

HOW TO PROVIDE A SURF MACHINE IN THE SUBURBS A LONG WAY FROM A BEACH

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Abstract

Fairfield City Council embarked on the development of an augmentation of one of their inner-city Leisure Centre's at Prairiewood a few years ago. What developed was a magnificent Water Play Park called "Aquatopia". An essential part of the water play park was a "Stingray" Surf simulator to provide the community of Fairfield with an alternative to an extended commute to one of Sydney's Beaches.

The paper describes the lessons learned from the Stingray and provides an in-depth look at the issues faced through the project cycle of the Surf Simulator.

Key Words: Community Engagement, Project Management, Leisure Centre, Surf Simulator.

Introduction

Fairfield City Council allocated \$7,064,000 in 2015/16 for the construction of a water park adjacent to the Prairiewood Leisure Centre.

The existing 1960's style leisure centre provides an extensive range of facilities from gyms to the Olympic size swimming pool. The site that the leisure centre was built on still had a large area of unused open space which was utilised to incorporate this Water Play Park facility.

The first facilities constructed was a large pyramid slide tower with various bending sluice tubes as well as some longer tubes coupled with other splash facilities and a giant tipping bucket.

The facility also incorporates a zero-depth water play park for toddlers. This was completed at the end of 2016 at a cost in the order of \$4M.

The Stingray that originates in Glasgow, Scotland and was transported to Australia in 2016 is a machine that simulates surf conditions to enable users to ride surfboards. The machine was purchased by the Council with the intention to complement the site by providing additional activities for the older teenagers and young adults.

Council staff with the assistance of Complete Urban project managed the entire process using finely detailed and classic Project management techniques.

This paper explains some valuable lessons that were learned through the construction of the Stingray Surf Simulator and important lessons that can be implemented for other bespoke projects that are truly a significant benefit to the Community.

Project Management

As much as a successful seamlessly run project would look good for Fairfield Council and COMPLETE Urban, projects do not always go perfectly. There would be a large industry of project managers out of a job if projects were easy to run. So instead of being the perfect project which nobody would be able to learn from, the surf simulator is hugely over its initial budget is currently still under construction with two months of works left that we need to be finished in one.

But with this comes an enormous number of lessons in successfully delivering such unique, high-profile projects while also showing how important effective project management is in ensuring we as public works engineers are

delivering the best products to our local communities.

There are five major areas that were key to the delivery of the Surf Simulator project, and these five areas are important to any high profile and unique project. They include:

- Stakeholder Management
- Budget
- Program
- Scope
- Risk

Stakeholder management

Setting Realistic Expectations

When mayors and executives provide input into the design and want additional features or a different look to the project it is important that when those instructions are given that you make them aware of the effects of the change.

You can do anything with enough money and time, so it is important when instructed to proceed with an additional design element that executives are made aware that it will cost a certain amount extra and that it will have effects on the program. It is important, so executives understand the effects of their decision making, so it is not a shock if the project goes over budget or goes past its final program because of the last-minute changes made.

Don't be Afraid to report bad news

It is important in bespoke projects and all projects in general that as a project manager bad news is often not a project managers fault. A lot of issues including typical poor soil conditions, asbestos and last minute design changes are not the fault of a project manager and a project managers performance should not be measured by these issues.

What should and does reflect on a project managers performance is their ability to report and manage these issues. A competent project manager will identify these issues early and advise all the affected stakeholders, getting decisions made by the project control group or another such decision-making body.

It is important that bad news is not hidden as the earlier bad news is dealt with, the better the outcome.

Budget

Accurate and Realistic Original Budgets

It is important to have accurate cost estimates as early as possible because managing costs throughout the project is paramount. There is a tendency that once a budget is blown we lose sight on budget tracking. It is important to start out strong with an accurate cost estimate. But as the project continues and for unforeseen circumstances the budget changes it is important that a new more realistic budget is re-established.

Open Communication

Like previously mentioned open communication is the key and this applies to your project budget. It is important to ensure budget control, and the best way to do that is both open communication with your contractor to discuss any potential issues they see coming up so that these can be properly communicated to the decision-making group in a project.

Program

Keeping on top of the program

The program is an important part of the contract, and as such, it is a very valuable tool to keep contractors honest and keep the whole project on schedule. A concrete, practical completion date is a valuable tool when you have strict time constraints.

It is common to have difficulty getting programs from contractors, particularly small ones. The contractor will strive to try and get your project into a state where the program is not up to date. Where there have been extensions and inclement conditions that have not been documented as this puts the whole project into a grey area where the contractor does not need to worry about hitting particular deadlines. It opens Council up for extensions to your program because they will assume you knew about the extensions and you will have nothing to support it.

It is therefore important to constantly monitor the practical completion date, continue to remind the contractor of it and put it in meeting minutes and accurately track any delays, including weather and any additional works that were not part of the original contract.

Scope

Scope Creep

Scope creep management is another important part of project management, especially these unique projects. Unique projects like this with heavy involvement from the Mayor and councillors are particularly affected by scope creep as they present their ideas and want adjustments as the project goes on. This is inevitable in such high profile and unique projects.

As project managers, it is important to manage these changes and the scope creep.

Expanding the scope is possible, and it is not our job to discourage the changes, but it is important that you effectively communicate the effect of these changes. Often the effects of scope change are not understood, and it is important to bring them to the decisions makers, so they are able to weigh up the effect of their decisions effectively. Because often if the budget and program effect of the changes are realised then that in itself will control the scope creep. Otherwise, the assumption is wrongly or rightly that it will just be done at the same time with little to no cost effect. If not properly communicated when it comes to the end of the project executives will be confused why you are over budget and behind the original program.

Risk

Contractor Novation

For the Stingray, there are two parties who are involved in the construction of the plant. There are the Suppliers, Murphy's that are based in Scotland and ship the plant to Australia. Then there is the contractor, who is involved in the construction of the concrete structure, the install of all the filtration equipment and they are the Principal contractor for the works. The risk came from when we were able to get

Murphy's out to the site to begin the installation. Because they are an internationally based company, they are difficult to get booked in for the required times. This is the factor that eventually brought our project program unstuck. Due to various delays, Murphys had to be pushed back again and again until finally, they were not available to install before our deadline.

In order to avoid this, thought needs to be put to novating your existing contractors or supplier to your principal contractor. By novating the supplier to the principal contractor the liability for delays remains on the head contractor, and therefore it is in their best interest to hit deadlines and ensure the supplier attends site in a timely manner. Because in the end if they pass that practical completion date there may be an opportunity for Council to claim liquidated damages for missed dates.

Liquidated Damages

As liquidated damages are an important part of any contract, and for projects like this one where there is a lot riding on the completion date, it is important that your liquidated damages reflect it. Often times they are only ever given a brief thought during the tender process and its often left at whatever we usually do. But it is important to adjust these figures at the start of the project when establishing the contract, especially for projects like this one where there are media commitments booked, Mayor engagements, community commitments, etc. It is important that the value to move these things is incorporated into any liquidated damages. Liquidated damages have to be realistic but it is important they are escalated from the normal figure to reduce the risk to the council.

Conclusion

Council's provide leadership for their community with the infrastructure they provide. This infrastructure can be complex, expensive and require a wide range of skills and expertise in its delivery.

Successful delivery depends on the relationship between the parties involved in the project and ability to communicate effectively the good and bad. You will always run into issues in your projects, the effectiveness of a public works

engineer is measured on how well these issues are managed and communicated to ultimately ensure that you are able get the best result for your local community.

Despite the difficulties the water park has already been a success with 40,000 people through the facility last summer and the introduction of the surf simulator will only improve site attendance providing a rewarding experience for the community.

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David graduated from the University of Canterbury in 1988 with a Bachelor of Engineering (Hons) majoring in Civil Engineering. He commenced employment with Wellington City Council, New Zealand, in 1987 in the traffic engineering and transport planning area. Joining Fairfield City Council' traffic team in 1996, David has progressed through a range of engineering, project and management roles over the last 21 years.

More recently, his appointment as Group Manager, Place and Infrastructure Operations has seen responsibility for the direct service delivery of the bulk of the capital works and maintenance programs. He specialises in Project Management, Contract Management, Procurement, Occupational Health and Safety, Risk Management.

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Jordan combines his knowledge of these Project Management processes and his contractual knowledge with his experience in the Civil Engineer field to provide clients with the best service possible, ensuring that the best outcomes are always achieved for clients.

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