



Intent

Pilot Credit Closed

This pilot credit is closed to new registrations

Implement an integrative process that supports high performance, cost-effective project outcomes through analyses of key systems interrelationships before decisions are made on building form and throughout the design process.

Requirements

Starting in pre-design, and continuing throughout the design phases, identify and execute synergistic opportunities for high performance outcomes across different disciplines and building systems. Use the analyses described below to inform the project's Owner's Project Requirements (OPR), Basis of Design (BOD), Design Documents, and Construction Documents. Consider opportunities resulting from analyses, at a minimum, in the following two areas:

Site selection

Prior to site selection, perform an analysis of project goals to aid in identifying and selecting a building site for the project's tenant improvement that will provide the most opportunities and fewest barriers for the Interior Design and Construction project. Assess at least two potential site location/base building options that take into consideration, at a minimum, each of the following:

- Building Site Attributes: Assess base building's location and site design characteristics
- Transportation Impacts: Assess the tenant occupants' transportation needs for commuting to and from the site, including criteria for convenient access to alternative transportation most beneficial to the occupants' destinations
- Building Features: Assess base building's envelope, mechanical/electrical systems that will affect tenant space (such as controls, HVAC, plumbing fixtures, renewable energy supply, etc.), adaptability to future needs, and resilience in the event of disaster or infrastructure failure;/li>
- Occupant Well-Being Capability: Assess base building's capability for providing daylight and views, indoor air quality, and other applicable Indoor Environmental Quality characteristics.

AND

Commit to the establishment and use of ongoing feedback mechanisms that provide information about tenant space performance and occupant satisfaction.

AND

Energy-related systems

Discovery: Perform a preliminary energy analysis before the completion of Schematic Design that explores how to reduce energy loads for the interior design project and accomplish other related sustainability goals by questioning default assumptions and testing options for applicable parameters. Assess at least two potential options associated with each of the following in terms of project and human performance:

- Programmatic and operational parameters: Multi-functioning spaces, operating schedules, space allotment per person, teleworking, reducing building area, on-going operations and maintenance issues.
- Basic Envelope Attributes: Insulation values, window-to-wall ratios, glazing characteristics, shading, and window operability.
- Lighting levels: Interior surface reflectance values and lighting levels in occupied spaces.
- Thermal comfort ranges.
- Plug and process load needs: Reducing plug and process loads through programmatic solutions such as equipment and purchasing policies, or layout options.

AND

Comply with the requirements of one of the options below.

Option 1. Water-related systems

Discovery: Perform a preliminary water budget analysis before the completion of Schematic Design that explores how to reduce potable water loads for the interior design project and accomplish other related sustainability goals by assessing and quantifying the project's potential non-potable water supply sources and water demand volumes. Assess applicable estimates for the following:

- Fixture and Fitting Water Demand: Assess flow and flush fixture performance case demand volumes, calculated in accordance with WEp1 Water Use Reduction.
- Process Water Demand: Assess kitchen, laundry, cooling tower, and other equipment demand volumes, as applicable.
- Supply Sources: Assess all potential non-potable water supply source volumes, such as on-site rainwater and grey water, municipally supplied nonpotable water, and HVAC equipment condensate.

Option 2. Cost analysis (related to all above systems)

Discovery: Perform integrative cost-bundling analysis¹ that estimates the cost of

implementing integrative strategies. Compare bundled design case first costs (associated with primary integrative strategies) with the project's baseline first cost and operating costs budgets for the same components. This cost-bundling analysis must include, at a minimum, the following:

- Establish the project's baseline construction budget using line item first cost estimates
- Establish the project's baseline operations budget using line item cost estimates
- Create a cost-bundling spreadsheet identifying primary bundles of interrelated systems
- Identify and quantify potential design case first cost impacts (both reductions and increases) associated with each affected component of each primary bundle
- Identify potential design case operational costs associated with each primary bundle
- Identify any potential design case cost savings/benefits related to productivity issues associated with each primary bundle, where possible

General Pilot Documentation Requirements

REGISTER FOR THE PILOT CREDIT

- Participate in the [LEEDuser pilot credit forum](#)
- Complete the feedback survey:

CREDITS 1-14

CREDITS 15-27

CREDITS 28-42

CREDITS 43-56

CREDITS 57-67

CREDITS 68-82

CREDITS 83-103

Credit specific

Commercial Interiors, Retail - CI

Site Selection Implementation: Document how the above analysis informed selection of a building site for the project's tenant improvement and informed the project's Owner's Project Requirements and Basis of Design. Demonstrate how the analysis informed the site selection for the interior design project, relative to, but not limited to, the following:

- Suitability of the base building for meeting project goals relative to the building's site attributes
- Suitability of the base building site location for meeting daily occupant commuting needs
- Suitability of the base building's mechanical/electrical systems for meeting project goals
- Capability of the tenant space for meeting the project's goals related to Indoor Environmental Quality and occupant well-being
- Other systems

Provide documentation of methods planned to gather feedback on tenant occupant satisfaction.

Energy Systems Implementation: Document how the above analysis informed interior design decisions in the project's Owner's Project Requirements and Basis of Design. Demonstrate how the analysis informed the interior design of the project, as applicable:

- Building envelope and façade conditions
- Elimination and/or significant down-sizing of building systems such as those related to HVAC, lighting, controls, exterior materials, interior finishes, and functional program elements.
- Methods planned to gather feedback on energy performance, occupant performance, and efficiency of energy-related systems during operations.
- Other systems

Water Systems Implementation: Document how the above analysis informed interior design decisions in the project's Owner's Project Requirements and Basis of Design. Demonstrate how at least one on-site non-potable water supply source was utilized in cascading ways to reduce the burden on municipal supply and/or wastewater treatment systems by contributing supply volumes to the water demand components listed above. Demonstrate how the analysis informed the interior design and systems affected by the project, as applicable:

- Plumbing systems
- Sewage conveyance and/or on-site treatment systems
- Process water systems
- Methods planned to gather feedback on water performance and efficiency of water-related systems during operations
- Other systems

Cost Analysis Implementation: Document how the above analysis was utilized to reconcile the integrative design case construction and operations budgets (on a whole-tenant-space basis, instead of comparing solely individual line item costs) with the baseline construction and operations budgets. Describe how first cost savings associated with any applicable systems offset first cost increases associated with other related systems; include a description of any potential operating costs savings and/or productivity increases identified by the analyses. 1 This requires a holistic cost analysis that first identifies all components affected by each major integrative strategy, then groups the costs associated with all such affected components into integrative combinations, or "bundles", instead of estimating solely the individual line item cost for each component or system individually.

Additional Questions

- How were the requirements of this credit different from the process/planning you've completed on previous projects?
- Which typical project team members were critical to this process? Did the project team engage members they otherwise would not have?
- How did work completed for the requirements change what the project team would have otherwise done?
- What parts of the process of meeting the requirements (if any) are similar to what the project team would have otherwise done?
- What resources, if any, did the project team use to understand an integrative process?
- What was the most challenging aspect of meeting the credit requirements?