

# The DIY Guide to MANAGING A CIVIL PROJECT



**Plan effectively, coordinate your  
contractors, mitigate (and eliminate)  
risk, and learn about the tools  
for civil construction success**



SOLUTION FOR CONSTRUCTION

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## Introduction

A civil construction project involves the construction of infrastructure or significant alteration in the environment. It is reducing the environmental impact of construction by providing details for a good Construction Environmental Management Plan (CEMP) to reduce the environmental impact. Civil construction deals with the design, building, and maintaining large physical structures that include bridges, roads, buildings, and even dams. In most cases, you would need to hire a civil construction contractor to oversee the project from the beginning till the end. Each and every phase of the project is pre-calculated and laid out according to a strict schedule by the contractor.



Considering the costs of such magnitude is the most important. It is also important to know and understand the overall costs is what will help you manage and plan out your progress according to the funds available. This is very necessary because that is the primary thing to know as overspending can end up cutting the project short and incomplete. A civil construction contractor in charge of a particular project is responsible for planning, coordinating, budgeting and supervising projects from the onset to the end of the project. As the contractor in charge, the contractor has to put together the budget and negotiate estimated cost and as well arrange the construction program.

Civil construction contractors are expected to understand and assimilate every project status that they engage into, especially multiple projects. They are also expected to take cognizant of the urgency of the project and the delivery time. Project Managers should be conscious of deadline having in mind the overall budget.

However, there are two things that clients are interested in - 'when and how'. When stands for when their job will be ready, and how means how much will the project cost them. If the contractor can keep to time and budget constraint, the client will keep you at high esteem.

The civil construction contractor is expected to manage and manipulate these vital points at any given project:

- The importance and priority of the project
- The overall tasks. (High and low Payoff Activities)
- Activities that can be outsourced.
- The final deadline

Civil construction contractors are specialized contractors who deal with the construction of physical and naturally built environment. They work on Civil Construction Projects such as roads, bridges, earthworks, railways, and trams with the above-mentioned qualities.



Human error is bound to occur and when such happens, a Civil construction contractor needs to accept the errors, their responsibility is to make sure that the error does not jeopardize the project when such occurs. We make such corrections by either detecting the causes or reducing errors and control the errors. Sometimes shortcuts cause such errors.

Project management is beyond tendering quotations, estimating and accreditation. Project Management is an exercise of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time as long as good quality services are involved.

The primary challenge of civil construction contractor is to achieve all of the project goals within the given constraints - as the art of managing and structured methodology. The project is expected to create something unique whether it is a product, service or result and must be progressively elaborated.

These contractors need to effectively manage the paperwork at the project site, right from tendering for a construction project to handover which involves taking care of important project aspects like tender writing and submission, contract and design management, overseeing site, OH&S, testing and commissioning through to document closeout. In addition to that, there is the 'numbers stuff' to be taken care of which include NCRs and variation, forecasting, cost tracking, KPIs, and procurement.

Civil construction contractor when entered into a contract with a construction company require specific services to be fulfilled, he needs to make sure that those services are specified in the agreement. It is as a matter of necessity that payment terms should also be discussed and laid out in the fine print of the agreement. When the project laydown rules have been determined, each task is then delegated to a specific party that is responsible for that job. They are allocated resources and get instructed when and where to begin working.

Final product to the client is the priority of the civil construction contractor. Having in mind that there is the final product and there is an end product, hence purchasing something is one and receiving incomplete of what you purchased is another. The project manager has to consider what a client paid for and ensure that the client receives satisfaction and commensurate to what he paid for.

For a civil construction contractor to fit into a large million-dollar project that supports small construction contractors, small businesses and a large number of employees, a civil contractor should consider partnering with an external project management consulting firm to execute a large project.

Successful project completion is the ultimate goal of the civil construction contractor. For these set of managers who manage the project don't believe that a project when started will not meet up with deadlines, this is because they know the cost implication to the company as it can lead to a loss in revenues and customer. They should apply every positive measure by getting everyone on board and teach the team how to successfully plan and organize a project, execute the project, and oversee the project throughout the entire life of the project.





# Essential Components of Project Management

## Project Team

Having wrong people in your workforce often makes a team fail. It may be due to personality conflicts or the wrong skill sets of people being matched within in the group. Not until the right people are in a project team, the team may not have the proper direction. Effective training of leaders who are responsible for putting together team members to complete a project is an excellent way to ensure the right people are working together. The training will identify the strengths and weaknesses of people and recognize how to properly match these people to work together.

Team performance is achievable and is taken in a positive direction when each team member receives feedback for their performance. Feedback is more effective when it is providing feedback after the performance is more effective. The feedback could be either negative or positive. Mores, feedback needs to be measurable and unbiased.



## Safety at Work

Construction is one of the most risky and dangerous sectors of the industry. Construction workers often than not, face serious injury while on the job. A good safety management system will go a long way to help prevent accidents and occupational hazards. Putting appropriate safety issues should be a priority in the construction industries. Many workers have accident and injure themselves in Construction Sites. This type of accident leads to loss of life and physical injuries. There should be regular safety training and provision of all safety wares

which should extend beyond a worker's introduction to the job. Training and retraining should be inculcated in the working system of civil construction industry and without an understanding of safety practices related, a worker will be at a very higher risk for injury at workplace, illness and or death.

## Project Communication - A vital tool

Communication is also vital for a civil construction contractor. A Construction Company should have the communication skill to effectively communicate with team members of a project. The leadership skills required for the successful execution of a project include coaching the entire team, mentoring individuals, and providing support when troubleshooting issues arise.



## Contract Administration - Binding agreements

Contract as a legal bond between two or more parties is what civil construction contractor should not joke with. It is expected that all that is written in the contract should be strictly adhered to by fulfilling what is agreed on in the contract. It has quite a lot of terms and conditions included to make sure that everyone understands the whole commitment. It is expected that a contractor should include what will happen if a contract is not fulfilled according to the agreements.



What civil construction contractor should not do is to enter into agreements with a client and later choose to bankrupt. If the company is not able to fulfil the contract, the terms covering such section as stated in the contract which was signed by the two parties will be followed strictly.

A construction contractor needs to focus on a lot of activities starting from choosing the site to the construction process. There are key responsibilities of this as listed below:

- The first thing that is expected of the contractor is to check the different factors and areas involved with construction.
- A professional contractor should analyze the site and make sure that it is ready for the construction. The key essentials of the project should be planned for and well discusses.
- Another one is engaging a designer to civil engineering design and develop a complete design layout according to the specifications of the clients.
- Next is to approve project designs.
- Identify the challenges of the project.

Civil construction contractor's consultant or lawyer should be contacted whenever a contractor has to sign a contract, involving a number of contract terms which the business directors are unable to understand. A lot of companies but not limited to civil construction contractors, execute a project without conforming to the requirements of the client - hence compliant issue arises. The project management consultants who support a support civil contracting business should ensure that the project is complying with all the important principles of project management. Civil construction contractor's work across all types of mining projects and at various project sites, including roads, bridges, and bulk earthworks.

## **Project Compliance – The Rating of your Project**

On mining sites & major civil infrastructure projects, compliance is more complex than a regular civil construction project, the contractor comes in to unpack any confusion surrounding things like paperwork. In such a scenario, a construction business is recommended to hire an expert project management consultant as the consultants bring expertise to fill in the spaces is required with the size of the project, however making that call requires trust. It's not always

easy for a contractor to come in and hit the ground running straight away but due to our outstanding skills and experiences, we will excel so much in this area. Being a civil construction contractor, their work should cut across all spectrums of mining or the civil infrastructure project.

It's imperative to understand the qualifications, experience, and type of quality work that's required to be a part of the mining project.

## **Managing Risks – Eliminating the Failure Component**

Risk management is also one of civil construction contractor's focus, with all the appropriate business insurances in place. A civil construction contractor needs to have Public Liability, Professional Indemnity, and Work Cover for Employees and Motor Vehicles & Plants Insurance.

Compliance with the requirements of the Construction Industry is one of the prerequisites that civil construction contractors should not joke with. This covers everything ranging from travel to clients, tickets, police clearances, and a substance policy.

## **Construction Programs – Keeping Project on Track**

Civil construction contractor should prepare a construction schedule with the following steps:

- Discuss the key components of the project and explain the project plan to key stakeholders.
- Include all the key components of the Project in a Project Plan
- Define the roles and responsibilities of the engineers and the project managers
- Hold a regular construction program update meeting with the clients
- Develop the Scope of work of the project
- Develop a baseline for the project schedule and cost

Use a software-based program to track the progress of the construction project, including the critical path and monitor the deviation from the baseline.

## Quality Assurance – Doing it right the first time

A civil construction contractor's project team need to manage all work methodologies and maintain knowledge on all quality assurance standards applicable to the project. They need to monitor continuous application for all quality assurance processes, and corrective actions for all processes. They monitor operations to ensure that they meet production standards. External engineers are required at the time to carry out quality audits which involve QA inspections and testing. External Quality Auditors monitor and administer Programs and ensure incorporated materials on construction projects are in compliance with the plans and specifications.



## Get ISO Certified – Increase Your Opportunities with ISO Systems and Procedures!

An ISO certification is the strategic tool that civil construction contractor should use to help reduce the costs by minimizing waste and errors while increasing productivity. In a nutshell, civil construction contractors should use Project management to manage all the aspects of a project from inception to closure using a scientific.



ISO a common short name for the International Organization for Standardization is a quality management systems standard that is designed to help organizations ensure that they meet the needs of customers and other stakeholders, as well as meet statutory and regulatory requirements related to a product or service. To increase the opportunity of winning project and building trust with the clients, civil construction contractors are expected to go through the ISO Certification process. ISO Certification process involves sub-contractors getting accredited in three areas: quality, safety, and environment.

ISO certifications have enormous benefits for three reasons as stated here; the value of the standard, the sales edge, and marketing advantage, and company requirements. The system ensures clear processes and communication structures as well as tasks and responsibilities throughout your entire company. ISO certification does not only allow you to bid for big projects but also increases the involvement of your staff, which improves the working atmosphere and reduces the pressure of work thereby making work easy.

### **Working on a Major Civil Infrastructure Project**

A Civil construction contractor should be engaged as a subcontractor on a major infrastructure project. They would be hired by a principal contractor, or the main contractor to perform a specific task as part of the overall project.

Civil construction contractors would be engaged under a principal contractor under the subcontracting agreement. Subcontracting is especially prevalent in mining where complex projects are the norm.

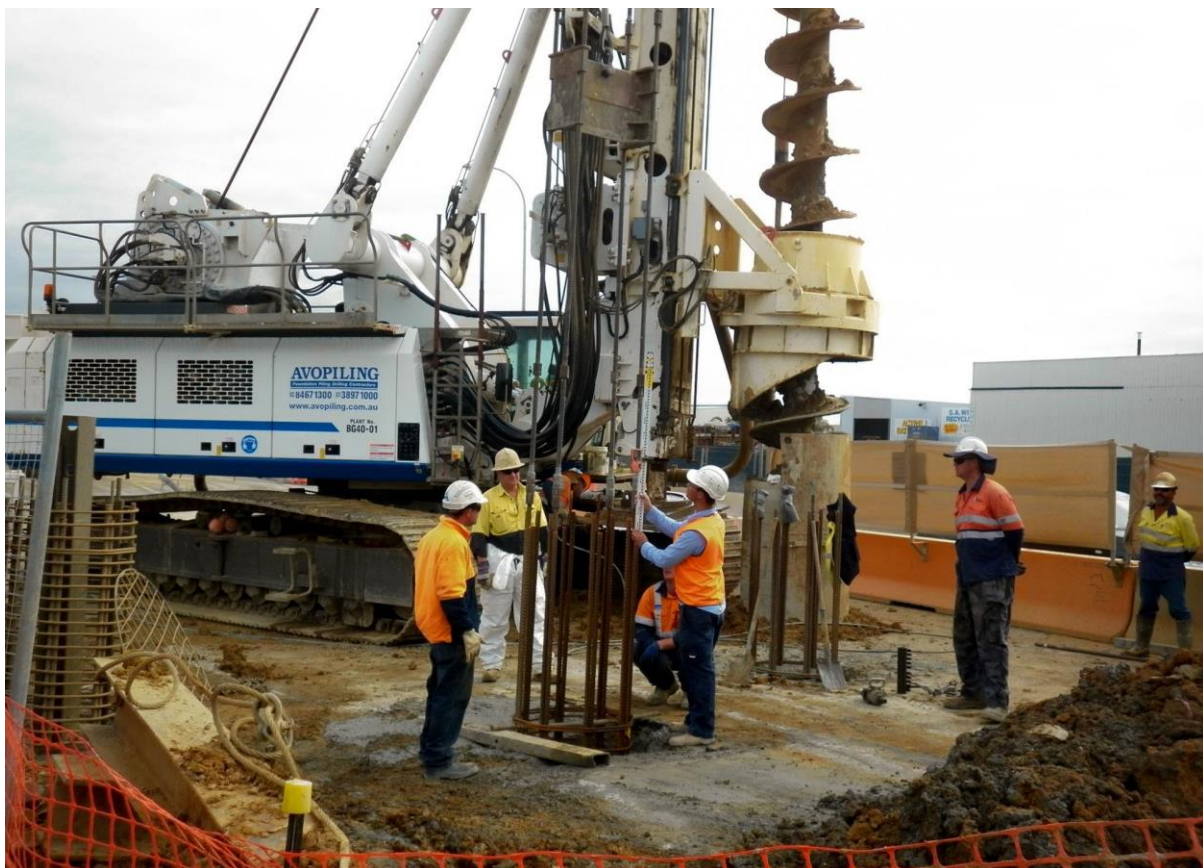
Civil construction contractor should have everything that they need to be a part of major civil infrastructure projects like tickets, police clearances, and a substance policy has every necessary business insurance in a place like Public Liability, Professional Indemnity, Work Cover for Employees and Plant & Motor Vehicles Insurance. This is because we travel with our clients hence comply with the requirements of the Australian construction industry.

Without highly reliable forecasts, errors are bound to occur frequently, hence civil construction contractors should, to begin with, accurate demand planning and forecasting with a thorough review of historical projects that have been executed in such magnitude.

Demand for planning and forecasting software packages arises as the task get complex beyond the control of old-school techniques.

The planning process should be thorough, it drills down to the lowest possible level so that every category or subcategory is reviewed not just for potential opportunities, but also for the potential negative impacts of increased competition, emerging technology, changes in promotional patterns.

While forecasting is generally thought of as a process that takes place at the beginning of every project, civil construction contract requires that forecasts remain dynamic and be continually updated to reflect the most current project trends. It does little good for a company to have taken the time to carefully forecast demand for the upcoming season or year, only to open the door to out-of-stocks or over-stocks by failing to update those forecasts on a continual basis. Static forecasts which have not been updated will invariably lead to faulty decisions. It then means that once a forecast has been developed, it is critical to measure its accuracy.



## Accuracy in Handover – Outcome of Your Project

To civil construction contractor, accuracy in the handover is very critical to stabilizing relationships for the future. The process of Project management handover should be the best time to showcase the stuff the civil construction contractor is made of. Depending on the complexity of the project, a handover process can take anywhere from a few hours to a week to complete.

Many clients are receiving inferior products from project managers all the time. Understanding that this is not acceptable, civil construction contractor engine should rise above the normal and excel in their position, by delivering the right product on time.

Civil construction Contractors Company should put themselves in their client's position as many questions will be running in their mind like what they want to deliver and wondering if the quality will be commensurable with the price. These are the issues that we usually sort early and as well discussed with the client early.

The civil construction contractor trick should recognize these issues before they become problems. Understanding these issues and what the client wants and delivering as appropriately will automatically make you be above others in your field.

Civil construction contractor's reputation is dented the moment they start delivering a product that is not what the client paid for, hence they should keep to all these instead of spending time in repairing their relationship with their client. They should leave their client with the feeling that they have to come back next time and there is no other choice because of your great value. Good communication and keeping them informed of what your progress is a sure way to win our clients mind.