

CONSÓRCIO CONSTRUTOR RIO-BARRA



Consórcio Construtor Rio-Barra (CCRB) is a Consortium comprised of five construction companies whose objective is the execution of the expansion project associated with the Rio de Janeiro subway system. The Group is comprised of the following construction companies: Queiroz Galvão, Oderbretch, Cowan, Carioca and

"The partnership with Renoir has provided conditions for to think the construction project in a different and more effective way"

> Lucio Silvestre Chruczeski **Contract Director**

ANALYSIS

Renoir was brought in to support the management team in meeting its project schedule whilst containing/reducing operational costs to protect their margins. As a result of a three week analysis, the scope was defined as a 'wall-to-wall' intervention which included the following work streams: Production; Maintenance; Supply Chain Management; Planning; Engineering; Quality; and Human Resources. The implementation and execution of the program was conducted over a 38 week period.

With the objective of improving its internal processes and increasing its productivity CCRB engaged Renoir Consulting to positively impact the following work streams:

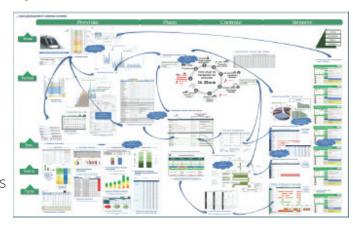
- Increase the productivity of its core resource Manpower and Equipment
- Improve contract management efficiency and effectiveness
- Reduce indirect costs across all areas of the business.
- Improve the interface and communication of support areas decreasing lost time.

PROJECT APPROACH

Renoir's project approach encouraged the active participation and collaboration of all parties in the pursuit of new opportunities. This ensured the development of the optimum solutions and their subsequent implementation.

Management Control System (MCS) And Elements

Each individual element of the MCS was designed and developed in direct collaboration with the client's staff using diagnostic and brainstorming techniques. Critiques of the existing systems and processes were converted into



opportunities and aligned with the business needs and key drivers. As a result, the tools and routines that were installed guaranteed that

Key Results

Manpower & Equipment productivity improvement: 13%

> Supply chain backlog reduction of 33%

Concrete cycle time reduction: 17%

ROI during project: 1.4:1

ROI annualized: 4.1:1

World Leaders in Sustainable Change



"Now we have what it takes to efficiently manage our construction project: adherence, reliability, productivity and detail of deviations. It's the reality of any manager's ambition!".

Paulo Messa Martins Operations Manager adequate control was gained over its processes. In order to improve the decision making process, appropriate KPI's and data management tools where developed and installed to provide the correct information, at the correct time, to the correct person.

KEY DELIVERABLES

During the course of the project the following deliverables were achieved:

- Implementation of an MCS with appropriate key performance indicators
- Well defined roles and responsibilities for all operational functions and support services
- Management training and rollout of all developed systems, processes and practices
- Transfer of knowledge, toolbox and systems with desired behavioral changes across the operational teams

The project's key initiatives were qualified and quantified in collaboration with the defined management action teams (MATs). This ensured that the project's key objectives were clearly understood, enabling a sense of ownership within the project team.

The CCRB & Renoir relationship, in line with internal initiatives, delivered the following benefits:

Productivity (CR/CO)

Manpower + Equipment - 13% Improvement - From 0,994 to 0,868

Support Areas:

Supply chain: Backlog > 20 days - Reduction of 33% - From 1115 to 751 items

Lead-time - Reduction of 30% - From 28 to 19 days

HR: Backlog > 15 days - Reduction of 92% - From 64 to 5 processes

Lead-time - Reduction of 57% - From 30 to 13 days

Industrial:

Cycle time reduction-Concrete - Reduction of 17% - From 230 Min to 190 Min Number of truck mixers - Reduction of 21 % - From 28 to 22 truck mixers.

Support Areas/Indirect Costs:

Indirect Labor and General Expenses: Reduction of 19%

Return on investment:

ROI During Project: 1.5:1.0 ROI Annualized: 4.4:1.0

THE RENOIR GROUP

Renoir Consulting is a world leader in sustainable, implemented change. Founded in 1994, Renoir has offices located in North and South America, UK, Europe, Turkey, Middle East, Southern Africa, India, Pakistan, China, South East Asia and Australasia. With over 350 fully employed and highly trained consultants, their work across a wide range of industry sectors gives them a broader perspective of the issues facing your business, allowing them to be sensitive to your unique challenges, culture and specific business issues. This cross-pollination ensures truly effective, rapid and sustainable solutions.

Visit Renoir at www.renoirgroup.com for more information and a complete list of regional contacts or send us an e-mail at: renoir.office@renoirgroup.com