

# USGBC® LEED AP BD+C - Quiz Questions with Answers

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## 1. LEED Process

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1. LEED Process

1.

A team is building a new 10-story apartment building. Which of the following LEED rating systems should the team use?

**LEED BD+C–New Construction and Major Renovation**

LEED BD+C–Hospitality

LEED BD+C–Homes and Multi-family Lowrise

LEED BD+C–Multi-family Midrise

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*Correct answer: LEED BD+C–New Construction and Major Renovation*

*New residential buildings that are nine stories or more fall under LEED BD+C–New Construction and Major Renovation. There are separate rating systems for residential buildings shorter than nine stories.*

*LEED BD+C–Hospitality would not be appropriate because this project is an apartment building rather than providing transitional or short-term lodging like a hotel or inn. LEED BD+C–Homes and Multi-family Lowrise and LEED BD+C–Multi-family Midrise would not be the best choices for this project because this project is too big to qualify.*

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**2.**

A project team is struggling to choose a rating system for their building. They are using the 40/60 rule to help them decide. What is this rule based on?

**The gross floor area of the building**

The number of relevant credits

The surrounding density

The number of credit points available

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*Correct answer: The gross floor area of the building*

*The 40/60 rule is based on the gross floor area. If 60% or more of the gross floor area suits a rating system, the team should choose that rating system even if the rest of the project does not fit.*

*The 40/60 rule is not based on the number of relevant credits, the surrounding density, or the number of credit points available.*

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**3.**

Projects that meet the Minimum Program Requirements (MPRs) and have selected a rating system should then move on to which of the following steps?

**Registering the project on LEED Online**

Assembling an integrative team of professionals

Submitting documentation for credits

Conducting a four-hour charrette

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*Correct answer: Registering the project on LEED Online*

*Once a project has chosen a rating system they would like to use, they should register the project on LEED Online. From LEED Online, projects can upload documentation and submit credits.*

*Assembling an integrative team of professionals should have already begun before online registration. Projects can't submit credit documents until they register their project. Conducting a four-hour charrette is required only for healthcare projects.*

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**4.**

In which of the following credit categories can projects achieve a point for having a relevant LEED Accredited Professional on the team?

**Innovation**

Regional Priority

Integrative Process

Materials and Resources

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*Correct answer: Innovation*

*There are six possible points within the Innovation credit category. One of the credits awards projects for having a LEED Accredited Professional on the team.*

*Neither Regional Priority, Integrative Process, nor Materials and Resources awards a point for having a LEED AP on the team.*

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**5.**

A project hopes to become LEED certified. Which of the following is the first step they need to take?

**Check to see if they meet the three LEED Minimum Program Requirements**

Create an integrative team of professionals

Register their project on LEED Online

Choose a LEED rating system

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*Correct answer: Check to see if they meet the three LEED Minimum Program Requirements*

*Projects hoping to become LEED certified must be sure that they align with LEED's Minimum Program Requirements. Projects that don't meet these requirements are not eligible for LEED certification.*

*Creating an integrative team of professionals, registering the project on LEED Online, and choosing a rating system are all steps taken early in the process, but they are not the first step.*

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6.

Which of the following is not a task that will be completed on LEED Online?

**Establishing a baseline for water and energy usage**

Registering a project

Uploading documentation

Submitting credits for review

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*Correct answer: Establish a baseline for water and energy usage*

*The baselines for water and energy usage would not be established using LEED Online. LEED Online is where the documentation and calculations for the energy and water reductions will be uploaded.*

*Registering a project, uploading documentation, and submitting credits for review will all be completed on LEED Online.*

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## 7.

If a team is using the Group Approach, which of the following would most likely describe the project?

**The project includes multiple similar buildings in the same location that are all owned by the same entity**

The project includes multiple different buildings in the same location that are all owned by the same entity

The project includes multiple similar buildings in different locations that are all owned by the same entity

The project includes multiple similar buildings in the same location that are all owned by different entities

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*Correct answer: This project includes multiple similar buildings in the same location that are all owned by the same entity*

*The Group Approach should be used by teams that are trying to certify multiple similar buildings under one rating system.*

*The Group Approach should not be used by projects with multiple different buildings, with buildings in different locations, or with buildings that are owned by different entities because it is available only to projects with multiple similar buildings that are within the same location and are owned by the same owner or entity. Projects with multiple different buildings should use the LEED Campus Program, but these projects are also required to be owned by the same entity and to be located within the same site.*

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8.

Your project team wants to achieve LEED Gold. What is the range of points you should aim for to achieve this goal?

**60–79 points**

60–69 points

70–79 points

70–89 points

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*Correct answer: 60–79 points*

*LEED Gold is the second highest certification level a project can achieve. Projects hoping to earn this certification must earn between 60 and 79 points. Projects earning 80 or more points qualify for the Platinum certification.*

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**9.**

If a team is using the Campus Approach, which of the following would most likely describe the project?

**The project includes multiple different buildings in the same location that are all owned by the same entity**

The project includes multiple different buildings in different locations that are all owned by the same entity

The project includes multiple similar buildings in the same location that are all owned by the same entity

The project includes multiple different buildings in the same location that are all owned by separate entities

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*Correct answer: The project includes multiple different buildings in the same location that are all owned by the same entity*

*The Campus Approach helps streamline the certification process for projects that include multiple types of buildings in the same location and owned by the same entity.*

*The Campus Approach would not work for projects that include multiple buildings that are in different locations, are owned by different entities, or are similar in kind because these kinds of projects would not meet its qualifications. Projects with multiple buildings of a similar kind can use the LEED Volume Program, but projects with buildings on different sites and/or owned by different entities still do not qualify and would have to become certified individually.*

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**10.**

What is the minimum number of points for a project to achieve LEED Platinum?

**80 points**

100 points

90 points

110 points

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*Correct answer: 80 points*

*The minimum number of points needed to achieve LEED Platinum is 80 points. In BD+C rating systems, the maximum number of points that can be achieved is 110.*

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**11.**

A project that will hold up to 75% computer equipment, mostly storage systems for the company, wants to become LEED Certified. Which of the following rating systems would be best for this project?

**LEED BD+C: Data Centers**

LEED BD+C: Warehouses and Distribution Centers

LEED BD+C: Core and Shell Development

LEED BD+C: New Construction and Major Renovation

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*Correct answer: LEED BD+C: Data Centers*

*Because this project is made up of more than 60% computer equipment, LEED BD+C: Data Centers is a good fit.*

*LEED BD+C: Warehouses and Distribution Centers would not be appropriate because this project is not a warehouse or a distribution center. LEED BD+C: Core and Shell Development would not be the best choice because computers require special considerations concerning their environment that may not be able to be met by keeping more than 40% of the gross floor area incomplete. LEED BD+C: New Construction and Major Renovation could work, but it is not designed to accommodate the specific needs of a computer center the way LEED BD+C: Data Centers is, so it is not the best among these choices.*

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**12.**

A project team needs four more points to reach their desired LEED certification level. Which of the following credit categories offers four potential points?

**Regional Priority**

Innovation

Sustainable Sites

Indoor Environmental Quality

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*Correct answer: Regional Priority*

*The Regional Priority credit category offers up to four points to projects that achieve credits corresponding to local environmental concerns.*

*Innovation offers a total of six possible points, Sustainable Sites offers a total of 10 possible points, and Indoor Environmental Quality offers a total of 16 possible points.*

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**13.**

Your project team just wants the basic level of LEED certification. What range of points should you aim for to achieve this goal?

**40–49 points**

50–59 points

60–79 points

80+

*Correct answer: 40–49 points*

*To achieve LEED Certified, projects need to earn 40–49 points. This is the lowest tier of certification; higher certification levels require more points.*

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**14.**

In which of the following credit categories can projects earn up to six points?

**Innovation**

Integrative Process

Regional Priority

Water Efficiency

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*Correct answer: Innovation*

*The Innovation category offers up to six points for projects. There are many ways to achieve these points, including having a LEED professional on the project, creating innovative strategies that are not touched on anywhere else in LEED, and trying a pilot credit.*

*The Integrative Process category can earn projects up to one point. The Regional Priority category can earn projects up to four points. The Water Efficiency category can earn projects up to 11 points.*

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**15.**

A team is starting a new construction project and is having a hard time choosing a rating system. Their project's gross floor area is 35% retail and 65% office space. Which of the following rating systems should they use?

**LEED BD+C: New Construction and Major Renovation**

LEED BD+C: Retail

LEED BD+C: Core and Shell Development

LEED BD+C: Office Space Development

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*Correct answer: LEED BD+C: New Construction and Major Renovation*

*Because their project is a new construction project and the retail space makes up only 35% of the gross floor area while 65% is office space, LEED BD+C: New Construction and Major Renovation is the best choice.*

*The retail gross floor area is not a high enough percentage to use LEED BD+C: Retail. This is not a core and shell project. LEED BD+C: Office Space Development does not exist.*

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**16.**

A project includes multiple buildings that are all using different LEED rating systems on the same site and are owned by the same entity. Which of the following should they do to become certified?

**Use the Campus Approach**

Find one rating system that works for all the buildings

Use the Group Approach

Certify each building individually

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*Correct answer: Use the Campus Approach*

*The Campus Approach streamlines the certification process for projects that have multiple buildings under the same owner but require different rating systems.*

*They should not use the Group Approach or find one rating system for all buildings. They could certify each building one at a time, but the Campus Approach would streamline this process.*

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17.

Which of the following is the total number of points that projects can achieve in LEED BD+C?

**110 points**

80 points

100 points

90 points

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*Correct answer: 110 points*

*Projects using the BD+C rating system can achieve up to 110 points. However, to reach the highest level of certification, projects need to achieve at least 80 of the total 110 points.*

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**18.**

Your project team wants to earn LEED Platinum, the highest level of certification. What range of points should you aim for to achieve this goal?

**80+**

100–110

110+

90–110

*Correct answer: 80+*

*The lowest number of points needed for LEED Platinum is 80, and LEED BD+C projects have a total of 110 possible points.*

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**19.**

Why is defining a reasonable LEED boundary important?

**Defining a reasonable LEED boundary will ensure an accurate evaluation of the project**

Defining a reasonable LEED boundary helps to maintain pollution caused by construction

Defining a reasonable LEED boundary ensures that habitats are protected

Defining a reasonable LEED boundary is important only for the Sustainable Sites credit category

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*Correct answer: Defining a reasonable LEED boundary will ensure an accurate evaluation of the project*

*Defining a reasonable LEED boundary is one of LEED's three Minimum Program Requirements (MPRs). These requirements establish a baseline ensuring that all projects are appropriate for pursuing LEED certification. This particular MPR ensures that the evaluation of the project is accurate. This is important given that most of the credits relate to the area around the building, not just to the building itself.*

*Defining a reasonable LEED boundary does not pertain only to the Sustainable Sites category. It doesn't necessarily ensure that habitats will be protected or that pollution caused by construction will be maintained.*

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**20.**

In order for a team to choose LEED BD+C: Core and Shell, how much of the gross floor area must be incomplete at the time of certification?

**40%**

35%

20%

25%

*Correct answer: 40%*

*To qualify for LEED BD+C: Core and Shell, the project's gross floor area must be at least 40% incomplete by the time of certification.*

*Projects with floor areas that are only 35%, 25%, or 20% incomplete would not qualify.*

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**21.**

A company needs a new building to store their merchandise, and they want to become LEED certified. Which of the following rating systems would best suit this project?

**LEED BD+C: Warehouses and Distribution Centers**

LEED BD+C: New Construction and Major Renovations

LEED BD+C: Retail

LEED BD+C: Core and Shell Development

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*Correct answer: LEED BD+C: Warehouses and Distribution Centers*

*LEED BD+C: Warehouses and Distribution Centers should be used for projects that will be used to house goods, manufactured products, materials, etc.*

*LEED BD+C: New Construction and Major Renovations, LEED BD+C: Retail, and LEED BD+C: Core and Shell Development are not the best fit for this project since they are not primarily focused on storage.*

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**22.**

Your project team is aiming to achieve LEED Silver. What range of points should you aim for to achieve this goal?

**50–59 points**

60–79 points

70–79 points

60–69 points

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*Correct answer: 50–59*

*To achieve the second level of LEED certification, LEED Silver, projects should aim to achieve anywhere from 50 to 59 points.*

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**23.**

Your team has chosen a LEED rating system and is ready to register their project. Where should you go to register the project?

**LEED Online**

The USGBC website

EPA's Target Finder

EPA'S GreenChill Program

*Correct answer: LEED Online*

*LEED Online is where teams register their projects, upload documentation, and submit credits for review.*

*The USGBC website, EPA's Target Finder, and EPA's GreenChill Program are not where teams go to register projects. The USGBC website is where you can find information about LEED rating systems. EPA's Target Finder is used in LEED's Energy and Atmosphere category to establish the project's energy performance target. EPA's GreenChill Program is a partnership with food retailers in efforts to reduce refrigerant emissions.*

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**24.**

Which of the following is not a rating system for LEED BD+C?

**LEED BD+C Built Project**

LEED BD+C Homes and Multifamily Lowrise

LEED BD+C Healthcare

LEED BD+C New Construction and Major Renovations

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*Correct answer: LEED BD+C Built Project*

*LEED BD+C Built Project does not exist. For the LEED BD+C exam, the majority of the questions will concern LEED BD+C New Construction and Major Renovations, but be prepared for questions about LEED BD+C Schools, LEED BD+C Healthcare, and LEED BD+C Core and Shell, which make up a significant number of questions as well.*

*LEED BD+C Homes and Multifamily Lowrise, LEED BD+C Healthcare, and LEED BD+C New Construction and Major Renovations are all rating systems under LEED BD+C.*

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**25.**

A project includes multiple similar buildings on the same site that are owned by the same entity. Which of the following should they do to become certified?

**Use the Group Approach**

Use the Campus Approach

Certify each building individually

Submit a CIR

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*Correct answer: Use the Group Approach*

*The Group Approach streamlines the certification process for projects with multiple similar buildings that are all on the same site and owned by the same entity.*

*A CIR isn't necessary in this situation. CIRs are used by projects to get answers to questions about specific credits or prerequisites. They do not qualify for the Campus Approach because they are certifying multiple similar buildings rather than multiple different buildings. There is no need to certify each building one at a time; this would take longer and would not be as efficient as using the LEED Group Approach.*

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**26.**

A project team wants to leave their interior incomplete by 50% so that renters can change the design to suit their purposes. Which of the following BD+C rating systems should they use?

**LEED BD+C: Core and Shell**

LEED BD+C: New Construction and Major Renovation

LEED BD+C: Retail

LEED BD+C: Warehouses and Distribution Centers

*Correct answer: LEED BD+C: Core and Shell*

*This project qualifies for LEED BD+C: Core and Shell because its interior will be at least 40% incomplete by the time of certification.*

*LEED BD+C: New Construction and Major Renovation, LEED BD+C: Retail, and LEED BD+C: Warehouses and Distribution Centers would not best suit this project because these rating systems require the project to be complete by the time of certification. Projects that plan to be incomplete should use LEED BD+C: Core and Shell.*

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**27.**

Which of the following is the minimum number of points a project must earn to achieve LEED certification?

**40 points**

110 points

80 points

30 points

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*Correct answer: 40 points*

*The minimum number of points for a project hoping to be LEED Certified is 40. To get a higher level of certification, more points are needed.*

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**28.**

In order to use the LEED BD+C: Data Centers rating system, the building must be filled with what percentage of computing equipment?

**More than 60%**

60% or more

More than 50%

50% or more

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*Correct answer: More than 60%*

*Projects using LEED BD+C: Data Centers must contain a high density of computer equipment. For this rating system, a high density is over 60%.*

*Buildings that contain 50% and 60% computing equipment are not acceptable. The percentage must be over 60%, not at 60%.*

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**29.**

Which of the following is true about Innovation Credit–LEED Accredited Professional?

**The LEED AP has to be accredited in a relevant rating system for the project**

The LEED AP must have at least 10 years of experience

The LEED AP has to have at least two accreditations

The LEED AP should have a real estate license in the project's state

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*Correct answer: the LEED AP has to be accredited in a relevant rating system for the project*

*To be eligible for the point, the LEED AP needs to be accredited in a relevant rating system. For example, LEED Neighborhood Development project teams will likely not achieve Innovation Credit–LEED Accredited Professional if their LEED AP is accredited in LEED Operations and Maintenance.*

*LEED APs don't need to have 10 years of experience, at least two accreditations, or a real estate license to earn this credit.*

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**30.**

Which of the following projects would comply with the size requirement for BD+C projects?

**A building that is 1,727 SF**

A building that is 860 SF

A building that is 717 SF

A building that is 468 SF

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*Correct answer: An office building that is 1,727 SF*

*In order to fulfill the size requirements, a BD+C project needs to be at least 1,000 SF. This is based on one of the Minimum Program Requirements that sets the minimum size for each type of project.*

*A building that is 860, 717, or 468 SF would not qualify.*

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## 2. Integrative Strategies

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### 2. Integrative Strategies

31.

A project team is looking at the surrounding transportation and at occupant and community well-being. Which of the following are they working on?

**Selecting a site**

Performing a preliminary simple box energy modeling analysis

Performing a preliminary water budget analysis

Assessing occupant satisfaction

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*Correct answer: Selecting a site*

*The surrounding transportation, occupant and community well-being, and transportation are the minimum aspects that teams should look into before selecting a site.*

*This scenario does not describe performing a preliminary simple box energy modeling analysis, performing a preliminary water budget analysis, or assessing occupant satisfaction, none of which consider surrounding transportation or community well-being.*

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32.

Which of the following would be the best time for a healthcare project to carry out the required charrette?

**Before the schematic design phase**

After the schematic design phase

There is no preferred time

At the end of the project

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*Correct answer: Before the schematic design phase*

*While projects can decide for themselves the best time to perform the charrette, it is preferable that they carry out this requirement before the schematic design phase. The earlier they do this, the more useful the charrette can be.*

*After the schematic design phase and at the end of the project are not the most preferable times because the charrette is less useful at these times.*

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**33.**

Teams performing a water budget analysis for IP Prerequisite–Integrative Project Planning and Design must assess all of the following, except:

**Site conditions**

Indoor water demand

Process water demand

Supply sources

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*Correct answer: Site conditions*

*The assessment of site conditions is one of the options for the simple box energy modeling analysis. The water budget analysis covers indoor and outdoor water demand, process water demand, and supply sources.*

*Indoor water demand, process water demand, and supply sources are some of the factors that are assessed in the water budget analysis.*

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**34.**

Which credit's or prerequisite's goal is to encourage teams to perform early analysis on their projects?

**IP Credit–Integrative Process**

IP Prerequisite–Integrative Project Planning and Design

IN Credit–Innovation

SS Prerequisite–Site Assessment

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*Correct answer: IP Credit–Integrative Process*

*The purpose of IP Credit–Integrative Process is to encourage projects to perform analyses early in their process and to document how they will use their knowledge to inform the design of the building.*

*IP Prerequisite–Integrative Project Planning and Design, IN Credit–Innovation, and SS Prerequisite–Site Assessment do not have the goal of encouraging teams to perform early analysis on their projects.*

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**35.**

IP Prerequisite—Integrative Project Planning and Design applies only to which of the following types of projects?

**Healthcare**

Hospitality

Warehouses and Distribution Centers

Schools

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*Correct answer: Healthcare*

*IP Prerequisite—Integrative Project Planning and Design applies only to healthcare projects. It does not apply to hospitality, warehouses and distribution centers, or school projects. The Integrative Process credit category is also available to all projects, regardless of type.*

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**36.**

Teams performing a simple box energy model for IP Credit–Integrative Process must assess at least two of the following. Which of these is not a factor they must assess?

**Supply sources**

Site conditions

Envelope attributes

Thermal comfort ranges

*Correct answer: Supply sources*

*The assessment of supply sources refers to water supply sources, not energy supply sources. This credit does not require the assessment of energy supply sources.*

*Teams performing a simple box energy model for IP Credit–Integrative Process must assess at least two of the following: site conditions, massing and orientation, basic envelope attributes, lighting levels, thermal comfort ranges, and plug and process load needs.*

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37.

The assessment of process water demand includes which of the following?

**Assessing kitchen, laundry, cooling tower, and other equipment demand volumes**

Assessing landscape irrigation design case demand volume

Assessing flush and flow fixture design case demand volumes

Assessing potential nonpotable water supply source volumes

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*Correct answer: Assessing kitchen, laundry, cooling tower, and other equipment demand volumes*

*Process water is water that is used for industrial purposes. This means assessing process water demand involves evaluating demand volumes for the kitchen, laundry, cooling tower, and other equipment.*

*Process water does not include irrigation or flush and flow fixtures. It is not used to assess potential nonpotable water supply sources.*

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**38.**

What should be assessed when a project team chooses the basic envelope option of IP Credit–Integrative Process?

**Insulation values, window-to-wall ratios, glazing characteristics, shading, and window operability**

Shading, exterior lighting, and adjacent site conditions

Thermal comfort ranges

Plug and process loads and energy demand

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*Correct answer: Insulation values, window-to-wall ratios, glazing characteristics, shading, and window operability*

*Project teams who have chosen basic envelope attributes to assess should include insulation values, window-to-wall ratios, glazing characteristics, shading, and window operability.*

*Assessing shading, exterior lighting, and adjacent site conditions is for the site conditions option. Assessing thermal comfort ranges is for the thermal comfort range option. Assessing plug and process loads and energy demand is for the plug and process loads needs option.*

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**39.**

Which of the following can projects choose to assess in their energy modeling analysis?

**Site conditions, massing, and orientation**

Building systems and construction documents

Owner's project requirements, basis of design, and design documents

Default assumptions and adjacent site conditions

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*Correct answer: Site conditions, massing, and orientation*

*Projects hoping to earn IP Credit–Integrative Process must assess at least two potential strategies for energy modeling analysis, including site conditions, massing, orientation, basic envelope attributes, lighting levels, thermal comfort ranges, and plug and process load needs.*

*An energy modeling analysis does not assess building systems, construction documents, owner's project requirements, basis of design, design documents, default assumptions, or adjacent site conditions.*

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40.

A 200,000 SF hospital is aiming for LEED Gold certification. Which of the following is true about this project?

**They are required to assemble an integrated project team**

They are exempt from the Integrative Process prerequisite

They are required to perform a simple box energy model analysis

They are exempt from developing an OPR

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*Correct answer: They are required to assemble an integrated project team*

*All healthcare projects are required to fulfill the requirements of IP Prerequisite—Integrative Project Planning and Design. The requirements of the prerequisite include assembling an integrated project team, performing a four-hour minimum charrette, and developing an Owner's Project Requirements (OPR) document.*

*The hospital is not required to perform a simple box energy model analysis unless they want to achieve the credit.*

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41.

When putting together a team to fulfill the requirements in IP Prerequisite–Integrative Project Planning and Design, what is the minimum number of professionals that must be included?

**Four in addition to the owner or the owner's representative**

Four including the owner or the owner's representative

Ten in addition to the owner or the owner's representative

Ten including the owner or the owner's representative

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*Correct answer: Four in addition to the owner or the owner's representative*

*Healthcare projects are required to put together an integrative team of at least four different professionals in addition to the owner or the owner's representative.*

*Ten would be an acceptable number but is not the minimum.*

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**42.**

A healthcare project is working on fulfilling the requirements for IP Prerequisite–Integrative Project Planning and Design. They are planning their required charrette; what is the minimum length of time the charrette needs to be?

**Four hours**

12 hours

Six hours

Three hours

*Correct answer: Four hours*

*To fulfill the requirements of IP Prerequisite–Integrative Project Planning and Design, healthcare projects must carry out a four-hour minimum charrette with at least four members of the design team.*

*The charrette can be more than four hours, but 12 hours and six hours are not the minimum required length of time. Three hours is not long enough to fulfill the requirements.*

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**43.**

What is the purpose of the preliminary water budget analysis required by IP Credit–Integrative Process?

**To explore how to reduce potable water loads in the building**

To analyze potential building sites for a tenant improvement project

To assess transportation for building occupants

To evaluate massing and orientation

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*Correct answer: To explore how to reduce potable water loads in the building*

*It is hard to reduce water usage without first understanding water usage. This is where the water budget analysis comes in and provides project teams with the information they need to detect where the team can reduce their potable water loads.*

*A water budget analysis would not be useful to analyze potential building sites for a tenant improvement project, assess transportation for building occupants, or evaluate massing and orientation.*

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**44.**

Your project team has chosen to assess transportation for IP Credit–Integrative Process. Which of the following should be considered when assessing transportation?

**Convenient access to alternative transportation that meets occupants' needs**

Proximity to restaurants and grocery stores

Availability of free parking

Adjacency to a bicycling network

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*Correct answer: Convenient access to alternative transportation that meets occupants' needs*

*Project teams must choose to assess at least two potential strategies. One of these options is transportation, for which convenient access to alternative transportation that meets occupants' needs should be considered.*

*Proximity to restaurants and grocery stores, availability of free parking, and adjacency to a bicycling network are not priorities for this option of IP Credit–Integrative Process.*

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**45.**

A project team is assessing the basic envelope attributes and the site conditions of the project. Which of the following credits or prerequisites is the team trying to achieve?

**IP Credit–Integrative Process**

IP Prerequisite–Integrative Project Planning and Design

EA Credit–Optimize Energy Performance

EA Prerequisite–Fundamental Commissioning and Verification

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*Correct answer: IP Credit–Integrative Process*

*Teams hoping to achieve IP Credit–Integrative Process are required to do a simple box energy model analysis. Teams must choose at least two of six applicable aspects of the project.*

*Based on the assessments being made, the project is not attempting the Integrative Process prerequisite, Energy and Atmosphere Credit–Optimize Energy Performance, or Energy and Atmosphere Prerequisite–Fundamental Commissioning and Verification in the scenario.*

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**46.**

A project team has just received the results of a simple box energy model. What is their next step to fulfill the requirements of IP Credit–Integrative Process?

**Document how the results of the simple box energy model analysis will inform the design of the project**

Nothing else needs to be done regarding this part of the credit

Submit the results of the simple box energy model analysis to LEED Online

Hire a commissioning agent to make recommendations based on the results

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*Correct answer: Document how the results of the simple box energy model analysis will inform the design of the project*

*The next step after a team completes the simple box energy model analysis is to document how the results will inform the building design. This encourages teams to use the information they gather to build a better, more sustainable project.*

*There is more that needs to be done regarding the simple box energy model analysis. Submission is not the next step. Bringing in a commissioning agent early in the project is not a bad idea, but this credit does not require projects to have one make recommendations based on the results of the simple box energy model analysis.*

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47.

Which of the following must be assessed for the indoor water demand option?

**Flow and flush fixture design case demand volumes**

Landscape irrigation design case demand volume

Kitchen and laundry cooling tower demand volumes

Potential nonpotable water supply source volumes

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*Correct answer: Assess flow and flush fixture design case demand volumes*

*Assessing indoor water demand includes assessing flow and flush fixture design case demand volumes.*

*Landscape irrigation design case demand volume is related to outdoor water demand. Kitchen and laundry cooling tower demand volumes are related to process water demand. Potential nonpotable water supply source volumes are related to supply sources.*

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48.

What is one of the strategies a project team may assess for site conditions in IP Credit–Integrative Process?

**Shading and exterior lighting**

HVAC efficiency and energy consumption

Envelope and building orientation

Massing and thermal comfort ranges

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*Correct answer: Shading and exterior lighting*

*To assess site conditions for IP Credit–Integrative Process, project teams must assess shading, exterior lighting, hardscape, landscaping, and adjacent site conditions.*

*HVAC efficiency, energy consumption, envelope, building orientation, massing, and thermal comfort ranges are not appropriate systems to assess for compliance with the option to assess site conditions.*

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**49.**

As part of the action plan created in the preliminary LEED meeting, healthcare projects should determine what level of LEED certification they wish to pursue. What are the options?

**Certified, Silver, Gold, or Platinum**

Bronze, Silver, Gold, or Platinum

Certified, Silver, Bronze or Platinum

Certified, Bronze, Gold, or Platinum

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*Correct answer: Certified, Silver, Gold, or Platinum*

*The levels of certification for LEED are Certified, Silver, Gold, and Platinum.*

*Bronze is not a certification level in LEED.*

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50.

Which of the following is not a requirement of the Integrative Process credit?

**Establish a project team**

Perform a simple box energy modeling analysis

Conduct a water budget analysis

Document how findings will be implemented in the design

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*Correct answer: Establish a project team*

*The Integrative Process credit aims to encourage projects to perform analysis on the project early to find interrelationships (or synergies) between systems. Establishing a project team does not support this aim. This is part of the Integrative Project Planning and Design Prerequisite requirements applicable to healthcare projects.*

*Requirements for the Integrative Process credit include performing a simple box energy modeling analysis, conducting a water budget analysis, and then documenting how the results of these analyses will be implemented in the design.*

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51.

A project team is familiarizing themselves with the ANSI Consensus National Standard Guide. Based on this fact, which of the following credit categories are they working on?

**Integrative Process**

Sustainable Sites

Location and Transportation

Regional Priority

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*Correct answer: Integrative Process*

*The ANSI Consensus National Standard Guide is the standard used for both IP Prerequisite–Integrative Project Planning and Design and IP Credit–Integrative Process.*

*The ANSI Consensus National Standard Guide is not used in Sustainable Sites, Location and Transportation, and Regional Priority.*

---

**52.**

A team is looking for a site according to their project goals. Before they decide, they should consider all of the following except:

**Lighting levels**

Transportation

Occupant and community well-being

Building site attributes

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*Correct answer: Lighting levels*

*Lighting levels is one of the options that projects can choose to assess in their simple box energy model analysis. The minimum site considerations include building site attributes, transportation, and occupant and community well-being.*

---

**53.**

Which of the following must a project team demonstrate to have contributed to reducing the burden on municipal supply or wastewater treatment systems?

**On-site nonpotable water supply source**

HVAC equipment condensate

Graywater

Municipally supplied nonpotable water

---

*Correct answer: On-site nonpotable water supply source*

*As part of the implementation phase of the IP Credit–Integrative Process's Water-Related Systems section, project teams must demonstrate how at least one on-site nonpotable water supply source was used to reduce the burden on municipal supply or wastewater treatment systems.*

---

54.

In which of the following credit categories is the Owner's Project Requirements document required for healthcare projects?

**Integrative Process**

Iterative Process

Innovation

Materials and Resources

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*Correct answer: Integrative Process*

*Healthcare projects must fulfill the Integrative Process prerequisite, which requires developing an Owner's Project Requirements (OPR) document, a four-hour charrette, and a health mission statement.*

*The Iterative Process is not a prerequisite or even a credit category in LEED. The Innovation and Materials and Resources categories do not require the OPR.*

---

**55.**

Which of the following can be assessed for IP Credit–Integrative Process?

**Building site attributes, transportation, building features, and occupants' well-being**

Transportation, historical designation, building features, and landscaping

Population density, occupants' well-being, recreational facilities, and building materials

Building features, landscaping, demographics, and local population

---

*Correct answer: Building site attributes, transportation, building features, and occupants' well-being*

*Before site selection, a project team must assess at least two of the following:*

- *Building site attributes*
- *Transportation*
- *Building features*
- *Occupants' well-being*

*Historical designation, landscaping, build materials, local population, demographics, recreational facilities and population density are not among the options for IP Credit–Integrative Process.*

---

**56.**

To better understand the requirements of IP Prerequisite–Integrative Project Planning and Design and IP Credit–Integrative Process, project teams should review which of the following standards?

**ANSI Consensus National Standard Guide**

EPA Construction General Permit

US Department of Housing and Urban Development Standard Guide

ISO 14044-2006 guidelines

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*Correct answer: ANSI Consensus National Standard Guide*

*The ANSI Consensus National Standard Guide is the guide that the requirements of IP Prerequisite–Integrative Project Planning and Design and IP Credit–Integrative Process are based on.*

*The EPA Construction General Permit, the US Department of Housing and Urban Development Standard Guide, and the ISO 14044-2006 guidelines are not related to the Integrative Process category's prerequisite and credit.*

---

**57.**

A team has just finished their water budget analysis and has documented how the results have impacted the design of the building. What is the team's next step?

**Show how at least one on-site, nonpotable water supply was used to reduce the demand on the municipal water supply**

The team has completed the requirements for this part of the credit, and nothing more needs to be done

Take samples for a simple water quality test

Install submeters

---

*Correct answer: Show how at least one on-site, nonpotable water supply was used to reduce the demand on the municipal water supply*

*The team has not yet completed all of the steps to this part of the credit. Having completed water budget analysis and documented the resulting effects on the building design, the team should next show how one or more on-site, non-potable water supplies reduced the demand for municipal water. Submeters and water samples are not required for this credit.*

---

**58.**

A 48,000 SF hotel project has just begun, and the team is hoping to achieve LEED Silver. Which of the following is true about this project?

**They are not required to fulfill IP Prerequisite–Integrative Project Planning and Design, and they are eligible to attempt IP Credit–Integrative Process**

They are required to fulfill IP Prerequisite–Integrative Project Planning and Design, and they are eligible to attempt IP Credit–Integrative Process

They are not required to fulfill IP Prerequisite–Integrative Project Planning and Design, but they are not eligible to attempt IP Credit–Integrative Process

They are required to fulfill IP Prerequisite–Integrative Project Planning and Design, but they are not eligible to attempt IP Credit–Integrative Process

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*Correct answer: They are not required to fulfill IP Prerequisite–Integrative Project Planning and Design, and they are eligible to attempt IP Credit–Integrative Process*

*IP Prerequisite–Integrative Project Planning and Design applies only to healthcare projects. The credit is open to new construction, core and shell, schools, retail, data centers, warehouses and distribution centers, hospitality, and healthcare projects within the BD+C rating system.*

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59.

What is the purpose of a preliminary energy modeling analysis?

**To explore how to reduce energy loads in the building and accomplish sustainability goals**

To inform the design of the building

To inform the owner's project requirements

To assess site conditions

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*Correct answer: To explore how to reduce energy loads in the building and accomplish sustainability goals*

*As with the water budget analysis, the preliminary energy modeling analysis helps teams find areas where they can reduce their energy loads.*

*The preliminary energy modeling analysis would not help to assess the site conditions, and while it may have some role in informing the owner's project requirements and the building design, this is not its main function.*

---

60.

Assessing massing and orientation involves which of the following?

**Assess how massing and orientation affect HVAC sizing, energy consumption, lighting, and renewable energy opportunities**

Assess insulation values and window-to-wall ratios

Assess plug and process loads and energy and water demand

Assess reflectance values, thermal comfort, and auditory comfort

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*Correct answer: Assess how massing and orientation affect HVAC sizing, energy consumption, lighting, and renewable energy opportunities*

*Assessing insulation values, window-to-wall ratios, plug and process loads, energy and water demand, reflectance values, thermal comfort, and auditory comfort are not aspects of the massing and orientation option.*

---

61.

When should a healthcare project team conduct a preliminary LEED meeting to comply with IP Prerequisite—Integrative Project Planning and Design?

**As early as is practical, but preferably before the schematic design phase**

During occupancy of the building

After construction is complete

After the final design is completed but before construction begins

---

*Correct answer: As early as is practical, but preferably before the schematic design phase*

*To comply with the requirements of IP Prerequisite—Integrative Project Planning and Design, healthcare project teams must conduct a preliminary LEED meeting with a minimum of four key project team members as well as with the owner or the owner's representative.*

*Hosting the meeting during occupancy of the building, after construction is complete, or after the final design is completed but before construction begins would be too late for the meeting to be effective.*

---

**62.**

Which of the following is the standard associated with IP Prerequisite–Integrative Project Planning and Design?

**ANSI Consensus National Standard Guide**

ACEEE Green Book

EPAAct of 1992

ASHRAE 90.1

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*Correct answer: ANSI Consensus National Standard Guide*

*LEED prerequisites and credits are based on third-party standards. The standard for IP Prerequisite–Integrative Project Planning and Design and credit is the ANSI Consensus National Standard Guide.*

*The ACEEE Green Book is a reference guide used in LT Credit–Green Vehicles. The EPAAct of 1992 is used in WE Prerequisite–Indoor Water Use Reduction. ASHRAE 90.1 is used in EA Prerequisite–Minimum Energy Performance.*

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**63.**

How many project team members should be present at the preliminary LEED meeting for IP Prerequisite—Integrative Project Planning and Design?

**At least four**

A maximum of seven

At least three

A maximum of two

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*Correct answer: At least four*

*For the preliminary LEED meeting to be most useful, it is best for the key team members to be present, including the owner or the owner's representative.*

*There is no maximum. However, two or three members is not enough key members to meet the requirements.*

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**64.**

In which of the following is exemplary performance not available?

**IP Credit–Integrative Process**

SS Credit–Rainwater Management

LT Credit–Reduced Parking Footprint

WE Credit–Indoor Water Use Reduction

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*Correct answer: IP Credit–Integrative Process*

*In LEED, projects can earn extra points for exemplary performance by reaching the next threshold or doubling their efforts on a particular credit. However, not all credits offer this.*

*SS Credit–Rainwater Management awards exemplary performance to project teams that manage 100% of rainwater that falls within the project boundary. LT Credit–Reduced Parking Footprint awards exemplary performance to project teams that double their percentage of parking reduction. WE Credit–Indoor Water Use Reduction awards exemplary performance to project teams that achieve 55% of indoor water savings.*

---

65.

Which of the following is not a requirement of IP Prerequisite–Integrative Project Planning and Design?

**Perform a simple box energy analysis**

Conduct a four-hour charrette

Developing the OPR

Assembling an integrated project team

---

*Correct answer: Perform a simple box energy analysis*

*The simple box energy analysis is a requirement for the Integrative Process credit, not the prerequisite. IP Prerequisite–Integrative Project Planning and Design aims to ensure that healthcare projects are developing efficient, integrative strategies.*

*The requirements for the prerequisite include conducting a four-hour charrette, developing the OPR, and assembling an integrated project team.*

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# 3. Location and Transportation

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66.

There is a heavy rail station near the site where a team is building their project. To earn points in LT Credit–Access to Quality Transit, how far can that heavy rail station be from the project?

**Within a 1/2-mile (800-meter) walking distance**

Within a 1/4-mile (400-meter) walking distance

Within a 1-mile (1,609-meter) walking distance

Within a 1 1/2-mile (2,414-meter) walking distance

---

*Correct answer: Within a 1/2-mile (800-meter) walking distance*

*The project in this scenario can earn points in LT Credit–Access to Quality Transit if the heavy rail station is within a 1/2-mile (800-meter) walking distance from a functional entrance.*

*If the heavy rail station was a 1/4-mile (400-meter) walking distance from a main entrance, it would count, but this is not the maximum distance for this type of public transportation. Any distance greater than 1/2 mile is too far to earn points for LT Credit–Access to Quality Transit.*

---

**67.**

For projects hoping to achieve LT Credit–High-Priority Site, which of the following sites should they avoid using?

**An abandoned building in need of renovation**

An old building in a historic district

A site in a location listed as a Federal Empowerment Zone

A brownfield in need of remediation

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*Correct answer: An abandoned building in need of renovation*

*This is not one of the options for LT Credit–High-Priority Site, but it would earn points for MR Credit–Building Life-Cycle Impact Reduction. To earn points in LT Credit–High-Priority Site, the project could be located in a historic district, a priority designated area, or a brownfield.*

*A site in a location listed as a Federal Empowerment Zone, an old building in a historic district, and a brownfield in need of remediation would all earn project points in LT Credit–High Priority Site.*

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**68.**

A project is building on a Federal Renewal Community Site. Which of the following have they earned by choosing this location?

**LT Credit–High-Priority Site**

MR Credit–Building Life-Cycle Impact Reduction

LT Credit–Sensitive Land protection

RP Credit–Regional Priority: Specific Credit

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*Correct answer: LT Credit–High-Priority Site*

*A Federal Renewal Community Site is considered a priority designation, and building on such a site earns this project LT Credit–High Priority Site.*

*This location is not one of the options to earn MR Credit: Building Life-Cycle Impact Reduction, LT Credit: Sensitive Land protection, or RP Credit–Regional Priority: Specific Credit.*

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**69.**

For projects that have earned LT Credit–Surrounding Density and Diverse Uses or LT Credit–Access to Quality Transit, how much of a parking reduction do they need to achieve from their base ratios?

**40%**

20%

30%

10%

*Correct answer: 40%*

*Projects that are able to achieve either LT Credit–Surrounding Density and Diverse Uses or LT Credit–Access to Quality Transit should not need as much parking as other projects. Therefore, the percentage of parking reduction they must achieve is higher.*

*A 20% parking reduction is the requirement for projects that have not achieved either LT Credit–Surrounding Density and Diverse Uses or LT Credit–Access to Quality Transit. Reductions of 30% and 10% are not high enough for projects that have achieved either of these credits.*

---

**70.**

To be considered an infill site, what percentage of the 1/2-mile land area surrounding the project boundary must be previously developed?

75%

70%

65%

60%

*Correct answer: 75%*

*To be considered an infill site, the 1/2 mile surrounding the project boundary must be 75% or more previously developed.*

*If the surrounding land is 70%, 65%, or 60% previously developed, the project site would not be considered an infill site.*

---

**71.**

A school has a functional entrance within a 1/4-mile (400-meter) walking distance of an existing streetcar stop. The project team is checking the minimum daily trips to ensure the eligibility of the transit service. Which of the following is true about this project?

**This project is exempt from minimum weekend trip requirements**

School projects do not qualify for LT Credit–Access to Quality Transit

The streetcar is not close enough to the project to qualify for points

Two points will be rewarded to this project

---

*Correct answer: This project is exempt from minimum weekend trip requirements*

*School projects do not need to meet any weekend minimum regardless of the types of transit services they are using for LT Credit–Access to Quality Transit.*

*School projects can qualify for LT Credit–Access to Quality Transit as long as they meet the credit's requirements. The streetcar is close enough to qualify. Based on the information given, it's not known how many points this project will earn.*

---

**72.**

A new apartment building project is hoping to earn points in LT Credit–Bicycle Facilities. The project has a functional entrance that is within a 200-yard (180-meter) bicycling distance from a bicycle network that connects to an employment center. To be eligible, the employment center needs to be within what distance of the project boundary?

**A 3-mile (4,800-meter) bicycling distance**

A 4-mile (6,437-meter) walking distance

A 200-yard (180-meter) bicycling distance

A 1/2-mile (800-meter) walking distance

---

*Correct answer: A 3-mile (4,800-meter) bicycling distance*

*All destinations on the bicycle network must be within a 3-mile (4,800-meter) bicycling distance of the project boundary.*

*A 4-mile (6,437-meter) bicycling distance would be too far to meet this requirement, and the distance is measured in bicycling distance, not walking distance. A 1/2-mile (800-meter) walking distance is used for LT Credit–Surrounding Density and Diverse Uses, not for LT Credit–Bicycle Facilities. A 200-yard (180-meter) bicycling distance is how far the project's functional entry needs to be from a bicycle network.*

---

**73.**

A project team is hoping to earn points in Option 2: Diverse Uses of LT Credit: Surrounding Density and Diverse Uses. How far can the surrounding diverse uses be in order to win the project points?

**Within a 1/2-mile (800-meter) walking distance from the main entrance**

Within a 1/2-mile (800-meter) radius from any functional entrance

Within a 1/4-mile (800-meter) walking distance from any functional entrance

Within a 1/4-mile (800-meter) radius from the main entrance

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*Correct answer: Within a 1/2-mile (800-meter) walking distance from the main entrance*

*The only eligible diverse uses that can be counted for Option 2: Diverse Uses of LT Credit—Surrounding Density and Diverse Uses must be within a 1/2-mile (800 meters) walking distance from the main entrance.*

*A distance of 1/4 mile is not relevant to this credit, and the distance must be measured using walking distance rather than a radius. This credit also measures distance from the main entrance of the project rather than from any functional entrance.*

---

74.

Which of the following documentation is required for both options of LT Credit– Sensitive Land Protection?

**A site map showing the project boundary, development footprint, any previous development, any sensitive areas, and any minor improvements in required buffers**

An explanation of the previous development on the site

A description of how the project team verified prime farmland and sensitive habit criteria

A mission statement addressing the team's dedication to sensitive land protection

---

*Correct answer: A site map showing the project boundary, development footprint, any previous development, any sensitive areas, and any minor improvements in required buffers*

*An explanation of the previous development on the site is required for Option 1. A description of how the project team verified prime farmland and sensitive habit criteria is required for Option 2. A mission statement addressing the team's dedication to sensitive land protection is not required for this credit.*

---

**75.**

For residential projects, how much short-term storage needs to be provided according to LT Credit–Bicycle Facilities?

**At least 2.5% of all peak visitors**

At least 0.5% of all peak visitors

At least 1% of all peak visitors

At least 2% of all peak visitors

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*Correct answer: At least 2.5% of all peak visitors*

*Commercial, institutional, and residential projects are required to provide short-term bicycle storage for at least 2.5% of all peak visitors. No more than four spaces should be provided per building.*

*The figures 0.5%, 1%, and 2% are not used in this credit and are not high enough to meet the requirements for short-term bike storage.*

---

**76.**

A project team wants to build in a LEED Neighborhood Development to earn points in the Locations and Transportation category. Which of the following should they avoid to be eligible for points?

**LEED ND Pilot Stage 1 for Neighborhood Development Pre-reviewed Plan**

LEED 2009 Stage 2 Pre-certified LEED for Neighborhood Development Plan

LEED ND Pilot Stage 3 LEED for Neighborhood Development Certified Project

LEED v4 Neighborhood Development Certified Built Project

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*Correct answer: LEED ND Pilot Stage 1 for Neighborhood Development Pre-reviewed Plan*

*Not all LEED Neighborhood Developments will earn project points in the Location and Transportation credit category. LEED ND Pilot Stage 1 for Neighborhood Development Pre-reviewed Plan, LEED 2009 Stage 1 Conditional Approval at LEED ND Plan, and LEED v4 LEED for Neighborhood Development Conditional Approval are not eligible locations for points in the LT credit category.*

*Building in locations with the LEED 2009 Stage 2 Pre-certified LEED for Neighborhood Development Plan, LEED ND Pilot Stage 3 LEED for Neighborhood Development Certified Project, or LEED v4 Neighborhood Development Certified Built Project provides opportunities to earn points in the Location and Transportation category.*

---

**77.**

Projects can receive points in Option 2: Diverse Uses of LT Credit–Surrounding Density and Diverse Uses for being within a 1/2-mile (800-meter) walking distance from the main entrance of the project to diverse uses. However, there are restrictions. Which of the following is not one of the restrictions for counting diverse uses for this credit?

**A use must be beneficial to at least 30% of all project occupants**

A use can't count as multiple types

A team can count only two uses per type

The uses counted must represent at least three of the five types

---

*Correct answer: A use must be beneficial to at least 30% of all project occupants*

*A use does not have to be beneficial to any percentage of the project building's occupants. What matters to LEED is that projects are being built on sites that encourage people to walk rather than drive. With a variety of easily accessible uses, people don't need to rely on cars or even public transit to accomplish daily tasks.*

*The restrictions that apply include:*

- *A use must be beneficial to at least 30% of all project occupants*
  - *A use can't count as multiple types*
  - *The uses counted must represent at least three of the five types*
-

78.

A commercial project, based on calculations of 2.5% of their peak visitors, has provided two short-term bicycle storage spaces. Which of the following is true?

**This project has not met the requirements**

This project has met the requirements

Commercial projects are not required to provide short-term bicycle storage spaces

Commercial projects are required to provide storage for 5% of all peak visitors, not 2.5%

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*Correct answer: This project has not met the requirements*

*No fewer than four short-term storage spaces are required. Even though this project calculated that only two short-term storage spaces are required, they need to provide at least four.*

*The figure 5% is the percentage used to calculate long-term bicycle storage for commercial projects; commercial or institutional projects are required to have long-term storage for 5% of all regular building occupants. Commercial projects are required to provide short-term bicycle storage for LT Credit–Bicycle Facilities.*

---

**79.**

A new school is being built in a densely populated area, so the project team is hoping to achieve Option 1: Surrounding Density in LT Credit–Surrounding Density and Diverse Uses. To confirm that they can achieve this credit, the project team should confirm that the surrounding density within what distance meets the requirements?

**1/4-mile radius**

1/2-mile walking distance

1/4-mile walking distance

1/2-mile radius

---

*Correct answer: 1/4-mile radius*

*To be eligible for Option 1: Density for LT Credit–Surrounding Density and Diverse Uses, the density within a 1/4-mile radius of the project boundary must meet the required value.*

*Walking distance is not used for this option of the credit. A 1/2-mile radius is not the required distance for this option of the credit.*

---

**80.**

If a project is aiming to earn two points in Option 2: Diverse Uses of LT Credit–Surrounding Density and Diverse Uses, then that project's main entrance must be within a 1/2-mile (800-meter) walking distance from how many diverse uses?

**Eight or more**

Seven or more

Six or more

Five or more

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*Correct answer: Eight or more*

*Projects whose main entrance is a 1/2-mile (800-meter) walking distance from eight or more diverse uses earn two points from Option 2: Diverse Uses of LT Credit–Surrounding Density and Diverse Uses.*

*Five to seven diverse uses would earn a project one point, not two. The threshold has to start at eight to be correct.*

---

81.

A project has been built within 100 feet of a natural lake. Which of the following is not one of the approved minor improvements?

**A 15-foot-wide impervious bike path**

Grade changes that provide public access

Removal of trees that are under 40% condition rating

The addition of a small garden shed

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*Correct answer: A 15-foot-wide impervious bike path*

*Bike and walking paths must be no more than 12 feet wide, and only 8 feet may be impervious, so this path does not count as a minor improvement.*

*Grade changes that provide public access, removal of trees that are under 40% condition rating, and the addition of a small garden shed all count as minor improvements.*

---

**82.**

A project team has decided to build within a LEED Neighborhood Development. The neighborhood was built under the LEED ND Pilot version and certified under the Stage 1 LEED for Neighborhood Development Pre-reviewed Plan. Which of the following is true?

**This project is not eligible to earn points in LT Credit–LEED for Neighborhood Development Location**

This project is eligible to earn points in LT Credit–LEED for Neighborhood Development Location

This project is not eligible to earn points from any other LT credit

This project is not eligible to earn points in LT Credit–LEED for Neighborhood Development Location and cannot earn points from any other LT credit

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*Correct answer: This project is not eligible to earn points in LT Credit–LEED for Neighborhood Development Location*

*Not all LEED ND sites are eligible for points in LT Credit–LEED for Neighborhood Development Location. The LEED ND Pilot version Stage 1 LEED for Neighborhood Development Pre-reviewed Plan is one of the ineligible versions.*

*Since the project has not earned LT Credit–LEED for Neighborhood Development Location, they may be eligible to earn points in the rest of the LT credits.*

---

**83.**

Your project team is working to achieve Option 2 of LT Credit–Sensitive Land Protection. Which of the following locations would meet the criteria for this credit?

**A site that is within 100 feet of a wetland**

A site that is defined by the US Code of Federal Regulations as prime farmland

A site that has a 3% chance of flooding in any given year

A site that is within 50 feet of a river

---

*Correct answer: A site that is within 100 feet of a wetland*

*A site that is within 100 feet of a wetland would meet the criteria for Option 2 of LT Credit–Sensitive Land Protection because the minimum distance an eligible site can be from a wetland is on the wetland or within 50 feet.*

*A site that is defined by the US Code of Federal Regulations as prime farmland, a site that has a 3% chance of flooding in any given year, and a site that is within 50 feet of a river would not meet the criteria for Option 2 of LT Credit–Sensitive Land Protection.*

---

**84.**

A project team has decided to use separate residential and nonresidential density averages for Option 1: Density of LT Credit–Surrounding Density and Diverse Uses. What is the minimum average needed for residential and nonresidential density to meet the requirements for this credit?

**Residential density must be 7 DU/acre (17.5 DU/hectare) and nonresidential density must be 0.5 FAR**

Residential density must be 0.5 DU/acre (1.25 DU/hectare) and nonresidential density must be 7 FAR

Residential density must be 22,000 DU/acre (55,000 DU/hectare) and nonresidential density must be 35,000 FAR

Residential density must be 12 DU/acre (30 DU/hectare) and nonresidential density must be 0.8 FAR

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*Correct answer: Residential density must be 7 DU/acre (17.5 DU/hectare) and nonresidential density must be 0.5 FAR*

*Projects wanting to achieve Option 1: Density of LT Credit–Surrounding Density and Diverse Uses can calculate the density of the 1/4-mile (400-meter) radius around the project boundary using combined density or by using separate residential and nonresidential densities. The minimum requirement for residential density is 7 DU/acre (17.5 DU/hectare), and the minimum nonresidential density is 0.5 FAR.*

*The next threshold for residential density, not the minimum, is 12 DU/acre. The next threshold for nonresidential density is 0.8 FAR. Projects that meet the next threshold get more points than those that meet the minimum.*

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**85.**

Before choosing a historic site to build on, what should a project confirm first?

**The site's infill status**

The site's priority development designation

The existence of any contamination

The location of any sensitive areas within the project boundary

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*Correct answer: The site's infill status*

*The first step before choosing to build in a historic district is to ensure that the site is an infill site. If the percentage of previously developed land within 1/2 mile of the project boundary is greater than or equal to 75%, then the site is an infill site.*

*Confirming the site's priority designation, the location of any contamination, and the existence of any sensitive areas are not steps for the historic district option of LT Credit–High Priority Site.*

---

**86.**

There is a streetcar stop near the site where a team is building their project. To earn points in LT Credit–Access to Quality Transit, how far from the building site can that streetcar stop be?

**Within a 1/4-mile (400-meter) walking distance**

Within a 1/3-mile (530-meter) walking distance

Within a 1-mile (1,600-meter) walking distance

Within a 1/2-mile (800-meter) walking distance

---

*Correct answer: Within a 1/4-mile (400-meter) walking distance*

*To earn points in LT Credit–Access to Quality Transit, projects must be within a 1/4-mile (400-meter) walking distance of an existing or planned bus, streetcar, or rideshare stop or within a 1/2-mile (800-meter) walking distance of an existing or planned bus rapid transit stop, light or heavy rail station, commuter rail station, or a commuter ferry terminal.*

*Streetcars need to be within a 1/4-mile (400-meter) walking distance; heavier modes of transportation can be within a 1/2-mile (800-meter) walking distance. A 1-mile walking distance would be too far to be counted, and a 1/3-mile walking distance is not used in this credit.*

---

**87.**

For projects that are aiming to achieve LT Credit–Bicycle Facilities, a functional entry or bicycle storage must be within what distance from a bicycle network?

**A 200-yard (180-meter) walking or bicycling distance**

A 1/2-mile (800-meter) walking or bicycling distance

A 300-yard (274-meter) walking or bicycling distance

A 1/4-mile (400-meter) walking or bicycling distance

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*Correct answer: A 200-yard (180-meter) walking or bicycling distance*

*LT Credit–Bicycle Facilities requires projects to have at least one functional entrance or bicycle storage located within 200 yards (180 meter) from a bicycle network by walking or biking. This network must also connect with 10 or more diverse uses, a school or employment center, or a bus rapid transit stop, as well as with a light or heavy rail station, a commuter rail station, or a ferry terminal.*

*A 1/2-mile (800-meter) and 1/4-mile (400-meter) walking distance apply in LT Credit–Access to Quality Transit, not in LT Credit–Bicycle Facilities. A distance of 300 yards (274 meters) is too far to qualify for LT Credit–Bicycle Facilities.*

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88.

Which of the following determines the number of points that projects can achieve by building in a LEED Neighborhood Development?

**The LEED Neighborhood Development's certification level**

The size of the LEED Neighborhood Development

The level of certification the project receives when it is complete

The size of the LEED project

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*Correct answer: The LEED Neighborhood Development's certification level*

*The number of points a project can achieve by being located in a LEED Neighborhood Development depends on the level of certification of the LEED Neighborhood Development and the type of BD+C project (e.g., while other BD+C projects can earn up to 10 points by being located in a certified silver LEED Neighborhood Development, health care can earn only up to six points).*

*The number of points a project can achieve by being located in a LEED Neighborhood Development does not depend on the size of the project, the size of the LEED Neighborhood Development, or the level of certification the project receives when it is complete.*

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**89.**

A bus stop that is within 1/4 mile (400 meters) of one of the project's functional entrances provides 64 weekday trips and 45 weekend trips. Which of the following is true?

**The bus stop does not provide enough weekday trips to qualify for points**

The bus stop is not close enough to qualify for points

This project has earned one point in LT Credit–Access to Quality Transit

This project has earned two points in LT Credit–Access to Quality Transit

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*Correct answer: The bus does not provide enough weekday trips to qualify*

*The minimum number of weekday trips for buses, streetcars, rails, or ferries is 72, and the minimum number of weekend trips for these public transportation options is 40.*

*This project has not earned one or two points in LT Credit–Access to Quality Transit, not because the bus stop is not close enough but because the bus stop does not provide enough weekday trips.*

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**90.**

To achieve Option 1: Density in LT Credit–Surrounding Density and Diverse Uses, what does the minimum combined density need to be?

**22,000 SF per buildable land (5,505 m<sup>2</sup>/hectare)**

7 DU/acre (17.5 DU/hectare)

0.5 FAR

8035 mixed-use nonresidential land

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*Correct answer: 22,000 SF per buildable land (5,505 m<sup>2</sup>/hectare)*

*22,000 SF per buildable land (5,505 m<sup>2</sup>/hectare) is the minimum average combined density that projects need to meet to earn Option 1: Density in LT Credit–Surrounding Density and Diverse Uses.*

*The minimum average residential density is 7 DU/acre (17.5 DU/hectare). The minimum average nonresidential density is 0.5 FAR. However, 8035 mixed-use nonresidential land is a fictitious number.*

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91.

A project has been built near an eligible LEED Neighborhood Development. Which of the following is true?

**This project has not earned LT Credit–LEED for Neighborhood Development Location**

This project has earned LT Credit–LEED for Neighborhood Development Location

The points this project receives will depend on how close it is to the LEED ND project boundary

For documentation, the project must submit a map showing how far the LEED ND is from a functional entry

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*Correct answer: This project has not earned LT Credit–LEED for Neighborhood Development Location*

*To earn points in LT Credit–LEED for Neighborhood Development Location, the project must be within the LEED ND project boundary, not just near the LEED Neighborhood Development. This project has not earned the credit.*

*The project does not need to submit a map showing how far the LEED ND is from a functional entry. The points this project receives will not depend on how close it is to the LEED ND project boundary.*

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**92.**

Where does the project need to be located to be eligible for LT Credit–LEED for Neighborhood Development Location?

**Within the LEED ND project boundary**

Within a 1/2-mile radius of the LEED ND project boundary

Within a 1/4-mile walking distance of the LEED ND project boundary

Within 200 yards of the LEED ND project boundary

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*Correct answer: Within the LEED ND project boundary*

*Projects must be fully within the LEED ND project boundary. Those that are close to the boundary, even as close as within 200 yards, are not eligible for this credit.*

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**93.**

A project team has decided to build on a site within a LEED Neighborhood Development that was certified under the LEED 2009 Stage 2 Pre-certified LEED for Neighborhood Development Plan. Which of the following is true about this project?

**This project has achieved points in LT Credit–LEED for Neighborhood Development Location but cannot achieve any more points from the other credits in this category**

This location is ineligible for points in LT Credit–LEED for Neighborhood Development Location, but the project can achieve points from the other credits in this category

This project has achieved points in LT Credit–LEED for Neighborhood Development Location and can also achieve more points from the other credits in this category

This project has not achieved points in LT Credit–LEED for Neighborhood Development Location and cannot achieve any more points from the other credits in this category

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*Correct answer: This project has achieved points in LT Credit–LEED for Neighborhood Development Location but cannot achieve any more points from the other credits*

*This is an eligible LEED ND project, but project teams must be aware that by achieving LT Credit–LEED for Neighborhood Development Location, they become ineligible for points in any other credit in the Location and Transportation category.*

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**94.**

A team has decided to build on a previously developed site. Which of the following credits have they earned due to this decision?

**LT Credit–Sensitive Land Protection**

LT Credit–High Priority Site

SS Credit–Site Development: Protect or Restore Habitat

MR Credit–Building Life-Cycle Impact Reduction

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*Correct answer: LT Credit–Sensitive Land Protection*

*Building on a previously developed site is Option 1 of LT Credit–Sensitive Land Protection. This strategy is to reward projects that don't build on greenfields.*

*This strategy is not an option in LT Credit–High Priority Site, SS Credit–Site Development: Protect or Restore Habitat, or MR Credit–Building Life-Cycle Impact Reduction.*

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**95.**

What is the minimum number of daily trips a ferry service that is within 1/2 mile (800 meters) from a functional entrance must provide to qualify for points in LT Credit–Access to Quality Transit?

**24 weekday trips and six weekend trips**

40 weekday trips and eight weekend trips

20 weekday trips and four weekend trips

72 weekday trips and 40 weekend trips

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*Correct answer: 24 weekday trips and six weekend trips*

*Commuter rail and ferry services must offer a minimum of 24 weekday trips and six weekend trips to qualify for points. Transit services that meet these minimums will earn projects one point.*

*Commuter rail and ferry services that provide 40 weekday and eight weekend trips meet the next threshold, not the minimum, and would give projects two points. Those that provide 20 weekday trips and four weekend trips would not have enough trips to qualify for points. Commuter rail and ferry services offering 72 weekday trips and 40 weekend trips would provide projects with three points; however, this is not the minimum number of trips.*

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**96.**

A project team is hoping to earn LT Credit–Reduced Parking Footprint, but they haven't achieved either LT Credit–Surrounding Density and Diverse Uses or LT Credit–Access to Quality Transit. Which of the following is true?

**The team can earn LT Credit–Reduced Parking Footprint if they reduce their parking capacity by 20% from the baseline**

The team cannot earn LT Credit–Reduced Parking Footprint

The project must earn LT Credit–Bicycle Facilities to be eligible for LT Credit–Reduced Parking Footprint

The team can earn LT Credit–Reduced Parking Footprint if they reduce their parking capacity by 10% from the baseline

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*Correct answer: The team can earn LT Credit–Reduced Parking Footprint if they reduce their parking capacity by 20% from the baseline*

*Projects that have not achieved LT Credit–Surrounding Density and Diverse Uses or LT Credit–Access to Quality Transit can still earn LT Credit–Reduced Parking Footprint by reducing their parking capacity by 20% from the baseline.*

*The team can earn LT Credit–Reduced Parking Footprint and aren't required to achieve LT Credit–Bicycle Facilities first. A reduction of 10% is too low to earn the project the credit.*

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**97.**

A hotel project with a bicycle network within a 200-yard (180-meter) walking distance. The bicycle network connects to a school. Which of the following is true?

**This project has not earned LT Credit–Bicycle Facilities**

This project has earned LT Credit–Bicycle Facilities

This project must also be connected to at least one employment center to use this option

The school must be within a 5-mile (8,046-meter) bicycling distance from the project boundary

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*Correct answer: This project has not earned LT Credit–Bicycle Facilities*

*Only projects that are 50% residential can use a school or an employment center as the location connecting to a qualifying bicycle network. A hotel is a hospitality project, not a residential project.*

*This project has not earned LT Credit–Bicycle Facilities according to the information in the scenario given, but if the bicycle network is connected to 10 or more diverse uses or qualifying transit stops, then it could earn the credit. Projects that are 50% residential can earn the credit if their qualifying bicycle network connects to a school or an employment center; it does not need to connect to both. A 5-mile (8,046-meter) bicycling distance from the project boundary is too far to qualify. Locations must be within a 3-mile (4,800-meter) bicycling distance.*

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98.

What does LEED require in relation to the local code requirements for parking capacity in LT Credit–Reduced Parking Footprint?

**Do not exceed the minimum local code requirements**

Exceed the local code requirements by at least 5%

LEED projects are exempt from following local code requirements

LEED parking requirements should be followed only when they do not conflict with local code requirements

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*Correct answer: Do not exceed the minimum local code requirements*

*LT Credit–Reduced Parking Footprint requires projects to comply with the minimum local code requirements. This is to keep parking capacity at the very minimum.*

*LEED projects are not exempt from local code requirements. Local codes don't necessarily have precedence over LEED requirements; when LEED requirements and local codes overlap, project teams should follow whichever standards are more stringent.*

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**99.**

Which of the following does a project not need a qualifying bicycle network to be within a 200-yard (180-meter) walking or bicycling distance from?

**A nature trail**

10 or more diverse uses

A school or employment center

A bus rapid transit stop, light or heavy rail station, commuter rail station, or ferry terminal

*Correct answer: A nature trail*

*LT Credit–Bicycle Facilities requires projects to have a functional entrance or bicycle storage within a 200-yard (180-meter) walking or bicycling distance from a bicycle network that connects to one of three options. A nature trail is not one of the options that, by itself, would grant a project points in LT Credit–Bicycle Facilities.*

*The following are the three options that a bicycle network must connect to:*

- 1. 10 or more diverse uses*
  - 2. A school or employment center (if the project is 50% or more residential)*
  - 3. A bus rapid transit stop, light or heavy rail station, commuter rail station, or ferry terminal*
-

**100.**

For one point in Option 2: Diverse Uses of LT Credit—Surrounding Density and Diverse Uses, a project's main entrance must be within a 1/2-mile walking distance from how many diverse uses?

**Four to seven diverse uses**

Eight to 10 diverse uses

Three to six diverse uses

Six to eight diverse uses

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*Correct answer: Four to seven diverse uses*

*For the second option of LT Credit—Surrounding Density and Diverse Uses, the project's main entrance must be within a 1/2-mile walking distance of four to seven diverse uses to earn one point and within a 1/2-mile walking distance of eight or more diverse uses for two points.*

*Eight to 10 diverse uses would give the project two points, although there is no cap on the number of diverse uses a project team can be near; any number above seven will earn a project team two points. Three diverse uses won't earn a project team any points. Six or seven diverse uses would give a project one point, but eight diverse uses would give a project two points.*

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