

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

PROJECT MANAGEMENT PLAN FOR THE CONSTRUCTION OF A GARIFUNA
CULTURAL AND HISTORICAL MUSEUM IN SEINE BIGHT VILLAGE, STANN
CREEK DISTRICT, BELIZE.

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DEDICATION

I dedicate this final graduation project to my children, husband and other family members who believe in my capability and offered unconditional support during this process.

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ABBREVIATIONS AND ACRONYM.

Final Graduation Project (FGP)

Belize Dollars (BZD)

Bill of Quantities (BOQ)

Project Management Institute (PMI)

Project Management Plan (PMP)

Project Management Body of Knowledge (PMBOK).

National Institute of Culture and History (NICH)

Central Building Authority (CBA)

Seine Bight Reservoir to Museum Foundation (SBRMF)

Work Breakdown Structure (WBS)

Universidad para la Cooperación Internacional (UCI)

United States of America (USA)

Belize Tourism International Association (BTIA)

EXECUTIVE SUMMARY (ABSTRACT)

The Seine Bight Museum Foundation was founded in Belize in 2014. Since then, it has been making strides toward the completion of the Garifuna Cultural Museum Project. The foundation relies on fundraising activities and donors for funding; however, additional funding is needed to complete the construction of the museum. The foundation is somewhat organized but lacks a clear vision on moving forward. The executive management does not have access to the professional mechanisms used to manage projects of this nature. This has led to problems relating to finance, resource management and significant construction delays.

The purpose of the Garifuna Culture Museum is to collect, preserve, research and exhibit artifacts and displays which illustrate and record the story of the Garifuna people who are residents of the Seine Bight Village. The artifacts and literary works collected by the museum relate to the rich culture and history of the people it represents. Aside from preserving and promoting the Garifuna heritage, the museum should also increase cultural tourism in the area, also be a learning experience for visitors both local and foreign and foster community economic opportunities and progress.

The general objective of the plan was to “develop a Project Management Plan that integrates project management principles along with best practices to increase the ability to manage the project with available resources, improved response to funding pressures and changing conditions”.

Specific objectives are to are to develop a scope management plan, that defines work that is required to get the project completed; create a time management plan for assigning duration to work packages to complete the job within the allotted timeframe, create a cost management plan to establish a framework for cost management, develop a quality management plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically, quality management for museums, create a resource management plan for assigning resources and activities and to ensure they are being allocated and managed accordingly, to develop a communications management plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholder’s communication needs, creation of a risk management plan that identifies risks, and risk responses and mitigation strategies, and to create a stakeholders management plan that identifies key stakeholders and develop strategies to manage their expectations.

The methodology contains definitions, guidelines, and templates for the various project management activities necessary for a successful project. Analytical

research methodologies are incorporated to bring the plan together. This study is made up of the final deliverables of the project that correspond to the management plans: management plans for scope, schedule, costs, quality, resources, communications, risks, and stakeholders. Processes in this plan is guided by the Project Management Institute (PMI) A Guide to the Project Management Body of Knowledge (PMBOK). The methodology for this plan involved the use of the PMBOK guide to support the creation of the subsidiary management plans. These management plans integrated into the entire life cycle of the project. The main sources used to gather information included A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Six Edition along with interviews held with the Seine Bight Reservoir to Museum Foundation (SBRMF) committee members.

Upon completion of this Project Management Plan, Subsidiary Management Plans documents and templates will be available to support the project. Museum construction activities were planned in keeping with best practices. In addition to that, Planning documents will provide guidance and direction for specific management, execution, and control activities.

Based on the objectives previously outlined, it can be concluded that the need for financial and human resources will be a major factor in the execution of this project plan. Regarding human resources, the project relies on volunteers most of whom are not fully dedicated. Without adequate resources implementing these formal methodologies for project management will be challenging but critical for achieving success. This plan is customized so that the project to be carried out efficiently and effectively.

One of the major risks for the project was financing; the PMBOK Guide does not approach specific budgeting practices needed by this project to aid in fulfilling financial competency. It is recommended that the foundation, being a Nonprofit, modify its approach to budgeting. However, research from other sources could help the foundation develop their systems and processes. Modifications can include a fundraising plan, synchronize project budgeting with the foundation's annual budgeting, strategies to keep budget in balance with time, scope, and quality.

INTRODUCTION

1.1. Background

Seine Bight is a Garifuna community, one of just a handful of communities found in Belize, Honduras, Guatemala and Nicaragua. The Garifuna are descendants of St. Vincent Island, where indigenous Carib Indians from South America mixed with African slaves who escaped a sinking ship around 1635. These two races merged, blending language and culture into something entirely new - Garifuna. (belizeanjourneys.com). Seine Bight village has a rich heritage that includes oral traditions, performing arts, music, festive events, rituals, and social practices. Taking advantage of its rich heritage the village chairman and other village elders decided to transform the existing village water reservoir into a museum with the goals of cultural preservation and economic stimulation.

Seine Bight, and other similar communities in Belize, are often approached with initiatives, and strategies developed by organizations attempting to fulfil their mandates. Time and again these strategies and initiatives are neither necessary, adequate nor are they developed with the collaboration of community members. This has led to many unfinished, and failed projects; since community members were not involved, they subsequently had no vested interest in these projects.

This Project Management Plan (PMP) will seek to guide the members of the foundation by integrated project management plans into various processes that the foundation undertakes. The plans tailored to this specific organization will include processes, stakeholder /responsibility/risk matrices, organizational charts, and other relevant information to guide the foundation. The plan will further aim to uncover realistic opportunities and threats present in the environment; risk mitigation methods, and resources required to complete the project.

1.2. Statement of the problem

The major problem is that the Foundation, a nonprofit organization lacks a project management methodology. The project is considered small scale with limited resources available the foundation, and there is no concrete plan for managing scope, cost, resources and communication between stakeholders amongst others. The creation of a project plan was not considered by the Foundation, but it is necessary for the completion of the museum.

The project relies on donors for funding. In addition to that, the foundation does occasional fundraising; therefore, work is done in phases when financing is available. The development of this Project Management Plan should add structure to and improve capabilities within the foundation. It is expected that these changes if adopted will encourage the team to reach new milestones and inject renewed interest and commitment of stakeholders all with a view to see the new museum completed and operational.

1.3. Purpose

The purpose of this study is to develop a Project Management Plan to effectively carry out project management activities so that the museum foundation can complete its building operations within the estimated time frame, with quality standards required for museums and within budget. The foundation is committed to the community and its stakeholders to transform the village water reservoir into a Garifuna heritage museum of culture and history.

“Small projects have unique challenges over larger ones. Because they are small, it's tempting to skip the planning process and start executing the work” Larson, (2004). The museum project is a relatively small project not to be compared with the museum of a developed country with adequate funding available for the completion of its activities. For a small project, it

has had several issues relating to the overall management of the project. The foundation has displayed inefficiencies and opportunities that need to be further explored. Equipped with a Project Management Plan the foundation can either choose to continue its fundraising efforts or seek a grant from central government or other agencies to complete the project. Options will be detailed in the plan on how to mitigate inefficiencies such as time and resources management. The Project Management Plan should also facilitate financial efficiency and reporting with the inclusion of document templates and subsidiary plans. Some benefits to be derived from the project plan are listed below.

Benefits

1. The foundation will have an organized, methodological plan to approach new donors for funding.
2. The limited resources will be organized and managed accordingly.
3. With proper time management the project will be completed within the estimated timeframe.
4. Enhanced communication and collaboration
5. Improved transparency, decision making, roles and accountability
6. Incorporate sustainable practices as much as possible within the project procurement and resource management.
7. Enable an environment where the members are dedicated to preserving the history and culture.

1.4. General objective

General objective:

To develop a Project Management Plan that integrates project management principles along with best practices to increase the ability to manage the project with available resources, improved response to funding pressures and changing conditions.

1.5. Specific objectives

1. To create a Project Charter for the integration management process of identifying, unifying and coordinating activities within the project management process groups.
2. To create a Scope Management Plan, that defines work that is required to get the project completed.
3. To create a Time Management Plan for assigning duration to work packages to complete the job within the allotted timeframe.
4. To create a Cost Management Plan to establish a framework for cost management.
5. To develop a Quality Management Plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically quality management for museums.
6. To create a Resource Management Plan for assigning resources and activities and to ensure they are being allocated and managed accordingly

7. To develop a Communications Management Plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholders communication needs.
8. To create a Risk Management Plan that identifies risks, risk responses and mitigation strategies.
9. To develop a Stakeholders Management Plan that identifies key stakeholders, and develop strategies to manage their expectations.

THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

2.1.1 Company/Enterprise background

The Foundation was established and legally registered in July 2014. The water reservoir is considered sentimental and historic to the village of Seine Bight. Before central government implemented a water system infrastructure, villagers retrieved drinking water from the reservoir. Instead of demolishing the reservoir, the then village chairman decided to form the SBRMF (Seine Bight Reservoir to Museum Foundation) whose main goal is to ensure that the transformation is realized and the completed museum is operational.

2.1.2 Mission and vision statements

The Mission of the SBRMF is to spearhead the transformation of the historic village water reservoir to a Garifuna cultural and historical museum and promote the cultural, educational, and economic aspirations of the village, the Garifuna community, and the country of Belize. This final graduation project will deliver a Project Management Plan to further equip the foundation with the necessary subsidiary plans to ensure that the project is successfully completed within a reasonable timeframe. In addition to its mission the foundation also has goals which are listed below.

Psychological goal:

Sensitizing the people of Seine Bight to the community-based goal of creating a museum by instilling a sense of ownership in every child/adult, male and female of the village.

Physical goal:

Develop a cultural and historical museum that tells the story of the Garifuna people with emphasis on the Garifuna people of Seine Bight Village.

Financial goal:

The estimated cost to complete the museum transformation is \$314,603.00BZE dollars.

2.1.3 Organizational structure

The foundation consists of an executive board at the administrative level followed by liaison officers and partner organizations the Chairman is the head of the foundation (see figure 1).

Liaison Officers

- Approximately 15 active residents of Seine Bight
- Approximately 20 Regional Liaison Officers who reside across the country of Belize, United States and the Caribbean

Partner Organizations

- The University of South Florida, Tampa, Department of Anthropology
- Belize National Institute of Culture and History - Department of Museum
- The Seine Bight Village Council
- The National Garifuna Council Seine Bight Branch

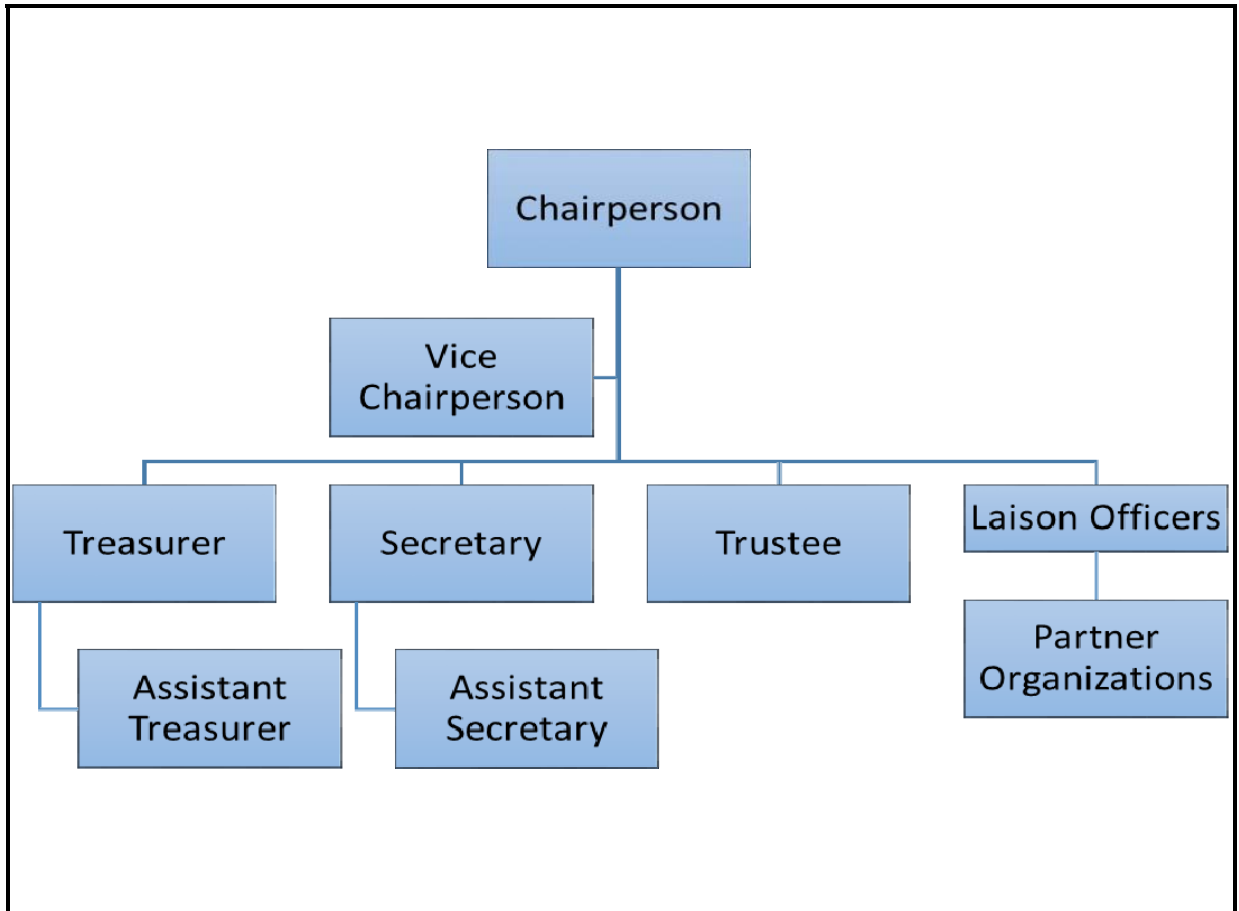


Figure 1: Organizational Structure of the Seine Bight Museum (source: compiled by Author)

2.1.4 Products offered

Visitors to the museum will be enriched with the story behind the rich culture and history of the Garifuna Village through exhibits and displays. Artifacts and information from oral histories and archival documents will also be included.

2.2 Project Management Concepts

2.2.1 Project

The PMBOK® Guide has defined a project as “A temporary endeavor undertaken to create a unique product, service, or result” (Project Management Institute, 2017, p.4)

2.2.2 Project management

According to the PMBOK® Guide Project Management is the “application of knowledge, skills, tools, and techniques to project activities to meet the project requirements”, which are categorized into five Process Groups and ten knowledge areas.” (Project Management Institute, 2017, p, 10).

Project Management Methodology adopted by the Project Management Institute (PMI) and the Guide to the Project Management Body of Knowledge (PMBOK® Guide) functions as a reference to guide this process. This Methodology focuses on the Processes that a project goes through namely initiation, planning, executing, monitoring, and controlling, and closing. Following this methodology simplifies and project breaking down the more complicated larger portions into smaller packages. These smaller work packages can then be easily monitored and controlled to obtain the desired outcomes.

This project will benefit from incorporating PMBOK guide best practices in the subsidiary plans methodology. With added value, the project will be organized, resources will be used efficiently and process will be planned for, which decreases the likelihood of wastage and rework.

2.2.3 Project life cycle

The PMI has remained the leading professional association for project management and has created the definitive manual of best practices for project management, A Guide to the Project Management Body of Knowledge (the

PMBOK Guide). The PMBOK Guide details forty-two processes that fall into five Process Groups: Initiating, Planning, Executing, Monitoring and Controlling, and Closing (**see figure 2**). The processes also fall into nine knowledge areas: Integration, Scope, Schedule, Cost, Quality, Resources, Communications, Risk, and Procurement (Mann, 2019).

The initiation phase is the first phase of the entire project management life cycle. The goal of this phase is to define the project, develop a business case for it, and get it approved. For this project the requirements and scope are examined and documented and a Project Charter is created. This charter is an authorization document for the project. Upon approval, the project then enters the planning phase.

For the museum project the planning stages involved organizing a team and dividing work packages and responsibilities, registering the foundation, commence the process of acquiring legal title for the land and finally seeking approval from the ministry of History and culture. The planning stages vital as it establishes guidelines and baselines for project execution to closing. After planning the execution phase follows. This stage is where the bulk of the work is done and the magic happens. This is where deliverables are built to make sure the project is meeting requirements. During this period, variances in cost schedule or any other monitoring tool is recorded and examined to ensure that the project stays on the correct path. Adjustments to the project plan may be needed if an unforeseen circumstance or a change in direction may occur.

The last of the process groups is the closing phase. The closing phase is a critical step in the project management life cycle. It signals the official end of the project and provides a period for reflection, wrap-up, and organization of materials. In the context of the museum project this would be the complete transformation of the reservoir to a museum building equipped with the necessary artifacts and exhibits.

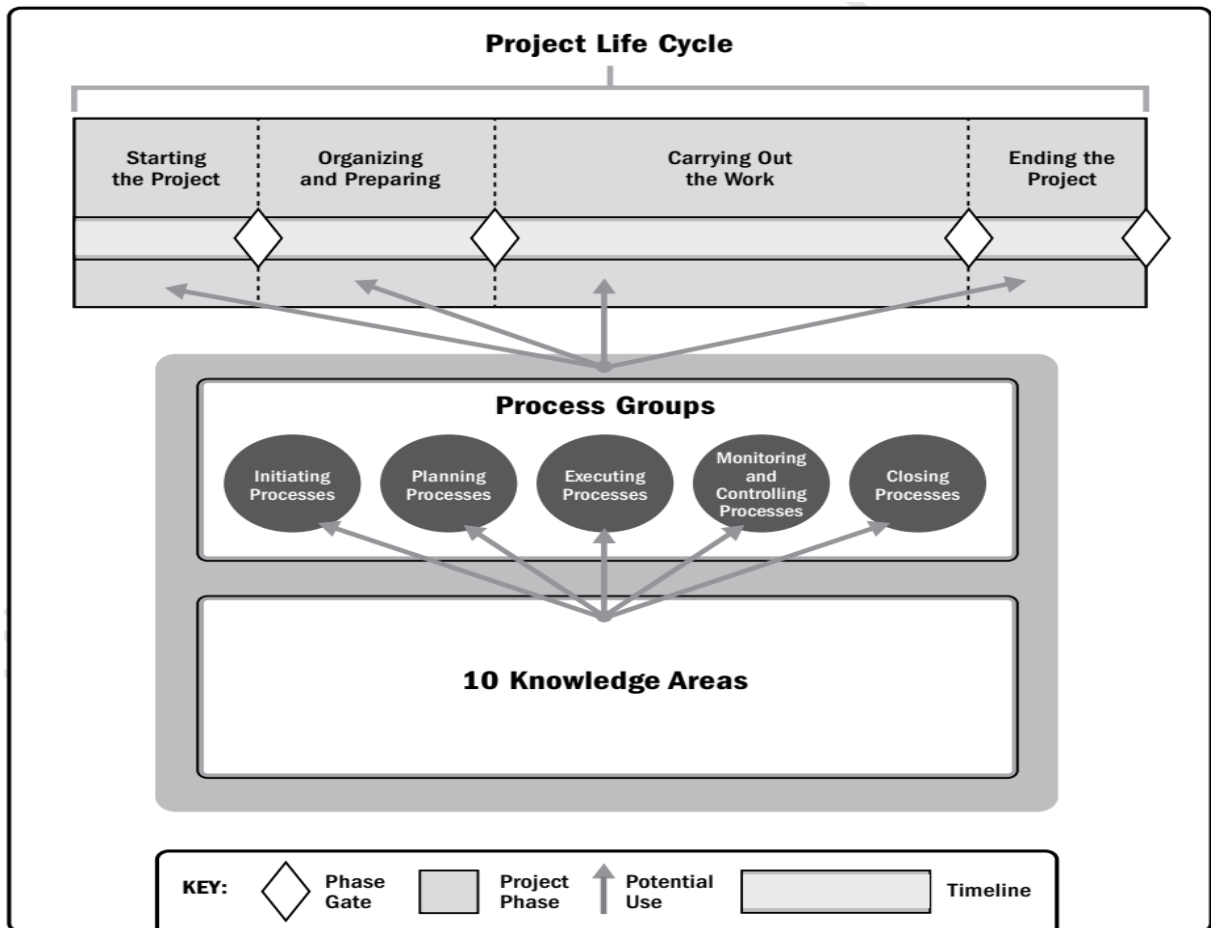


Figure 2: Relationship between PMBOK Guide Project Components. Reprinted from *A Guide to the Project Management Body of Knowledge* p.18. Project Management Institute, 2017. Copyright 2017 by the Project Management Institute.

2.2.4 Project Management Processes

The PMBOK Guide 6th Edition defines project management processes as processes that “ensure the effective flow of the project throughout its life cycle” (PMI, 2017). Assigned to one of each of the five (5) process groups, processes span each of the ten (10) knowledge areas (see figure 3 and 4).

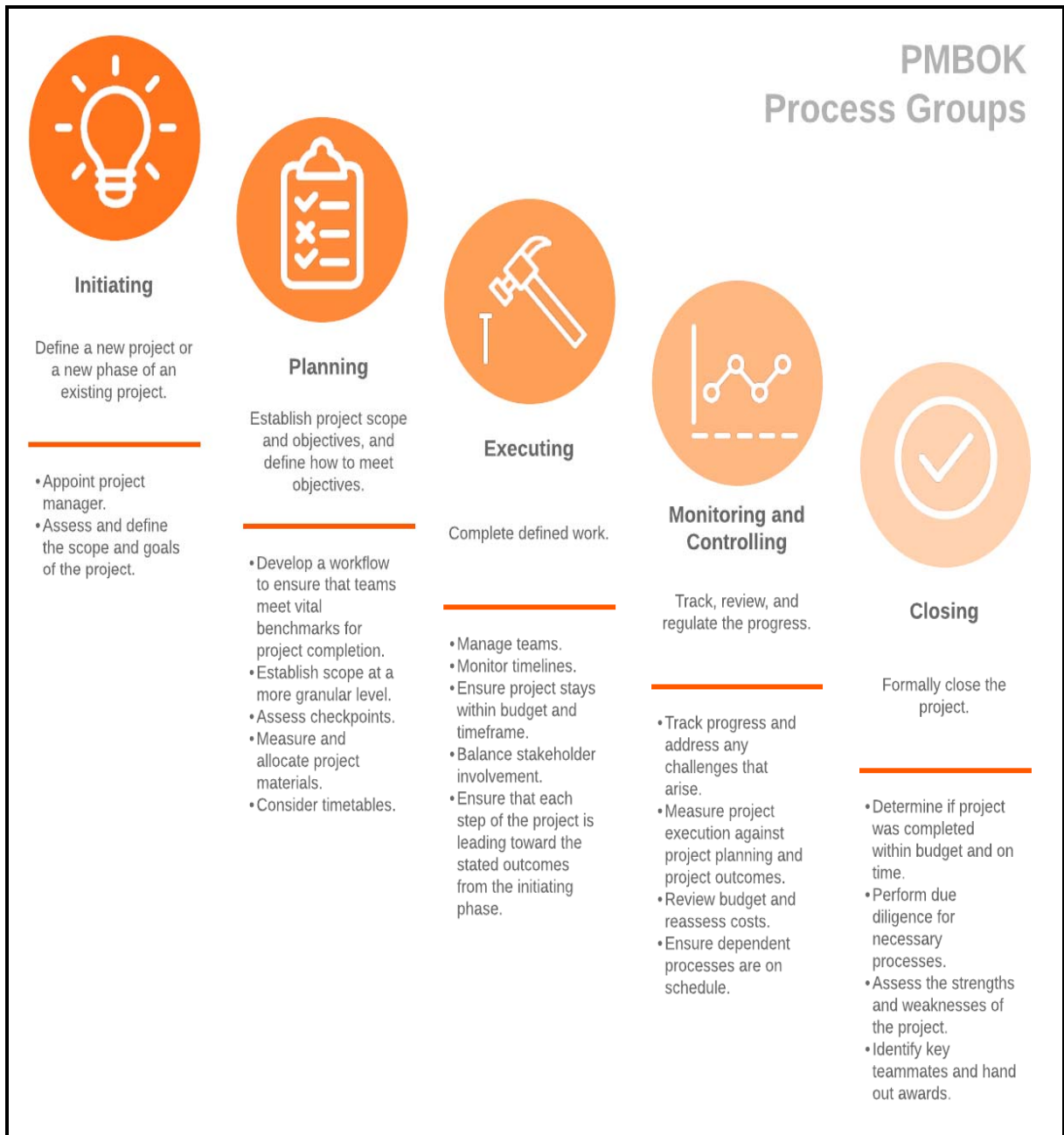


Figure 3: PMBOK Guide Process Groups. Reprinted from Lucid Charts. (<https://www.lucidchart.com/blog/what-is-pmbok.html>). In the public domain. Copyright 2021 by Lucid Software Inc.

The 49 Project Processes in the PMBoK® 6th Edition


		The Five Project Management Process Groups					
		Initiating	Planning	Executing	Monitoring and Controlling	Closing	
The Ten Project Management Knowledge Areas	Project Integration Management Ch 4	4.1 Develop Project Charter	4.2 Develop Project Management Plans	4.3 Direct and Manage Project Work 4.4 Manage Project Knowledge	4.5 Manage and Control Project Work 4.6 Perform Integrated Change Control	4.7 Close Project or Phase	7
	Project Scope Management Ch 5		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope		6
	Project Schedule Management Ch 6		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 Control Schedule		6
	Project Cost Management Ch 7		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs		4
	Project Quality Management Ch 8		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality		3
	Project Resource Management Ch 9		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources		6
	Project Communications Management Ch 10		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor Communications		3
	Project Risk Management Ch 11		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses	11.6 Implement Risk Responses	11.7 Monitor Risks		7
	Project Procurement Management Ch 12		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements		3
	Project Stakeholder Management Ch 13	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement		4
		2	24	10	12	1	49

Figure 4: Project Management Process Group and Knowledge Area Mapping. Reprinted from A Guide to the Project Management Body of Knowledge p.25. Project Management Institute, 2017. Copyright 2017 by the Project Management Institute.

2.2.5

2.2.6 Project Management Knowledge areas

A Knowledge area as shown in **figure 5** represents a complete set of concepts, terms, and activities that make up a professional field, project management field, or area of specialization. (Project Management Institute, 2017, p.23-24). There are ten knowledge areas, with corresponding management processes.



Figure 5: PMBOK Guide ten Knowledge areas. Master of Project Academy. (<https://blog.masterofproject.com/pmbok-pdf-pmbok-6-edition/.html>). In the public domain. Copyright by Master of Project Academy.

2.3 Other applicable theory/concepts related to the project topic and context.

2.3.1 Project Management Plan

According to (Project Management Institute, 2017) a Project Management Plan is “the document that describes how the project will be executed, monitored and controlled, and closed”. A project management plan contains detailed subsidiary management plans and other planning documents. The objective of a management plan is to define the approach to be used by the Project team to deliver the intended project management scope of the project. Project Management Plans also contains information about how the project would be financed. Currently the SBRMF project is being funded by donors and fundraising efforts. This method of funding has proven to be problematic due to the failed fundraising efforts or limited donor contribution. In addition to that the plan details how customers, stakeholders, and the surrounding environment will be protected from adverse project activities.

2.3.2 Subsidiary Plans and their function

Listed below in **chart 1** are Subsidiary Management Plans will be tailored to the Museum project. The 10 knowledge areas as per PMBOK guide are list but the project will develop plans for 9.

Chart 1 Subsidiary Plans and Functions (Source: compiled by author)

1. Integration Management Plan	Identify, define, combine, unify, and coordinate the project processes and activities.
2. Scope Management plan	Plan scope management, define scope, create WBS, validate scope, and control scope.
3. Schedule Management	Estimate activity durations, develop the schedule, and control the schedule.
4. Cost Management Plan	Plan cost management, estimate costs, determine the budget, and control costs.
5. Quality Management Plan	Define plan quality management, manage quality, and control quality.
6. Resource Management	Define plan resource management, develop the team, manage the team, and control resources.
7. Communications Plan	Plan communications management, manage communications, and monitor communications.
8. Risk Management Plan	Define plan risk management, identify risks, perform qualitative risk analysis, perform quantitative risk analysis, plan risk responses, implement risk responses, and monitor risks.
9. Stakeholder Management Plan	Identify stakeholders, create stakeholder matrix

2.3.3 PMBOK Guide

The PMBOK® Guide is PMI's fundamental and the world's most popular resource for effective project management practices. The knowledge in the PMBOK® Guide reflects what is actively practiced and historically proven. This guide is consistently updated to reflect the best practices that are evolving within the project management profession.

2.3.4 Project Integration Management

“Project Integration Management includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups” (Project Management Institute, 2017, p. 71). The processes involved in Project Integration Management are outlined in **Figure 6** below.

Integration in project management becomes noticeable when processes interact. Some benefits derived from proper Integration Management are improved decision making, due dates, result and project lifecycle are aligned, measures and monitors the project's success and it enables coordination. The project deliverables and strategic plans also need to be integrated with ongoing activities.

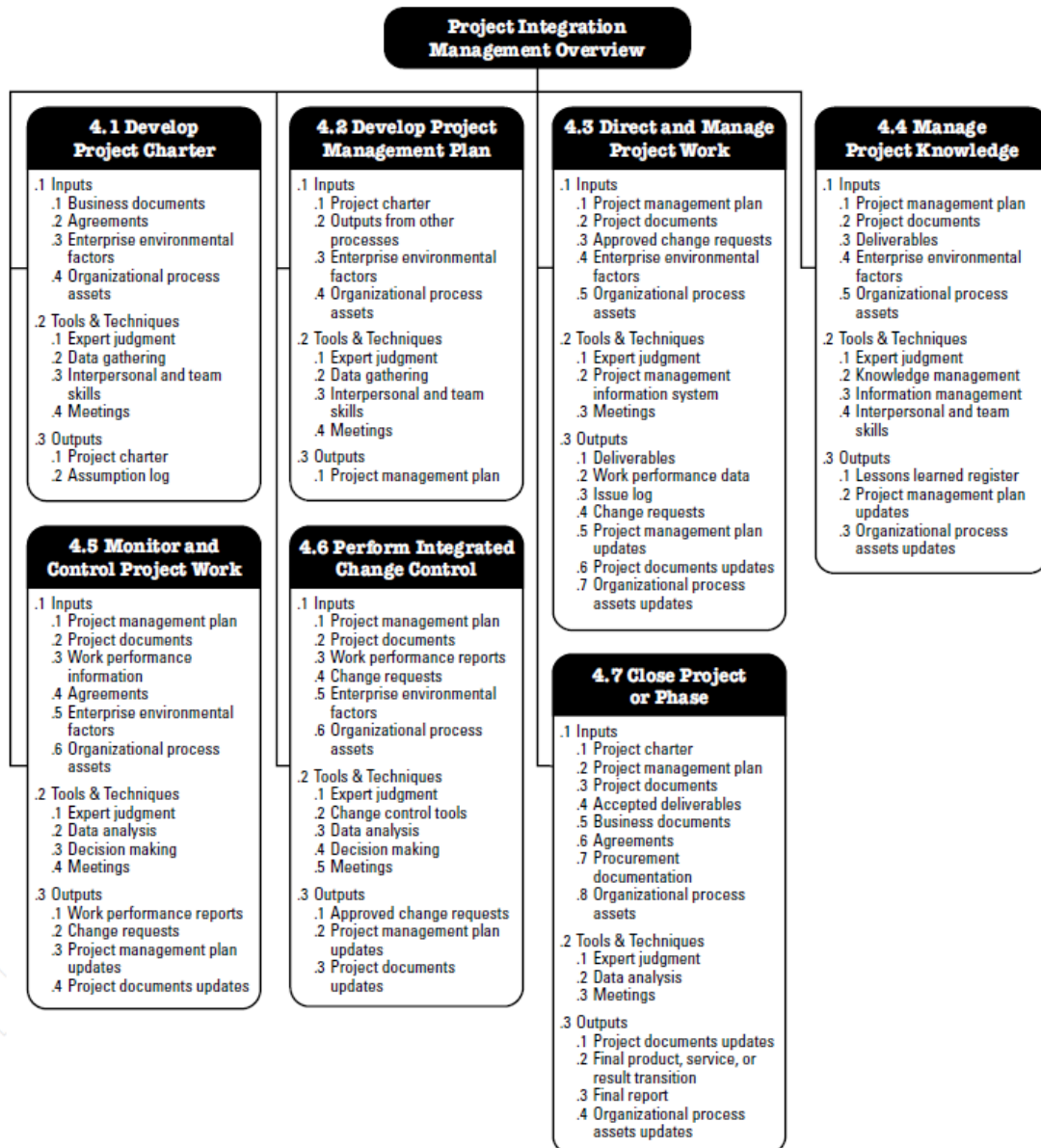


Figure 6: Project Integration Management. Reprinted from A Guide to the Project Management Body of Knowledge p.71. Project Management Institute, 2017. Copyright 2017 by the Project Management Institute.

METHODOLOGICAL FRAMEWORK

3.1 Information sources

3.1.1 Primary sources

According to Harvard University Library (2020) “a primary source provides first-hand testimony or direct evidence concerning a topic under investigation. They are created by witnesses or recorders who experienced the events or conditions being documented”. Primary sources provide the original materials on which other research is based and enable researchers to get as close as possible to what happened during a particular event or time. Primary sources may include surveys, interviews, observations, ethnographic research, historical and legal documents, eyewitness accounts, and results of experiments, statistical data, pieces of creative writing, audio and video recordings, speeches, and art objects. Interviews, surveys, fieldwork, and Internet communications via email, blogs, and newsgroups are also primary sources.

3.1.2 Secondary sources

Harvard University Library (2020) also defines secondary sources as sources created by someone who did not experience first-hand or participate in the events or conditions of the research. Santiago Canyon College library states that these sources describe, discuss, interpret, comment upon, analyze, evaluate, summarize, and process primary sources. In addition to that, a secondary source is generally one or more steps removed from the event or time and are written or produced after the fact with the benefit of hindsight. Secondary source materials to include Reference books, including dictionaries, encyclopedias, and atlases Articles from magazines, journals, and newspapers after the event Literature reviews, review articles and textbooks.

Chart 2: Information sources (Source: compiled by author)

Objectives	Information sources	
	Primary	Secondary
1. To develop an Integration management plan to unify the subsidiary management plans throughout the project.		
2. To create a Scope Management Plan with processes that ensure that the project's scope is accurately defined and mapped.	Interviews, Communications via email and telephone	PMBok® Guide Architectural Drawings, historical data
3. To create a time management plan for assigning duration to work packages to complete the job within the allotted timeframe.	Interviews, Communications via email and telephone	PMBok® Guide historical data
4. To create a cost management plan to establish a framework for cost management.	Interviews, Communications via email and telephone	PMBok® Guide Bill of quantities, historical data
5. To develop a quality management plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically quality management for museums.	Interviews, Communications via email and telephone	PMBok® Guide Architectural Drawing, historical data
6. To create a resource		

<p>management plan for assigning resources and activities and to ensure they are being allocated and managed accordingly.</p>	<p>Interviews, Communications via email and telephone</p>	<p>PMBok® Guide Bill of quantities, historical data</p>
<p>8. To develop a communications management plan for planning, collecting, identifying, and updating project information and relevant stakeholders communication needs.</p>	<p>Interviews, Communications via email and telephone</p>	<p>PMBok® Guide, historical data</p>
<p>9. To create a risk management plan that identifies risks, risk responses and mitigation strategies.</p>	<p>Interviews, Communications via email and telephone</p>	<p>PMBok® Guide historical data</p>
<p>10. To develop a Stakeholders management plan that identifies key stakeholders, and develop strategies to manage their expectations.</p>	<p>Interviews, Communications via email and telephone</p>	<p>PMBok® Guide, historical data</p>

3.2 Research Methods

The Oxford dictionary defines research methodology as the “The design of a particular research study: a set of procedures according to which it is undertaken, including techniques of data gathering and data analysis”.

This project is being done to solidify the importance of planning in everyday activities as a tool that will investigate, identify, and analyze alternate paths toward project goal. In the context of Project Management with the area of focus being construction the case study is the primary methodology followed by the waterfall.

3.2.1 Case Study methodology

Press Academia (2018) describes a case study as a research strategy and an empirical inquiry that investigates a phenomenon within its real-life context. Case studies are based on an in-depth investigation of a single individual, group, or event to explore the causes of underlying principles. A case study is a descriptive and exploratory analysis of a person, group or event and a project conveniently fits in this area. Case studies include the analysis of persons, groups, events, decisions, periods, policies, institutions, or other systems that are studied holistically by one or more methods. Press Academia (2018). Data used in case studies can be observations, interviews, questionnaires, reports, and archival records.

3.2.2 Analytical or Explanatory Methodology

The analytical methodology is a continuation of descriptive research. The researcher goes beyond describing the characteristics, to analyze and explain why or how something is happening. Therefore, analytical research aims to understand phenomena by discovering and measuring casual relations among them (Bunje,

n.d.). With this research method, information from multiple sources will be examined and used to develop the deliverables found in **Chart 3**.

In research, analytical research is fundamental because it encompasses critical thinking skills and critical assessment of the information obtained in research. Moreover, preference exists in the use of analytical research to discover the missing link in study information (Valcárcel, 2017).

Methodologies in project management are generally defined by the type of project life cycle they use and the development approach they take. Project life cycles fall into two primary categories, predictive and adaptive. In a predictive life cycle, the Iron Triangle is defined early on and generally adhered to (Mann 2019). This allows the process to flow easily from the early planning stages through the implementation stages without much change.

Chart 3 Research methods (Source: V. Nicholas, The Author)

Objectives	Interview	Analytical Research method
1. To develop an Integration Management Plan to unify the subsidiary management plans throughout the project.		Analytical method will involve using information sources as a basis in decision making when developing the project charter.
1.To create a Scope Management Plan with processes that ensure that the project's scope is accurately defined and mapped.	Interviews conducted with the Chairlady to define scope.	Use of information sources and evaluation of facts for decision making for the development of the documents which consist of the scope management plan.
2.To create a To create a Time Management Plan for assigning duration to work	Schedule will be developed from data in the	Use of information sources and evaluation of facts for decision making for the

packages to complete the job within the allotted timeframe.	construction documents as well as interviews with experts and stakeholders.	development of the documents that will consist of the time management plan.
3. To create a Cost Management Plan to establish a framework for cost management.	A budget will be developed from bill of quantities done by the project engineer along with the chairman.	Use of information sources and evaluation of facts for decision making for the development of the documents that will consist of the cost management plan.
4. To develop a Quality Management Plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically quality management for museums.	A Quality Management Plan will be developed with interviews from experts and relevant stakeholders.	Use of information sources and evaluation of facts for decision making for the development of the documents that will consist of the quality management plan.
5. To create a Resource Management Plan for assigning resources and activities and to ensure they are being allocated and managed accordingly.	Resource plan will be developed from construction documentation as well as interviews with experts.	Use of information sources and evaluation of facts for decision making for the development of the the resource management plan.
6. To develop a Communications Management Plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholders	Communication Plan will be developed from data observed from construction documentation as	Analytical method will involve information sources and evaluation of facts for decision making for the development of the documents that will consist

communication needs.	well as interviews with experts and stakeholders.	of the communication management plan.
7. To create a Risk Management Plan that identifies risks, risk responses and mitigation strategies.	Risk Management Plan will be developed from project charter and other historical documentation as well as interviews with experts and stakeholders.	Analytical method will involve information sources and evaluation of facts for decision making for the development of the documents which will consist of the risk management plan.
9. To develop a Stakeholders management Plan that identifies key stakeholders, and develop strategies to manage their expectations.	A Stakeholder Management Plan will be developed from historical documents along with interviews that include Chairlady.	Analytical method will involve information sources and evaluation of facts for decision making for the development of the documents that will consist of the stakeholders management plan.

3.3 Tools

The PMBOK® Guide (2017) defines tools as something “tangible, such as a template or software program, used in performing an activity to produce a product or result. Tools used to achieve the project objectives are listed in **chart 4**.

Chart 4 Tools (Source: V. Nicholas, The Author)

Objectives	Tools
1.To develop an Integration Management Plan to unify the subsidiary management plans throughout the project.	Meetings Brainstorming Expert judgment
2. To create a Scope Management Plan with processes that ensure that the project's scope is accurately defined and mapped.	Expert judgment Project Life cycle Project Proposal Work Breakdown Structure
3.To create a Schedule Management Plan for assigning duration to work packages to complete the job within the allotted timeframe.	Project management software Gantt Chart Observations Resource Leveling Resource requirements
4.To create a Cost Management Plan to establish a framework for cost management.	Expert judgment Parametric estimating Project management software
5. To develop a Quality Management Plan to determine quality policies, objectives, and procedures that pertain to the project. Specifially quality management for musems.	Cost of Quality Planning tools Meetings with experts
6. To create a Resource Management Plan for assigning resources and activities and to ensure they are being allocated and managed accordingly.	Resource Requirements Team Charter planning tools Meetings

7. To develop a Communications Management Plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholders communication needs.	Communication technology and methods
8. To create a Risk Management Plan that identifies risks, risk responses and mitigation strategies.	Risk Management Planning Risk Identification Qualitative Risk Analysis Expert judgment
9. To develop a Stakeholders Management Plan that identifies key stakeholders, and develop strategies to manage their expectations.	Stakeholder matrix

3.4 Assumptions and constraints

According to Usmani (2016) An assumption is what is believed to be true. These are anticipated events or circumstances that are expected during the project's life cycle. Assumptions based on experience or the information available on hand. Constraints are defined as "limitations imposed on the project: for example, budget, schedule, or resources, etc". (Usmani ,2016)

The PMBOK® Guide identifies six project constraints: scope, quality, schedule, budget, resource, and risk (**see chart 5**). However, three of these scope, schedule, and budget are commonly referred to as the triple constraints.

Chart 5 Assumptions and constraints (Source: V. Nicholas, The Author)

Objectives	Assumptions	Constraints
1.To create a Project Charter for the integration management process of identifying, unifying and coordinating activities within the project management process groups.	A Project Charter will be developed.	Project phases may not be completed in a timely basis.
2. To create a Scope Management Plan with processes that ensure that the project's scope is accurately defined and mapped.	The project scope will be defined.	The scope may change as the project progresses.
2.To create a Time Management Plan for assigning duration to work packages to complete the job within the allotted timeframe.	A realistic time management plan will be developed.	Resources available to complete a detailed budget.
3. To create a Cost Management Plan to establish a framework for cost management.	A detail budget will be developed.	No expert to determine policies, procedures etc.
4. To develop a Quality Management Plan to determine quality policies, objectives, and procedures that pertain to the project. Specifially quality management for musems.	Building standards will be incorporated in quality plan	No in house expert to determine policies, procedures etc.
5. To create a Resource Management Plan for assigning resources and activities and to ensure they are being allocated and managed accordingly.	A resource plan will be developed	Some resources may not be available or too costly to include.
6. To develop a Communications Management Plan for planning, collecting, storing, and updating project	All relevant stakeholders and their	With the global pandemic communication

Objectives	Assumptions	Constraints
information and identifying the relevant stakeholders communication needs.	communication needs will be addressed.	methods would be mostly virtual.
7. To create a Risk management Plan that Identifies risks, risk responses and mitigation strategies.	All known risk and mitigation strategies will be identified.	Some risk may occur because of other constraints and may show up later on.
9. To develop a Stakeholders Management Plan that identifies key stakeholders, and develop strategies to manage their expectations.	All stakeholder requirements will be identified along with their level of interest.	Limited input from relevant stakeholders

3.5 Deliverables

The (Project Management Institute, 2017) defines deliverable as any “unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project”. The deliverables for this project are listed in chart 6.

Chart 6 Deliverables (Source (Project Management Institute, 2017))

Objectives	Deliverables
1. To create a Project Charter to authorize the project team to execute project activities and allocate resources to the project.	Project Charter

2. To create a Scope Management Plan with processes that ensure that the project's scope is accurately defined and mapped.	Scope Management Plan
3. To create a Time Management Plan for assigning duration to work packages to complete the job within the allotted timeframe.	Time Management Plan
4. To create a Cost Management Plan to establish a framework for cost management.	Cost Management Plan
5. To develop a Quality Management Plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically quality management for museums.	Quality Management Plan
6. To create a Resource Management Plan for assigning resources and activities and to ensure they are being allocated and managed accordingly.	Resource Management Plan
7. To develop a Communications Management Plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholders communication needs.	Communications Management Plan
8. To create a Risk Management Plan that identifies risks, risk responses and mitigation strategies.	Risk Management Plan
9. To develop a Stakeholders Management Plan that identifies key stakeholders, and develop strategies to manage their expectations.	Stakeholder Management Plan

4 RESULTS

4.1. Project Integration Management

In developing the Project Management Plan for the building for the Museum, a Project Charter was developed as the first process in the Project Integration Management knowledge area. This was accomplished using interviews, meeting minutes and the *PMBOK® Guide* as sources. The Project Charter (**see figure 7**) formally authorized the project and provided the Project Manager with the authority to apply organizational resources to the project to produce the Project Management Plan.

PROJECT CHARTER	
Date	Project Name:
30 th November 2020	Project Management Plan for the construction of cultural and historical museum in the Seine Bight Village, Belize.
Knowledge Areas / Processes	Application Area (Sector / Activity)
Knowledge areas: Integration, Scope, Time, Cost, Quality, Resources, Communication, Risk, and Stakeholder Process groups: Initiation, Planning, Executing, Monitoring and Controlling, closing	Construction sector
Start date	Finish date
1 st August, 2020	December, 2022
Project Objectives	

The Seine Bight Reservoir to Museum Foundation is an independent organization formed specifically to oversee and manage the project, its mission statement is to spearhead the transformation of the historic village water reservoir to a Garifuna cultural and historical museum in Seine Bight Village. The museum will promote the cultural, educational, and economic aspirations of the village, the Garifuna community, and the country of Belize.

1. Build a structure equipped with design elements to promote conservation of heritage materials.
2. Develop a cultural and historical museum that tells the story of the Garifuna people with emphasis on the Garifuna people of Seine Bight Village.
3. To transform the water reservoir into a Garifuna Heritage Museum that is economically feasible to construct and maintain in a tropical environment.
4. To create a museum that projects a progressive image of the Garinagu people of Belize.
5. To ensure that the museum is self-sustainable and has the potential to stimulate economic activity for the residents in the area.

Project purpose or justification

This project responds to the increasing problem of uneven development and heritage loss in Seine Bight Village, a historical Garifuna community located on Placencia Peninsula in southeastern Belize. For Seine Bight, development inequality has become manifest in the socio-economic and physical landscape. To the north and south of the village are lavish tourist lodging facilities largely owned and managed by foreign expatriates that often discriminate against local Garifuna residents in hiring practices, contributing to unemployment and crime. Perceptions of Seine Bight village as “visibly filthy” – with trash littering the streets and beaches, crime, as well as some sewage disposal practices – factor into tourist preferences for Placencia village, a prominent ecotourism destination at the southern end of the peninsula.

Responding to structural inequalities enabled through expanding tourism development on the peninsula, village leaders and community members recognize their Garifuna cultural heritage as an asset for future, locally directed tourism development, and have drafted plans and expressed enthusiasm for the creation of a local culture and history museum.

Description of Product or Service to be generated by the Project – Project final deliverables
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Project Deliverables

- Project charter
- Architectural and Engineering Drawings
- Completion of museum transformation

Consultants' deliverables

- Drawings- include structural, plumbing, elevations, electrical and plumbing.
- Building permit
- Inspection report

Assumptions

Finances

It is assumed that donor funding and fundraising activities for project phases are successful.

Work team

It is assumed that the selected contractor is competent and efficient.

Management Plans

The Procurement Management Plan will be omitted for the PMP since ground work had already commenced years before with the input of architects and Engineers. Work done by some of these professionals were voluntary therefore no bidding was involved. Due to limited resources and the size of the project a local contractor from the surrounding villages will be utilized in the construction phase.

Schedule

It is assumed that the project will have delays if finance is to readily available to start phases on a timely basis.

Budget

It is assumed that the project can be accomplished for \$157,042,000.00 US.

Approval Documents

It is assumed that the Central Building Authority will approve the project drawings.

Weather:

It is assumed that the building must be weatherproof for the proper conservation of museum artifacts.

Constraints

The project should not exceed \$157,042.00 (USD)

The project duration is flexible.

Preliminary risks

Cause	Effect	Impact
Scheduling delays	<ul style="list-style-type: none"> ▪ Building approval ▪ Design delays 	Scope, time, quality
Inadequate Stakeholders engagement	<ul style="list-style-type: none"> ▪ Reduction in support to advance project 	Scope, time
Financial	<ul style="list-style-type: none"> ▪ Lack of funding for completion of phases 	scope, time, cost
Project administration	<ul style="list-style-type: none"> ▪ Delays in progress reports to stakeholders 	Time, cost

Budget

Item	Cost (USD)
Construction and Administration	139,001.38

12.5% General Sales Tax	inclusive
Permits	2,500.00
Contingency(10%)	15,540.15
Total	\$ 157,041.53
Milestones and dates	
Project Initiation	November 2, 2020
Transformation Design phase commence.	February 1, 2021
Consultation on Project scope and definition	February 25, 2021
Approval of Project Charter	March 1, 2021
Baseline Project Schedule	March 1, 2021
Complete Design Documents & Submit to the Central Building Authority	April 30, 2021
Project Management Plan complete	June 1, 2021
Funding allocated/identified to commence construction.	July 16, 2021
Break exterior structure wall to make opening into reservoir.	August 1, 2021
Building foundation for two room extension	November 22, 2021
Completing the construction wall of the two-room extension	February 25, 2022
Steelwork fabrication preparation for casting of new reservoir floor	March 30, 2022
Concrete works completed on ground floor	April 30, 2022
Plastering works to interior and exterior walls of the building	June 24, 2022
Installation of windows and doors	May 6, 2022
Interior fixtures and plumbing installation	June 30, 2022
Finishing Works	August 20, 2022
Project completion	September 30, 2022

Relevant historical information

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The Village Council and community leaders (in consultation with architects and engineers on the peninsula) have drafted plans for a local Garifuna culture and history museum in Seine Bight proposed on the site of a historic community (rain)water reservoir originally constructed after Hurricane Hattie in 1961. This black, white, and yellow painted historic water reservoir – emblematic of the Garifuna flag and located in a sandy seaside lot adjacent to the main road — had been used as a community gathering place since the early 1960s where residents collected water with buckets for drinking until a municipal piped water system was installed in the village in 1996 (Flores 2013:31–32).

Stakeholders

Foundation Members

Sarita Lambey Garcia - Chair

Hermia Cayetano Arzu

Christina Flores Palacio

Jane Thomas Nunez

Florita Guzman Palacio

Peter Justo Augustine

Delano Palacio

Consultants

- Architect
- Engineer
- Contractor
- subcontractor

Liaison Officers

- Approximately 15 active residents of Seine Bight
- Approximately 20 Regional Liaison Officers who reside across the country of Belize, United States and the Caribbean

Partner Organizations <ul style="list-style-type: none"> • The University of South Florida, Tampa, Department of Anthropology • Belize National Institute of Culture and History - Department of Museum • The Seine Bight Village Council • The National Garifuna Council Seine Bight Branch 	
Project Manager:	Signature :
Authorized by:	Signature:

Figure 7: Seine Bight Museum Project Charter (source: compiled by Author)

4.2. Project Scope Management

Scope management planning must be done in advance to determine the scope, as well as how it will be managed and controlled. A scope management plan was drafted to define scope. The Scope Management Plan included the scope management approach the Work Breakdown Structure (WBS), WBS dictionary, scope verification and the scope control measure that would guide the project management team throughout the project (Project Management Institute, 2017, p. 146).

According to Koeing and Wells (2017) this project is for the conversion of the Seine Bight water reservoir to Museum of History and Culture. In addition to identifying poverty and unemployment, through conversations with village leaders and community members, many individuals have lamented the loss, damage, and selling of heritage resources in their community due to rapidly growing tourism and tourism development in the region.

Scope Management Approach

The scope management for this project will be under to guidance and updated by the Project Manager. The scope for this project is defined by the Scope Statement, Work Breakdown Structure (WBS) and WBS Dictionary. The Project Manager and relevant stakeholders will establish and approve documentation for measuring project scope. Changes to scope need to be done formally through a change order process in consultation with relevant stakeholders.

Scope Definition

The scope for this project was defined an analysis of all the requirements needed were discusses in the initial meetings. These include the title to the land, requirements of the Central Building Authority building codes, and any other requirements that might be necessary based on recommendations from other museums in Belize.

Scope Description, Product Acceptance Criteria and Project Deliverables

The project includes the building of a 2-storey structure with the ground floor being the existing water reservoir converted and an additional first floor level.

1. Ground floor

On the first floor, the museum exhibit space (inside the historic water reservoir) will be adjoined to a building to the east (the seaside of the peninsula) with men's and women's restrooms, an office space, and a 858 square feet museum display area for storing and curating archival materials, artifacts, and other material collections.

2. Second Floor

A concrete roof is planned for the museum structure, upon which the botanical garden and a rooftop courtyard will be situated - accessible from outdoor staircases to the western and eastern side of the museum exhibit space. (see **Figure 8 and 9**) and **appendix 4**. On top of the adjacent office and restroom building, a small dining area is planned as part of an elderly gathering place as well as a place where community members, students, and tourists can purchase and share meals.

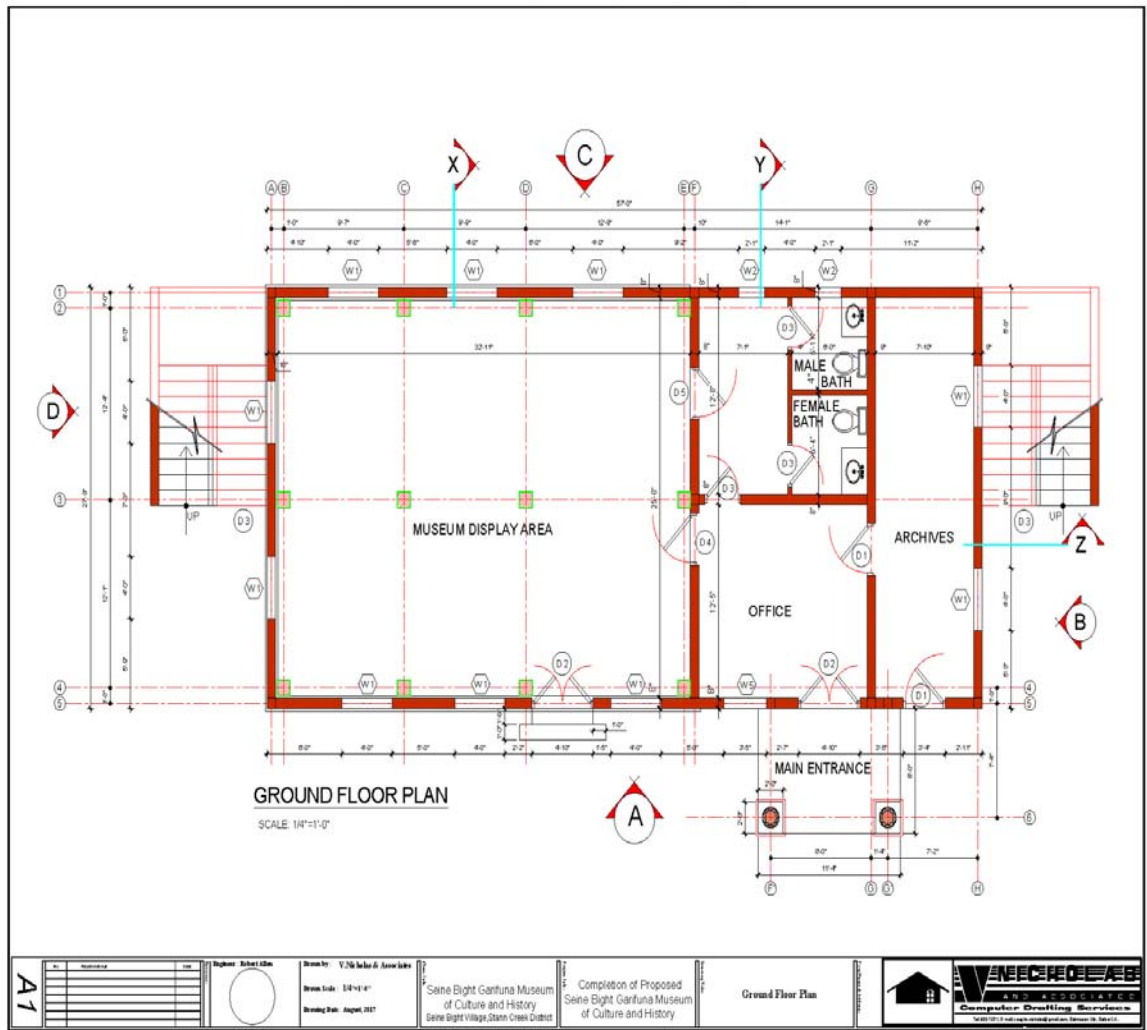


Figure 8: Museum Ground Floor Plan (source: Architect VNicholas and Associates)

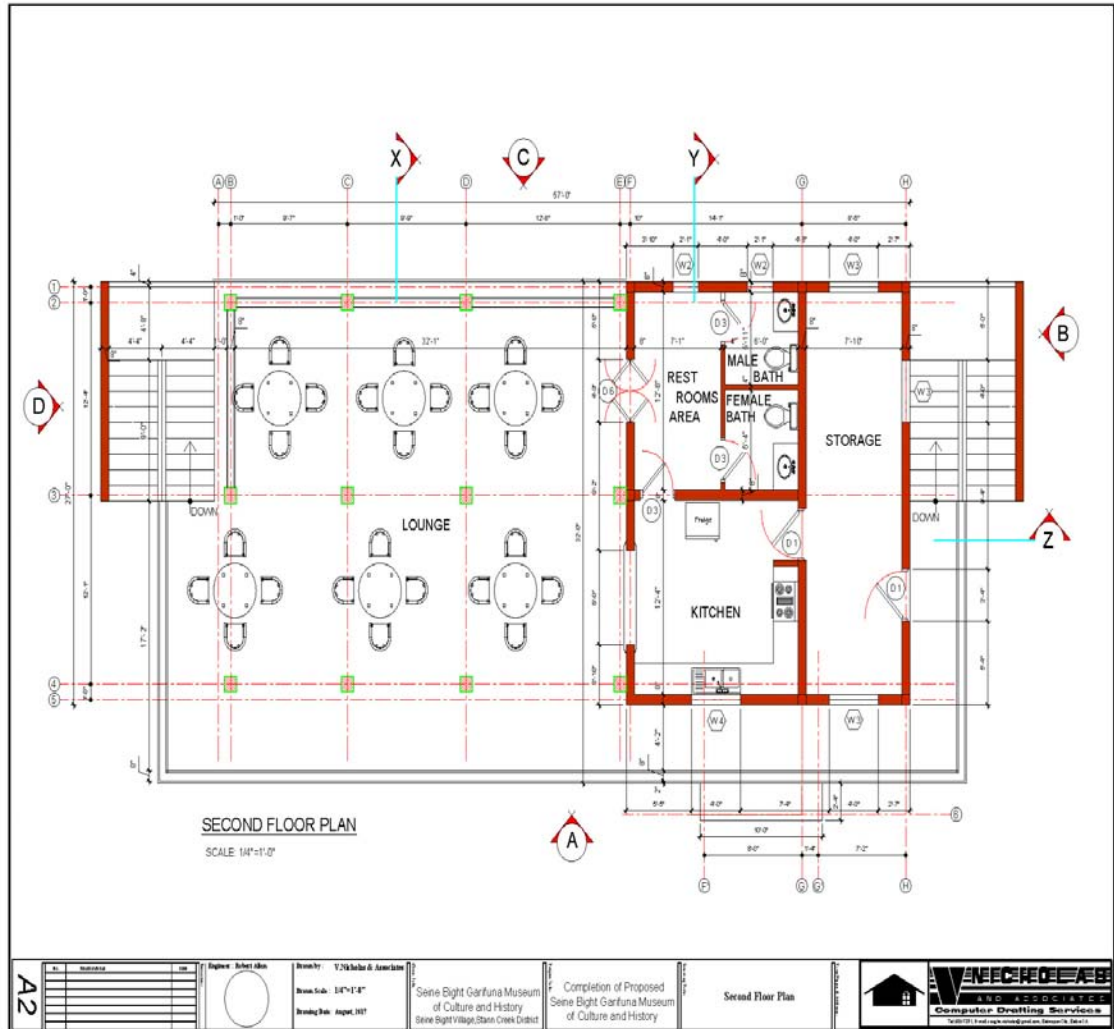


Figure 9: Museum Second Floor Plan (source: Architect, VNicholas and Associates)

Project Exclusions

- Concrete walkway to the main road
- Parking Lot
- Rooftop courtyard/botanical garden
- Interior furnishings and museum décor

e. A fundraising Plan for the Museum

Project Constraints

Financing is the main constraint of this project as funds are either donated to or fundraised by the Seine Bight Reservoir to Museum Foundation. (SBRM)

Project Assumptions

Weather:

Being a coastal village, the museum will be located near to the Caribbean Sea. It is assumed that the structure will be designed and constructed to withstand hurricanes.

Finances

It is assumed that there will be fundraising activities or grand funding available both local and abroad to complete the project.

Schedule

It is assumed that the project will have logs in between to allow for funding to be received at various stages throughout the construction.

Budget

Based on the engineers estimate it is assumed that the project can be accomplished using BZD \$314, 603.00 or 157,301.50.

Planning

It is assumed that the Central Building Authority will approve all building components as indicated on the drawings.

Work Breakdown Structure

The WBS is used as a starting point for scope management and is integral to other PMI processes, and, as a result, the standards that define these processes explicitly or implicitly rely on the WBS (Brotherton et al., 2018). The management team will construct a WBS is integral to initiating, planning, executing, and monitoring and controlling processes that are used to manage projects as they are described in the PMBOK® Guide—Sixth Edition (PMI, 2017). The decomposition process involves a WBS Dictionary that defines, details, and clarifies the various elements of the WBS. The network diagram is a sequential arrangement of the work defined by the WBS and the elements of the WBS are starting points for defining the activities included in the project schedule. (**see figure 10**).

The project is broken down into 4 phases: The design phase, preconstruction phase, construction phase, and the closure phase. Each of these phases is then subdivided further down to work packages (see WBS below).

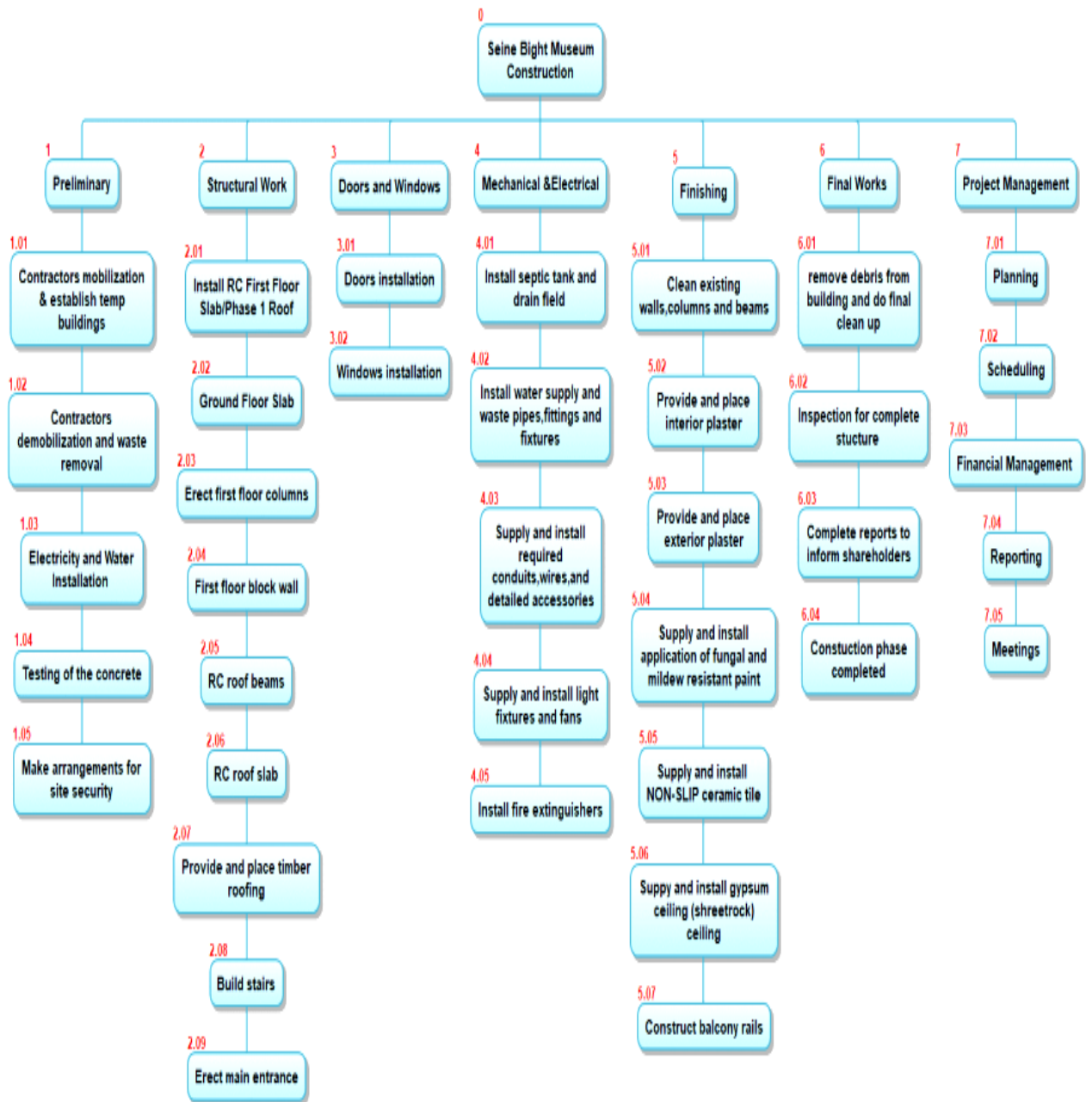


Figure 10: Work Breakdown Structure (source: Compiled by Author)

Scope Verification

As this project progresses, if there is any updating to be done it will be incumbent on the Project Manager to inform its major stakeholders. This project does not have a sponsor that is funding the entire project so if scope changes are reviewed and accepted from within the foundation and its major stakeholders, this will be logged by the secretary. Official signing is not necessary. Changes to scope can be recorded in the change request form in **appendix 6**.

4.3. Project Time Management

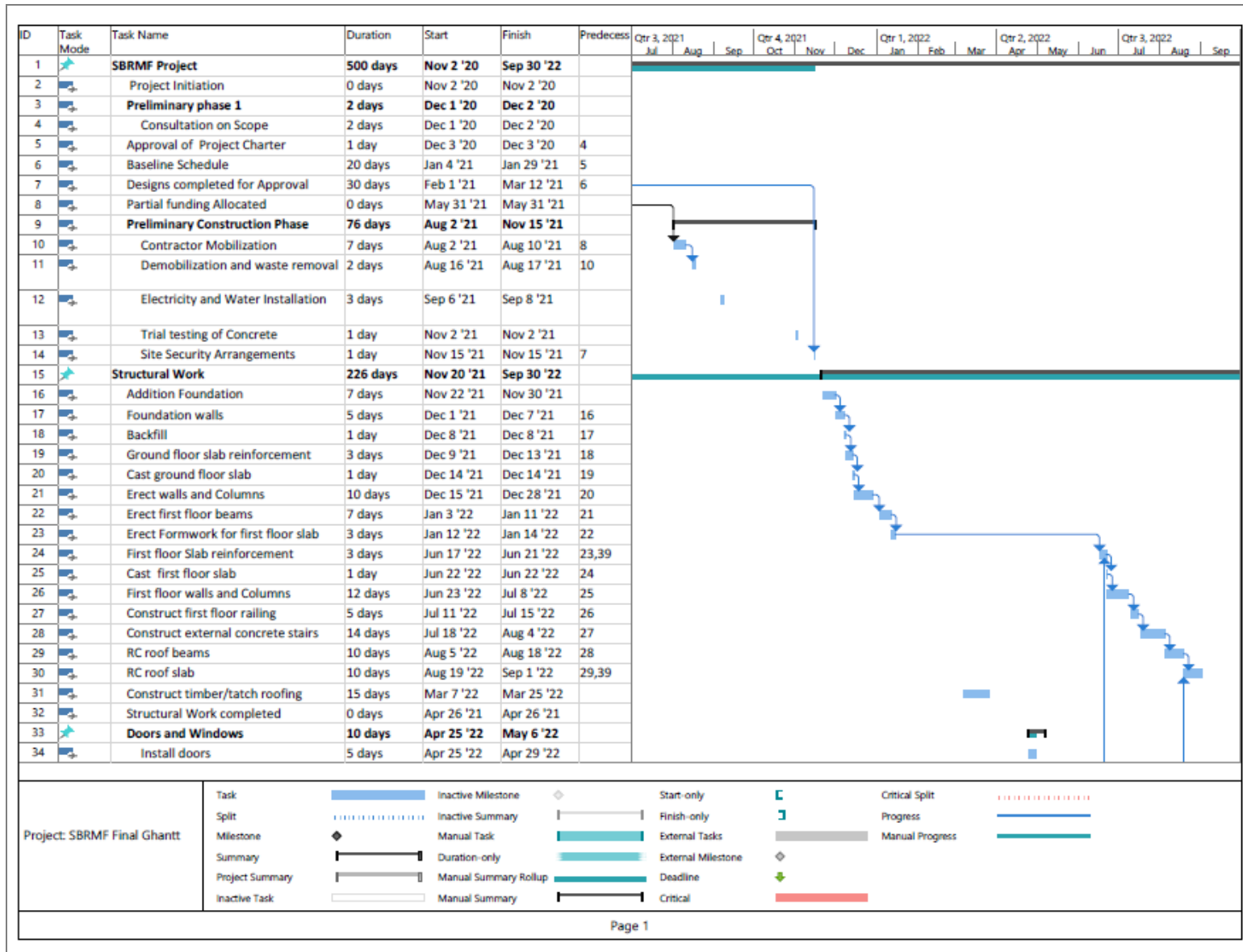
The project's time management involved developing the Schedule Management Plan that would be used throughout the project's life cycle.

During the planning of the schedule management process the foundation established policies and procedures that are the foundation all of the remaining 6 processes in time management. The key benefit of this process is that it provides a framework on how the schedule will be developed, executed, and controlled.

As a tool the project management software is used to develop a Gantt chart for scheduling purposes. A Gantt chart equipped the project with the necessary tools needed to oversee scheduling, assigning, and tracking of project tasks from initiation to completion. (**see figure 11**).

The Gantt Chart shows more accurately the relative length of each task and uses dependencies to overlap them when possible. However, the listing-style of tasks on the Gantt Chart means that tasks with multiple dependencies can be listed extremely far apart vertically (Bryant, 2019). The Gantt chart will give a snapshot of the of the entire project timeline so when tasks are being completed it will be shown in real time. This chart will also make allowance for leads and lags within the project which will allow the foundation time to secure funding to completion. Lastly, the foundation will be able to provide updated status reports to stakeholders if necessary.

The resource Requirements list shown in **Figure 19** is also used to determine what resources are need for the activities of the project.



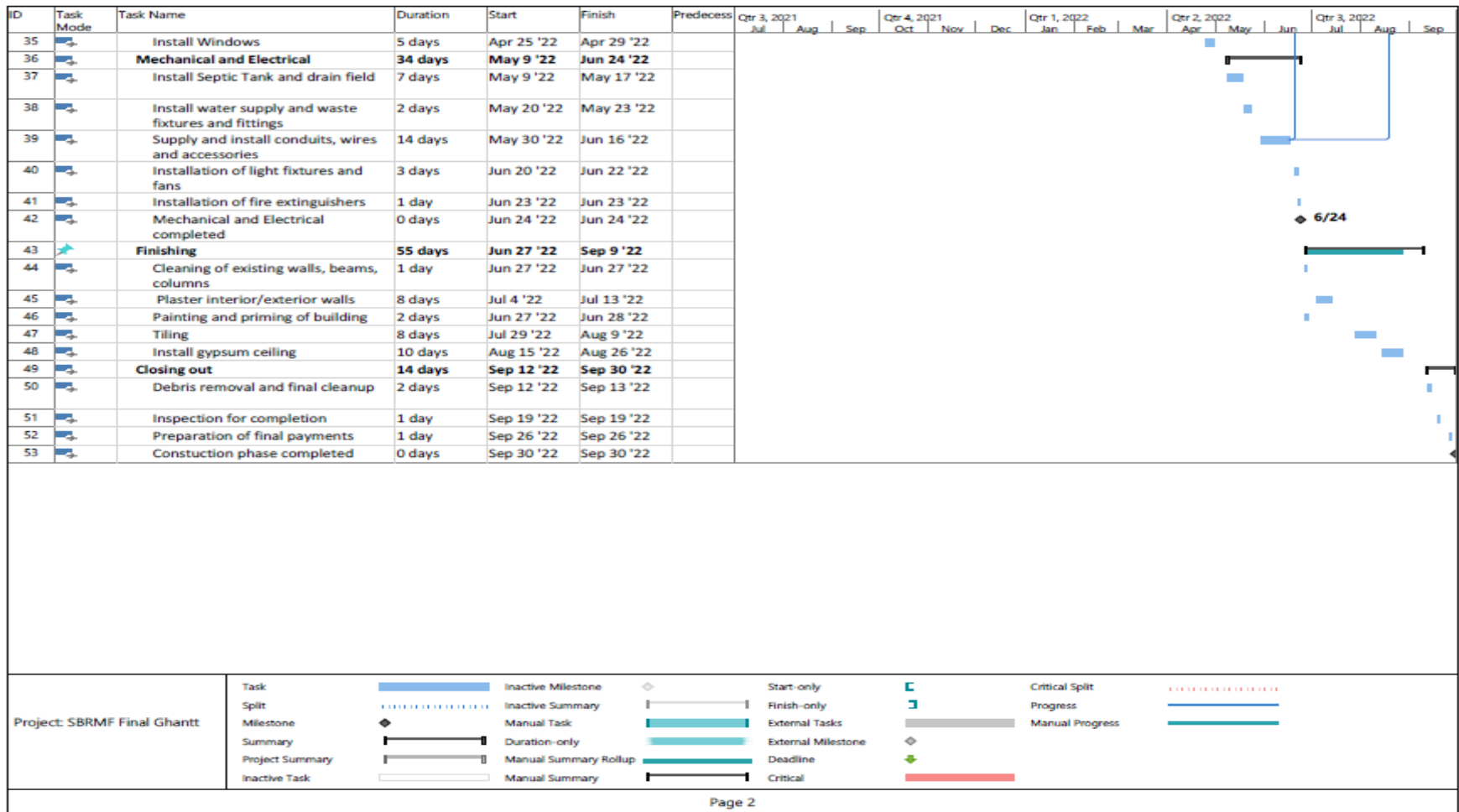


Figure 11: Seine Bight Project Gantt chart (source: Compiled by Author)

Activity List

An activity List seen in **figure 12** was created for the project this comprehensive list that includes all schedule activities required for the project along with activity identifiers and descriptions. The list was created with expert inputs primarily from the Engineer Mr. Francisco Gonzalez of Zenith Engineering Services and Designer Draftsman Mr. Vaughn Nicholas of VNicholas and Associates.

ACTIVITY LIST			
ACTIVITY ID	ACTIVITY TITLE	DESCRIPTION OF WORKS	RESOURCE REQUIREMENTS
1	Preliminary		
1.01	Pre- construction meeting	Final meeting before construction to commence. All the necessary approvals for project to commence are received and contractor payment and work schedule finalized.	SBRMF, Contractor
1.02	Contractors Mobilization	Contractor's mobilization and establishment of temporary buildings, storage, keeping site and its surroundings clean, and accommodation for workers.	Contractor and crew
1.03	Electricity and Water Installation	Provide electricity and water for the works including for payment of connection fees and charges during construction and to clear away and make good on completion.	Project Manager, Treasurer
1.04	Testing of the concrete	Testing of concrete used in the works; four cylinders are to be taken for each batch - two tested at seven days and two at twenty-eight days; two slump test per batch - one before placing and the other during placing.	Engineer/subcontract lab for testing
1.05	Site security	Hire security - all necessary watching and take all measures necessary for the security of the works.	Project Manager, Treasurer, contractor
2	Structural Work		
2.01	Install RC First Floor Slab	Supply and place edge and soffit formwork required including cleats, struts, and any necessary bracing as detailed in drawings.	Contractor and crew
2.02	Ground Floor Slab	Dewatering existing reservoir tank stone wall and keeping area dry.	Contractor and crew/plumber

2.03	Erect first floor columns	Fix column rebars dowel with approved adhesive materials such as HILTI HIT-RE 500 V3 into ground floor columns to ensure proper anchorage as not enough development length was provided from previous construction including cleaning, and drilling.	Contractor and crew
2.04	First floor block wall	Supply concrete blocks and erect walls complete with core filling every 32" including wall tiles at all wall intersections, sill, lintels, cap beams as detailed in drawings.	Contractor and crew
2.05	RC roof beams	Supply and place edge and soffit formwork required including cleats, struts, and any necessary bracing. Supply, cut, bend, and fix reinforcement required (fy = 60ksi) including spacer blocks, laps, splices, and wastage.	Contractor and crew
2.06	RC roof slab	Provide and place 4" block parapet including rebars, core filling with 3,000psi concrete every 32", 8"x 4" concrete capping reinforced with one #4 main bar and ties to rebars coming from blocks, form work etc.	Contractor and crew
2.07	Provide and place timber roofing	Provide, place, and fix timber roofing complete with 2x6 roof ridge board and rafters, 2x2 purlins, metal roofing 6" wide by 10" deep gutter, hooks, closures, fastenings, nails, screws, flashings, etc.	Contractor and crew
2.08	Build stairs	Installation and building of both stairs. Provide and place concrete stairs and formwork as shown on drawings	Contractor and crew
2.09	Main entrance	Construct main entrance. Provide and place decorative columns and formwork as shown on drawings	Contractor and crew
3	Doors and Windows		
3.01	Door's installation	Install solid core panel mahogany doors including frame, sanding, sealing, and varnished.	Contractor and crew
3.02	Windows installation	Installation of aluminum framed sliding glass windows including operations, insect screens, fixing windows to sill, side walls, and lintels.	Contractor and crew
4	Mechanical & Electrical		
4.01	Install septic tank and drain field	Supply and install all necessary water supply and waste pipes, fixtures, fittings, and accessories as detailed in drawings; to comply with local water authority regulations. Allow for connection to village	Plumber

		main line and buildings sewerage disposal system.	
		Provide for excavation, backfilling, dewatering, hold down reinforced concrete slab, all complete including pipes, fittings, supports, ancillary items all complete. Construct septic drain field as detailed in drawings. Allow for construction of concrete distribution box with all relevant accessories as detailed in drawings.	
4.02	Plumbing	Installation of bathroom and kitchenette fixtures and fittings as specified in drawings.	Plumber
4.03	Electricity and Water Installation	Supply and install all required conduits, wires, and detailed accessories within the proposed building as shown in drawings. Include fittings and all accessories up to the service entrance and to the building's main distribution panel. Ensure electricity connection in compliance with Belize Electricity Ltd (BEL) and Public Utilities Commission (PUC) regulations including construction of the service entrance, meter socket, weather head, conduits, and all detailed accessories. Work to be done by a licensed electrician.	Electrician
4.04	Installation of Fixtures	Supply and install light fixtures and fans as per drawings.	Electrician
4.05	Building safety	Install fire extinguishers Supply and install fire extinguisher on columns as shown in drawings. Provide for emergency sign installation. Provide to install Smoke Detectors, Sprinklers, and Fire Alarm System	Contractor and crew, electrician
5	Finishing		
5.01	Cleaning	Contractor's demobilization and removal of construction plant, surplus material, temporary materials, and debris from site on completion of the works and leaving the site in a clean and tidy condition.	Contractor and crew
5.02	Provide and place interior plaster	plastering works (as detailed in drawings)	Contractor and crew
5.03	Provide and place exterior plaster	plastering works (as detailed in drawings)	Contractor and crew

5.04	Painting	Supply and install application of one (1) coat primer and two (2) coats mildew and fungal resistant paint to external walls including scaffolding, painting equipment, application of a joint sealant around window and door jambs.	Contractor and crew
5.05	Tiling	Supply and install 12'x12" non-slip ceramic floor tiling to areas indicated on drawings for both the ground floor and first floor, complete with approved thin-set and grouting including cleaning of tiles post application.	Contractor and crew
5.06	Ceiling	Supply and install gypsum ceiling (sheetrock) ceiling to ground and first floor in areas as shown on drawings including necessary support system levelled.	Contractor and crew
5.07	Balcony	Construct balcony rails. concrete rail reinforced with one #4 main bar (tie rebars coming from banisters to bottom and top rails), fixing to columns, formwork, painting with one primer and two coats paint,	Carpenter/contractor and crew
6	Final Works		
6.01	Cleaning	Remove debris from building and do final clean up	Contractor and crew
6.02	Inspection	Inspection for complete structure	Engineer/Chairlady-PM
6.03	Preparation of final payments	prepare final payment due to contractor	Treasurer
6.04	Construction phase completed		
7	Project Management		
7.01	Planning	Planning and updating project activities throughout project lifecycle	project team
7.02	Scheduling	Planning of project activities, assigning timeline and dates to determine and control project duration	Project Manager/Engineer
7.03	Financial Management	Monitoring the financial expenditures and funds received for fundraising activities and donations	Treasurer/Project Manager
7.04	Reporting	Documenting project activities, preparing reports for updating to the relevant stakeholders on the progress	Project Manager/secretary
7.05	Meetings	Periodic meetings held if necessary, on management issues that may arise.	Project Manager/Secretary

Figure 12: SBRMF Activity List (source: Compiled by Author)

Resource Levelling

Resource levelling as defined by PMBOK is a "technique in which start and finish dates are adjusted based on resource constraints with the goal of balancing demand for resources with the available supply." The SBMRF, faced with the uncertainty of resources can utilize this technique to create a balance in the distribution of its resources.

According to Dubey, 2015 resources are a requirement to complete a specific task. With limited resources, while preparing the schedule structure, certain tasks were to be completed simultaneously. In some cases, the same resource is being used in both the parallel tasks due to limited availability. Resource levelling will be used to examine unbalanced use of resources over time and for resolving over-allocations or conflicts.

During planning activities, tasks are scheduled based on the resources available at the time. Tasks are rescheduled sequentially to manage the constraint. Levelling will be used to balance the workload of primary resources over the course of the project, taking into consideration time cost and scope constraints.

4.4 Project Cost Management

Introduction

The Project Manager will be responsible for managing and reporting on the project's cost throughout the duration of the project. Whenever the group is available to meet the Project Manager will provide an update on the financial status. Assistance will be given by the treasurer of the Foundation who is tasked with closely monitoring and recording all funds received. In larger projects with a project staff, performance would be measured using earned value. In this project performance will not be monitored. However, the Project Manager is responsible for cost deviations or financial issues that may occur and finding ways to correct it.

Cost Management Approach

After developing the schedule, the costs were estimated for the project (see figure 14). The tools and techniques used were expert judgement, bottom-up, analogous, and parametric estimating, and a project management software. Meetings were conducted with Mr. Francisco Gonzalez, the engineer, determined the most effective means of estimating the budget for the project. The Project used (bottom-up estimating) in a modified Microsoft Excel to complete the project budget spreadsheet. Bottom-up estimating involves the estimation of work at the lowest possible level of detail. These estimates are then aggregated in order to arrive at summary totals.

Using the information from the Activity Costs Estimates, Scope Baseline, Cost Management Plan, Project Schedule, and Risk Register, the budget was determined by aggregating the costs of each work package. The Cost Baseline seen in figure 14 below was developed using a template.

Measuring Project Costs

Due to the nature of this project no project costs will be measured. This is also not a requirement from the stakeholders.

Contingency reserve

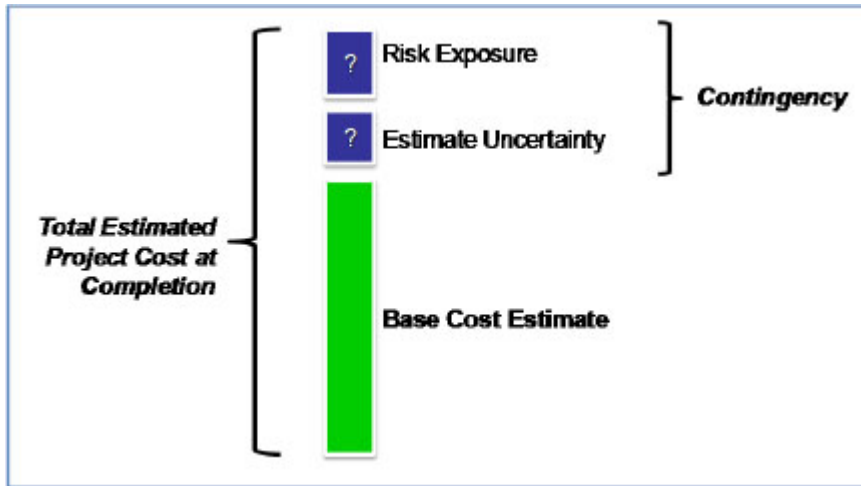


Figure 13: Note. From “Contingency—Are you covered?” Paper presented at PMI® Global Congress 2012, by England, K. and Moreci, J, 2012 . Project Management Institute, 2017. Copyright 2017 by the Project Management Institute.

Based on the results of the risk assessment conducted for the project a contingency reserve is applied at the overall project level for overall project risk. The 10% contingency reserve (**see figure 13**) applied is the estimated amounts considered adequate by the experts namely the Architect and Engineer in this case to meet the unplanned expenses to complete the project within the budget. It is noted that this project may not have enough funds to cover a contingency, but it is still included if in the future the project receives a grant from the Government or other agency it is prudent that a contingency be added as a percentage of the total cost.

Cost baseline

CODE	ACTIVITY NAME	ACTIVITY COST (BZE\$)	SUBTOTAL	Notes
WBSID				
1	Preliminary			Material and labour cost
1.01	Mobilization	15,000.00		
1.02	Contractors' demobilization	5,000.00		
1.03	Electricity and Water Installation	3,000.00		
1.04	Testing of the concrete	2,000.00		
1.05	Site security	7,500.00		
			32,500.00	
2	Structural Work			
2.01	Install RC First Floor Slab			
2.02	Ground Floor Slab			
2.03	Erect first floor columns			
2.04	First floor block wall			
2.05	RC roof beams			
2.06	RC roof slab			
2.07	Provide and place timber roofing			
2.08	Build stairs			
2.09	Main entrance			
			82,934.26	
3	Doors and Windows			
3.01	Doors installation	12,480.00		
3.02	Windows installation	10,380.00		
4	Mechanical &Electrical			
			22,860.00	
4.01	Plumbing			
4.02	Plumbing	41,300.00		
4.03	Electricity and Water Installation			

4.04	Electrical	25,301.00		
4.05	Building fire safety and security	10,760.00		
			77,361.00	
5	Finishing			
5.01	Cleaning	500.00		
5.02	Provide and place interior plaster	5,124.00		
5.03	Provide and place exterior plaster	7,164.00		
5.04	Painting	8,192.00		
5.05	floor and wall Tiling	24,957.50		
5.06	Ceiling	11,550.00		
5.07	Balcony	4,860.00		
			62,347.50	
	Professional fees			
	Engineer		5,000.00	Labor only
	Architect		3,000.00	Labor only
	Subtotal		286,002.76	
	Contingency Reserve 10%		28,600.28	
	Total Project cost		\$314,603.04	

Figure 14: SBRMF Cost Baseline (source: Compiled by Author)

Budgeting for Fundraising

The Seine Bight Reservoir to Museum Foundation relies on funding from fundraising activities as part of its project financing. With that said, a detailed fundraising budget inclusive on income and expenses will be actualized for the project. (Joyaux, 2016) is of the opinion that research in fundraising is fundamental. If a comprehensive fundraising program is not done projections will be less accurate and can negatively affect the foundation and can increase risk.

The foundation operates on a thin margin, meaning that any fundraising budget needs to be sensitive both to when outlays can be made and when revenue will come in to cover ongoing costs. Upon commencement of the construction a cash flow budget will be done to project monthly income and expense, and the beginning cash balance for each month. The foundations Chairlady is an expert in accounting so her input will be needed at this stage.

The cash flow budget template seen in Figure 15 should help to schedule fundraising activities to generate income for upcoming activities. In addition to that it will assist in determining when more funds will be needed at the various phases throughout the construction.

Month:														Year total
Cash on Hand (beginning cash)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RECEIPTS from Support														
Grants/donations - confirmed														0
Grants/donations - anticipated														0
Individual contributions														0
Special events														0
Funds released from restricted														0
RECEIPTS from Revenue														
Fundraising activities														0
Contract services														0
RECEIPTS from other sources														
Loan/Line of credit proceeds														0
														0
TOTAL RECEIPTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DISBURSEMENTS for Operations														
Payroll														0
TOTAL STAFFING	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance, repair														0
Office exp (phone, postage, supplies)														0
Printing and marketing														0
TOTAL OTHER OPERATING	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accounting & audit														0
TOTAL PROFESSIONAL SERVICES	0	0	0	0	0	0	0	0	0	0	0	0	0	0
														0
TOTAL PROGRAM RELATED	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OPERATING DISBURSEMENTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DISBURSEMENTS for Financing														
Payments on past due obligations														0
DISBURSEMENTS for Capital Expenses														
														0
TOTAL DISBURSEMENTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NET CASH FOR THE PERIOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENDING CASH	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 15: Cash flow template. "Reproduced with permission of Propel Nonprofits, Minneapolis, Minnesota." Retrieved from: <https://www.propelnonprofits.org>.

4.5. Project Quality Management

This Project Quality Plan details all procedures the Project team shall implement to manage its activities. This Plan will be implemented and maintained throughout the duration of the Project. The personnel nominated are proven performers with regards to delivering construction projects to the highest quality, on budget and on time.

Project Documents The following documents will be maintained for the project:

- Contractor records including quotes & transmittals, subcontract agreements, purchase orders, instructions, payments, and correspondence.
- Records of inspections and test results
- Permits and approvals.
- Progress payment claims
- Correspondence with all project stakeholders
- Minutes of meetings and progress reports

Purpose of The Project Quality Management Plan

Quality planning involves the establishment of the quality standards that govern the project deliverables and how the project will achieve compliance to those standards. This plan includes standards for the construction of the museum. However, other standards exist which are not explicitly stated but expected to be complied with. These standards will be included in the Quality management plan.

The quality management plan "is a component of the project management plan that describes how applicable policies, procedures, and guidelines will be implemented to achieve the quality objectives. It describes the activities and resources necessary for the project management team to achieve the quality objectives set for the project" (PMBOK® Guide—6th Edition, Page 616). The intended audience is the project manager, foundation team, and any stakeholder whose support is needed to carry out the plan.

Project Quality Management Overview

The table below describes the primary roles and responsibilities of the project team as it relates to the practice of Project Quality Management. Delivering a quality project entails maintaining the quality of construction works to standards and for the team to be active in ensuring the quality objectives are clearly articulated.

Role	Competence	Quality Responsibility
Project Manager/Chair	Sarita Lambey Garcia (MBA) is a Garifuna activist who holds a bachelor's degree in Accountancy and a MBA in International Business. She served as a Financial Manager for over 11 years for the Los Angeles Unified School District, the second largest public school system in the United States. After returning to Belize, she entered the field of education as a Lecturer for the University of Belize and Galen University.	Working with the customer early in the Project Scope and Customer Requirements Definition Process to determine customer needs, and refining those requirements considering safety, fiscal, schedule, and other constraints; considers the cost/benefit of all quality improvements.
Building Contractor	Eight years' experience in the construction industry.	Quality standards are incorporated in construction. Appropriate qualifications for the task to be undertaken.
Vice Chairperson	Peter Justo Augustine, Former Chairman of the Seine Bight Village Council, and President of the National Association of Village Councils (NAVCO). Mr. Augustine also served	Provide necessary support to the Chairman in all aspects of the project.

	as a former Superintendent of the Belize Police Force and has knowledge about crime issues facing Seine Bight.	
Treasurer	Hermia Arzu is a co-owner of Gee-Pee's Internet Café, Guesthouse, and Rentals in Seine Bight village and runs the Seine Bight Western Union office. She has served as the Treasurer of the Seine Bight Reservoir to Museum Foundation since it began in July of 2014.	Ensure finances are available if rework is necessary.
Secretary	Delano Palacio, Career high school teacher	Document quality related concerns to stakeholders during meetings or other correspondence
Engineer	Professional Engineer certified in planning, structural, transportation, bridge and construction inspection.	Quality standards for construction are included in plans
Designer Draftsman	25 years in the field of Architecture specializing in computer drafting.	Ensure plans are of the highest quality and incorporated into drawings. Receive and incorporated design changes

Tools, Environment, and Interfaces

Tool	Description
Benchmarking	Compare project with similar in the area as basis to use in measuring quality performance.
Quality Checklist	To verify that the required set of steps has been performed

Project Quality Management

Quality means making sure that the reservoir to museum project will be built to specifications set out in the scope management plan and it will be done efficiently. The PMBOK guide breaks down Quality Management into three process groups: Quality Planning, Quality Assurance and Quality Control. The following sections define how this project will apply each of these practice groups to define, monitor and control quality standards.

Quality Planning

In the initial planning process scope, budget, and schedule estimates were used to identify processes, services, or products where the expected grade and quality should be specified. Risk analysis is used to determine which of the risks to the project could affect quality (BCcampus, 2014). The Quality plan will be implemented to ensure compliance with the Technical Standards as detailed in the contract specifications. In addition, procedures utilized within the Quality plan should reflect the experience of the technical staff in similar projects. Quality control measures will extend to types of material and equipment to be used; and methods of performing, documenting, and enforcing quality. Testing will include cylindrical testing of concrete.

Define Project Quality

The implementation of this plan ensures that quality materials and supplies are provided for the proposed project, and that good workmanship is provided in all aspects. If feasible the engineer will conduct periodic site inspections to ensure compliance with the quality control specifications.

Product Quality:

The product quality standards and requirements will be determined by the technical team. The Engineer along with the project manager will review these newly identified standards and incorporate them into the project plan. Relevant stakeholders will also be informed.

Process Quality:

The process quality standards and requirements will be determined by the technical team. They will research on any standards that are necessary and relevant to the museum and inform stakeholders on their decision.

Measure Project Quality

Metrics to be used will take into consideration the funding available the resources, building design, product and process performance and stakeholder satisfaction. At each phase of the construction there will be a checklist of what quality measures have been incorporated thus far.

		Contract:					
PHASE III Final Phase							
Task:	Electric Installation			Date:			
Definite Features of Work:				Site:			
Drawing Sheet Number:				Section of the Bill:			
1	Description of the Work Inspected						
2	Contractor's / Subcontractor present						
3	Have all the materials available on-site or at hand being checked for Technical Standard compliance?			YES	?	NO	?
4	Procedure and work methods results in Technical Standard compliance so far?			YES	?	NO	?
5	Manufacturer's / Supplier recommendations or specifications being followed			YES	?	NO	?
6	Test required to comply Technical Standard being followed			YES	?	NO	?
7	Test being carried out (brief explanation):						
8	Evidences / Attachment:						
9	Final Comments:						
10	TASK / WORK comply 100% with Technical Standards/Contract			YES	?	NO	?
		_____		_____			
		On Site Contractor		Project Engineer			

Figure 16: Phase inspection log. Adopted from PASA ltd Quality control template

Quality Assurance

The quality assurance of the building of the museum focuses on the processes used in its construction. Quality assurance involves monitoring the process and ensuring that it is being implemented to produce the desired results. To ensure compliance and quality assurance on this project tools (**see figure 16**) will be available for the project manager and technical consultants. They will be able to research and be current with the latest regulations and requirements.

Process Action	Acceptable Process Standard	Test	Unit	Comments
Concrete testing	4000 psi compressive strength yield at 28 days (Belize Standard)	Compressive strength of concrete	PSI	To verify if the strength of concrete has achieved the designed strength

Improve Project Quality

Process improvement is another aspect of quality assurance. Quality assurance reviews, findings, and assessments should always result in some form of process improvement and, as a result, product improvement. All process improvement efforts must be documented, implemented, and communicated to all stakeholders as changes are made.

Quality Control

The quality control of the SBRBF project focuses primarily on the design and construction of the building. The quality performance standards for the museum are in accordance with the relevant standards. Additionally, all physical measurements will be conducted to ensure compliance with established quality standards. The project technical team consisting of the engineer, architect and contractor will ensure all standards are met.

Change Control

Once the impact of the proposed change or changes has been assessed by all of relevant project stakeholders, the project design management team should decide whether to recommend the acceptance or rejection of the proposed change. The approval or rejection of a design change will be done through the project design team meeting.

Project Quality Management Plan Approval

The undersigned acknowledge they have reviewed the Seine Bight Reservoir to Museum Foundation's **Project Quality Management Plan** and agree with the approach it presents. Changes to this **Project Quality Management Plan** will be coordinated with and approved by the undersigned or their designated representatives.

Signature: _____ Date: _____
 Print Name: _____
 Title: _____
 Role: _____

4.6. Project Resource Management

The Resource Management Plan examines the adequacy of existing equipment and personnel resources. The Project Manager is tasked with identifying and reviewing new resources as needed.

“Resource planning is used to determine and identify an approach to ensure that sufficient resources are available for the successful completion of the project. Project resources may include team members, supplies, materials, equipment, services and facilities”. (Project Management Institute, 2017, p. 313).

Specific to this project the SBRMF members form the management team with assistance from consultants namely the Architect and engineer hired during the construction of the museum.

The team charter as seen in **figure 17** below establishes clear expectations regarding acceptable behavior among project team members. The charter establishes the team values, agreements, and operating guidelines. Communication, decision making, and meeting etiquette. When the project team sins off on this charter in signifies the commitment to the mission and guidelines of the project. (Project Management Institute, 2017, p. 319).

Team Charter

PURPOSE STATEMENT	This team is being formed to spearhead the transformation of the Seine Bight reservoir to museum project. With the use of Project management processes, we are also committed to working effectively as a team, by doing our part in the timely delivery of project deliverables.
TEAM MEMBERS	<p>Project team members and their roles and responsibilities</p> <p><i>Project Manager:</i> Responsible for the project success and approval processes</p> <ul style="list-style-type: none"> ▪ Establishing protocols, collaborations, meetings and methodology between all parties to help the project reach its' goals. ▪ Ensuring high-cost items are contracted or planned out to stay within the budget.

- Watching the schedule and making sure major milestones are hit.
- Compliance with specifications, testing, inspections and quality.

Engineer:

- Ensure their designs satisfy given criteria; that they are safe, serviceable and perform well.
- Sound structural integrity
- Must keep informed of ongoing works

Architect:

- Developed plans to meet the requirements of the Building Regulations and other performance aspirations of the client.
- have a greater understanding of how your product can be incorporated into their design and the benefits they will enjoy.

Contractor:

- oversees and manages the construction of the building for the Client, following the Architect and Engineers' designs.
- General Foreman make sure the crews have what they need to do the work, and if they don't, making sure they get it as quickly as possible.
- Inspect the construction site to ensure the appropriate level of quality control in all the phases.
-

Other Members

- Filing all key project documents.
- Tracking the payment of vendors, contractors, and consultants.
- Prepare payments.

Team communication methods

The team will communicate through various means. Electronic and phone communication will be the most widely used outside of meetings. Prompt response to messages or inquires to one another will be expected. If a team member cannot deliver for whatever reason, they must inform the team to make alternate arrangements.

Meetings

Guidelines for meetings are:

Meetings must have a purpose.

Team agrees on the deliverables.

Have an Agenda: to identify steps taken or topics to discuss.
Code of conduct. Etc. One person speaks at a time.
Expectations are set at the beginning of every meeting.

Other reports

Progress reports as needed to demonstrate to donors or sponsor

Conflict resolution

These are some guidelines that will be followed by the Project Manager when resolving conflict within the team.

Acknowledge the Conflict

Acknowledging that there is a problem, so it does not escalate. Examine the problem objectively and what may have caused it.

Open up the Lines of Communication

Reach out to the persons involved and set up a meeting to discuss the conflict.

Make a Decision and Act

Once the conflict has been addressed by the relevant parties whatever mitigation methods were discussed will be put into action to deter any further conflict relating to the same problem.

RESOURCES
& SUPPORT

Training will be offered by the National Institute of History and Culture (NICH) These workshops will incorporate presentations, videos, lectures, cultural performances, and hands-on training activities grounded in particular topics central to the Foundation's mission including Garifuna history, culture, and language, and ethnobotany, Seine Bight history and culture, and museum curation and object handling. This is mainly for the operational phase after the construction of the museum.

Figure 17: Project Team Charter (source: Compiled by Author)

RACI Chart

The RACI chart, as seen below in **figure 18** illustrates the key roles and responsibilities of users against major tasks within the SBMRF project. It will serve as a visual representation of the functional role played by each person on a project team. This helps to balance the workload and the key decision makers and those responsible for certain tasks are identified.

Resource Requirements

Resource requirements identifies the types and quantities of resources required for each work package or activity in a work package and can be aggregated to determine the estimated resources for each work package, each WBS branch, and the project as a whole. (Project Management Institute, 2017, p. 325).

The resource listing in **figure 19** details the personnel and equipment needed in order to complete the planned activities. The resource requirement list was also used in developing the Project Schedule Management Plan. The activity list has resources assigned to it. Before assigning resources there needs to be assurance that they are available.

RACI Chart										
Project name: <i>Seine Bight Reservoir to Museum Project</i>										
Project manager:										
<p>R - <i>responsible</i> for doing the actual work for the project task</p> <p>A - <i>accountable</i> for the success of the task and is the decision-maker</p> <p>C - <i>consulted</i> for details and additional info on requirement</p> <p>I - <i>informed</i> of major updates</p>										
Task	Project Manager	Vice Chairperson	Engineer	Architect	Foreman	Site Crew	Foundation Secretary	Treasurer	Various Committees	Liaison Officers
Permits/Approvals	[R]						[A]	[I]		
Project Quality	[R]		[C]	[C]	[A]					
Payments/Finance	[A]							[R]		
Change requests	[R]	[C]	[C]	[C]			[I]			
Museum Designs	[A]			[R]						
Construction Quality	[A]				[R]	[R]				
Reporting and documentation	[A]						[R]			
Preparation of BOQ	[A]		[R]							

Figure 18: Project RACI chart (source: Compiled by Author)

SBMRF RESOURCE REQUIREMENTS							
ID	TYPE OF RESOURCE	RESOURCE	RESOURCE DETAILS	QUANTITY	LOCATION	SOURCE	COMMENTS
R001	LABOUR						
R010		Architect	Initial stage design works	1	Offsite	Freelance	Local firm
R020		Engineer	Initial stage design works	1	Offsite	Freelance	Local firm/certified
R030		Project Manager	Tasked with monitoring of project activities and resources	1	Onsite	Volunteer	Could also be Architect or Engineer
R040		Contractor	Laisse with Project Manager	1	Onsite	Volunteer	must be able to read and understand construction drawings
R050		Foreman	Over sees all construction works on site	1	Onsite	Volunteer	must be able to read and understand construction drawings
R060		Laborers	In charge of general construction works	5	Onsite	Volunteer	must be qualified for construction works
R070		Sub-contractor	Hired for to perform specific tasks	1	Onsite	Freelance	These includes Plumber, Electrician...
R080		Other Foundation members	Assist by performing assigned roles		offsite	Volunteer	
R002	MACHINE						
R003		Backhoe	Excavation and removal of waste materials	1	Onsite	Hire	Hire as needed
R004		Cement Mixer	Major Casting (Beams, Columns, Floor..)	1	Onsite	Hire	Hire as needed

R005		Vibrator	Vibrating Concrete during pour	2	Onsite	Hire	Hire as needed
R006		Jack Hammer	Break out existing Reservoir wall	1	Onsite	Hire	Hire as needed
R007		Skill Saw	General Timber Cutting	2	Onsite		Contractor owned
R008		Electric Drill	General Drilling and Fabrication	2	Onsite		Contractor owned
R009		Grinder	Cutting of Reinforcement bars and Concrete	2	Onsite		Contractor owned
R010		Generator	Back up Electricity	1	Onsite		Contractor owned
R011		Water Pump	Pump out excess water from trenches	1	Onsite		Contractor owned
R003	SOFTWARE						
R031		MS Project	Project management	1	Offsite		purchase license if funds available or request grant funding
R032		Ms Office	Prepare Project documentation	1	Offsite		Use existing subscription
R033		AutoCAD	Working Drawings Editing	1	Offsite		Use existing subscription
R004	MATERIALS						
R041		Concrete	To be mixed onsite	Ref. BoQ	Onsite	Locally	Conc. Strength per drawing specification
R042		Electrical Supplies	As per Electrical Technician Recommendations	Ref. BoQ	Onsite	Locally	none
R043		Plumbing Supplies	As per Plumber Recommendations	Ref. BoQ	Onsite	Locally	none
R044		Reinforcement bars	Stored in properly (not exposed to rain)	Ref. BoQ	Onsite	Locally	Reinforce quality as per drawing specifications

R045		Nails, Screws, Tie wire	Purchased as needed	Ref. BoQ	Onsite	Locally	Quality as per drawing specs.
R046		Sealants	Purchased as needed	Ref. BoQ	Onsite	Locally	Quality as per drawing specs.
R047		Timber	Form work reuse where possible	Ref. BoQ	Onsite	Locally	Form work and framing members
R048		Primer , Paint	High Quality	Ref. BoQ	Onsite	Locally	Two Coats finishing paint
R049		Thatch roof	To be constructed by experts in the field	Ref. BoQ	Onsite	Locally	none
R050		Doors and windows	Will be installed by manufacturer	Ref. BoQ	Onsite	Locally	none
R051		Ceramic Floor Tiles	Anti-slip in open exterior areas	Ref. BoQ	Onsite	Locally	none
R052		1/2-inch-thick Sheet Rack	Supplied with all installation materials	Ref. BoQ	Onsite	Locally	none
R005	PROJECT MONITORING						
R055		Reporting	Foundation executive members			Volunteer	Periodic site visits by team when feasible. No cost to members that live near site
R056		Inspection visits	Site visits by technical personnel			freelance	If funds are available, the Engineer should visit the site at various stages.
R057		Materials Testing	Concrete testing to be done at various phases of construction				Funds should be available for testing as this is vital to quality management
R058		Training	Training of foundation members in basic project management to improve skills			online	Request/allocate funding for training

Figure 19: SBRMF Resource Requirements (source: Compiled by Author)

4.7. Project Communication Management

The PMBOK recommends the development of a communications plan seen below, to determine the project stakeholder information needs and define a communications approach. This ensures that the right information is provided in the right format at the right time with the right impact.

The plan also incorporates of a communications matrix which maps the communication requirements of this project in figure 19. For this project, the communications plan will identify regular communications, such as weekly/monthly reporting and as-needed information such as change management decisions. According to (Carswell, n.d.) for small projects there is no need to discuss communications technologies, develop information flow charts and authorization sequences or define escalation processes. It is sufficient to examine who needs to be in on the communications loops, and what those loops need to be on a regular basis.

Communication Delivery Methods and Technologies

The primary communication means are e-mail, phone, face-to-face (personal communication), meetings, and reports.

Stakeholder Communication Requirements

No requirement exists. The Chairlady and the other Foundation members will decide what needs to be communicated, when it needs to be communicated and who needs to be involved.

Communications Matrix *Seine Bight Museum Project Matrix (see figure 20).*

Communication Standards

No standard templates and formats exist for project meetings communication (i.e. emails, status reports, etc.). This area could be revisited if the foundation receives a donor with significant contribution to complete the project. At that point standardization of communication will help ensure that the foundation and stakeholders have a thorough understanding of what is expected and achieve consistent and effective communications.

Communications Matrix

The following table identifies the communications requirements for this project.

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable
Project start Meeting	Introduce the project team and the project. Review project objectives and management approach.	<ul style="list-style-type: none"> • Face to Face 	Once	<ul style="list-style-type: none"> • Project Sponsor • Project Team • Stakeholders 	Project Manager	<ul style="list-style-type: none"> • Agenda • Meeting Minutes
Project Team Meetings	Review status of the project with the team.	<ul style="list-style-type: none"> • Virtual Meeting 	As Needed	<ul style="list-style-type: none"> • Project Team 	Project Manager	<ul style="list-style-type: none"> • Meeting Minutes • Project schedule
Technical Meetings	Discuss and develop technical design solutions for the project.	<ul style="list-style-type: none"> • Virtual Meeting 	As Needed	<ul style="list-style-type: none"> • Project Technical Staff 	Project Manager	<ul style="list-style-type: none"> • Meeting Minutes
Project Status Meetings	Report on the status of the project to management	<ul style="list-style-type: none"> • Face to Face • Virtual Meeting 	As Needed	<ul style="list-style-type: none"> • Project team 	Project Manager	<ul style="list-style-type: none"> • Slide updates • Project schedule
Financial Status Meetings	Report of the financial status of the foundation	<ul style="list-style-type: none"> • Virtual Meeting 	Quarterly	<ul style="list-style-type: none"> • Project Team 	Project Manager	<ul style="list-style-type: none"> • Meeting Minutes • Project schedule

Figure 20: SBRMF Communications Matrix (source: Compiled by Author)

4.8. Project Risk Management

During the initiation phase Project Risks were identified and taken into consideration while planning Project Time and Cost Management. Project Risk Management Plan (**see figure 21**) will identify and analyze project risks and responses planned for each identified risk. Efforts will be made during meetings to increase the risk awareness of the project team member. They will be educated on what constitutes a risk to the project and being sensitive to specific events or factors that could potentially impact the project in a positive or negative way.

RISK MANAGEMENT PLAN			
Project:	SBRMF	Budget:	\$314,603.00 BZD
Execution Term:		Approved by:	
		Date:	
A. Basic Processes for Managing Project Risks			
1. Identify Risks			
<p>The Identify Risks process was carried out in the design phase of the operation to provide information to streamline planning before commencement. During the execution phase, the identified Risk Register will be updated within at least once every quarter. The categories of risks relevant to this project are financial, planning and scheduling. The main quality concepts for risk identification are summarized as follows:</p>			
2. Assess and Prioritize Risks			

A qualitative risk assessment process is carried out with the purpose of prioritizing risks for response planning. As is the case with risk identification, risk assessment must also be updated when 50% of the construction is complete since risk levels may vary and generate changes to the response plan. Below in Figure 21 shows the Risk Assessment Matrix. The main quality elements for qualitative risk assessment are as follows:

- a) The probability factor must establish the metrics with which we assess probability based on historical data relevant to each risk;
- b) probability and impact are defined in a scale of 1 to 5, in which 1 is the lowest level, i.e., the lowest probability and lowest impact of occurrence;
- c) the risk level is established by multiplying the probability level by the impact level, so the highest possible risk level is 25;
- d) all medium-high and high-level risks must be included in the response planning phase so they can be managed;
- e) it is recommended that medium-level risks that have medium-high or high impact levels are also included in the response planning phase;
- f) medium-low and low-level risks will remain on the Risk Register for biannual monitoring in case their level changes due to changes in the circumstances that affect the project.

3. Manage Risks and Plan Responses

Plan Responses is the final process involved in risk planning. Only those risks that were prioritized in the assessment process will be included in the Response Plan. Risk responses will be included in response planning, with their corresponding budgetary allocations. Risks that cannot be budgeted will be considered inputs to establish the contingency reserve.

- a) The response is an action that is tangible and whose time and cost can be estimated;
- b) Responses must be accompanied by a “response trigger,” which is the indicator that identifies the right time to implement the response;
- c) Responses must have an identified party who is responsible for its execution

and monitoring; d) No response may entail costs that are higher than the costs entailed if the risk were to materialize.	
4. Control Risks and Assess Response Plan	
Risk monitoring implies updating the Identify Risks and Plan Responses processes, as well as the risk level analysis. The Risk Register will be updated midway through completion. If any identified risks materialize during the construction phase it will be reassessed, to determine if the response has been efficient and the risk level has decreased. The Project Manager will be responsible for monitoring risks.	
5. Roles and Responsibilities in Project Risk Management	
Position	Responsibility
Project Manager	Coordinates risk analysis and update sessions
Committee members and liaison officers	Provide advice on risk identification and analysis when consulted

Figure 21: Risk Management Plan (Adopted form the Inter-American Development Bank template) Copyright 2021 by the Inter- American Development Bank

The first step in applying any risk management process is understanding what a risk is. A Guide to the Project Management Body of Knowledge (PMBOK®), 2017 Edition defines a risk as an uncertain event or condition, that if it occurs, has a positive or negative effect on a project objective. Risk management concepts are applied to the Seine Bight Reservoir to Museum Project plan and will detail the processes of:

- Identifying risks
- Performing qualitative risk analysis
- Planning risk responses

Importantly, a component of the plan is a risk register focusing on the risk process of identifying, assessing, and controlling threats.

- **Description of Risks** – This will provide an overview of the risks associated with the implementation of the project along with mitigation measures.
- **Probability and impact scales** – This scale will seek to determine the likelihood of risks occurring and the potential impact of those risks.
- **Probability and impact matrix** – This tool will be utilized to prioritize and determine which risks need detailed risk response plans.
- **Risk register** – This will be used to document risks and actions to manage each risk. (see figure 22)

Probability and Impact scales

Impact and probability are the two main components of Risk analysis. Assessing Impact versus probability is common to categorize and prioritize risks as some risks may have a severe impact on projects objectives but only happen on rare occasions, while other have a moderate impact but occur more frequently. All organizations activities involve risk. Risks are events caused by uncertainties, which can have a positive or negative effect on the project objectives. All projects are unique and thus the associated risk varies between projects.

The risk analysis is a two-stage assessment process. Initially, qualitative methods are used to examine, categorize, and determine the main risk events identified, which are relevant for a more detailed quantitative assessment. In risk analysis, risk is traditionally defined as a function of probability and impact.

The probability is the likelihood of an event occurring and the consequences, to which extent the project is affected by an event, are the impacts of risk.

Risk Probability Scale

The likelihood can be expressed in both a qualitative and quantitative manner. PMBOK guide defines a risk probability as the determination of the likelihood of a risk occurring. This likelihood can be based on historical project information or the likelihood of risks can come from interviews or meetings with individuals who would have knowledge of the probability of risks occurring. **Chart 6.1** below shows how SBRMF defines the ranking in both a relative and numerical manner for the project.

Chart 6.1 Risk Probability Scale

Risk Probability Scale	
Description	Ranking
Event with an extremely high likelihood of occurring during life cycle	5
Event with high probability to occur during life cycle	4
Event may occur during life cycle	3
Event will most likely not occur during the life cycle	2
Event that is not expected to happen during lifecycle	1

Chart 6.2 Impact Probability Scale

Impact Probability Scale	
Description	Ranking
Purpose and need of the project jeopardized	5
Unacceptable Change in scope	4
Significant changes in project scope are necessary	3
Changes in project scope are necessary	2
Insignificant changes in project scope	1

Impact assessment

Impacts are often defined as the consequences, or effects of a risk event on the project objectives. These impacts can be both beneficial or harmful to the objectives. The most common scale is the five-point scale which we will be using for this project.

Chart 6.2 below shows how the impact can be defined for various objectives. The possible impact on each objective is described and given a ranking. The ranking is both relative, from insignificant to unacceptable, and numerical, giving numerical value assessment.

Probability and Impact matrix

The Probability and Impact Matrix shown in chart 6.3 is one the most used qualitative assessment methods. It is based on the two components of risk, probability of occurrence and the impact on objective(s) if it occurs. The matrix is a two-dimensional grid that maps the likelihood of the risk occurrence and their effect on the project objectives. The risk score, often referred to as *risk level* or the degree of risk, is calculated by multiplying the two axes of the matrix.

$$\text{Risk} = \text{Impact} \times \text{Probability}$$

Chart 6.3

Probability	Threats					Opportunities					Probability
5	5	10	15	20	25	25	20	15	10	5	5
4	4	8	12	16	20	20	16	12	8	4	4
3	3	6	9	12	15	15	12	9	6	3	3
2	2	4	6	8	10	10	8	6	4	2	2
1	1	2	3	4	5	5	4	3	2	1	1
	1	2	3	4	5	5	4	3	2	1	
	Impact(Threats)					Impact (Opportunities)					

Chart 7 Assessment Matrix (Source: V. Nicholas, The Author)

The SBMRF will employ the use of the Probability and Impact matrix to assign impact and probability. The methodology is outlined below:

15 to 25		Red	Mitigate	The risks that are characterized as red have both a high impact and high likelihood of occurrence. A risk can be a threat to the objective that may need priority actions and rigid responses. These rigid responses could be mitigation of the risk or even terminating the project if the risk is too high. Opportunities that arise should also be assessed.
7 to 14		Yellow	Avoid	The risks that are characterized as yellow have the moderate category. The characterization is dependent on the organization's defined threshold and mostly due to uncertainties of numerous elements that individually. These are such uncertainties as actual cost and duration of different aspects of a project, changes to activate or other similar uncertainties that alone, have little impact. The probabilities will be estimated subjectively.
1 to 6		Green	Accept	The risks that are characterized as green have both a low impact and less likelihood of occurrence. For negative risks/ threats, the response required is not necessarily a proactive management action. However, they will be monitored in the risk register. Positive risks/opportunities will be accepted and taking advantage of an opportunity if it arises, but not actively pursuing it.

Risk	Category	(Px I)	Mitigation measures	Owner
Delay due to Insufficient financing	Finance	20	Plan fundraising efforts strategically seek external donors or grant funding to project construction completion	PM
Design errors and omissions	Planning	10	Sourcing competent architect in design and planning phase	Architect
Underestimating of Project Cost	Finance	8	Relates to the cost estimate provided by Engineer. In this case the engineer is a certified professional therefore his estimates are reliable.	PM
Drawings not approved by the Central Building Authority	Planning	5	The design team should ensure that building standard standards and guidelines are within drawings	Engineer And Architect
Inadequate specifications	Planning	12	Technical consultants to check for omissions- select registered Engineer	Engineer
Inconsistent estimation/budgeting	Finance	16	Project manager to carefully review plan for errors before project commences	Treasurer/PM
Non-Performance of contractor	Scheduling	12	Ensure the selected contractor has the experienced enough to perform the task before selection, Quality checks should be done by Engineer at the end of each phase	PM
Lack of coordination on Project	Planning	15	Project meetings held when necessary, to ensure the project is going as per plan	PM
Frequent changes to work or scope	scheduling	20	Proper Scope Management plan should ensure that the scope does not go beyond was previously planned	PM
Conflicting ideas among partners	stakeholder	9	Meeting with relevant stakeholders to resolve any issues that may disrupt the project.	PM
Act of Nature			Mainly the Coronavirus pandemic and its effects of the economy of Belize. This can cause a decrease in donor funding and fundraising efforts. In this case the Foundation would focus on submitting proposals for grant funding.	

Figure 22: Risk Register (source: Compiled by Author)

4.9 Project Stakeholder Management

This project relies on its stakeholders who are in the form of donors, liaison officers and the community for it to be a success whether its fundraising activities or seminars with the local National Institute of Culture and History. As a token of appreciation donor categories were created and donors name or organizations will be on a permanently affixed plaque in the museum.

Project stakeholder Management processes involves Identifying, planning, managing, and monitoring of engagements. If stakeholders are not effectively managed this can lead to potential problems such as poorly defined scope, friction with the difference of ideas, regulatory changes that affect the project, or a negative reaction from the village toward the project. The problems combined with the lack of participation of the stakeholders in the project which affects the budget and schedules.

Currently the SBMRF project has no major stakeholders that it reports to it is the hope that attract a sponsor to finance the works as soon as feasible. Therefore, the project will simply register the current stakeholders and rank them to see who would be considered a risk to the project, with a negative influence. The major concern are stakeholders that have a great influence and power over the success of the project, considering that it could not go through without their consent. The project also influenced by external stakeholders for financing, building approvals, land titles and other resources. **Chart 8** below shows the project stakeholder register matrix. The register may be updated periodically based on new information provided to stakeholders about resolved issues and general project status as indicated in the PMBOK guide.

SBRMF Stakeholder Analysis

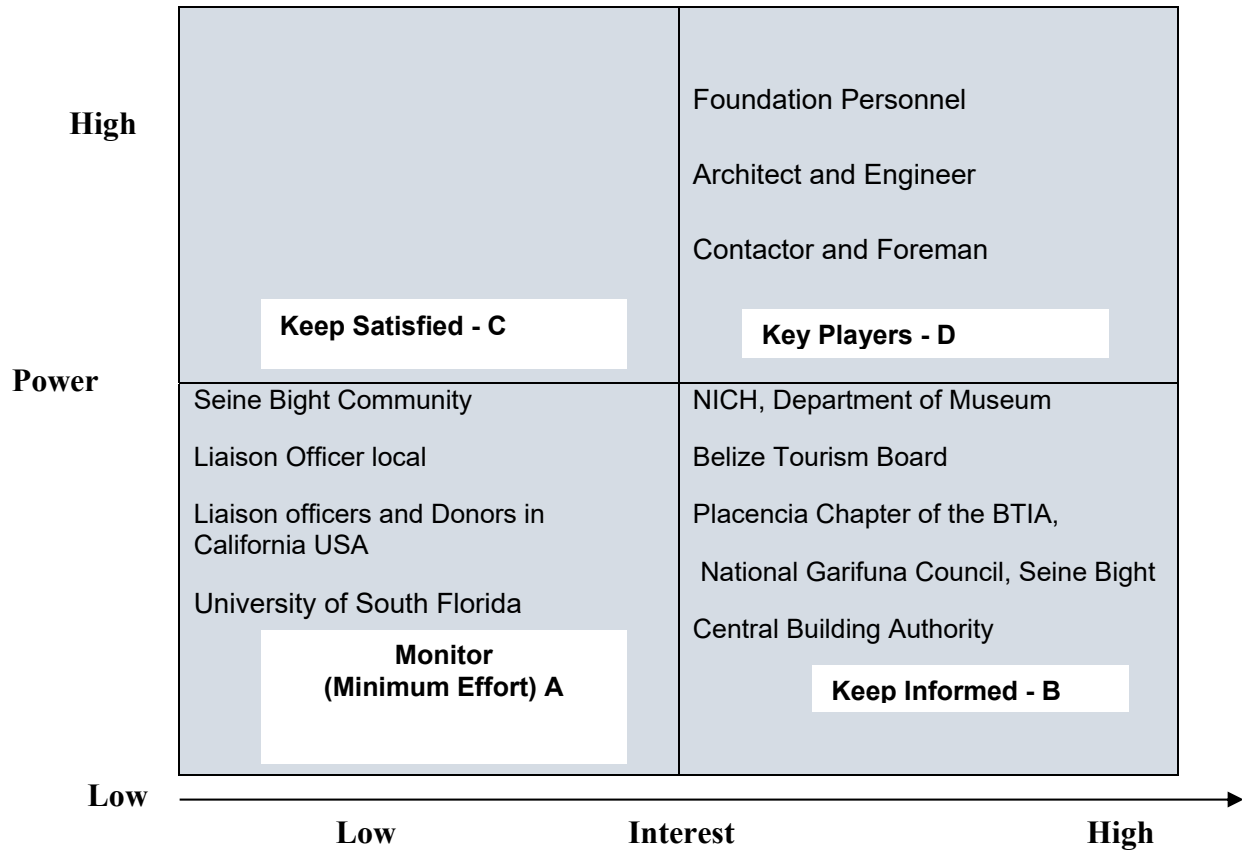


Figure 23: Stakeholder Power Interest Graph (source: Compiled by Author)

Stakeholders on this Power/Interest Grid shown in **figure 23** are classified by their power over the project and by their interest in a successful outcome. Stakeholders position on the grid shows the actions on communicating. Listed below are further explanations on communication strategies with the different categories.

High power, low interest

Engage & consult on interest area

Try to increase level of interest

Creativity is needed to capture interest

Be attentive to their needs

High power high interest

Key players focus efforts on this group

involve in governance/decision making bodies

engage & consult regularly

Low power high interest

make use of interest through involvement in low risk areas

keep informed & consult on interest area

potential supporter/ goodwill ambassador

Low power, low interest

minimum effort

inform via general communications – text messages, website, pamphlets

No excessive communication

Motivate them to become interested

Chart 8 Stakeholder Register (Source: V. Nicholas, The Author)

Stakeholder Register Matrix							
Project Name	SBRMF	Seine Bight Museum Project - Stakeholder Analysis					
Main Sponsor							
ID	Stakeholders	Functional Area	Roles-Responsibilities	Main Expectations	Major Requirements	Power/Interest	Additional Comments
1	Liaison officers in USA	Finance fundraising	Assist in Fundraising efforts for the museum	Financing of project activities		High Interest/low power	The group has raised to most funds toward the project thus far.
2	Engineers	Technical expertise	Ensure building codes and standards are followed	Sound structure	Standards for quality of structure is in plans	High Interest/low power	
3	Architect	Technical expertise in building design	Produce plans for the construction of the museum	Ensure designs are done to required standards	Complete designs for CBA approval	High Interest/low power	In the construction

4	Residents of Seine Bight			Provide support for the project mainly through fundraising activities		High Interest/low power	
5	Project manager/ Chairlady	Expertise in Planning Processes or Project Management	Mitigate risks associated with the Planning Stage of the Project Management Cycle	Define Project Objectives Clarify Scope of the project	Ensure planning process and subsidiary ledgers are completed.	High Interest/High power	
6	Other committee members			Provide support		Low Interest/low power	
7	Other cultural Museums in other Districts	Business sector investment expertise	Support and advice			Low Interest/low power	
8	University of South Florida	Expertise in Anthropology	Support and advice			High Interest/low power	Provide expertise in preparing concept paper to seek grant funding for Museum
9	Ministry of History and Culture	Project Sponsor	Support and training			High Interest/low power	

5. CONCLUSIONS

- 1) As the deliverable for specific objective number one a Project Charter was created to synchronize the business needs and objectives, project description, preliminary scope statement, initial project risks, project deliverables, milestones, and project budget.
- 2) To define and specify the scope of the project, the Scope Management Plan, the deliverable created for specific objective number two, along with the WBS, were developed. The graphical representation of the WBS broke down project tasks and sub-tasks so that were easily understood.
- 3) Project Time Management entailed the creation of a Gantt chart in MS project that listed the entire schedule of the activities and detailing their sequence of implementation. With limited resources available resource levelling was introduced to create a balance.
- 4) The Cost Management Plan specifies the budgeted cost to be incurred at the completion of the project and sets out the format and establishes the criteria for planning, structuring, estimating, budgeting, and controlling project costs. Included was also a cash flow and fundraising plan template so the Project Manager have an estimate of what funds will be needed at various phases throughout and fundraising activities could be planned accordingly.
- 5) Resource Planning involved both materials and personnel needed for the project. With limited resources available to them this keen attention needs to be given. All the members of the foundation are volunteers it could become challenging to lead an unpaid team and holding them accountable for the

completion of task. Some form of incentive need to be introduced to keep them motivated does not have to be financial.

- 6) Risk Management – This involved planning for possible risks and considering optional contingency plans and mitigation strategies. With no sponsor or grant aid the project runs the risk of major delays.
- 7) Quality Planning – The project has qualified and experience personnel that worked on the Bill of Quantities and approved drawings. A qualified contactor and foreman has been identified who is able to read the approved drawings.
- 8) Communication Planning – The Communication Management Plan outlines the project communication requirements, the information to be communicated including the format. A basic Communications Matrix was developed that detailed type of meeting, frequency, communication methods and materials needed.
- 9) Stakeholder Planning –This is vital to ensure that anyone who can influence or who will be affected by the project is identified and managed in a way to ensure the success of the project. To date the project does not have any sponsor or donor that have made a substantial contribution toward the construction of the museum. The village was consulted in the early stages and welcomed the idea of having their own Garifuna Museum. Therefore, no existing stakeholder has the ability to stop the project or influence its scope.

6 RECOMMENDATIONS

- 1) Foundation members should receive basic training in risk management, developing a timeline and scope definition eventually they can include a timeline and work breakdown structure. By integrating project management techniques in fundraising campaign they will begin to see the value and even increase efficiency resulting in successful fundraisers.
- 2) To ensure quality standards are upheld during the construction an Engineer should visit the site at the end of each major phase to for inspection purposes and approval of contractor payments. This way the project receives value for money.
- 3) The SBRMF should seek grant funding to complete the construction phase. This will reduce the financial risk of unsuccessful fundraising efforts and delay in commencement of the operational phase where income will be generated.
- 4) The SBRMF lacks adequate resources to execute this project. If a sponsor is secured, at least one senior level post could be created on a part-time basis to act as Project Manager until the completion of the construction phase. This person will be a support to the chairlady of the foundation.
- 5) The Foundation needs to look at their annual fundraising plan in terms of a series of projects that have some strategic direction and thereafter seek funding for specific projects to serve a specific purpose, using this method its work will be measurable.
- 6) The SBRMF should seek professional writers to prepare proposals aiming at organizations and businesses that are interested in project funding. This will alleviate the need for cumbersome fundraisers and focus could be diverted in the proper management of the construction that could result in a timely completion of the museum.

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8 APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Formalizes the project start and confers the project manager with the authority to assign company resources to the project activities. Benefits: it provides a clear start and well defined project boundaries.	
Date	Project Name:
30 th October 2020	Project Management Plan for the construction and completion of a museum in the Seine Bight Village, Belize.
Knowledge Areas / Processes	Application Area (Sector / Activity)
Knowledge areas: Integration, Scope, Time, Cost, Quality, Human Resources, Communication, Risk, and Stakeholder Process groups: Initiation, Planning, Executing, Monitoring and Controlling, closing	Construction sector
Start date	Finish date
26 th October, 2020	23 rd April, 2021
Project Objectives (general and specific)	
General objective: To Develop a Project Management Plan for the construction of the Seine Bight Museum incorporating Project Management best practices to increase the ability to manage the project with available resources, improved response to funding pressures and changing conditions. Specific objectives: 1. To create a Project Charter for the integration management process of	

identifying, unifying and coordinating activities within the project management process groups.

2. To create a scope management plan, that defines work that is required to get the project completed.
3. To create a time management plan for assigning duration to work packages to complete the job within the allotted timeframe
4. To create a cost management plan to establish a framework for cost management.
5. To develop a quality management plan to determine quality policies, objectives, and procedures that pertain to the project. Specifically quality management for museums.
6. To create a resource management plan for assigning personnel and materials needed to complete project activities.
7. To develop a communications management plan for planning, collecting, storing, and updating project information and identifying the relevant stakeholders communication needs.
8. To create a risk management plan that identifies risks, risk responses and mitigation strategies.
9. To develop a Stakeholders management plan that identifies key stakeholders, and develop strategies to manage their expectations.

Project purpose or justification (merit and expected results)

The study will seek to establish the extent to which the development and implementation of a Project Management Plan will help the foundation to complete the construction within a reasonable time frame using quality standards from within the project plan. With the completion of the Project Plan the foundation will also seek new donors and apply for grants to complete the project instead of relying on local fundraising activities.

Description of Product or Service to be generated by the Project – Project final deliverables

The final deliverable will be a Project Management Plan that should provide structuring of various processes through the development of subsidiary management plans appropriate to the fulfilment of this project's objectives.

Assumptions

Scope and quality:

The project can be completed with the estimated time with limited resources: 1 project manager

Project Manager comes with expertise in project management processes.

The Project is not complicated and not costly to complete.

Constraints

Time: Uncertainty on the time allotted to complete the project and how it will affect the scope.

Cost: the student has limited funds if travelling is required to project site or if equipment failure occurs.

Preliminary risks

Cause	Effect	Impact
Misunderstanding/lack of clarity of tutor feedback	Nor enough time to make recommended changes. Waste time making unnecessary changes.	Scope, time, quality
Not a thorough understanding of project scope and requirements	Delays on completing milestones	Scope, time, quality
Not making all the necessary adjustments	Delay in finalizing sections	scope, time, cost, quality
Approvals not recieved on time	Incomplete changes	Scope, time, quality
Improper project scheduling procedures	Dependencies not adequate to project	Scope, time, quality
Lack of proper equipment and project management software	Delays in deliverables	scope, time, cost, quality

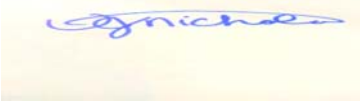
Lack of information and failure to identify crucial aspects	Delays in finalizing project schedule and other related items.	Scope, time, quality
Budget		
No immediate costs, future cost will involve the printing and binding of the FGP.		
Milestones and dates		
Milestone	Start date	End date
FGP Seminar	26 th October 2020	29 th November, 2020
Start of Tutoring	30 th November, 2020	26 th February, 2021
FGP Review	1 st March, 2020	March 19 th , 2021
Corrections /adjustments done to sections	22 March, 2021	16 April, 2021
Presentation to Board of Examiners	19 th April, 2021	23 April, 2021

Relevant historical information

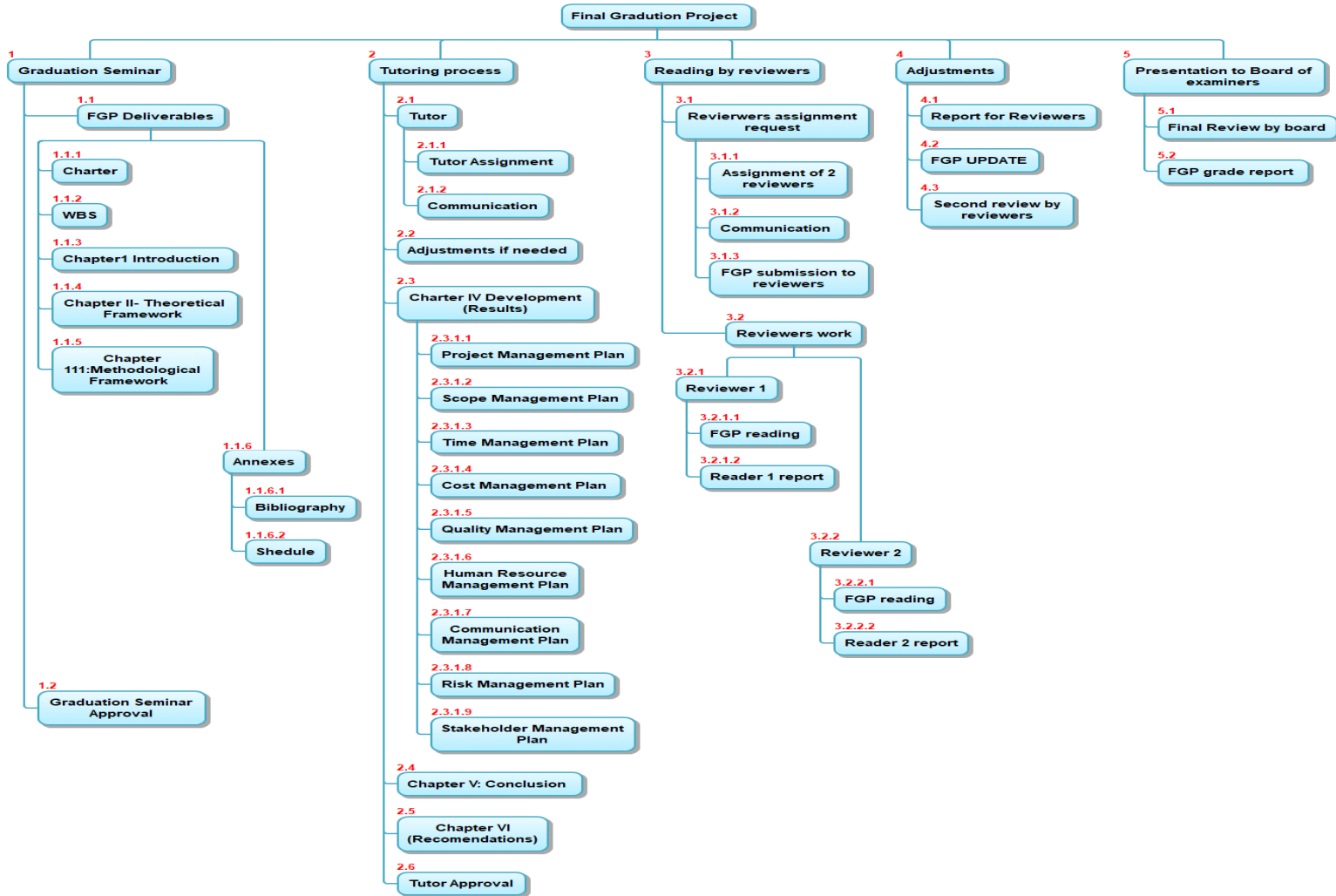
Seine Bight Reservoir to Museum Foundation was established in July 2014. Its major goal was to spearhead the transformation of the historic village reservoir into a Garifuna Cultural and historical Museum. To date the fund raising efforts have been ongoing but the project is far from complete.

Seine Bight is a small coastal village that stretches four miles along the Placencia Peninsula. The inhabitants are engaged in fishing but tourism is now a major contributor with the introduction of hotels in the area. Seine Bight has a rich Garifuna culture, most of the inhabitants speak their native Garifuna language and eat the cultural foods and practice traditional rituals.

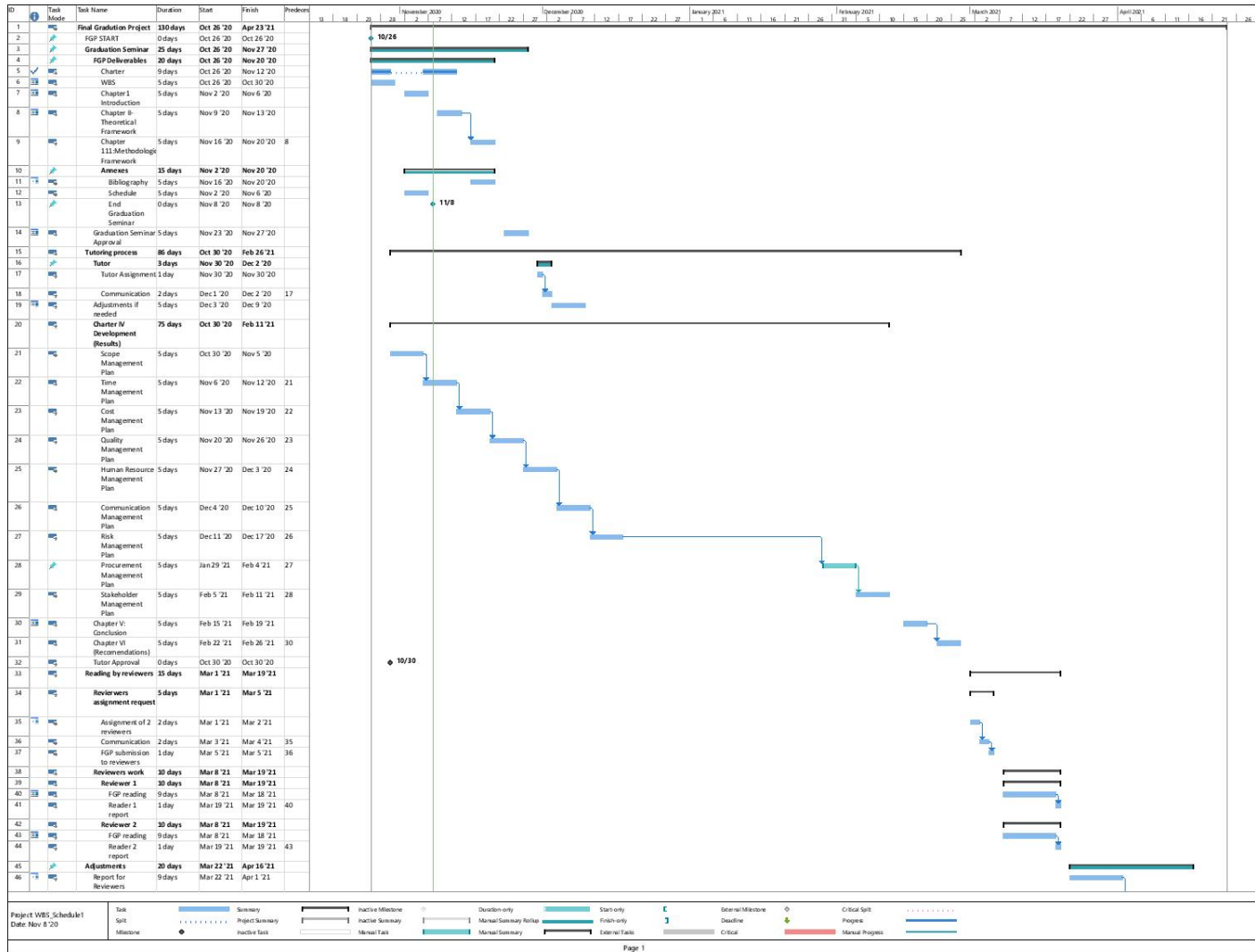
The Garinagu people fled Civil war from St Vincent and Ratan Honduras. They came to Belize and settled along the coast of the adjacent mainland. By 1802 about 150 Garinagu were found in southern Belize.

Stakeholders	
<p>Direct stakeholders:</p> <p>Seine Bight and Placencia Village Members of the Seine Bight Reservoir to Museum Foundation Vanessa Nicholas- Project Manager Architect and Engineer</p> <p>Indirect stakeholders: Country of Belize National Garifuna Council Belize National Institute of Culture and History</p>	
Project Manager: Vanessa Nicholas	 Signature:
Authorized by:	Signature:

Appendix 2: FGP WBS



Appendix 3: FGP Schedule



Appendix 4: 3D Rendering



Local Designer/Draftsman Vaughn Nicholas' Concept Drawing of the Proposed Seine Bight Museum of Garifuna Culture and History.

Appendix 5: Seine Bight Village water reservoir



Appendix 6: Change Request Log

CHANGE REQUEST LOG

Project Name	SBRMF	Date	
Project Number		Document Number	
Project Manager		Project Owner/Client	

Change Request Number	Date Received	Requestor	Change Request Name and Description	If Approved, Approved By	Implementation Due Date, if Applicable	Requirement Or WBS Number, if Applicable	Status

Appendix 7: Sample Fundraising Plan Template

Fundraising goal:

Donor Retention goal:

Donor Acquisition goal:

	Events	Grants	Individual donors (monthly giving, direct mail, email appeal, etc.)	Major gifts	Communications (newsletter, website, annual report, etc.)	Marketing (public speaking, media, advertising, etc.)	Other (vacations, training, etc.)
Jan							
Feb							
Mar							
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							

Fundraising Plan Action Steps

GET **FULLY**
FUNDED

Use this worksheet to chart out the detail of each fundraising strategy you intend to use in your plan. Add more steps as needed.

Fundraising Strategy : _____

Action Step	Who will do it?	When will it happen?	What resources are needed?
Step 1			
Step 2			
Step 3			
Step 4			
Step 5			
Step 6			

Appendix 8: Curriculum Vitae of Engineer and Architect (not detailed)

Francisco M. Gonzalez BSCE/MSCE Civil Engineer	
SUMMARY	
Transportation Engineering: Six (2006 to 2012) years of experience carrying out and reviewing various transportation studies for private and public entities such as developers, local, county, and state agencies utilizing software such as CORSIM, Synchro and HCS+.	
Contract Supervision: Nine (2000 to 2004 & 2012 to present) years of experience with international consultant Halcrow, in supervising drainage projects with local and international contractors, with a focus on maintaining quality control.	
Engineering Design: Over 18 (1999 to present) years of experience in conducting engineering designs in the areas of structures, traffic, and drainage. In addition, familiar with the production of contract documents.	
Computer Skills: Experience using ArcGIS, AutoCAD; AutoCIVIL, AutoTURN, EaglePoint, MOSS (programs for processing surveying data and design of highways); SAP, ETABS, Frame2D and Truss2D (structural analysis programs); iSIS (Open Channel Flow analysis program); CORSIM, Synchro/SimTraffic, Highway Capacity Software (HCS), TT_PP (traffic analysis software); SewerCAD & WaterCAD; as well as general word processing and spreadsheet software.	
Surveying: Experience levelling, setting out, and conducting topographical surveys using automatic level, theodolite, and total station.	
EDUCATIONAL AND PROFESSIONAL STATUS	
Master of Science, Civil Engineering , Florida International University, Miami, Florida, United States of America, 2006	
Bachelor of Science, Civil Engineering , University of Yucatan, Merida, Yucatan, Mexico, 1999	
Associate Degree in Science, Mathematics , Preparatory No. 1, Merida, Yucatan, Mexico, 1994	

Education Experience

Florida International University (USA) (2005 – 2006) Master of Science, Civil Engineering (MSCE) Including the following modules: <ul style="list-style-type: none"> • Advanced Geotechnical Engineering • Advanced Reinforced Concrete Design • Advanced Structural Analysis • Design of Tall Buildings • Pre-stressed Concrete Design 	Universidad Automoma de Yucatan (Mexico) (1994-1999) Bachelor of Science, Civil Engineering (BSCE) Including the following modules: <ul style="list-style-type: none"> • Concrete Structures I & II • Foundations • Steel Structure I & II • Structural Analysis I & II • Structural Design
---	---

02-Oct-20

VAUGHN N NICHOLAS

Personal Details

Nationality	Belizean
Date of Birth	19 th . October, 1974
Profession	Computer Draughtsman
Specialisation	Civil Engineering Drawings

Key

Twenty five + years experience in the production of general working drawings in the Architectural, Surveying and Civil Engineering fields.

Experience

- ❑ Usage of AutoCAD software,(All Versions).
- ❑ Usage of AutoCAD Civil 3D Land Desktop Companion 2009, (A AutoCAD add-on software for producing and processing survey data and highway design).
- ❑ Provision of AutoCAD training at an Introductory level at Worldcom Technologies.
- ❑ Usage of Softdesk, (A AutoCAD add-on software for producing and processing survey data.),
- ❑ Usage of Eagle Point, (A AutoCAD add-on software for producing and processing survey data and highway design).
- ❑ Computer Networking Administrator, general computer servicing and maintenance.
- ❑ Familiar with general word processing, Internet, E-mail and spreadsheet software.

Education and Professional Status

Computer Networking System, University of the West Indies School of Continuing Studies Belize, July 2001- August 2001

Computer Repair and Diagnostic Course, WorldCom Technologies ,2000

Computer Repair and Diagnostic Course, Centre for Employment Training, September 1999-October 1999

Associate Degree in Applied Science - Building and Civil Engineering, Belize Technical College, 1994

High School Diploma, Escuela Secundaria Mexico, 1992

Appendix 9: Foundation Certificate of Registration

	CERTIFICATE NO: 21986
<p>BELIZE COMPANIES AND CORPORATE AFFAIRS REGISTRY BELMOPAN, BELIZE</p> <p>THE BUSINESS NAMES ACT</p> <p>CHAPTER 247 OF THE LAWS</p> <p>CERTIFICATE OF REGISTRATION</p> <p>SEINE BIGHT RESERVOIR TO MUSEUM FOUNDATION</p> <p>I HEREBY CERTIFY THAT a statement furnished by SARITA ESMAY GARCIA of 11 Hamlin Street, Belmopan, Cayo District, PETER JUSTO AUGUSTINE, DELANO FRANKLIN PALACIO, HERMIA VINNEY ARZU and FLORITA MARION PALACIO all four of Seine Bight Village, Stann Creek District, and CHRISTINA SIMONA PALACIO of 50 Nanche Street, Belmopan, Cayo District, and JANE JUSTA NUNEZ of 16 Brown Street, Belmopan, Cayo District, Belize C.A. pursuant to Section 5 (1) of the above-mentioned Act was registered on the 10th day of July, 2014.</p> <p>GIVEN under my hand and the seal of the Belize Companies and Corporate Affairs Registry this 10th day of July, 2014.</p> <p style="text-align: center;">  SAMANTHA MATUTE DEPUTY REGISTRAR </p> <p>NOTE: Upon Change of Ownership; Change of Business Name; Change of Address/Name of proprietor; Cessation of Business or any other transaction relating to this Business Name, application should AT ONCE be made to the Registrar to register the change or transaction.</p>	

Appendix 10: Philologist - Revision Dictum

Certificate of Review For **Vanessa Sentino Nicholas** Final Graduation Project:

“PROJECT MANAGEMENT PLAN FOR THE SEINE BIGHT RESERVIOR TO MUSEUM FOUNDATION”, was reviewed and the following observed: The Content of the project was written in Formal English. During the revision grammatical and typographical corrections were made where needed. Additional wording and sentence order changes were suggested in order to keep standard formatting in check and meeting FGP standards for formatting. Wordy, vague, lengthy sentences were suggested to be reconstructed to make the paper more concise and some repetitious words were suggested to be changed to create a more interesting, coherent and fluent read. Many comments were made in the margins of the research to give hint for reconstruction of certain content, figures and chart formatting and referencing. The paper’s strength lies in its structure background, outline and the writer’s adherence to FGP outline largely throughout the paper. The paper’s greatest weakness was mostly found in some aspects of formatting and editing suggestions in charts, and figure reference standards. Formatting edits were suggested for correction in the margins of the document. Some aspects of referencing were suggested to further strenghten the paper’s merit. Ultimately, the paper is convincing in its analytical and methodical approach, background description, statement of the problem, processes described and strategies to be implemented in the planning and launching of the construction of the water reservoir in Seine Bight to a Garifuna Museum that will encourage the foundation team to reach new milestones and inject renewed interest and commitment of stakeholders all with a view to see the new museum completed and operational. The paper also clearly meets the objective goal to manage the implementation of Project Management Plan to effectively carry out project management activities so that the museum foundation can complete its building operations within the estimated time frame, with quality standards required for museums and within budget.

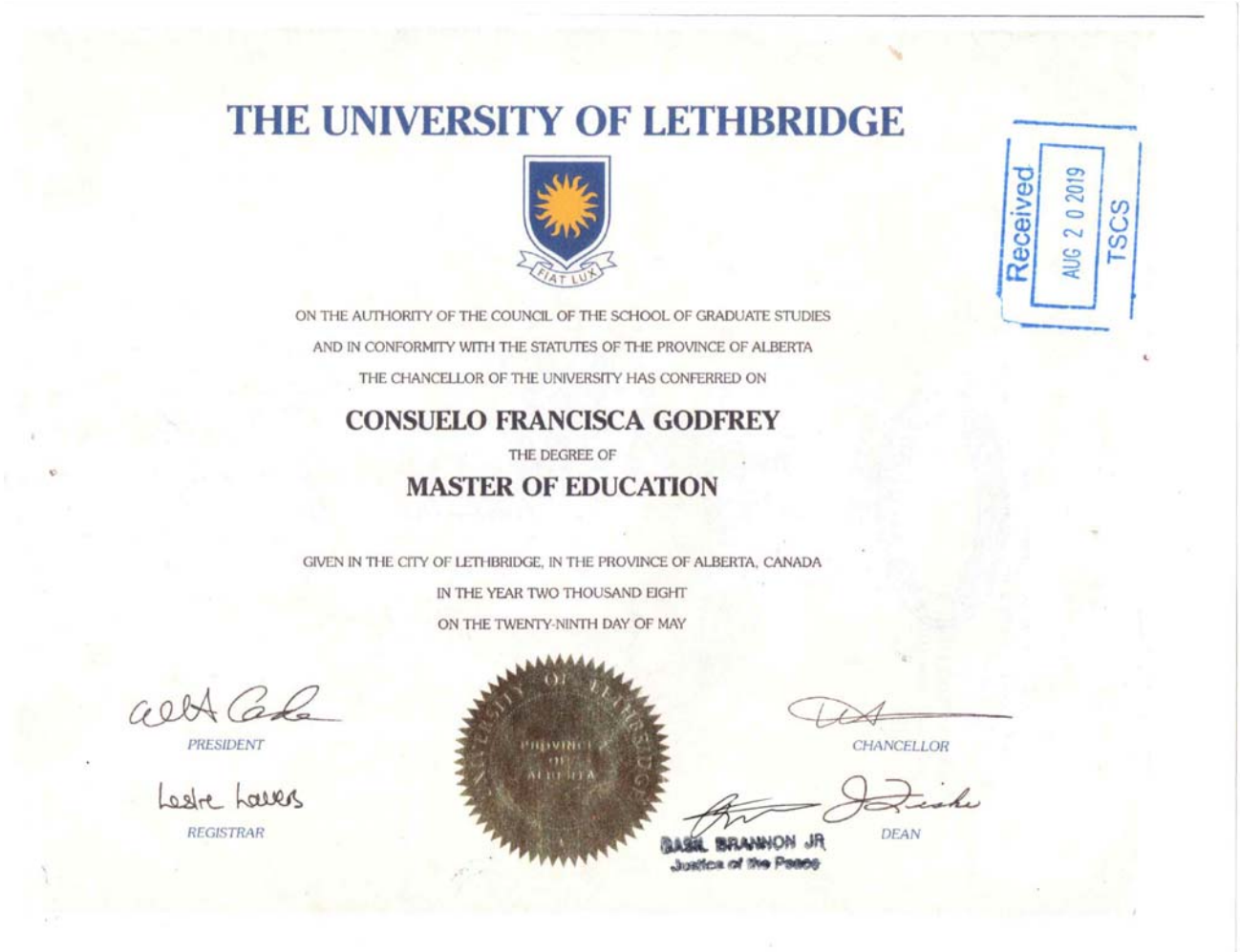


Signed:

Consuelo F. Godfrey (M.Ed)

Dated: May 19th, 2021

Appendix 11: Philologist Credentials



UCI Division of
Continuing Education

Mar 24, 2019

Consuelo Francisca Godfrey

has successfully completed

Initiating and Planning Projects

an online non-credit course authorized by University of California, Irvine and offered through Coursera

Margaret M. Meloni

Margaret Meloni, MBA, PMF
Instructor
University of California, Irvine Division of Continuing Education

COURSE
CERTIFICATE



Verify at coursera.org/verify/3KGF8L2AGN62
Coursera has confirmed the identity of this individual and their participation in the course.