POST OCCUPANCY EVALUATION METHODOLOGY AND GUIDELINE

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Government of Alberta - Infrastructure

Contents

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1. Introduction

The Post Occupancy Evaluation Methodology is the process for conducting Post Occupancy Evaluations (POE) on occupied facilities. The following methodology can be applied to all Government of Alberta (GOA) facilities, other than health care facilities, undergoing a Post Occupancy Evaluation.

This methodology describes the POE process and provides guidance on conducting a general POE. Each project is unique, and the information provided in the Scope of Work for each individual project will be revised as necessary to address the actual project requirements.

Alberta Infrastructure has committed to conduct Post Occupancy Evaluations on selected projects as part of our responsibility as a knowledgeable owner. A POE is a way of determining if a facility has met its intended functional and physical design by measuring the results of the POE against the original intent of the design. Assessing functional performance is based on evaluating the occupants' working environment and compatibility of the facility to their needs. It is also a method of evaluation that will provide Infrastructure with lessons learned, which, if captured and shared, can influence and change design criteria for future buildings.

A consultant will be retained to perform the POE. A Scope of Work will be provided to outline the services required. The consultant is expected to follow the methodology, using the process identified below, to collect and analyze the data and then compile a report outlining the lessons learned relating to the design and functionality of the facility.

The Post Occupancy Evaluation process will not review operation or procedures, nor is it intended to confirm as-built conditions. The POE seeks to identify lessons learned that will improve future facility designs by:

- Eliminating the repetition of identified problematic design elements;
- Promoting the repetition of successful design elements;
- Assist in the verification of space allocation and space usage;
- Identifying issues that can be resolved at lower expense during design vs. during operation;
- Enhancing functionality for users.

2. Project Selection

POEs may be conducted on a completely new building, a renovated building, or an addition to an existing building. For facilities with large numbers of repetitive components, representative rooms or wings could be selected for focused POE study instead of the entire facility.

1. Timeline

The normal timeline for conducting POEs is typically after the Construction Warranty expires and 12-18 months after the facility has begun full operations. Some exceptions may be made to extend this period to up to 24 months.

This timeline allows for users to adapt operations to the new facility and make minor adjustments to the building and equipment to improve functionality. A full year of operation also allows items impacted by weather, such as site and mechanical elements, to operate through a full year of conditions. POEs conducted more than two years after the beginning of operations risks the compilation of less reliable data due to several factors including: initial users leaving the facility; loss of detailed memory of users who participated in design decisions or initial use; and changes in equipment and technology that differ from what the facility was originally designed to accommodate.

2. Scope

Selected projects should be of a scope that is likely to be repeated in subsequent years. Timelines for future projects within the typology should be such that lessons learned are applicable and not obsolete due to significant changes in guidelines, technology, and operations.

It is recommended that a minimum of two facilities of each typology are studied to validate lessons learned and identify differences that may be the result of outside influences such as operational processes, leadership styles, and regional variations. Updating of standards prior to multiple studies of each facility type may result in standards applicable to the facilities studied and not the facility type in general.

Projects may also be chosen to evaluate new initiatives or technologies.

3. Project Construction Budget

Projects to be considered for a POE must have a budget of at least $4 million.

4. Technical Design Requirements

Projects to be considered for a POE must be contractually obligated to follow the Technical Design Requirements for Alberta Infrastructure Facilities (TDR). Preference is given to those that followed the Technical Services Design Review Process.

3. Project Team

1. Government of Alberta Team

- Post Occupancy Evaluation Coordinator

2. Consultant Team

The number of team members (and other team requirements) will be identified in the Scope of Work. A consultant team may consist of:

- Architect (Required)
- Interior Designer (Optional)
- Technologist (Optional)

4. POE Process

1. Phase 1 – Document Collection and Review

A review of the facility as-built drawings, specifications, and other documentation by the consultant is a necessary step in understanding the facility. The POE Coordinator will make available all documents to the consultant for review prior to the data collection phase. These documents may include:

- Identification of key project members involved in the planning and design of the facility and the Project Manager(s) overseeing the project through construction;
- Summarization of initial project intent and original scope including functional program documents and architectural space programming documents;
- Summary of major change orders (especially those that impact original project intent/scope);
- As-built drawings;
- Specifications;
- Initial Budget, Final Project Cost.

2. Phase 2 – Data Collection

Data collection includes both qualitative and quantitative methods. Data collected should focus on areas identified through the POE process listed in the introduction. Employment of the following data collection methods may be done concurrently, and include:

- Observations:
  - Physical
  - Functional
- Stakeholder Consultation:
  - Interviews and Focus Groups
  - Surveys

An initial tour of the facility with a facility representative is used to introduce the POE team to the facility and introduce the team to key staff on site. Identification of any changes to the facility since construction may be noted.

a. Observations – Physical

This observation includes an on-site tour of the facility, done in conjunction with Facility Management, and is conducted to evaluate facility, site, mechanical and electrical systems, and structure.

Finishing materials should also be assessed in terms of durability, maintainability, and longevity.

b. Observations – Functional

This observation will provide information on how the building is used and how effectively it supports the services it provides. Assessment of functional performance is based on evaluation of the occupants' working environment and compatibility of the facility to their needs. Data collected should include, but is not limited to: circulation; environmental factors; zoning; functional relationships; ability of spaces to meet the needs of users to perform prescribed work, etc.

The minimum length of observation for each evaluation will be established as part of each project's Scope of Work.

c. Stakeholder Consultation – Interviews and Focus Groups

Interviews and focus groups are an effective method for soliciting information about the facility from the people who occupy it (the users).

i. Prepare interview questions based on the topics related to areas the POE aims to improve and survey questions.
ii. Facilitation of small focus group sessions may be organized as deemed suitable.
iii. Conduct interviews with select individuals as appropriate, including the following people (at minimum):
    - Ministry or School Board representatives involved in the planning of the facility need to be interviewed to gain an understanding of the programming needs of the facility, the number of users the facility is intended to accommodate, and the design decisions that were made to accomplish this task.
    - Facility Management must be interviewed to acquire an understanding of the workings of the mechanical and electrical systems, durability of materials and finishes, and the overall operations of the facility.
    - Facility administrators involved in the daily operation of the facility. This may be Principals, Vice Principals, Directors, Executive Directors or others.
    - A sample number of the daily users of the facility are interviewed. The users give insight into what aspects of the facility meet their needs such as sufficient power and data outlets, and comfort levels in terms of heating, cooling, etc. These users may include both staff and other users of the facility.

d. Stakeholder Consultation- Surveys

To compliment interview feedback, surveys tailored to each specific audience are to be deployed. Survey information measures overall user satisfaction with the facility and identifies areas that need improvement. It allows the opportunity for all occupants to provide their input and capture opinions from those who may not have participated in the interviews.

i. The survey results must be quantifiable, and the survey method must be valid and reliable, consistent with GOA Freedom of Information and Privacy Act, Contract Manager Guidelines. Obtain sign-off on survey questions from Alberta Infrastructure prior to release.

ii. Surveys may be deployed either online, via hard copy, or in combination of these methods. Primary consideration shall be the method by which the highest number of responses is likely to be received. This determination should be done in consultation with the POE Coordinator and facility onsite administrators.

iii. Separate, user specific, surveys will need to be created for each of the following:

- Facility Operators and Maintenance;
- Facility Staff;
- Students (Grades 2-4, 5-9, 10-12), as applicable.

3. Phase 3- Analysis

Analysis of data will determine lessons learned and recommendations to be included in the report. Before forming conclusions, developing final lessons learned, and providing recommendations, draft findings should be shared with the Post Occupancy Evaluation Coordinator.

a. Lessons Learned

i. Lessons learned are developed with the intent to inform the design of future facilities of similar typologies.

ii. Identify lessons learned to be considered for planning, programming, and design of future projects of a similar type. What can be learned from the above items for application to the design of future projects? Where applicable, recommendations can be generalized for inclusion in lessons learned.

iii. **Lessons learned included in the reports shall have been validated by a minimum of two of the following three data collection methods – surveys, observations and interviews/focus groups.**

b. Recommendations

Recommendations are specific to the facility studied and are intended to correct deficiencies related to the above. Consider safety, standards, asset preservation, and program enhancements. Classify as Immediate, Short, Medium, and Long Term Planning Recommendations as described below:

i. Immediate Recommendations:

These measures will address safety and code concerns. Prioritize safety concerns according to risk and highlight those requiring immediate attention.

ii. Short Term Recommendations:

These measures will address minor physical and functional items that can be corrected within a short time frame with minimal or no cost implications and that address the operational efficiency and comfort of the occupants. Short term measures should be performed as quickly as is practical.

iii. Medium Term Recommendations:

These are measures that will likely need budgetary considerations, for example, asset preservation or program enhancement. They will not normally substantially alter the existing facility or site and can still be incorporated. Items typically relate to the facility being evaluated but may also be considered for future facility designs.

iv. Long Term Planning Recommendations:

These are items requiring substantial alterations to the existing facility or site at substantial anticipated cost. No time frame. These measures have the greatest potential to improve future projects in a cost-effective and functional way.