project Requirements (OPR)?

A. Preliminary data collection

B. Basis of Design (BOD)

C. Design charrette plan

D. Renewable Energy Certificates (RECs)

Answer: B (LEAVE A REPLY)

Detailed

The Basis of Design (BOD) outlines the project design decisions and criteria, linking them to the Owner's Project Requirements (OPR). LEED requires this documentation to demonstrate alignment between the owner's goals and the building design, ensuring that sustainability objectives are met throughout the project lifecycle.

NEW QUESTION: 128

A project team member has prepared a map and accompanying table as documentation for the Location and Transportation Credit. Surrounding Density and Diverse Uses. Option 2. Diverse Uses. The map includes the location of each diverse use. the location of the project and the main entrance of the building. The table includes the distance to each use. the name of each use and the category of each use The team lead reviews the documentation and notes an important missing item. Which of the following is the most important item to add to the documentation?

A. A description of each use

B. The location of parking lots near each use

C. Walking routes from the project to each use

D. A calculation of the expected number of project occupants who will visit each use

Answer: C (LEAVE A REPLY)

According to the LEED v4: Building Design + Construction Guide1, Option 2 of the Surrounding Density and Diverse Uses credit requires the project to be within walking distance of at least 10 diverse uses. The guide also states that "walking distance is defined as the distance that a pedestrian must travel between origins and destinations without obstruction, in a safe and comfortable environment on a continuous network of sidewalks, all weather-surface footpaths, crosswalks, or equivalent pedestrian facilities." Therefore, the documentation must include walking routes from the project to each use to demonstrate that the distance requirement is met. Reference:

LEED v4: Building Design + Construction Guide

CI-v4.1 LTc2: Surrounding density and diverse uses | LEEDuser

NEW QUESTION: 129

Which of the following project team members should be integrated early into the design phase to assist with earning the Materials and Resources Prerequisite, Construction and Demolition Waste Management Planning?

A. Owner

B. Contractor

C. Occupants

D. Facility manager

Answer: (SHOW ANSWER)

. Contractor

The contractor is the project team member who should be integrated early into the design phase to assist with earning the Materials and Resources Prerequisite, Construction and Demolition Waste Management Planning. The contractor is responsible for implementing the waste management plan, which includes estimating the types and quantities of waste materials, identifying the diversion strategies, selecting the waste haulers and recyclers, tracking and documenting the waste diversion performance, and training the subcontractors and workers. The contractor can provide valuable input on how to reduce,

reuse, and recycle the construction and demolition waste, as well as identify potential challenges and opportunities for achieving the prerequisite requirements.
Reference:
Reference Guide for Building Design and Construction v4 - Pages 263-2641 LEED Certification and Sustainable Construction Waste Management1

NEW QUESTION: 130
A project has total waste of 20 tons (18.1 tonnes) that includes the following:
* 8 tons (7.3 tonnes) of recycled demolition steel and concrete
* 2 tons (1.8 tonnes) of trees cleared from the site
. 3 tons (2.7 tonnes) of commingled scrap with 40% diverted
. 6 tons (5.4 tonnes) of used furniture donated to a non-profit organization
* 1 ton (0.9 tonnes) of removed carpet and ceiling tiles sent back to the manufacturer What is the percentage of diverted waste for Materials and Resources Credit, Construction and Demolition Waste Management?
A. 60%
B. 75%
C. 90%
D. 100%
Answer: (SHOW ANSWER)
The percentage of diverted waste for Materials and Resources Credit, Construction and Demolition Waste Management is calculated by dividing the total weight of diverted materials by the total weight of waste generated1. Diverted materials are those that are reused, recycled, salvaged, or donated2. In this case, the total weight of diverted materials is:
8 tons (7.3 tonnes) of recycled demolition steel and concrete
6 tons (5.4 tonnes) of used furniture donated to a non-profit organization
1 ton (0.9 tonnes) of removed carpet and ceiling tiles sent back to the manufacturer
40% of 3 tons (2.7 tonnes) of commingled scrap, which is 1.2 tons (1.1 tonnes) The sum of these weights is 16.2 tons (14.7 tonnes). The total weight of waste generated is 20 tons (18.1 tonnes). Therefore, the percentage of diverted waste is:
(16.2 / 20) x 100 = 81%
However, the credit allows for a 10% adjustment for vegetative waste, which is not considered a building material3. Therefore, the percentage of diverted waste after adjustment is:
(81 - 10) = 71%
The closest answer option to this value is B. 75%.
Reference:
Construction and Demolition Waste Management
Construction Waste Management
Construction and Demolition Waste Management - Canada Green Building Council

NEW QUESTION: 131
Which of the following is a source reduction strategy to eliminate waste produced by a project?
A. Design-build
B. Prefabrication
C. Custom design
D. Material science
Answer: B (LEAVE A REPLY)
Prefabrication is a source reduction strategy that can help eliminate waste produced by a project. It involves the production of components in a factory before being transported to the construction site for assembly. This method reduces waste as it allows for precise measurements and controlled conditions, minimizing the amount of excess material produced.

NEW QUESTION: 132
What percentage of a building's surface area may be excluded from the calculation for Materials and Resources Credit, Building Life-Cycle Impact Reduction, Option 2. Renovation of Abandoned or Blighted Buildings because of deterioration or damage when maintaining existing building structure, enclosure and interior structural elements?
A. 5%
B. 10%
C. 25%
D. 50%
Answer: (SHOW ANSWER)
For the Materials and Resources Credit, Building Life-Cycle Impact Reduction, Option 2. Renovation of Abandoned or Blighted Buildings, up to 25% of the building surface area may be excluded from the credit calculation due to deterioration or damage1.
Reference:
LEED Certification- Requirements for Material & Resource Credit: Building Life-Cycle Impact Reduction - Firstgreen Consulting Pvt Ltd

NEW QUESTION: 133
In the calculations for Water Efficiency Credit, Outdoor Water Use Reduction, food gardens
A. must be calculated using at least 20% from an alternative water source
B. must be calculated using 100% potable water
C. may be included or excluded from the calculations
D. may be calculated using a standard 20% reduction from baseline
Answer: (SHOW ANSWER)
Food gardens may be included or excluded from the calculations for Water Efficiency Credit, Outdoor Water Use Reduction, as per the project team's discretion. If included,

food gardens must be calculated using 100% potable water. If excluded, food gardens must be irrigated with 100% captured rainwater, recycled graywater, or water treated and conveyed by a public agency specifically for nonpotable uses. Reference:
Outdoor Water Use Reduction credit in LEED BD+C: New Construction v4.1 - LEED v4.11 LEED v4 BD+C WE Guide2

NEW QUESTION: 134
Which strategy should be employed to improve daylighting when designing a new building?
A. Increase the building depth
B. Increase the number of skylights
C. Increase the height of interior partitions
D. Decrease the number of exterior light shelves
Answer: B (LEAVE A REPLY)
. Increase the number of skylights
Skylights are openings in the roof or ceiling that allow natural light to enter the building. They can improve daylighting by providing more uniform and diffuse illumination, reducing the need for artificial lighting, and enhancing the visual comfort and well-being of occupants. Skylights can also reduce cooling loads by minimizing solar heat gain through the roof. However, skylights must be designed carefully to avoid glare, overheating, and heat loss issues.
Reference:
Reference Guide for Building Design and Construction v4 - Pages 279-2801 Daylighting | WBDG - Whole Building Design Guide1

NEW QUESTION: 135
Showers are addressed under which prerequisites and/or credits within LEED Building Design and Construction?
A. Water Efficiency Prerequisite, Indoor Water Use Reduction; Water Efficiency Credit, Indoor Water Use Reduction; and Location and Transportation Credit, Bicycle Facilities
B. Water Efficiency Prerequisite, Indoor Water Use Reduction; Water Efficiency Prerequisite, Outdoor Water Use Reduction; and Water Efficiency Credit, Water Metering
C. Water Efficiency Prerequisite, Indoor Water Use Reduction; Water Efficiency Prerequisite, Outdoor Water Use Reduction; and Location and Transportation Credit, Bicycle Facilities
D. Water Efficiency Prerequisite, Indoor Water Use Reduction; Water Efficiency Credit, Cooling Tower Water Use; and Water Efficiency Credit, Water Metering
Answer: (SHOW ANSWER)
Showers are addressed under Water Efficiency (WE) Prerequisite: Indoor Water Use Reduction and Location and Transportation (LT) Credit: Bicycle Facilities. Showers in indoor water use reduction help minimize potable water consumption, while in the Bicycle

Facilities credit, they support cycling commuters by providing end-of-trip facilities. The other options refer to credits or prerequisites unrelated to shower facilities.

NEW QUESTION: 136
Which of the following could be considered diverted construction waste?
A. Excavated soil
B. Land-clearing debris
C. Alternative daily cover
D. Asphalt with aggregate
Answer: D (LEAVE A REPLY)
According to the LEED v4 Reference Guide for Building Design and Construction, diverted construction waste is defined as "materials that are diverted from disposal in landfills or incineration facilities and are instead reused, recycled, composted, or salvaged"1. Asphalt with aggregate is an example of a material that can be recycled and reused for paving or other applications. Excavated soil and land-clearing debris are excluded from the calculation of the total construction and demolition waste for the MR Credit Building Life-Cycle Impact Reduction1. Alternative daily cover is a material that is used to cover the surface of an active landfill at the end of each day to control odors, pests, and litter. It is not considered as diversion because it does not reduce the amount of waste sent to landfills2. Reference: MR Credit Building Life-Cycle Impact Reduction, LEED v4 Reference Guide for Building Design and Construction3142

NEW QUESTION: 137
An owner has requested that the project team redesign a large office building. As part of the redesign, the owner would like to move the main entrance to the opposite side of the building. Achievement of which credit may be affected by the move?
A. Location and Transportation Credit, High-Priority Site
B. Location and Transportation Credit, Sensitive Land Protection
C. Location and Transportation Credit, Surrounding Density and Diverse Uses
D. Location and Transportation Credit, LEED for Neighborhood Development Location
Answer: (SHOW ANSWER)

Achievement of the Location and Transportation Credit, Surrounding Density and Diverse Uses may be affected by the move of the main entrance to the opposite side of the building. This is because the credit requires that the project be located within a minimum density area and within walking distance of diverse uses1. The walking distance is measured from a main functional entry of the project building to the diverse use entry1. If the main functional entry is moved, the distance to the diverse uses may change and affect the credit achievement. The other credits are not affected by the move of the main entrance, as they are based on the location of the project site, not the building entry. The Location and Transportation Credit, High-Priority Site rewards projects that are located on sites that are previously developed, infill, or adjacent to existing development2. The Location and Transportation Credit, Sensitive Land Protection rewards projects that are located on sites that do not contain sensitive land features such as prime farmland, wetlands, or habitats3. The Location and Transportation Credit, LEED for Neighborhood Development Location rewards projects that are located within the boundary of a LEED for Neighborhood Development certified plan4.
Reference:
* Surrounding density and diverse uses, p. 1
* High-priority site, p. 1
* Sensitive land protection, p. 1
* LEED for neighborhood development location, p. 1

NEW QUESTION: 138
A new five-story building with a 30,000 ft2 (2 800 m2) footprint is being designed on a previously disturbed100,000 ft2 (9 290 m2) site. The remaining on-grade surface will be 35,000 ft2 (3 250 m2) of asphalt parking, and 35,000 ft2 (3 250 m2) of native vegetated open space. To achieve a point for exemplary performance under Option 1 of Sustainable Sites Credit, Site Development - Protect or Restore Habitat, the design team will have to incorporate a native and/or adapted vegetated roof with a minimum area of
A. 12,500 ft2 (1 160 m2)
B. 15,000 ft2 (1 400 m2)
C. 25,000 ft2 (2 300 m2)
D. 35,000 ft2 (3 250 m2)
Answer: (SHOW ANSWER)
According to the LEED v4 Reference Guide for Building Design and Construction, Option 1 of the Site Development - Protect or Restore Habitat credit requires restoring 25% of the site area (including the building footprint) with native or adapted vegetation1. To achieve exemplary performance, the project must double the credit requirements and restore 50% of the site area2. In this case, the site area is 100,000 ft2 (9 290 m2), so the project must restore 50,000 ft2 (4 645 m2) with vegetation. The project already has 35,000 ft2 (3 250 m2) of native vegetated open space, so it needs to add another 15,000 ft2 (1 395 m2) of vegetation. Since the on-grade surface is fully occupied by the building footprint and the

asphalt parking, the only option is to incorporate a vegetated roof. Therefore, the design team will have to incorporate a native and/or adapted vegetated roof with a minimum area of 15,000 ft2 (1 395 m2). Reference: SS Credit Site Development - Protect or Restore Habitat, LEED v4 Reference Guide for Building Design and Construction13

NEW QUESTION: 139
A rectangular office building is located in an extremely humid climate and is shaded by very large adjacent buildings on all four sides. If the building owner wants to decrease the annual energy cost for operating the building, which of the following would be the best design approach?
A. Install glazing with a higher solar heat gain factor
B. Install photovoltaic panels on the sides of the building
C. Increase outdoor air intake quantities during summer months
D. Recover waste energy through exhaust air energy recovery systems
Answer: (SHOW ANSWER)
The best design approach for the office building is D. Recover waste energy through exhaust air energy recovery systems. This is because:
Installing glazing with a higher solar heat gain factor would increase the cooling load and energy consumption of the building, especially in an extremely humid climate where heat gain is high1.
Installing photovoltaic panels on the sides of the building would generate electricity from solar radiation, but it would not reduce the cooling load or energy consumption of the building, unless the electricity is used to power a heat pump or other cooling device2.
Increasing outdoor air intake quantities during summer months would provide more fresh air to dilute the indoor pollutants and improve the indoor air quality, but it would not reduce the cooling load or energy consumption of the building, unless it is combined with a ventilation system that recovers waste energy from the exhaust air stream34.
An exhaust air energy recovery system (ERV) is a type of mechanical ventilation that uses a heat exchanger to transfer heat between two streams of air: one that enters the building and one that exits. The ERV pre-cools and dehumidifies the incoming ventilation air by sending the rejected heat into the exhaust airstream to cool the condenser coil at a lower temperature. This reduces both the cooling load and energy consumption of the building, as well as improving its indoor humidity levels34. An ERV can also provide some fresh outdoor air to meet ASHRAE Standard 62 ventilation rates5.
Therefore, an ERV is a more efficient and effective design approach than glazing, photovoltaic panels, or increased outdoor air intake quantities for reducing the annual energy cost for operating an office building in an extremely humid climate and shaded by very large adjacent buildings on all four sides.

NEW QUESTION: 140

A school project is located in a basin. Snow melts in the spring on the nearby mountains which replenishes the local water supply. The nearby highways are sometimes closed during the winter due to the winter storm. What is the top priority the project team should focus on?

A. Use ground source heat pump

B. Install efficient plumbing fixtures

C. Ergonomics design for classrooms and computer rooms

D. Purchase all materials locally to minimize road transportation

Answer: B (LEAVE A REPLY)

This option requires the project team to focus on reducing the water consumption of the school project, because it is located in a basin that depends on the seasonal snowmelt for its water supply1. Installing efficient plumbing fixtures, such as low-flow faucets, toilets, and showerheads, can help save water and reduce the demand on the local water resources2. This option can also help the project achieve the LEED credits for outdoor and indoor water use reduction3.

NEW QUESTION: 141

Which individual occupant lighting control meets the requirements of Indoor Environmental Quality Credit, Interior Lighting?

A. Two Level (on, off)

B. Three Level (on, 25%, off)

C. Three Level (on, 50%, off)

D. Three Level (on, 75%, off)

Answer: (SHOW ANSWER)

The Indoor Environmental Quality Credit, Interior Lighting, requires the project team to provide individual occupant lighting control for at least 90% of the individual occupant spaces, or at least 50% of the shared multi-occupant spaces. The lighting control must enable occupants to adjust the lighting to suit their individual tasks and preferences, and must have at least three lighting levels, excluding off1. Therefore, a three level (on, 25%, off) lighting control meets the requirements of this credit, while a two level (on, off) lighting control does not. A three level (on, 50%, off) or a three level (on, 75%, off) lighting control may also meet the requirements, depending on the lighting power density and the daylight availability in the space2.

Reference:

* LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Interior Lighting, page 7071

* Interior lighting | U.S. Green Building Council3

NEW QUESTION: 142

Which of the following transit modes is considered to be walkable if it is within 1/2 mile (0.8 km) of the functional entry of a project?

A. Taxi stand
B. Ferry terminal
C. Local bus stop
D. Streetcar stop
Answer: C (LEAVE A REPLY)
For Location and Transportation (LT) Credits: Access to Quality Transit, a local bus stop (C) within 1/2 mile (0.8 km) from a building's entrance qualifies as walkable transit. LEED defines walkable transit as options within reasonable distance for daily commuting, including bus stops, light rail stations, and streetcars. Taxi stands (A) aren't considered reliable public transit under LEED, and while streetcars (D) are valid, ferry terminals (B) are only acceptable within a 1-mile range.

NEW QUESTION: 143
Which of the following groups of documents is most likely to support both Indoor Environmental Quality Credit, Thermal Comfort, and Indoor Environmental Quality Credit, Interior Lighting, Option 1. Lighting Control?
A. Surveys of occupants, photometric plans, mechanical schedules
B. Architectural floor plans, mechanical plans, lighting plans
C. Photometric plans, mechanical schedules, lamp specifications
D. Lighting plans, surveys of occupants, sequence of operations
Answer: (SHOW ANSWER)
Detailed
To document compliance with both the Thermal Comfort and Interior Lighting credits, lighting plans, occupant surveys, and sequences of operations are critical. The surveys provide occupant feedback on thermal and lighting comfort, while lighting plans and operation sequences demonstrate control measures and design intent for enhanced user experience. LEED requires this documentation to confirm that occupant needs are met.

NEW QUESTION: 144
The intent of the Sustainable Sites Prerequisite, Construction Activity Pollution Prevention is to £
A. control erosion, noxious odors and landfill waste
B. control erosion, landfill waste and excessive noise
C. control erosion, waterway sedimentation and airborne dust
D. control erosion, waterway sedimentation and noxious odors
Answer: C (LEAVE A REPLY)
The intent of the Sustainable Sites Prerequisite. Construction Activity Pollution Prevention is to reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation. The LEED v4 Reference Guide for Building Design and Construction states that "construction activities can have significant negative impacts on the environment, both at the project site and beyond. Erosion and

sedimentation can degrade water quality, damage aquatic habitats, and increase flooding risks. Airborne dust can affect air quality, human health, and visibility. Construction vehicles and equipment can generate noise, traffic, and greenhouse gas emissions"1. The project team must implement an erosion and sedimentation control (ESC) plan that conforms to the 2012 U.S. Environmental Protection Agency Construction General Permit or local equivalent, whichever is more stringent. The ESC plan must cover all construction activity on the project site, including clearing, grading, excavating, and demolition.
Reference:
LEED v4 Reference Guide for Building Design and Construction, Sustainable Sites Prerequisite: Construction Activity Pollution Prevention, page 1151 Construction activity pollution prevention | U.S. Green Building Council

NEW QUESTION: 145
Which of the following will contribute to reducing the heat island effect?
A. Artificial turf grass
B. Intensive vegetated roof
C. Steep sloped roof with initial SRI of 35
D. Low sloped roof with initial Solar Reflectance Index (SRI) of 64
Answer: B (LEAVE A REPLY)
An intensive vegetated roof is a roof that has a thick layer of soil and plants that provide shade, evapotranspiration, and stormwater management. It can reduce the heat island effect by lowering the surface and air temperature of the roof and the surrounding area. Artificial turf grass does not reduce the heat island effect because it is not a living plant and does not provide cooling benefits. A steep sloped roof with initial SRI of 35 does not meet the minimum requirement of 39 for Option 1 or 32 for Option 2 of the Heat Island Reduction credit. A low sloped roof with initial SRI of 64 exceeds the minimum requirement of 82 for Option 1 or 64 for Option 2, but it is not the best option among the choices because it only reflects solar radiation and does not provide other benefits such as shading, evapotranspiration, and stormwater management. Reference:
Heat Island Reduction credit in LEED BD+C: New Construction v4.1 - LEED v4.11 SpecTopics: Heat Island Reduction Credit and LEED V4/V4.12 LEED Principle: Urban Heat Island Mitigation and Roofing3

NEW QUESTION: 146
In addition to Materials and Resources Credit, Building Life-Cycle Impact Reduction, Option 3. Building and Materials Reuse, salvaged materials contribute to the achievement of
A. Materials and Resources Prerequisite, Storage and Collection of Recyclables
B. Materials and Resources Credit, Building Product Disclosure and Optimization - Material Ingredients
C. Materials and Resources Credit, Construction and Demolition Waste Management

D. Materials and Resources Credit, Building Product Disclosure and Optimization - Environmental Product Declarations

Answer: C (LEAVE A REPLY)

. Materials and Resources Credit, Construction and Demolition Waste Management Salvaged materials are materials that have been recovered or diverted from the waste stream for reuse. They can contribute to the achievement of the Construction and Demolition Waste Management credit, which aims to reduce the amount of waste generated by construction and demolition activities and divert it from landfills and incinerators. By reusing salvaged materials, projects can reduce the demand for new materials, conserve natural resources, save energy, and lower greenhouse gas emissions. Salvaged materials can be counted as part of the total waste diverted from disposal, as long as they are not counted for the Building Life-Cycle Impact Reduction credit1.
Reference:
Reference Guide for Building Design and Construction v4 - Pages 263-2642 LEED Certification and Sustainable Construction Waste Management3

NEW QUESTION: 147

Which of the following Materials and Resources credits or prerequisites is reviewed under the design phase documentation submission?

A. PBT Source Reduction - Lead, Cadmium, and Copper

B. PBT Source Reduction - Mercury

C. Building Product Disclosure and Optimization - Environmental Product Declarations

D. Building Product Disclosure and Optimization - Sourcing of Raw Materials

Answer: C (LEAVE A REPLY)

During the design phase documentation submission, the Materials and Resources (MR) Credit: Building Product Disclosure and Optimization - Environmental Product Declarations (EPDs) is reviewed. This credit encourages project teams to select products from manufacturers who provide transparency about their products' environmental impacts. EPDs are often part of the design documentation, as they influence material selection and project sustainability goals. Other PBT source reduction credits or raw material sourcing credits are typically more relevant in later phases, as they may involve construction processes and materials procurement rather than initial design specifications.

NEW QUESTION: 148

What is the reference standard that defines the requirements for LEED energy modeling?

A. ASHRAE 62.1-2010

B. Core Performance Guide

C. ASHRAE Advanced Energy Design Guide

D. ASHRAE 90.1-2010 Appendix G

Answer: D (LEAVE A REPLY)

Detailed

ASHRAE 90.1-2010 Appendix G is the reference standard used for energy modeling in LEED projects. It establishes guidelines for baseline building performance and energy simulation comparisons, allowing project teams to demonstrate energy performance improvements relative to code-minimum buildings.