Latest Version: 8.0

Question: 1

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?

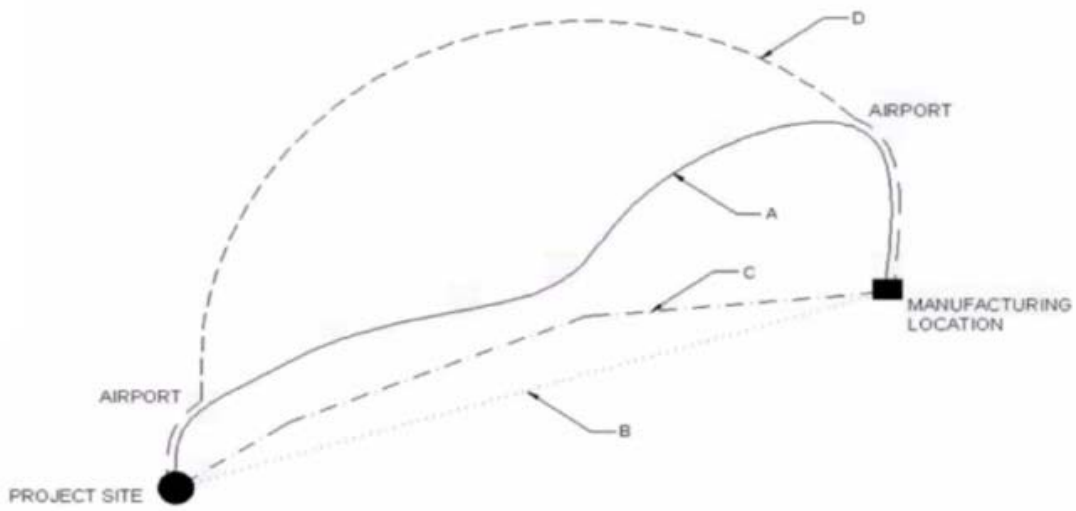
A. A description of each use
B. The location of parking lots near each use
C. Walking routes from the project to each use
D. A calculation of the expected number of project occupants who will visit each use

Answer: C

Explanation:
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

Question: 2

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: B

Explanation:
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.
LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials, page 551

Question: 3

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

Explanation:
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.

Question: 4

Which of the following prerequisites or credits are affected by using plug-in devices when attempting to achieve Indoor Environmental Quality Credit. Thermal Comfort?

A. Energy and Atmosphere Credit. Demand Response
B. Energy and Atmosphere Credit. Advanced Energy Metering
C. Energy and Atmosphere Prerequisite. Minimum Energy Performance
D. Energy and Atmosphere Prerequisite. Building Level Energy Metering

Answer: C

Explanation:
Using plug-in devices can affect the energy performance of the building, which is one of the criteria for achieving Indoor Environmental Quality Credit. Thermal Comfort. The LEED v4 Reference Guide for Building Design and Construction states that "the project team must demonstrate that the proposed design meets the minimum energy performance requirements of ASHRAE Standard 90.1-2010, Appendix G, with errata"1. Plug-in devices are considered as part of the process loads in the energy model, and they can increase the energy consumption and demand of the building. Therefore, the project team must account for the plug-in devices in the energy model and ensure that the proposed design meets or exceeds the baseline performance rating.
LEED v4 Reference Guide for Building Design and Construction, Energy and Atmosphere Prerequisite: Minimum Energy Performance, page 2591
LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Thermal Comfort, page 7041

Question: 5

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

Explanation:
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.
LEED v4 Reference Guide for Building Design and Construction, Energy and Atmosphere Credit: Demand Response, page 2721
Demand response | U.S. Green Building Council2

Question: 6

Which of the following characteristics are a requirement of a compliant water meter?

A. Must be digital
B. Must be permanently installed
C. Must transmit data to a remote location
D. Must be capable of storing data for 36 months

Answer: B

Explanation:
A compliant water meter is a device that measures and records the total potable water use of the building and associated grounds. According to the LEED v4 Reference Guide for Building Design and Construction, a compliant water meter must meet the following requirements1:

- It must be permanently installed and measure the total water use of the building and grounds.
- It must have a remote communication capability or be readable from a location that is accessible to building management.
- It must have a data storage capability of at least 18 months, or be connected to a system that can store data for at least 18 months.
- It must have a resolution of 0.5 gallons (2 liters) or less, or the smallest unit of measure that is appropriate for the expected water use of the building.
- LEED v4 Reference Guide for Building Design and Construction, Water Efficiency Prerequisite: Building-Level Water Metering, page 3781
- Water metering | U.S. Green Building Council

Question: 7

Which of the following is true regarding LEED Pilot Credits?

A. Pilot Credits are not specific to the rating systems
B. Pilot Credits can be attempted in the design review stage only
C. A registered Pilot Credit must be replaced on the LEED project's scorecard if that pilot credit is removed from the Pilot Credit Library
D. Pilot Credit feedback surveys must be completed

Answer: D

Explanation:
One of the requirements for attempting a pilot credit is to complete a feedback survey after submitting the project for review. The LEED v4 Reference Guide for Building Design and Construction states that "the project team must complete a feedback survey for each pilot credit attempted. The survey link is provided in the pilot credit language. The survey must be completed after the project has been submitted for review and before the project receives a final rating"1. The feedback survey is an important tool for USGBC to evaluate the effectiveness and applicability of the pilot credit, and to make improvements or modifications based on the project team's experience.

- LEED v4 Reference Guide for Building Design and Construction, Innovation Credit: Pilot, page 7571
- Pilot credits and pilot alternative compliance paths (ACPs)2

Question: 8

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

Explanation:
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.

- 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

Question: 9

Which site preparation and construction method contributes to earning the Materials and Resources Credit, Construction and Demolition Waste Management?

A. Reuse excavated soil and land-clearing debris
B. Implement in situ soil remediation and post removal of the existing concrete pavement
C. Salvage and recycle 50% of the existing materials (based on volume) generated during site demolition for three material streams
D. Ensure reduction of pollution from construction activities by using airborne dust generation capture systems

Answer: C

Explanation:
The Materials and Resources Credit, Construction and Demolition Waste Management aims to reduce the amount of construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials. According to the LEED v4 Reference Guide for Building Design and Construction, one of the options to achieve this credit is to divert at least 50% of the total construction and demolition material from disposal and recycle or salvage at least three material streams1. Therefore, salvaging and recycling 50% of the existing materials (based on volume) generated during site demolition for three material streams would contribute to earning this credit. The other options are not related to this credit, but to other credits or prerequisites, such as Sustainable Sites Prerequisite: Construction Activity Pollution Prevention1, Materials and Resources Prerequisite: Storage and Collection of Recyclables1, and Materials and Resources Credit: Building Product Disclosure and Optimization - Sourcing of Raw Materials1.

- LEED v4 Reference Guide for Building Design and Construction, Materials and Resources Credit: Construction and Demolition Waste Management, page 5481
- LEED v4 Construction and Demolition Waste

Question: 10

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: B

Explanation:
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.

- LEED v4 Reference Guide for Building Design and Construction, Indoor Environmental Quality Credit: Interior Lighting, page 7071
- Interior lighting | U.S. Green Building Council3