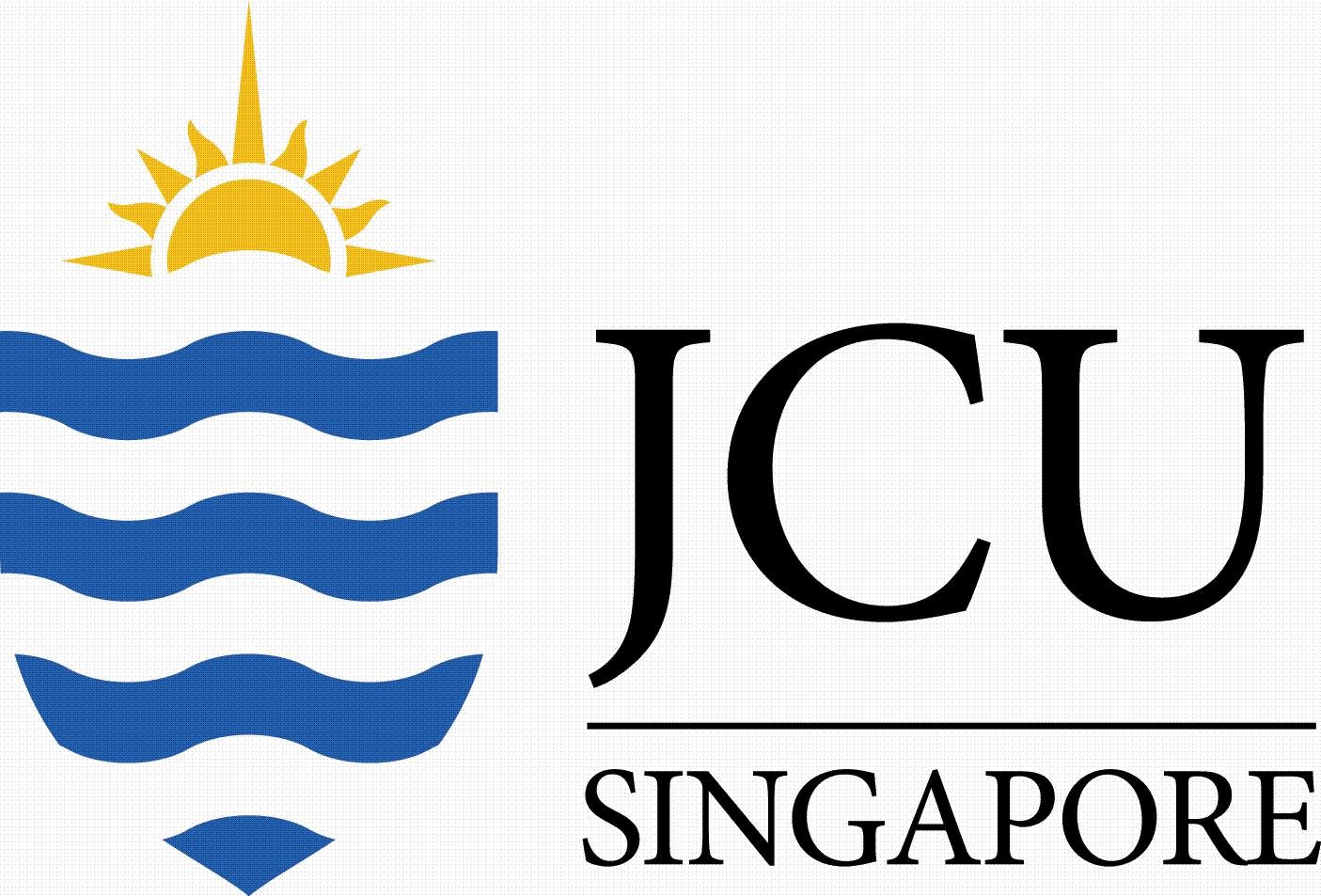
**BX2077: PROJECT MANAGEMENT**

ASSESSMENT TASK 1 COLLEGE OF BUSINESS, LAW AND GOVERNANCE

**GROUP TASK COVER SHEET**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Students*  *Please sign, date and attach cover sheet to front of assessment task for all hard copy submissions* | | | | | | | | | |
| **SUBJECT CODE** | BX2077 | | | | | | | | |
| **STUDENT FAMILY NAME** | **Student Given Name** | **JCU Student Number** | | | | | | | |
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| **ASSESSMENT TITLE** | Project Plan | | | | | | | | |
| **DUE DATE** | 7/1/2019 | | | | | | | | |
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**Project: 3D Aboriginal Australian Education Centre**

**Sponsor: Koala City Council**

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**Date: 11 January 2019**

**Table of Contents**

[Executive Summary 4](#_Toc534978229)

[1. Introduction 5](#_Toc534978230)

[2. Background information about the Project 5](#_Toc534978231)

[2.1. Project purpose and justification 5](#_Toc534978232)

[2.2. Project Description and Key Deliverable 5](#_Toc534978233)

[3. Project Scope 6](#_Toc534978234)

[3.1. Project Requirements 6](#_Toc534978235)

[3.2. Work Breakdown Structure 8](#_Toc534978236)

[4. Project Schedule 8](#_Toc534978237)

[4.1. Gantt Chart with Resource Assignments 8](#_Toc534978238)

[4.2. Project Network Diagram and Critical Path 9](#_Toc534978239)

[4.3. Project Milestone 9](#_Toc534978240)

[5. Project cost 10](#_Toc534978241)

[5.1. Project costs 10](#_Toc534978242)

[5.2. Project budget 10](#_Toc534978243)

[6. Project stakeholder 11](#_Toc534978244)

[6.1. Stakeholder analysis 11](#_Toc534978245)

[6.2. Communication Management 12](#_Toc534978246)

[7. Project risks 12](#_Toc534978247)

[7.1. Project success measures 12](#_Toc534978248)

[7.2. Project risk analysis 13](#_Toc534978249)

[8. Project procurement 13](#_Toc534978250)

[8.1. Outsourcing decisions 13](#_Toc534978251)

[8.2. Supplier selection 14](#_Toc534978252)

[8.3. Contract types 15](#_Toc534978253)

[9. Justification of Organizational capacity to undertake the project 16](#_Toc534978254)

[10. References 17](#_Toc534978255)

# Executive Summary

The purpose of this project is to promote Aboriginal culture more successfully in Australia while providing a variety of activities to attract visitors. Constructing this centre will have advantages such as increasing the tourism revenue and jobs. Not only will this project benefit Australia economically but also culturally and socially.

The report starts with an introduction and background information on the project where the prerequisites are discussed and a basic layout of each storey is described. The report will analyze the project scope which includes the business, user and functional and stakeholder requirements. The Rational Plan software was also used to illustrate the Gantt chart with resource allocation and the overall costs report. The work breakdown structure, project network diagram and critical path are also used to better understand what needs to be done in order so project can be completed successfully. It ends off with justification on the organizational capacity to undertake the project on how it can bring positive contributions to the community.

# Introduction

This project will be the 3D Aboriginal Australian Education Centre sponsored by Koala City Council. It is a center for promoting Aboriginal Culture in Australia and will attract over 10,000 visitors per month by 2021. The success of this project will make the 3D Aboriginal Australian Education Centre among the best landmarks of the region within the next 5 years. In order to accomplish this, it is vital to prepare a project management plan to successfully complete the centre. This project plan provides a description, purpose and justification for executing the project. Next, it discusses the high-level requirements and work breakdown structure. Finally, we touch on the cost, stakeholder management, risk management and procurement which directly affects the quality of the project.

# Background information about the Project

## Project purpose and justification

The strategy is to support the community’s access to and participation in a range of artistic, cultural and entertainment activities. Since 3D holograms are also a rising trend in the world, this project intends to use this technology to create a unique and memorable experience and create good publicity. Many indigenous people in Australia have a different view of the world that is distinct from the mainstream. Therefore, through this center, we desire to share the knowledge of indigenous culture to both locals and foreigners.

This better understanding can attract more tourists and promote local tourism. It also encourages culture preservation which can enhance the position of Aboriginal culture in the world. According to the Cultural Influence Ranking statistics, Australia currently ranks the ninth and we aim to rank in the top 5 by 2021 after the center is built (Cultural Influence Rankings 2018).

Since 2017, the Australian government has been investing significantly in indigenous cultures through the $5 billion Indigenous Advancement Strategy and other initiatives (Celebrating Indigenous Cultures 2017). Hence, we can definitely receive their support on this project. We are expecting a direct contribution of Travel and Tourism GDP from 2.6% in 2016 to 3.0% in 2027 and an increase in more than 300 jobs for Australians working in the center (World Travel & Tourism Council, 2017).

We also anticipate a rise in donations to Australian Aboriginal charities by $200 million as compared to $143 million in 2016 (World Travel & Tourism Council, 2017). This can be achieved through the sale of handmade souvenirs that will be sold in the gift shop and by holding charity auctions in the center.

## Project Description and Key Deliverable

The 3D Aboriginal Australian Education Centre aims to display various artworks and artefacts of the Aboriginal culture. It is environmentally friendly designed using solar energy while still maintaining a comfortable space inside and will be located opposite the Sydney Opera House as it is already a prime tourist location. Our unique feature is the 3D holographic projections that will help paint a more accurate depiction of the Aboriginal way of life while making it interesting to visitors. We feel that the contrast between the culture of modern society we live in now and the Aboriginals who live closer to nature will be a refreshing experience to visitors and allows them to appreciate the environment more.

To gain these objectives, there are three main elements that needs to be considered. Firstly, there is the Prerequisites. It includes the activity of design the building layout, achieving some legal cooperation and supporting from the suppliers. Secondly, there is a construction including the Level 1, Level 2 and Level 3. Thirdly, there is the outdoor area establishment.

The education center is comprised of three floors, each filled with various activities to entertain visitors. The first storey features the main Exhibition halls where artefacts are displayed. The 3D holograms will be situated here to capture visitors’ attention and entice them to explore further. There is also a restaurant for F&B provisions which serves indigenous cuisine as well as a souvenir shop selling handmade crafts. On the second storey, there are conference halls for MICE, auctions and charity events and a Theatre showcasing traditional musical performances and tribal dances. Lastly, the Learning hub is situated on the Third floor and it consists of a library, sitting area, reflection board and several interactive activities visitors can participate in, especially schools.

# Project Scope

## Project Requirements

The project requirements remain consistently the applicable right through the implementation of a project and goal-based. When working with specific process requirements, they will apply only to specific areas as the project progresses and those requirements are more problem-based. Before running 3D Aboriginal Australian Education Centre, the requirements include Business Requirements, User and Functional Requirements, Stakeholders Requirements are listed:

***Business Requirements:***

* The total budget for constructing the theme park is $79 million, it should be sponsored from Koala City Council. The parking lot can accommodate 600 cars.
* Increase in more than 300 jobs for Australians working in the center.
* Increase in donations to Australian charity of $200 billion compared to $143 billion in 2016 (World Travel & Tourism Council, 2017).
* To establish a centre to promote and preserve Aboriginal culture to Australian citizens and tourists alike.
* Able to attract at least 3,000 visitors each month and gain more popularity as a tourist destination.

***User and Functional Requirements:***

The whole 3D Aboriginal Australian is occupied with about 90,000 m2, including a three-levels green building and located at opposite Sydney Opera House. The whole Education Centre is combined by sustainable source of energy, like solar panel and biophilic design in order to improve resource-efficiency and ensure the environmental protection.

* First floor is the main Exhibition Hall- Display of 3D cultural models & arts, with a restaurant and a souvenir store at side.
* Second floor is separated into two parts, Conference Hall- For MICE, charity events and Theatres- Traditional musical performance (tribal dances/ceremony etc).
* Third floor is a Learning Hub- Library, Reflection Board, interactive activities to engage visitors (especially schools). Moreover, each level has 7 washing rooms, 2 for females, 2 for males, 2 accessible washrooms and 1 for Baby Care Room.

Due to the Sydney's weather problems, 3D Aboriginal Australian Education Centre must be closed when there is a disaster warning and certain building requirements need to be taken into consideration. Some of which include:

* Building a strong foundation to guard against earthquakes
* Using non-combustible roofing materials such as cement shingles
* Integrally insulated concrete walls provide a non-combustible fire barrier and minimizes chance of collapsing
* Incorporating the new mold and mildew-resistant drywall insulation for floods
* Using Polyacrylamide (PAM) for erosion control enhancement on walls
* Using storm shutters over exposed glass can help prevent high winds from entering the building
* Constructing robust anchors (i.e. hurricane straps) at the walls’ intersection with both the foundation and roof can reduce blow-offs

***Stakeholders Requirements:***

* For government, during the construction of 3D Aboriginal Australian Education Centre, all projects must be approved by the relevant government departments before beginning. Timely disposal of construction waste to avoid pollution.
* For the workers, each worker must sign a contract and hold a permit to participate in the construction of the 3D Aboriginal Australian Education Centre. Stealing is forbidden, in case of accident, the contractor shall be liable for compensation.
* 3D Aboriginal Australian Education Centre purpose is to develop and protect the aboriginal culture of Australia, and part of its income will be donated for this goal.

## Work Breakdown Structure

The Work Breakdown Structure for 3D Aboriginal Australian Education Center outlines the tasks and workload activities through the analysis of deliverables, sub-deliverables and work packages. It summarizes and defines the overall scope of the project.

According to the Appendix 1 - **Work Breakdown Structure**, for the deliverables, it includes Prerequisites, Construction, Outdoor. For the Prerequisites, it also includes sub-deliverables called Design, Legal requirement and Suppliers. In each sub-deliverable, there are some work packages. For the work packages of Design, it includes Building Layout, Interior Design, Decoration. For the work packages of Legal requirement, it includes Stakeholder agreement, Labor contract, Copyright licensing, Business certification.

For the Construction, it also includes sub-deliverables called Level 1, Level 2 and Level 3. In each sub-deliverable, there are some work packages. For the Level 1, it also includes work packages called Rooms and Features. For the work packages of Rooms, it includes Exhibition Hall, Restaurant, Souvenirs Shop. For the work packages of Features, it includes Artifacts, 3D Technology, Paintings, Virtual model. For the Level 2, it also includes work packages called Rooms and Features. For the work packages of Rooms, it includes Conference Hall and Theatres. For the work packages of Features, it includes Facilities and Documentaries. For the Level 3, it also includes work packages called Rooms and Features. For the work packages of Rooms, it includes Learning Hub. For the work packages of Features, it includes Books, Posters, Pictures and Relaxing facilities.

For the Outdoor, there are some sub-deliverables including Pedestrian areas, Car parking and Bus stop.

# Project Schedule

## Gantt Chart with Resource Assignments

According to Appendix 2 - **Gantt Chart**, from the overall perspective, the 3D Aboriginal Australian Education Center will be constructed from 17/1/2019 at 8:00 am to 27/1/2021 at 5pm. There are three main deliverables called Prerequisites, Construction and Outdoor, where the duration is from 17/1/2019 to 9/10/2019, from 3/10/2019 to 9/9/2020, from 10/9/2020 to 27/1/2020, respectively.

For Prerequisites deliverables

* Design is from 17/1/2019 to 27/3/2019
* Legal requirement is from 28/3/2019 to 28/8/2019
* Supplier is from 29/8/2019 to 9/10/2019

For Construction deliverables

* Level 1 is from 3/10/2019 to 12/2/2020
* Level 2 is from 14/1/2019 to 1/1/2019
* Level 3 is from 2/1/2020 to 12/2/2020

For Outdoor deliverables:

* Pedestrian area is from 10/9/2020 to 20/1/2021
* Car parking is from 10/9/2020 to 27/1/2021
* Bus stop is from 10/9/2020 to 13/1/2021

## Project Network Diagram and Critical Path

According to Appendix 3 - **Project Network Diagram**, the critical path is the process of Building layout, Interior design, Decoration, Stakeholder agreement, Labor contract, Copyright licensing, Business certification, Suppliers, Souvenir shop, Conference Hall, Theaters, Learning Hub, Pictures, Pedestrian areas, Car parking and Bus stop. Hence, the project duration lasts 750 days.

There are 2 main multitasking in constructing the center. Firstly, after the achievement of Suppliers, there are the multitasking activities in terms of constructing the Exhibition Hall, Restaurant and Souvenir shop.

Secondly, the final phase of Learning Hub requires the installment of Artifacts, 3D Technology, Paintings, Virtual models, Facilities, Documentaries, Books, Posters, Pictures and Relaxing facilities.

The network diagram also shows that the activity float is 0 in Building layout, Interior design, Decoration, Stakeholder agreement, Labor contract, Copyright licensing, Business certification, Suppliers, Souvenir shop, Conference Hall, Theaters, Learning Hub, Pictures, Pedestrian areas, Car parking and Bus stop where

The rest of activity will make the project delay due to the activity float is more than 0.

## Project Milestone

During the project, there are some noticeable milestones ought to be considered.

* Completion the design of center including Building Layout, Interior Design, Decoration on 27/3/2019
* Finalize the important legal requirement regarding Stakeholder agreement, Labor contract, Copyright licensing, Business Certification on 28/8/2019
* Collect all suppliers support on 9/10/2019
* Construct completely Level 1 on 13/11/2019
* Construct completely Level 2 on 1/1/2020
* Construct completely Level 3 on 12/2/2010
* Install all facilities to Level 1, 2, 3
* Build the Outdoor area including Pedestrian areas, Car parking and Bus stop on 13/1/2021

# Project cost

## Project costs

The budget is the beginning for all projects to be done. When managing the project, the cost preparation knowing reduce the loss caused by the cost exceeding the profit. The success of the project depends on the control of the cost and flexible processing. The project cost is the sum of the construction of the project, not just the material-related cost.

According to Appendix 5 – **Task Cost Report**, it shows the specific task cost of each activity with the demonstration of Gantt chart, the total cost of 3D Aboriginal Australian Education Center is about $680,525.00.

For the Prerequisites, it costs about $236,520.00 where

* Design including Building layout, Interior design, Decoration costs about $180,120.00
* Legal requirement including Stakeholder agreement, Labor contract, Copyright licensing, Business certification costs about $43,400.00
* Suppliers costs about $13,000,00

For the construction, it costs about $39,775.00 where

* Level 1 including Exhibition Hall, Restaurant, Souvenir shop with Artifacts, 3D Technology, Paintings, Virtual models costs $25,800.00
* Level 2 including Conference Hall, Theatre with Facilities, Documentaries costs $11,700,00
* Level 3 including Learning Hub with Books, Posters, Pictures, Relaxing facilities costs $2,275.00

For the outdoor, it including Pedestrian areas, Car parking, Bus stop costs about $30,250.00

According to the Appendix 4 - **Cost Estimating Worksheet**, which indicates each Work breakage in terms of Types of resources, Cost variable, Cost per unit, Number of Units and Cost Estimate. The estimated cost is about $680,620.00.

## Project budget

According to the Appendix 6 – **Overall Cost Reports**, there is a summary of cost in each deliverable called Prerequisites, Construction and Outdoor. In each deliverable, there are detailed costs involving the sub-deliverables, work breakages for the 3D Aboriginal Australian Education Centre. The overall costs report is about $680,525.00.

* For the Prerequisites, it costs about $236,520.00
* For the Constructions, it costs about $180,120.00
* For the Outdoor, it costs about $30,250.00

# Project stakeholder

## Stakeholder analysis

On each task, it is exceptionally essential to complete a partner investigation. It is basic to the accomplishment of an undertaking. Each partner has distinctive interests and one of a kind viewpoint. Partner examination is a methodology used to recognize key partner depending on their interests and power towards the intercession. It helps in evaluating how their advantage ought to be tended to.

According to Appendix 7 - **Stakeholder Analysis Matrix**, it demonstrates the partner investigation of support of the community’s access to and participation in a range of artistic, cultural and entertainment activities support the community’s access to and participation in a range of artistic, cultural and entertainment activities

The upper left box is the partner with high power and low interest which considered as partners that should be kept fulfilled. It includes Australian Trade & Investment Commission, Governments, Tourism Australia International Center of Responsible Tourism. In this undertaking, the partner that characterized into this gathering is the Local Council. Australian Council being the city's most approved and most ground-breaking, may have low enthusiasm on the task, yet have the capacity to impact the basic leadership process.

The upper right box is the partners with high power and high interest which is the partner that should be overseen nearly. It includes Sydney Theater & Dance Company, Australia Council for The Arts, Art Support Australia Opera House, Performing Arts Connections Australia. These incorporate the administration, support, and sound and light specialists. This gathering of partners has a major impact in the basic leadership process in light of the fact that the result of the task straightforwardly influences them. For example, the Government has the expert to control the strategy that occur on the task and the consequence of the venture conveys the income and salary to them.

The bottom left box is the partners with low power and low intrigue which distinguished as partner that should be checked. It includes Project Sponsor, Project Team, Architecture/Design Team These are the partners that should be educated if any state of the venture changes. This gathering comprises of open, crisis administrations, media, and transportation administrations.

Also, the bottom right box is partners with low power and high intrigue which distinguished as the partner that requirements to keep educated. It includes Commercial sponsors, Employees, Suppliers, Residents/Participants This gathering is probably going to be influenced by the result despite the fact that they won't be able to be a piece of the basic leadership process. The partners that fall into this class are specialists and exhibitions, sustenance and drinks sellers, and volunteers.

## Communication Management

According to Appendix 8 - **Project Communication Matrix**, it shows the communication management plan in Sydney, Australia to support the community’s access to and participation in a range of artistic, cultural and entertainment activities. In order achieve a successful project, communication should be efficient and effective. Communication between people during a project should be clear, concise and should make sure that everyone understands the intended message in a timely manner. A project Communication Management Plan should exist in order to be able to build a proper communication plan. It is a document that specifies all project communications generated throughout the project, their target audiences, their information content, and their frequency (Portny, 2013). It is created based on the stakeholder analysis and is an essential component in a project that helps to maintain the communication between the managers and the stakeholders.

# Project risks

## Project success measures

***Meeting Agreement***

* Project budget for building 3D Aboriginal Australian Education Centre estimated $144,100.00. and which is sponsored by Koala City Council.
* Total project duration is estimated three years from 2019 to 2021.
* The goal is support the community’s access to and participation in a range of artistic, cultural and entertainment activities and enhance the position of Aboriginal culture in the world.

***Project Team’s Success***

* The construction team must ensure each facility is completed on time
* Labor is allocated appropriately
* Workers must keep safety during construction period.

***Customer’s Success***

* The best facilities should be used. A world-class 3D display space and bring history and culture back to the consumer
* 3D facilities must be compared different brands to ensure visitors do not suffer adverse reactions

***Performing Organization’s Success***

* Use the best 3D equipment, giving visitors the best experience.

## Project risk analysis

Risk management is basically identifying, analyzing and lessening risks that can affect the project. It is an important part of project management and if done efficiently leads to success of the project. Risk management consists of various steps which are done to ensure the removal of risk. When dealing with uncontrollable risk then this action plan can minimize the effect of those risks. According to Appendix 9 - **Risk Register** which highlights potential risks that can be encountered during this project, their impact and how the team can prevent these risks.

***Avoid***

The risk coefficient can be reduced by predicting the probability of the occurrence of risk events.

***Mitigate***

The implementation of risk mitigation is the process of risk mitigation. By monitoring the process, including tracking the identified risks and identifying new risks, the effectiveness of the risk assessment process in the project can be improved.

***Accept***

When some risks cannot be avoided or mitigated actions may be too costly or time-consuming. And risks may not be avoided or mitigated in any meaningful way, and the benefits of the project great than the risks. Teams should be prepared to face such risks.

# Project procurement

## Outsourcing decisions

The integration of project management process and outsourcing process must be guided in an iterative, self-correcting and step-by-step way to achieve success, so these two processes must act together to influence the maximum benefit that can be gained by the organization (Rajagopal & Mobley, 2000). Hence, the company can enhance its in-house project management competency with efficient outsourcing. The key to successful outsourcing for any company is clear understanding of the organization’s core competencies and its business goals based on a clear strategic direction. Figure 1 below shows which work packages the team has decided to outsource and the reasons.

|  |  |
| --- | --- |
| **Work Packages** | **Reasons to Outsource** |
| Interior Design | * Frees project team to deal with other important activities * Inadequate managerial or technical resources * Flexibility in procurement * Unique and creative design special only to centre * Lower production cost |
| Artifacts  Paintings | * Frees project team to deal with other important activities * Ability to utilize specialized suppliers * Obtain customized items * Protect proprietary design and knowledge * More control over quality and time |
| 3D Technology  Virtual Models | * Frees project team to deal with other important activities * Able to utilize special suppliers * Obtain customized items * Ensure that it is set up correctly and comply with safety regulations * Ensure that models are accurate and of high quality |

**Figure 1- Reasons to Outsource**

## Supplier selection

Selecting the right suppliers for this project is very important as this directly affects the quality of the education centre as a whole, from the building construction to the artifacts on display. The most effective suppliers are those who offer products or services that match or exceed the needs of your business. It is helpful to examine how many suppliers the project needs as buying from a carefully targeted group could have certain advantages: it will be easier to control the suppliers; this business will become more important to them and there is a potential to make deals that can decrease production costs. For this project, there are certain factors that will be considered when selecting the suppliers.

* **Price:** Important to search for suppliers that provide affordable materials that are also of good quality so as not to incur extra costs for replacements.
* **Exchange Rates:** Costs may vary with a global manufacturing and supply base.
* **Supply Quality:** Grade of materials used needs to be consistent and conform to construction specifications so that they are safe to use.
* **Delivery:** Selecting suppliers with excellent delivery ability where they deliver at the right time to the right place with the right amount, can reduce waste related with inventory, storage cost, and cost related with multiple times of material transfer.
* **Replenishment Lead Time:** Time between placing an order and receiving it, which is translated into required responsiveness for purchasing.
* **Information Coordination:** Ability of supplier to match supply and demand of project.
* **Supply Flexibility:** Amount of variation in order quantity that a supplier can tolerate without letting other performance factors deteriorate.
* **Technology Requirements:** Supplier to have the latest technology and be knowledgeable of how to install and operate 3D technology.

## Contract types

The type of the contract used for the business engagement usually varies depending on the type of the work and the nature of the industry. The contract types for our project are important as it impacts which party has to bear the cost risks and how long it affects certain parties. In this project we will be focusing on firm-fixed-price, fixed-price-incentive-fee and time and materials contracts as shown in Figure 2 below.

|  |  |
| --- | --- |
| **Work Packages** | **Contract Type** |
| Interior Design | Firm-Fixed-Price  It is the simplest type of contract where the terms are simple to understand. Koala City Council will agree to pay the costs and contractors will agree to finish their work according to this fixed price. Therefore, this is suitable for our project as it reduces time and money for negotiation with other parties so work can be carried out smoothly. The contractor also assumes the risks for unexpected increases in labour and materials that are needed. Is it important to form a clear scope of work based on good information, creating a list of highly qualified bidders, and developing a clear contract that reflects everything inside. |
| Artifacts  Paintings | Time and Material  The artifacts and paintings are important aspects of this project that require different materials to make. As this is a long-term project with dynamic requirements, this type of contract gives the project team flexibility to account for potential longer working hours and overtime. “Not-to-exceed” clause can also be implemented that helps to increase efficiency because the contract price is limited to a certain cap amount, no matter how long the project takes or how high the materials costs run. |
| 3D Technology  Virtual Models | Fixed-Price-Incentive-Fee  This provides an incentive for performing on the project above the established baseline in the contract. The contract might include an incentive for completing the work on an important milestone for the project. Often contracts have a penalty clause if the work is not performed according to the contract. For example, if contractors are unable to finish installing 3D technology systems in time, the contract can penalize them a daily amount of money for everyday the construction is late. This ensures that the contractors will uphold a good quality of work while sticking to the work schedule so there will not be delays. |

**Figure 2- Contract Types**

# Justification of Organizational capacity to undertake the project

Through the summation plan of the project, the team can successfully complete the launch of the 3D Aboriginal Australian Education Centre. Koala City Council has sufficient financial strength to fund this project therefore there should not be any problems related to costs, this will allow the project team to source the best quality materials and entering into contracts that will ensure work is carried out efficiently. Additional measures will also be taken during construction to combat Australia’s weather problem, regular maintenance and inspection checks will also be carried out to guarantee the employees safety. In order to further justify the organizational capacity, the project team is very detailed and dedicated to providing accurate representations of Aboriginal culture. Therefore, experienced Australian 3D holographic projections experts have been invited for consulting on how to better integrate culture with projections, as well as the Australian Department of Communication and the Arts. By getting the help of professionals, the Australian cultural industry and creative industry can successfully combine. Licenses for certain documentaries and books will also be purchased and expert craftsmen will be hired. In conclusion, this project will be a unique tourist attraction for Australia and further details can be discussed in future stakeholders meeting.

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