

Benchmarking Projects Summary

The Construction Owners Association of Alberta (COAA) established a benchmarking database of industrial construction projects that has been in operation since 2006, allowing COAA members to assess the performance of their projects against projects in their industry. The benchmarking database is leveraged by the COAA Performance Assessment System (COAA PAS). COAA members participating in the benchmarking program input project cost, schedule and safety data and engineering and construction information into the database at two specific times in the project life cycle, namely sanction (budget) and completion (actual). The PAS system utilizes the project data to calculate metrics that can be further analyzed to assess project performance and engineering and construction productivity.

To date, the data for Alberta projects has been analyzed twice, for 2006-2009 (Alberta Report I) versus 2010-2014 (Alberta Report II). The reports compare project performance and productivity numbers for different types of Alberta projects (e.g. Oil Sands SAGD and Pipeline), for projects in the two time periods, and also for major projects located in the United States.

To provide local support capability for Benchmarking Phase II, COAA worked with professors and students the Schulich School of Engineering (Civil Engineering) at the University of Calgary. The UofC team supports COAA members participating in the Benchmarking project, including database training, assisting with gathering project data and analyzing the benchmarking information. As of March 2014, the UofC has trained over 200 Benchmarking Associates (professionals from participating COAA members). The UofC team also conducts research into other benchmarking techniques might be incorporated into the PAS to enhance its capabilities.

The Benchmarking phase III project kicked off in 2016, with the goal of increasing the database from the current 60-70 completed projects to over 100. This will greatly increase the utility of the database while protecting the confidentiality of individual projects.

In addition to collecting detailed project metrics, phase III will be introducing the new “10-10 Benchmarking” methodology. Developed by the Construction Industry Institute, this approach facilitates qualitative assessment by the project team of 10 project management activities, which are correlated to 10 leading indicators of project performance. Development of this simplified, forward-looking, real-time project management tool builds on the foundation of the detailed COAA mega-project database, though which Alberta-specific correlations can be developed between leading indicators and lagging KPIs of completed projects.

Continuing benchmarking activity, particularly in partnership with the Construction Industry Institute, is also the strategic foundation which underpins development of the high-level productivity metric, the Alberta productivity Index, which will measure (i.e. drive) sector-wide improvement in capital efficiency.

BEST PRACTICES DOCUMENTS

The main supporting documents for the Benchmarking Project Best Practice are:

- **Alberta Report I COAA Major Projects Benchmarking System**
- **Alberta Report II COAA Major Projects Performance Assessment System**
- **Alberta Report III COAA Major Projects Performance Assessment System**
- **CII Benchmarking Owner Questionnaire**
- **CII Benchmarking Contractor Questionnaire**